



FUNCTIONS AND REASONS FOR CODE-SWITCHING ON FACEBOOK BY UTAR
ENGLISH-MANDARIN CHINESE BILINGUAL UNDERGRADUATES

CHOY WAI FONG

A RESEARCH PROJECT
SUBMITTED IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE BACHELOR OF ARTS (HONS) ENGLISH LANGUAGE
FACULTY OF ARTS AND SOCIAL SCIENCE
UNIVERSITI TUNKU ABDUL RAHMAN

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CHOY WAI FONG

APPROVAL FORM

This research paper attached hereto, entitled “Functions and Reasons for Code-switching on Facebook by UTAR English-Mandarin Chinese Bilingual Undergraduates” prepared and submitted by Choy Wai Fong in partial fulfillment of the requirements for the Bachelor of Arts (Hons) English Language is hereby accepted.

_____ Date: 25 March 2011

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ABSTRACT

As Facebook, one of the social-networking websites, has swiftly become one of the favoured modes of communication on the Internet, language has also been influenced in terms of its usage and practices. Code-switching, the alternate use of more than one language in a discourse, is one of the language phenomena where such changes can be traced. This research investigated on the occurrences of code-switching in asynchronous computer-mediated communication (CMC) between bilingual university students via social networking website by taking a functional approach in examining the various functions and reasons for code-switching. The data consisted of messages posted by Faculty of Arts and Social Science (FAS) Mandarin Chinese-English bilingual students of Universiti Tunku Abdul Rahman (UTAR) on their Facebook profile pages. Data was then analysed based on an integration of Appel and Muysken's (2006) six functions of code-switching and Malik's (1994) ten reasons for code-switching. Findings suggested that code-switching would occur in online communication mainly to serve referential, expressive and metalinguistic functions. For more substantial results in the future, researchers may consider larger numbers of participants to observe the occurrence of code-switching in asynchronous computer-mediated communication (CMC).

DECLARATION

I declare that the material contained in this paper is the end result of my own work and that due acknowledgement has been given in the bibliography and references to ALL sources be they printed, electronic or personal.

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TABLE OF CONTENTS

	Page
ABSTRACT	i
DECLARATION	ii
TABLE OF CONTENTS	iii
LIST OF FIGURES	vi
LIST OF TABLES	vii
LIST OF ABBREVIATIONS	viii
CHAPTERS	
I. INTRODUCTION	
1.1 Background to the Study	1
1.2 Statement of Problem	3
1.3 Objectives of the Study	3
1.4 Significance of the Study	4
1.5 Research Questions	4
1.6 Theoretical Perspective	5
1.7 Limitations	6
1.8 Definition of Key Terms	7
1.9 Conclusion	8

II.	LITERATURE REVIEW	
2.1	Bilingualism	9
2.2	Code-switching	11
2.3	Computer-mediated Communication	16
2.4	Previous Studies	19
2.5	Conclusion	24
III.	METHODOLOGY	
3.1	Instruments	26
3.2	Selection of Participants	27
3.3	Procedure	27
3.4	Data Analysis	28
3.5	Conclusion	28
IV.	FINDINGS & ANALYSIS	
4.1	Frequency Distribution	29
4.2	Occurrences of Code-switching	32
4.3	Functions and Reasons for Code-switching	32
4.4	Appel and Muysken's (2006) Six Functions of Code-switching and Malik's (1994) Ten Reasons for Code-switching	35
4.5	Conclusion	37

V.	DISCUSSION & CONCLUSION	
5.1	Absence of Subject Pronouns and Verbs	38
5.2	Presence of Discourse Markers	39
5.3	Referential Function	40
5.4	Expressive Function	42
5.5	Metalinguistic Function	44
5.6	Directive Function	45
5.7	Appel and Muysken's (2006) Six Functions of Code-switching and Malik's (1994) Ten Reasons for Code-switching	46
5.8	Conclusion	47
	REFERENCES	48
	APPENDICES	
A	Results	54
B	Samples	60

LIST OF FIGURES

	Page
Figure 1	6
Appel and Muysken's (2006) six functions of code-switching and Malik's (1994) ten reasons for code-switching	
Figure 2	29
Frequency distribution of gender	
Figure 3	30
Frequency distribution of age	
Figure 4	31
Frequency distribution of course	

LIST OF TABLES

		Page
Table 1	The number and percentage of code-switching occurrences based on Appel and Muysken's (2006) six functions of code-switching	35
Table 2	The number and percentage of code-switching occurrences based on Malik's (1994) ten reasons for code-switching	36

LIST OF ABBREVIATIONS

CMC	Computer-mediated communication
FAS	Faculty of Arts and Social Science
UTAR	Universiti Tunku Abdul Rahman

CHAPTER I

INTRODUCTION

This chapter comprises background to the study, statement of problem, objectives of the study, significance of the study, research questions, theoretical perspective, limitations and definition of key terms.

1.1 Background to the Study

Code-switching, alternatively known as code-mixing, is not an unfamiliar linguistic phenomenon in Malaysia, a multiracial country where bilinguals often communicate with more than just one language or variety in everyday interaction. Myers-Scotton and Ury (1977) explained code-switching as the “use of two or more linguistic varieties in the same conversation or interaction.” Thus, code-switching may be defined as the alternate use of two or more languages by bilinguals in a conversation. Unlike other sociolinguistic phenomena such as pidgins and creoles where speakers in contact only need to have knowledge on the common language that is used to communicate with speakers of other languages, code-switching requires its speakers to know at least two or more varieties, making it an activity exclusive to only bilinguals.

The occurrence of code-switching is often seen as a natural and subconscious phenomenon in bilingual speech. According to Nomura (2003), speakers may not be aware that code-switching has occurred in their communication or be able to report which language they have used during a particular topic after the conversation. However, research has shown that the phenomenon does not happen without a purpose. A study by Ariffin and Rafik-Galea (2009) showed that code-switching is a tool or employed by speakers or discourse strategies

used to effectively communicate their intents and express social and rhetorical meanings in their conversation.

Although code-switching and borrowing are often debated as having similarities, many linguists have since proved both phenomena to be very distinct. Myers-Scotton (2006) asserted that borrowed words arise in conversation with some level of predictability while the same aspect cannot be applied to code-switching words. This means that borrowed words tend to be used in other conversation as well but code-switching words may occur only once and not in other discourses. Also, phrases are unusually borrowed from their original languages as it is hard to do so without losing their original elements and intended usage (Ibid). It is parallel to Gumperz's (1982) claim that the borrowing phenomenon happens at word and clause level while code-switching at syntax level.

While many linguists have placed their interest on code-switching that takes place in verbal communication, the emergence of various non-verbal communication devices due to the rapid technology development over the past decades has resulted in the increased amount of computer-mediated exchanges such as in instant messaging, e-mail and social networking websites. Facebook, the world's largest social network website that allows users to connect with other people, share information and communicate online, is one of such electronic media where code-switching often happens.

Non-verbal communication provides bilinguals with different conditions for code-switching. The mediated nature of online conversation allows bilinguals the time and opportunity to edit the content before being sent to another party, a feature that is not available in verbal interaction as conversation is spontaneous. In other words, the growing use of various communication tools for electronic devices such as computers and mobile phones has brought about various communicative functions and reasons for code-switching. Hence, this paper aims to find out the functions of code-switching in online interaction and

also the reasons for doing so by examining participants' bilingual exchanges in social networking website.

1.2 Statement of Problem

Due to the bilingual education system and plurality of the society in Malaysia, speakers are bound to know more than one language. Other than acquiring their mother tongue through informal family instruction at young age, students also learn and use a second or even a third language through formal education (Ghazali, 2010). Therefore, code-switching is more likely to occur in order for communication to be successful among speakers of different social backgrounds.

While extensive studies have been done to explain the linguistic phenomenon in verbal communication, the area of code-switching in computer-mediated communication has not been clearly defined especially social networking website that has only become popular in the recent few years. Thus, this research attempts to fill this gap by revealing the functions and reasons for code-switching in non-verbal communication as opposed to the widely researched code-switching in verbal conversation by researchers such as Myers-Scotton (1979), Poplack (1980), Gumperz (1982) and Auer (1988).

1.3 Objectives of the Study

The primary objective of this study is to examine the phenomenon of code-switching in asynchronous or delayed computer-mediated communication (CMC) by bilingual university students. The various functions and reasons for code-switching are identified by collecting and analysing students' bilingual texts in social-networking website which has been a popular medium of communication on the Internet.

1.4 Significance of the Study

This study will add to the existing literature on code-switching, specifically on computer-mediated conversation. Information gained from the study will help to provide insight on how and why code-switching occurs not only in spoken but also written form. It is important as bilinguals will then be aware of the code-switching that occurs during online communication via social networking website. As a result, code-switching can be used to obtain positive effects in online conversation by bilinguals such as to express group solidarity, establish goodwill and emphasize a point as mentioned by Muthusamy (2009).

1.5 Research Questions

The research questions for this study are as follows:

1. What types of code-switching occurrence can be observed among Mandarin Chinese-English bilingual UTAR students when communicating online?
2. What are the functions and reasons for Mandarin Chinese-English bilingual UTAR students to switch codes in online messages sent via social networking website?
3. Which one of the models is more appropriate to account for the phenomenon of code-switching among Mandarin Chinese-English bilingual UTAR students in social networking website?

1.6 Theoretical Perspective

In this paper, Appel and Muysken's (2006) six functions of code-switching for spoken discourse and Malik's (1994) review on ten reasons for code-switching will be used to discuss the occurrences of code-switching in online communication.

Jakobson (1960) and Halliday et al. (1964) looked at code-switching from the functional perspective where bilingual speakers' choice of language in a conversation is simply motivated by the primary functions the language could serve at that particular moment. Following the functional specialization framework proposed by Jakobson (1960) and Halliday et al. (1964), Mühlhäusler (1981) presented six functions: referential, directive, expressive, phatic, metalinguistic and poetic. Appel and Muysken (2006) consequently applied the six functions of language in verbal communication.

In addition, Malik's (1994) ten reasons for code-switching will also be adopted to support and further elaborate on the functions. The reasons are lack of facility, lack of registral competence, mood of the speaker, to amplify and emphasize a point, habitual expressions, semantic significance, to show identity with a group, to address different audience, pragmatic reasons and to attract attention. Both frameworks will be integrated and used interchangeably in justifying the phenomenon of code-switching in social-networking website. The framework that will be used is as illustrated below:

Appel and Muysken's (2006)
six functions of code-switching

- Referential
- Directive
- Expressive
- Phatic
- Metalinguistic
- Poetic

Malik's (1994) ten reasons
for code-switching

- Lack of facility
- Lack of registral competence
- Semantic significance
- To address different audience
- To show identity with a group
- To amplify and emphasize a point
- Mood of the speaker
- Habitual expressions
- Pragmatic reasons
- To attract attention

Figure 1: Appel and Muysken's (2006) six functions of code-switching and

Malik's (1994) ten reasons for code-switching

1.7 Limitations

One of the main limitations faced during the research process was the convenience sampling method used. Participants were non-randomly selected based on their availability to researcher and convenience in accessing the data. Therefore, the findings of this paper may have low external validity and cannot be used to represent other users on the website other than this group of participants.

Another limitation lies in the small number of participants. They were selected from several tutorial groups and degree programmes available in UTAR Petaling Jaya and Kampar campus based on their usage of code-switching in the texts posted on the website. Therefore, results obtained from the research may not be generalisable to the whole population of UTAR students.

1.8 Definition of Key Terms

1.8.1 Code-switching. Code-switching is defined as a linguistic phenomenon where two or more varieties are used alternatively by bilinguals in a conversation. Gal (1988) described code-switching as “a conversational strategy used to establish, cross or destroy group boundaries; to create, evoke or change interpersonal relations with their rights and obligations.” Poplack (1980) classified the occurrence of code-switching into tag-switching, intersentential switching and intrasentential switching.

1.8.2 Bilingualism. A bilingual speaker is a person who can communicate in more than one language. According to Weinreich (1953), bilingualism can be further divided into

compound bilingualism, coordinate bilingualism and subordinate bilingualism by looking at bilinguals' cognitive process of representation and organization of concepts and words.

1.8.3 Computer-mediated communication. Computer-mediated communication refers to any form of communication done by individuals with the help of computer technology using a communication software. Asynchronous computer-mediated communication is a type of computer-mediated communication that does not require immediate response as sender and receiver do not necessarily need to be online at the same time in order for message to be sent and received.

1.9 Conclusion

Overall, this chapter presented an overview on the fundamental ideas of the research. Background to the study, statement of problem, objectives of the study, significance of the study, research questions, theoretical perspective and definitions of key terms were presented to readers. In the following chapters, readers will be looking at the review of literature, research methodology, data interpretation and discussion and conclusion for this study.

CHAPTER II

LITERATURE REVIEW

This chapter provides definitions and background to the theories and concepts related to the study in this research paper followed by review of previous studies on code-switching in computer-mediated communication that are similar to this study.

2.1 Bilingualism

2.1.1 Definitions of bilingualism. Bilingualism is a concept often associated with code-switching as a speaker must be able to perform more than a language in order to code-switch. Numerous attempts have been made by linguists to describe and fully understand the concept from various aspects such as categories, factors and degree of bilingualism. One of the earliest studies carried out by Bloomfield (1933) broadly defined bilingualism as the “native-like control of two languages.” The definition raised some questions on the degree of mastery or competency of a speaker in the languages in order to be considered to have native-like control. Haugen (1953) further explained that bilingualism only exists when a speaker of one language has the ability to produce complete meaningful utterances in another language.

While the definitions remain vague and do not entirely reveal what exactly is needed for a speaker to be a bilingual, both Weinreich (1953) and Mackey (1957) provided a more or less similar definition where bilingualism is said to be the alternate use of two languages or more by the same speaker, altogether embracing the concept of multilingualism in its definition.

2.1.2 *Types of bilingualism.* Weinrich's (1953) famous typology distinguishes three types of bilingualism based on the conceptual representations and cognitive organization of words in a bilingual's mind. They are compound bilingualism, coordinate bilingualism and subordinate bilingualism.

Compound bilingualism refers to the type of bilingualism where both first and second languages are acquired by a speaker concurrently under the same environment in early childhood. The speaker assigns identical meanings for equivalent words as the two languages merge at the conceptual level of the brain. Hence, two language systems are developed and maintained by the speaker, both similarly available in speaker's linguistic repertoire (Nomura, 2003). This can be seen in speakers with bilingual parents or those growing up with different linguistic backgrounds.

Coordinate bilingualism occurs when a speaker learns two languages under separate environments. This results in speaker having distinctive conceptual representations for translation equivalents in the languages (Archibald, 2000). In other words, equivalent forms refer to different concepts in both languages with slightly different meanings assigned to each word. The speaker may establish a first language in early age followed by a second language much later such as through formal education or in adulthood.

Subordinate bilingualism, on the other hand, is a type of mediated bilingualism where the lexical and conceptual representations of a speaker's first language play a role in facilitating the lexical representations of the speaker's second language. Dominant in the first language, meanings and concepts in the second language are understood with the help of words from the first language. Hence, one of the characteristics of subordinate bilingualism is low level proficiency in the second language (Ibid).

Following Weinreich's (1953) typology, many theories for bilingualism have been proposed with most focusing on compound and coordinate bilingualism as they are regarded as "true" bilingualism.

2.2 Code-switching

More often than not, bilinguals will find themselves switching or mixing between languages that they are familiar with regularly while engaging in a conversation daily. Known as code-switching in linguistics, many bilinguals will utilize their ability to shift from one language to another to communicate with others in an unchanged setting and usually within the same utterance (Bullock & Toribio, 2009).

Code-switching is traditionally assumed to be an indication of language knowledge deficiency in bilingual speakers. However, various researchers have proposed that code-switching is also commonly used by bilinguals to achieve particular interactional goals in a conversation with other speakers (Shin, 2010). McConvell (1994), Myers-Scotton (2006) and Heller (1988) identified code-switching as having connection to the identity, ethnicity and solidarity associated with each language and it functions similarly throughout the world.

For example, as cited by Malik (1994), Di Pietro (1977) explained that Italian immigrants, when telling a joke, will say the punch line in Italian to express that they belong to the same ethnic group with shared values and experience. Thus, code-switching can help build relationship between speakers in a particular conversation and this generally applies to all societies.

Additionally, code-switching was viewed as a choice in determining the linguistic choices used in a conversation where the rewards and costs for using either of the languages was weighed by the switcher to achieve a particular outcome (Myers-Scotton, 1979). The theory was further represented in Myers-Scotton's (1993) Markedness Model based on the social motivation of code-switching. The model centers on the notion of code-switching as

language choices made by speakers and it is seen as either an unmarked or marked language choice in different speech situations. Code-switching is deemed as an unmarked or safe choice when it is more or less expected in a particular type of interaction that is determined by factors other than the conversation content such as social and situational settings. In contrast, marked choice is unpredictable, disregarding social and situational factors and what is expected in the interaction. Therefore, a marked choice is a negotiation about the speaker and the speaker's relationship with other participants (Myers-Scotton, 2006).

2.2.1 Types of code-switching. In one of the early researches, Blom and Gumperz (1972) identified two types of code-switching: situational and metaphorical. Situational code-switching is influenced by situation change in a conversation or discourse such as the change in participant, topic or setting. Metaphorical or conversational code-switching, on the other hand, works as a conversational strategy to assist conversational acts such as an apology, request, complaint or refusal.

From another perspective, Poplack (1980) categorized code-switching into the following three types: tag-switching, intersentential and intrasentential. Tag-switching involves inserting a tag or short phrase in one language into an utterance that is otherwise entirely in another language. This type of code-switching occurs the most easily for the reason being that tags typically contain minimal syntactic restrictions thus not violating syntactic rules when being inserted into monolingual sentences. Common English tags such as *I mean*, *you know* and *I wish* are some of the examples that fit into that category. Intersentential switching happens at clausal or sentential level where each clause or sentence is in one language or another. Occurring within the same sentence or between speaker turns, this type of code-switching requires its speaker to be fluent in both languages in order to conform to the rules of the languages. Intrasentential switching, possibly the most complex type among the three, can take place at clausal, sentential or even word level.

2.2.2 *Functions of code-switching.* Since the early 1970s, code-switching has gained the interest of scholars as a naturally occurring use of languages by bilinguals (Ariffin & Rafik-Galea, 2009). The motivations, functions and reasons of code-switching have been studied extensively by a number of researchers from various linguistics perspectives. Based on the concept of functional specialization by Jakobson (1960) and Halliday et al. (1964), Appel and Muysken (2006) listed six main functions of code-switching:

1. Referential function: Code-switching involves lack of knowledge or facility in a language. Hence, bilingual speakers switch code when they do not know the word or when a certain concept is not available in that language. Language is chosen also because it is more appropriate or suitable to be used for a particular topic.
2. Directive function: This participant-related function of code-switching aims to include or exclude a person from a part of a conversation such as by using a familiar or foreign language to that person.
3. Expressive function: Speakers use more than one language to stress their self-identity or feelings to others in the conversation.
4. Phatic function: Code-switching is used to show a change in tone and emphasize parts of a conversation that are of importance.
5. Metalinguistic function: Myers-Scotton (1979) asserted that speakers sometimes switch code in order to comment on another language.
6. Poetic function: Words, puns and jokes in one language are switched to another language for the purpose of amusement or entertainment.

Malik (1994) in discussing the sociolinguistics of code-switching of the language situation in India explained ten reasons for speakers to code-switch:

1. Lack of facility: When certain concepts in a variety are not available in the other, bilingual speakers switch code to express themselves and at the same time avoid unnecessary misunderstanding and loss of intended meaning.
2. Lack of registral competence: Bilinguals may find difficulties in choosing appropriate words in the target language for specific topics and choose to code-switch when they are not equally competent in the two languages.
3. Mood of the speaker: Code-switching takes place when bilinguals are in different moods such as angry, anxious or nervous. Although the intended words are available in both languages, bilinguals may code-switch when the words in the other language seem to take less effort and time to be used at that particular moment.
4. To amplify and emphasize a point: Bilinguals may code-switch on selected parts of a speech to make sure that listeners know what to highlight and focus on in situations such as an argument.
5. Habitual expressions: Code-switching also happens commonly in fixed phrases such as greetings, commands, requests, apologies and discourse markers. This may suggest strength to a speech such as warning or threat.
6. Semantic significance: Used as a verbal strategy, code-switching can convey important and meaningful linguistic and social information.
7. To show identity with a group: Code-switching is used to signify shared values and experiences by people of a same group or culture. Hence, words and phrases are retained in their original languages to represent a sense of belonging and familiarity to the group.

8. To address different audience: Similar to Gumperz's (1982) addressee specification, different languages are used to convey messages when they are targeted to different listeners or recipients.
9. Pragmatic reasons: Sometimes, code-switching is dependent on the context of a conversation or other factors such as formality, participants and location where a conversation is taking place. So, code-switching may portray a varying degree of speakers involvement.
10. To attract attention: When two languages or more are used in the media or advertisements, audience are often attracted to the language that they are familiar with first. Labeled as undisciplined, this kind of language usage has been banned from national television of Malaysia for negative attention and degradation of national language and identity (Abu Bakar, 2009).

For the purpose of this study, Appel and Muysken's (2006) six functions of code-switching are employed in categorizing the findings in the later chapter. Malik's (1994) ten functions of code-switching are then used to elaborate on the examples in detail to give a clearer view on how the functions of verbal discourse are applied to online communication. These two classifications of functions and reasons will be the basic theoretical frameworks in analyzing the collected data.

2.2.3 Code-switching in Malaysia. As of 2009, Malaysia houses a total of 137 living languages with *Bahasa Malaysia* or the Malay language as both the official and national language (Lewis, 2009). A combination of three main ethnic groups namely Malays, Chinese and Indians, the people of this multi-ethnic country are exposed to a variety of languages and dialects. English, the international lingua franca is also included as one of the key subjects in schools as a second language to ensure that students have a strong understanding of the second most spoken language in the world.

While the Malay language is used as a medium of instruction in national schools at the primary level, the languages of the other two main ethnic groups are also used for teaching in national-type schools which are Mandarin Chinese and Tamil. This is to ensure that these languages are maintained and sustained for future generations of Malaysia alongside the national language (Ghazali, 2010). Therefore, the education system enables students to learn at least two to three languages in addition to the native tongue learnt prior to formal education.

The Chinese comprise 23.7% of the 28.27 million population of Malaysia and speak different dialects according to their places of origin such as Cantonese, Hokkien, Hakka, Hainan and Foochow (Malaysia, 2011). Mandarin Chinese, the official medium of instruction for Chinese schools, has the most speakers in the world and becomes a household language among Malaysian Chinese families for its importance as a language for trade and economy (Ghazali, 2010).

Bahasa rojak or salad language is a term popularly used to describe the language situation of Malaysia or specifically Manglish (Malaysian English), a juxtaposition of English words with words from several languages and dialects that are available in Malaysia particularly Malay, Mandarin Chinese, Hokkien, Cantonese and Tamil (Abu Bakar, 2009). Questions have been raised many Malaysian linguists on the formality and grammaticality of this language or variety (Ibid).

2.3 Computer-mediated Communication

The history of computer technology began as early as 1950s while the first recorded exchange of prototype e-mails dated back to the early 1960s. However, it was only in the 1990s that personal computers began to swiftly gain importance and became one of the most essential communication and information tool to date. The convergence of the Internet and

the web has brought about a new medium for information sharing and communication known as computer-mediated communication (CMC).

2.3.1 Definitions of computer-mediated communication. Crystal (2006) used the term Internet linguistics to refer to the study of the new styles and formats and the development of language that emerged from the new electronic media. According to Thurlow, Lengel and Tomic (2004), CMC fundamentally refers to any human communication achieved through, or with the help of computer technology. The areas include all types of Internet activity such as e-mail, instant messaging, games interaction and bulletin boards. Crystal (2006) views CMC as an emerging third medium, a hybrid between traditional speech and writing where certain properties are shared by CMC while others are not.

2.3.2 Types of computer-mediated communication. The term can be further divided into two main modes based on the aspect of synchronicity or the relationship between occurrence of events in time, synchronous CMC and asynchronous CMC. In synchronous CMC, participants can expect real time or immediate responses from one another in a discussion (Murray, 2000). This can be observed in contexts such instant messaging and live chatrooms where participants are online at the same time, making it similar to spoken conversation. Asynchronous CMC, such as e-mails and forum discussions, differs in term of immediacy as participants do not need to be available at the same moment resulting in delayed responses in the communication, much like the characteristics of written communication (Ibid).

2.3.3 Language of computer-mediated communication. The trending usage of CMC is indeed imposing different conditions for language to be used than those by other forms of conventional communication. Studies have shown contradicting results of how language is used in CMC. Hale (1996) claimed that the language of CMC tends to be less expressive or sophisticated than traditional forms of writing. The language of e-mail, for instance, is

characterized as having simpler structure, less complex sentences and typographical errors (Ibid). However, Herring's (1998) study showed that e-mail messages for the purpose of professional discussion were linguistically sophisticated and grammatically complex with very few errors, altogether proposing demographic factors and purpose of communication as crucial factors in determining the language used in CMC. In addition, Du Bartell (1995) described the language of CMC as exhibiting the grammatical constructions of spontaneous and colloquial language in verbal interaction. Therefore, the change in code-switching can also be traced from the language of the swiftly developing medium of communication.

2.3.4 Facebook. Facebook is a social network website that provides an extensive number of features for its users to socialize and share information about themselves. Users can sign up on the website with a valid e-mail address and create a profile page, allowing them to keep updated with friends' social activities, upload photos, share links and videos and connect with people. As of January 2011, the network was estimated to have more than 600 million monthly active users worldwide (Carlson, 2010).

One of the main features is the News Feed where users can publish status updates and share them with users in their network. The status updates posted on users' profiles pages will then be available to be replied or commented on at anytime by other users, making it an asynchronous situation. Thus, Facebook has become the leading social network platform on the Internet and a vital communication tool globally.

2.4 Previous Studies

2.4.1 Mónica Stella Cárdenas-Claros & Neny Isharyanti (2009). Cárdenas-Claros and Isharyanti (2009) examined the phenomenon of code-switching and code-mixing in synchronous CMC or particularly Internet chatroom conversations of non-native English users from both Spanish and Indonesian backgrounds.

The case study contained four research questions. The researchers first counted the total of occurrences of code-mixing and code-switching between participants of Spanish and Indonesian backgrounds. Then, the researchers determined whether or not code-switching initiated by researchers also triggered participants to switch codes. The topics and functions of the language that triggered speakers to switch the most and the topics that were common and/or different for both cultures were also identified. Lastly, the researchers discussed the most frequent code-mixing category in which participants mixed languages.

Data in the form of transcripts was collected and the occurrences of code-switching and code-mixing were identified and counted. Instances of code-switching were classified into three variables which were researcher-initiated switching followed by the participant, researcher-initiated switching not followed by the participant and participant initiated switching including the topics and frequency in each variable. Likewise, instances of code-mixing were classified into three types which were insertion, alternation, and congruent lexicalization.

Participants of the study were advanced English speakers from different American universities. Of the 12 male participants involved, six were of Indonesian background while the other six participants were Latin American of five nations: Colombia, Chile, Uruguay, Mexico, and Argentina. Although a total of 84 transcripts of MSN Messenger were collected in two months, only 20 conversations in Indonesian and 20 conversations in Spanish were analysed and compared for consistency.

Results of the study showed that code-switching was more often among Indonesian participants (174 times as compared to 116 times) although the number of exchanges in Spanish was higher and longer (1935 lines or 9113 words as compared to 1035 lines or 4119 words). Data revealed that most of the alternation was triggered by the language function of confirming. The phonetic was similar between Indonesian and English “yes”, “yeah”, and

“ya” as compared to “yes” and “Si” in Spanish. Additionally, the frequent topics and functions that prompted code-switching and code-mixing in both languages were farewells (11%), computer-related terms (10%), academics (9%) and sports (6%).

2.4.2 *Katrin Urbäck (2007)*. Urbäck (2007) investigated on Swedish-English code-switching in a bilingual online discussion forum called Motheringdotcommune (MDC), a form of asynchronous CMC. The area of concern in the study was the concept of bilingualism and language change in online communication and whether or not English was the preferred language in CMC.

Urbäck’s (2007) research aimed to find out whether Swedish speakers use English extensively in online communication and the reasons for using the language. The research also examined the types of Swedish-English code-switching used by bilingual users in online communication and determined the most common types of code-switching in the observed forum.

Using mixed method, data was first tabulated according to Romaine’s (1989) and Klintborg’s (1999) classifications of code-switching into tag-switching, intrasentential and intersentential switching. Then, data was analysed in detail to reveal the reasons for code-switching to occur.

Data was obtained from a thread in the MDC discussion forum from the period of August 2003 until February 2007. A total of seven participants of American, Swedish and Canadian nationality were selected based on their activity and language usage in the forum excluding one participant where information on her background and nationality was limited.

Out of the 26 switches recorded by Urbäck (2007), 14 of them were intrasentential while intersentential and tag-switching both occurred six times in the research material. Code-switching was most often used in inserting greetings and short phrases into an otherwise monolingual posting. Findings also showed that English was the preferred

language for communication in the online discussion forum even for Swedish speakers based on a variety of reasons. Firstly, respondents might feel more comfortable with using English after spending a long time in an English-speaking country. For instance, a Swedish respondent who had lived in America for 5 years revealed that she used English more regularly as compared to Swedish even though she was living in Sweden while another Swedish respondent is currently living in Canada. Secondly, as the official language of MDC is English, respondents might feel that using English was more appropriate. Finally, speakers may code-switch in greetings to signal belonging to the group.

2.4.3 Loretta Fung & Ronald Carter (2007). Fung and Carter (2007) studied on the language forms and varieties emerging from online communication between English-Cantonese bilingual speakers. The research highlighted on the various linguistic creativities found in the written discourse particularly code-switching, loan translation and relexicalization.

Hence, the paper strived to discover the bilingual creativity that manifested in synchronous CMC where interactive messages are sent on a day-to-day basis. It addressed the issue on the extent of linguistic plays and speech modifications that can be found in a context of relaxed familiarity where social and cultural motivations are evident. The question on participants' engagement in creative wordplay and how English is adopted and adapted to the context was also answered in the findings of the case study.

For analysis, data was categorised according to the forms they take in accomplishing interactional purposes. Fung and Carter (2007) identified three forms which are code-switching, playing with sounds and playing with graphics. Code-switching includes borrowing of Cantonese discourse markers, relexicalized words reflecting affect, culture-dependent words and fixed expressions. Playing with sounds referred to punctuation as voice

and assonantly-related words while playing with graphics referred to icons as expression and recreation of traditions.

The primary source of the study was ICQ (I Seek You), an interpersonal online chat program that allows its users to send 450-character messages to other users. A total of 19 participants aged between 20 to 30 years old were engaged in the research. They consisted of international university students studying in United Kingdom and their bilinguals friends in Hong Kong. Data was taken from 20 log files consisting of more than 20,000 words of ICQ conversations containing English and Cantonese usage.

The most common conversation feature among the participants was code-switching where English and Cantonese were mixed and employed as a discorsal strategy. Cantonese discourse markers such as *tim*, *la*, *ma* and *wor* scored the highest frequency of borrowing. The extensive use of these markers was seen as a cultural identity and creative use of language to add to the rhetorical and interpersonal effects of the utterances. Cantonese words were also relexicalised into English to reflect expressions and feelings. Words such as *jeng*, *charm* and *bean tai* were some of the Cantonese adjectives that were romanized and often used in utterances to intensify and heighten feelings. The research showed that code-switching was used inventively and dynamically in e-discourse that may result in a new variety of language.

2.4.4 Ruby Chen Szu-Yu (2007). Chen (2007) examined the functions of English-Mandarin Chinese code-switching on postings in Taiwanese college-affiliated bulletin board system (BBS).

Through written electronic texts, Chen (2007) aimed to find out the sociolinguistic and pragmatic functions of code-switching by college students in Taiwan in online discussion forums. Other than that, the discorsal features and characteristics of code-switching and how they serve as individual or group identity markers were also investigated in the research.

Based on Poplack's (1980) theory, Chen (2007) also hypothesized that students with higher exposure to English-based environments practise more inter-sentential switches while those who lack the opportunity switch code less.

Assuming that code-switching theories for spoken discourse were also accepted for written communication, Chen (2007) adopted Gumperz's (1982) list of conversational functions of code-switching and Appel and Muysken's (1987) categories of functions of code-switching in analyzing the pragmatic functions of code-switching in written texts in asynchronous CMC. The main functions were expressive, referential, phatic and metalinguistic.

Data was drawn from the postings of two groups of students in National Sun Yat-Sen University's primary bulletin board system, the West Bulletin Board System. Twenty-five postings were gained from each group where the first group of students had been exposed mainly to English in classes while the second group of students had been exposed to classes mostly conducted in Mandarin Chinese.

Chen's (2007) research demonstrated that the group of students with higher exposure to English switched code at a greater degree and used different choices of English words and expressions. Generally, nouns were the most switched items followed by discourse markers such as *oh* and *so* and connectives like *and*, *but* and *or*, much like spoken discourse. On the contrary, spontaneous feedback cues such as *uh-huh* and *mhm* that often occur in spoken discourse were lacking in the written texts. Furthermore, the expressive functions accounted for the largest proportion in written discourse among the four discourse functions.

2.5 Conclusion

Based on the four studies discussed earlier, this study tends to replicate the study done by Chen (2007). The researcher examined the occurrence of code-switching in online forum discussions in Taiwan. The purpose of the study was to find out the pragmatic functions of

English-Mandarin Chinese code-switching in postings in Taiwanese college-affiliated bulletin board system (BBS). In addition, by looking at the discursial features and characteristics of code-switching, the study also determined whether language proficiency affects the tendency to switch codes such as the length, choice of words and use of expressions.

Similarly, this study aims to investigate on the code-switching that occurs in online communication via asynchronous CMC in Malaysia. It examines the functions and reasons for English-Mandarin Chinese bilingual university students to switch codes in social-networking website. In addition, this study also aims to determine if the functions and reasons for code-switching in spoken discourse can be used to explain the phenomenon of code-switching in online written discourse.

Chen (2007) adopted Gumperz's (1982) theory in conversational code-switching and Appel and Muysken's (1987) taxonomy of code-switching in spoken discourse in building the pragmatic functions for written code-switching. Participants consisted of two groups of students from different departments that were exposed to different English environments in the college in order for comparison to be made.

In this study, Appel and Muysken's (2006) revised classification of functions of code-switching and Malik's (1994) ten reasons for code-switching in spoken language situation were used concurrently to determine whether or not they can be applied to written conversation. Participants were made up of students from the Faculty of Arts and Social Science (FAS) who are bilingual in English and Mandarin Chinese.

CHAPTER III

METHODOLOGY

This chapter describes the methodology used by the researcher by providing explanation on the instruments, selection of participants, procedure and data analysis of this study.

5.1 Instruments

3.1.1 Profile pages on Facebook. Data in the form of online written texts was drawn from a social networking website known as Facebook. The primary source of this study is taken from participants' profile pages on Facebook where participants can share information by posting status updates. These status updates are available for other users of the website to reply or comment on. Much like the characteristics of asynchronous CMC, there is no time limit in responding to the postings resulting in delayed communication.

3.1.2 Appel and Muysken's (2006) six functions of code-switching and Malik's (1994) ten reasons for code-switching. For this study, Appel and Muysken's (2006) six functions of code-switching and Malik's (1994) ten reasons for code-switching for spoken discourse were used as a fundamental framework in interpreting them in the later chapter. The six functions are referential, directive, expressive, phatic, metalinguistic and poetic while the ten reasons are lack of facility, lack of registrational competence, mood of the speaker, to amplify and emphasize a point, habitual expressions, semantic significance, to show identity with a group, to address different audience, pragmatic reasons and to attract attention.

5.2 Selection of Participants

Due to Facebook's various privacy settings and users' individual customization that make certain features unavailable to users that are not in a person's network or friends circle, convenience sampling method is employed by researcher in selecting the participants in order to gain access to the posted messages.

Participants are made up of 38 Mandarin Chinese-English bilingual undergraduates from the Faculty of Arts and Social Science (FAS) of Universiti Tunku Abdul Rahman (UTAR). Out of the 38 participants, 31 of them are female while the remaining seven are male. They are aged between 21 to 25 years old and currently in their final semester of different majors in their studies such as Public Relations, Advertising, Broadcasting, Psychology and English Language from Petaling Jaya and Kampar campus.

To protect participants' privacy, the purpose of this research was explained to all participants and permission was sought through the messaging service available on the website before data was accessed and collected.

5.3 Procedure

Prior to data collection, a name list was first created by the researcher in Facebook containing only Mandarin Chinese-English bilingual students from UTAR's Faculty of Arts and Social Science (FAS), separating them from other users in researcher's network of friends. After that, a consent message explaining the study's purpose and asking for participants' permission was sent in private using the website's inbox messaging service.

For this study, a total of 80 messages dated between September 2010 and February 2011 were collected by the researcher through participants' profile pages based on participants' activity on the website and the occurrence of code-switching in the specified

languages, English and Mandarin Chinese. Out of the 80 messages, 17 messages were singled out for the reason of redundancy. Hence, only 63 messages were analysed.

5.4 Data Analysis

To answer the research questions, qualitative data was collected based on the occurrence of code-switching and then analysed in terms of the functions and reasons that they serve in the online written discourse. As this paper aims to study on the phenomenon of code-switching, data was analysed qualitatively and not calculated and tabulated. Each example that was used for discussion was followed by an English translation while words and phrases that were switched were indicated with underline.

5.5 Conclusion

The aim of this chapter is to give readers a clear depiction of how data was collected and analysed in fulfilling the research purpose. In the next two chapters, findings of the research will be provided followed by further discussion and conclusion to the study.

CHAPTER IV
FINDINGS AND ANALYSIS

This chapter presents the overall findings of the research. Data was examined based on the occurrences of code-switching and the functions and reasons for bilingual speakers to switch codes in the social networking website. To give a clearer understanding on participants' background, demographic information of the bilingual university students will also be included.

9.1 Frequency Distribution

4.1.1 Frequency distribution of gender. Finding has shown that 31 (81.58%) out of the 38 participants are female students while the remaining seven participants (18.42%) are male students. (See figure 2, page 29).

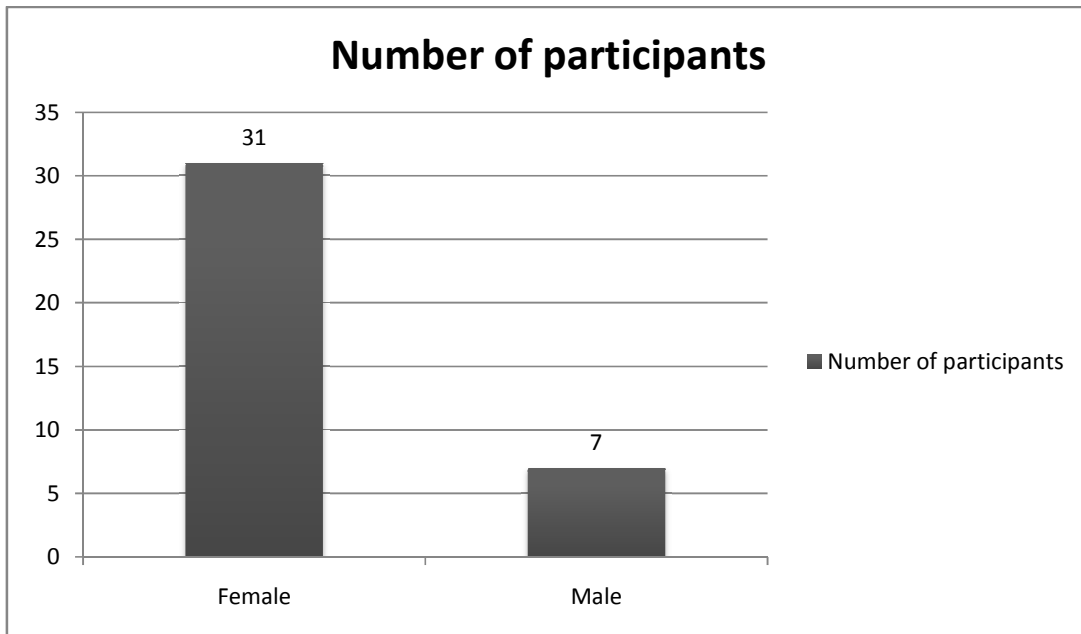


Figure 2: Microsoft Excel output shows the frequency distribution of gender

4.1.2 *Frequency distribution of age.* All participants are aged between 21 to 25 years old. Finding has shown that 19 (50%) out of the 38 participants are aged 22 years old. Eleven participants (28.95%) are aged 21 years old and six participants (15.79%) are aged 23 years old. The remaining two participants (5.26%) are aged 24 and 25 years old. (See figure 3, page 30).

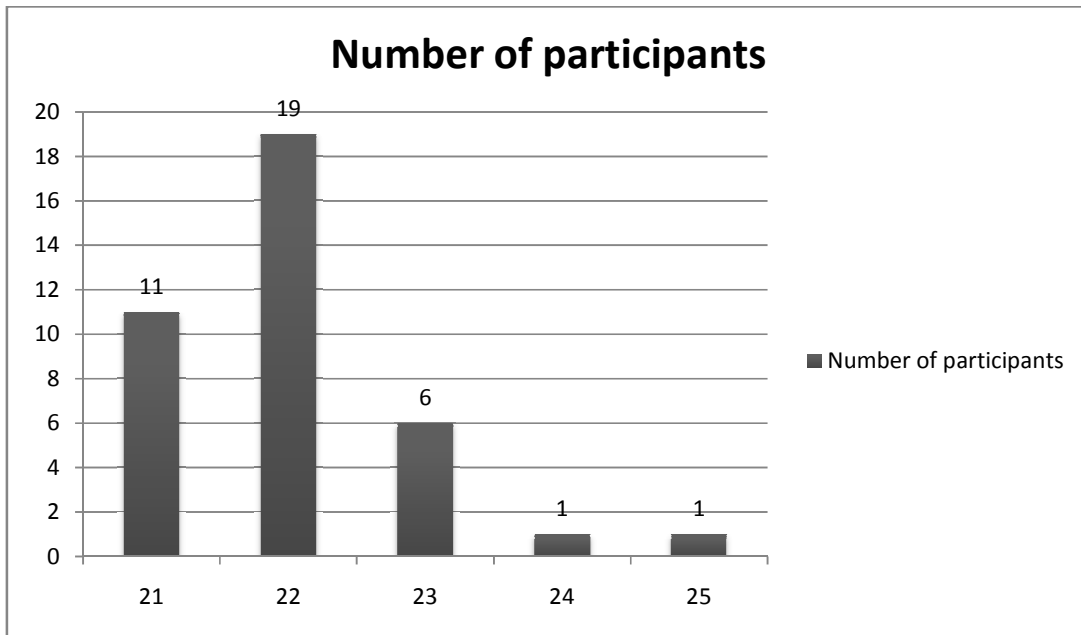


Figure 3: Microsoft Excel output shows the frequency distribution of age

4.1.3 *Frequency distribution of course.* Out of the 38 participants, 23 participants (60.53%) are in their final semester majoring in Public Relations. Broadcasting and English Language undergraduates make up 26.32% of the percentage with five participants from each course. Three participants (7.89%) are from the Psychology course while the remaining two students (5.26%) are from the Advertising course. (See figure 4, page 31).

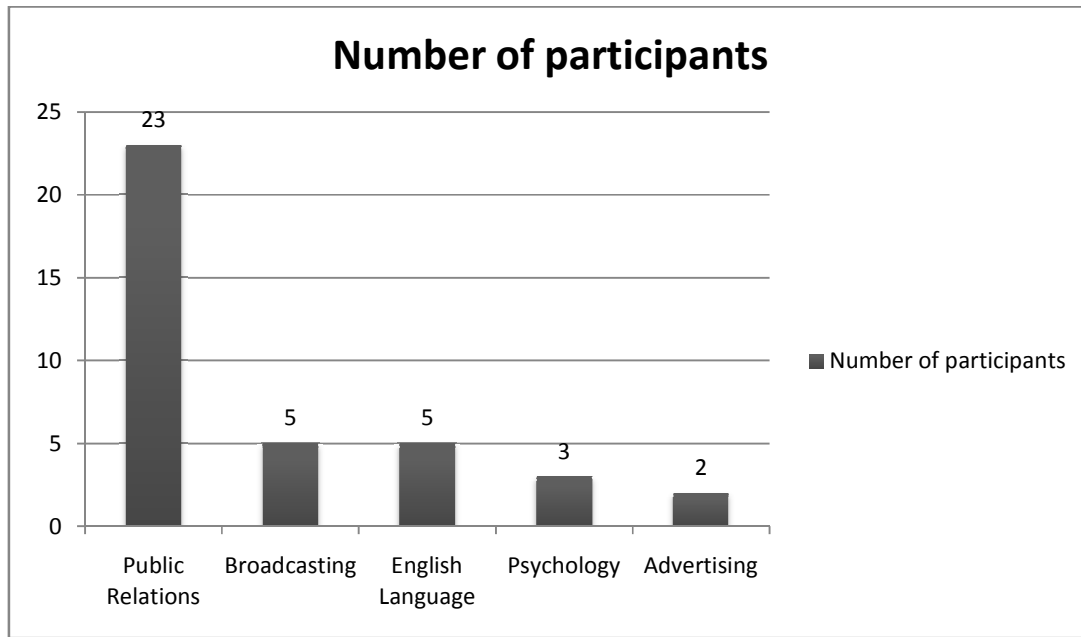


Figure 4: Microsoft Excel output shows the frequency distribution of course

9.2 Occurrences of code-switching

From the collected data, majority or 54 out of the 80 online messages posted in Facebook by participants were in English with insertion of Mandarin Chinese. The remaining 26 messages were posted in Mandarin Chinese with insertion of English. Mandarin Chinese words or phrases were largely typed in Chinese characters such as ‘谢谢’ (thank you) with several others being typed in *pinyin*, the romanization of Chinese characters such as *xie xie* (romanization of ‘谢谢’).

Apart from that, Mandarin Chinese was usually inserted as phrases into English sentences such as ‘不想动’ (do not feel like moving), ‘好开心’ (very happy) and ‘光天白日’ (in broad daylight). On the contrary, English was generally inserted as single words into sentences of Mandarin Chinese such as *highway*, *feel*, *pizza* and *shopping*.

A number of the messages also showed an absence of subject pronouns in English. As for Mandarin Chinese, both subject pronouns and verbs were omitted from sentences. Hence, prepositions, adverbs and adjectives were often used at the beginning of sentences.

Additionally, Mandarin Chinese discourse markers or particles were attached to the end of English sentences by participants. The most commonly used discourse markers are *lah* and *ah*. In contrast, the usage of English particles such as *mhm* and *uh-huh* was unusual.

9.3 Functions and reasons for code-switching

The three functions that were mainly found in the occurrence of code-switching by participants in the social-networking website were referential, expressive and metalinguistic function. In addition to that, directive function was also found in several messages. Hence, it will be briefly included for discussion in the following chapter.

Referential function accounted for the largest number of code-switching. One of the main reasons is due to participants' lack of register in a language such as English which serves as a second language. This can be observed when participants switched from English to Mandarin Chinese for certain terms that are not commonly used in daily conversation. Code-switching also serves as referential function when participants switched to another language to discuss about concepts or words that are not available in the language. It can also happen when translating the words to another language may cause them to be less semantically accurate. For example, participants used Mandarin Chinese for the terminology of mahjong, a Chinese table game and Chinese food as translation of these concepts or terms to English may cause the loss of their original meanings.

The second function that resulted in the most occurrences of code-switching was the expressive function. Firstly, participants might switch code for habitual expressions to connote different meanings or intent. For instance, when used in greetings and farewells, it can modify the formality of the sentences. Punctuations were also innovatively used in

written discourse for interactional purposes. Fung and Carter (2007) described such usage of non-alphabetical symbols as graphical wordplay that depicts senders' affective responses such as :((to show a sad face) and ^^ (to show a happy face). Secondly, speaker's mood might also trigger code-switching as it affects the state of mind of speaker and makes one language more accessible at that moment.

For the metalinguistic function, speaker switches to another language in a conversation in order to provide quotation or report speech that is made by another person. Data showed that participants mainly posted messages in English with Mandarin Chinese phrases or clauses being inserted as part of the sequence. These phrases or clauses were made up of quotations of lyrics, idioms and speeches. By switching to their original language, the meanings of words in their original context were preserved.

Similar to the directive function, Myers-Scotton (1979) reasoned code-switching as a strategy to include or exclude a person present from a part of a conversation by switching to a language that the person does and does not know. In several instances, recipients of messages were addressed by participants at the beginning or end of the sentences to serve the aforementioned function of code-switching.

9.4 Appel and Muysken's (2006) Six Functions of Code-switching and Malik's (1994) Ten Reasons for Code-switching

4.4.1 Appel and Muysken's six functions of code-switching. Finding has indicated that five (83.33%) of the six functions can be used to explain the occurrence of code-switching in asynchronous CMC. Out of 63 occurrences of code-switching, 31 (49.21%) are categorised under the referential function. Seventeen occurrences (26.98%) fall under the expressive function, nine (14.29%) under the metalinguistic function and four (6.35%) under the directive function. The remaining two occurrences (3.17%) are categorised under the phatic

function. Only one function has not accounted for any occurrence which is the poetic function. (See table 1, page 35).

Functions of code-switching	Number of occurrences	Percentage (%)
Referential function	31	49.21
Expressive function	17	26.98
Metalinguistic function	9	14.29
Directive function	4	6.35
Phatic	2	3.17
Poetic function	0	0
Total	63	100

Table 1: Microsoft Excel output shows the number and percentage of code-switching occurrences based on Appel and Muysken's (2006) six functions of code-switching

4.4.2 *Malik's (1994) ten reasons for code-switching.* Seven (70%) out of the 10 reasons can be applied to the occurrence of code-switching in communication via social-networking website. Out of the 63 occurrences of code-switching, 19 occurrences (30.16%) fit into the category of lack of facility. Lack of registral competence and habitual expressions each accounted for 12 occurrences (19.05%) while to amplify and emphasize a point accounted for six occurrences (9.52%). Mood of the speaker and to show identity with a group each accounted for five occurrences (7.94%) while to address different audience accounted for four occurrences (6.34%). The remaining three categories which are semantic significance, pragmatic reasons and to attract attention have not accounted for any occurrence. (See table 2, page 35).

Reasons for code-switching	Number of occurrences	Percentage (%)
Lack of facility	19	30.16
Lack of registral competence	12	19.05
Habitual expressions	12	19.05
To amplify and emphasize a point	6	9.52
Mood of the speaker	5	7.94
To show identity with a group	5	7.94
To address different audience	4	6.34
Semantic significance	0	0
Pragmatic reasons	0	0
To attract attention	0	0
Total	63	100

Table 2: Microsoft Excel output shows the number and percentage of code-switching occurrences based on Malik's (1994) ten reasons for code-switching

9.5 Conclusion

The referential, expressive, metalinguistic and directive function can be evidently observed from the data and were defined in this chapter. The findings examined in this chapter will be supported with examples and detailed explanations in the next chapter while limitations and recommendations for future research topics will be given as a conclusion to this study.

CHAPTER V

DISCUSSION AND CONCLUSION

This chapter discusses the findings of the research by providing relevant examples from the collected data. Recommendations for future research on code-switching in asynchronous CMC and conclusion to the results of this research will also be included.

The research questions that will be addressed in the discussion are as follows:

4. What types of code-switching occurrence can be observed among Mandarin Chinese-English bilingual UTAR students when communicating online?
5. What are the functions and reasons for Mandarin Chinese-English bilingual UTAR students to switch codes in online messages sent via social networking website?
6. Which one of the models is more appropriate to account for the phenomenon of code-switching among Mandarin Chinese-English bilingual UTAR students in social networking website?

Research Question 1: What types of code-switching occurrence can be observed among Mandarin Chinese-English bilingual UTAR students when communicating online?

14.1 Absence of Subject Pronouns and Verbs

According to Hård af Segerstad (2002), omission of subjects particularly subject pronouns is a linguistic feature that is common in both asynchronous and synchronous CMC regardless of the mode of communication. In communication via social-networking website, participants often began sentences with verb phrases such as *am going to* and *would like to* instead of *I am going to* and *I would like to*. Due to the appearance of sender's name

preceding every message in the website, the subject pronoun is deleted as it is obvious who the pronoun is referring to which is the sender.

Additionally, as Mandarin Chinese does not have specific rules for verbs and verb tenses, both subject pronouns and verbs were omitted from sentences. Hence, prepositions, adverbs and adjectives were used at the beginning of sentences. For example, participants used ‘好累’ (very tired) and ‘在书房’ (at study room) to initiate sentences instead of ‘我好累’ (I am very tired) and ‘我在书房’ (I am at study room). This is similar to the findings of Chen’s (2007) study where students attached the suffix ‘-ing’ to Mandarin Chinese words to indicate current ongoing actions.

14.2 Presence of Discourse Markers

The prevalent use of Mandarin Chinese discourse markers or particles can also be observed in the postings such as *ah*, *lah*, *lor*, *lu* and *mah*. Apart from contributing to the affective meaning of a sentence, they facilitate the expression of emotional attitude and degree of politeness of a speaker (Matisiff, 1991). According to Fung and Carter (2007), discourse markers generally do not contain concrete meanings but hold linguistic or grammatical functions. For instance, participants used the discourse markers *meh* and *ah* to convert a statement to question form as in “He is going” to “He is going *meh*?” and “You will be presenting tomorrow” to “You will be presenting tomorrow *ah*?”

Research Question 2: What are the functions and reasons for Mandarin Chinese-English bilingual UTAR students to switch codes in online messages sent via social networking website?

14.3 Referential Function

5.3.1 *Lack of facility.* Malik (1994) explained that code-switching is triggered when bilinguals are unable to search for an appropriate expression in a language or when certain concepts are only available in one language and do not have words that convey equivalent meanings in the other language.

(1) won fullhouse n lose in mini mahjong. lol...吃炸胡 twice, 小相公!

The participant described her win and loss at two games in English in example (1) but the terminologies of one of the games in the following sentence were written in Mandarin Chinese such as ‘吃炸胡’ (*chi zha hu*: false win) and ‘小相公’ (*xiao xiang gong*: a condition in Mahjong game where a player has less tiles than he should) as the game and its terms are of Chinese origin and cannot be translated directly or found in the English language.

(2) 芋头糕+糯米饭+油炸鬼....lolz....nice breakfast

In the example above, the participant expressed his satisfaction in English but listed the food he had for breakfast in Mandarin Chinese. Even though the words can be directly translated to English (‘芋头糕’: taro cake, ‘糯米饭’: glutinous rice, ‘油炸鬼’: deep fried dough stick), the concepts or ideas that readers have for the food may be vague or dissimilar to their original ones. Hence, the participant might choose to use Mandarin Chinese in order to convey more precise meanings.

(3) 在书房做 FYP.....忘记带钱包出来,想喝汽水都不能~ >.<

(4) 看 journal 看到眼睛变成@@..... 一天到底要睡几次啊~~~ zzz

(5) 你觉得我有可能在一夜之间把 Literature Review 变出来吗? 救命 啊

!!!!!!!!!!!!!!!!!!!!

(6) 脑缺氧~ >.< @@ 快点写完 6 页的废话然后去见 supervisor

- (7) 开始有点怕怕~我真的能在 week 7 之前做完 FYP 吗? 主啊~~~ >.<
- (8) 啊~那就是我最后一个 Sem 的时间表
- (9) 我爱你呀~exam 。 。 。

Other than that, academic related words like *FYP* (Final Year Project), *Literature Review*, *journal*, *supervisor*, *week 7*, *sem* (semester) and *exam* (examination) appearing in example (3) to (9) were retained in English possibly because participants were already familiar with using the words in their original language in daily conversation. According to Chen (2007), students tend to use English terms instead of Mandarin Chinese to refer to an Anglophone-culture origin.

5.3.2 *Lack of registral competence.* Code-switching also occurs when bilingual speakers' competency in the two languages are not equal (Malik, 1994). They may switch to the language that they are more competent in when they could not find suitable words or phrases in another language due to the lack of vocabulary in that language as it may not be their mother tongue.

- (10) u took my 功夫-by giddden izzit? forgot to explain to u, it is not 武侠小说, it is more on 剧情 n 科幻 de, although involve some kung fu description la...still, it is quite nice de novel la, haha.
- (11) what i wanna say is.... we cannot see she take her own baby to the 托儿所 la!!!! if not our answer sure will be different...Zzz

In the first example, participant switched to Mandarin Chinese when describing the genre and content of the novel. The participant was only able to tell that the novel contains kung fu narrative and used Mandarin Chinese words such as ‘武侠小说’ (martial arts novel), ‘剧情’ (plot) and ‘科幻’ (science fiction) to continue explaining about the novel.

For the second example, only one word was switched to Mandarin Chinese which was ‘托儿所’ (nursery) in a sentence in English. These might show that the participants were unable to find the words in English thus only switched to Mandarin Chinese for that particular words.

14.4 Expressive Function

5.4.1 Habitual expressions. According to Malik (1994), code-switching takes place in set phrases such as greetings, farewells, commands and requests to express a certain level of significance or force.

(12) xie xie soooooo much ahhh..XD my lappy can temporary survive..^^

The participant used *xie xie* instead of *thank you* probably to show a deeper gratitude towards the recipient of the message. Using a language that both the poster and receiver are more familiar with might lessen the formality of the situation.

In sentences of Mandarin Chinese, participants habitually switch to English when expressing their state of mind or feelings at the moment and this can be observed in the examples below:

(13) 今晚的我有点 emo.....

(14) 很 blur 啊~!!! 竟然把 milo 粉倒进碗里... 而不是倒进杯子里... @@

(15) 完全没有开学 feel 咯... =="

(16) 读书也要看 mood的嘛~你饶了我啦！

Participants might use words like *emo* (emotional), *blur*, *feel* and *mood* to accurately express their emotions as these words are more commonly used among students to tell of their feelings. Thus, the emotions and feelings are intensified and put across more precisely.

Hård af Segerstad (2002) in his study examined the usage of graphical or non-alphabetical means to convey moods or emotions as an alternative to extralinguistic cues in verbal communication. Non-alphabetical symbols imitating facial expressions are inserted usually at the end of sentences to enhance the overall mood. The examples below show how participants used emoticons to represent a crying face and a sad face:

(17) 从来没有中暑到这种地步~痛苦死我了 T.T~~~~

(18) 好心疼啊..... 我的 dear 生病了 ≡(

5.4.2 *Mood of the speaker.* Bilinguals' mood may result in one language being more readily available than the other even though they may know the words or concepts in both languages at that time (Malik, 1994).

(19) fan till max! ><"

The word *fan* (bothered) was used in expressing the participant's frustration in example (19). This could be due to the participant's mood that made her mother tongue more readily available. Hence, Mandarin Chinese was used for the subject of the sentence or main idea that the participant was trying to convey.

14.5 *Metalinguistic Function*

Gumperz (1982) claimed that code-switching is sometimes used to quote directly or report a speech in its original context.

(20) pls la...dun sing la...sing i also T_T...听~~~海哭的声音~~~

(21) Would like to dedicate this song to Elva Yap~我们一起加油~哈哈

(22) 苦过后更加清, is it true Shiau Peng Yip ??

- (23) today give supervisor scold oh, coz i late go work, LOL, finally give ppl 抓到
痛脚 aredy, start from tml i should early abit liao....
- (24) autograph book? 知其然，不知其所以然~
- (25) 茫茫人生好像荒野....i m freaking exhausted...

From example (20) to (22), participants used Mandarin Chinese to directly quote lyrics from several songs. Additionally, participants also switched to Mandarin Chinese when using idioms or phrases originating from Chinese history such as from example (23) to (25).

14.6 Directive Function

5.6.1 *To address different audience.* Appel and Muysken (2006) reported that the directive function of code-switching is one that directly involves and affects the hearer. Similar to what Gumperz (1982) called as addressee specification, code-switching can be used as an effective strategy to direct a message to specific a person in a conversation by switching language and vice versa. Other than that, bilingual speakers may choose to include or exclude a person from communication by using a language that the person know or doesn't know.

- (26) merry christmas, furong ren~~ =P
- (27) to all my bro, 清醒了就要面对现实生活，可是千万不要忘记我们一同疯狂和放肆过，一同抵抗这世界的洪流将我们冲走....

In the first example, the participant wanted to dedicate her wishes to a specific group of people by addressing them in Mandarin Chinese (*furong ren*: people from Seremban). By doing so, other users of the social-networking website were automatically excluded from being the recipients of the message.

The participant in example (27) also specified the addressee of his message by adding an addressee line in the very beginning of his post. Therefore, readers who read his post would be aware that the message was written for the participant's particular group of close friends.

Research Question 3: Which one of the models is more appropriate to account for the phenomenon of code-switching among Mandarin Chinese-English bilingual UTAR students in social networking website?

14.7 Appel and Muysken's (2006) Six Functions of Code-switching and Malik's (1994) Ten Reasons for Code-switching

Out of the six functions of code-switching proposed by Appel and Muysken (2006), five functions can be used to categorise the occurrence of code-switching in online written discourse which are the referential function, expressive function, metalinguistic function, directive function and phatic function. None of the occurrence can be categorised under the poetic function.

For Malik's (1994) ten reasons for code-switching, seven of the reasons can be used to explain the phenomenon of code-switching which are lack of facility, lack of registral competence, habitual expressions, to amplify and emphasize a point, mood of the speaker, to show identity with a group and to address different audience. The remaining three reasons which are semantic significance, pragmatic reasons and to attract attention were not applicable to the asynchronous communication.

Thus, it can be said that Appel and Muysken's (2006) six functions of code-switching are more appropriate in describing the phenomenon of code-switching in online written discourse. Although the model was developed to account for code-switching in spoken discourse, the functions could also be appropriately applied to the online messages posted by bilingual university students.

14.8 Conclusion

In this study, the phenomenon of code-switching in messages posted in social networking website by English-Mandarin Chinese bilingual university undergraduates was analysed using a functional approach. The functions and reasons for code-switching were identified and classified based on a framework adapted from Appel and Muysken (2006) and Malik (1994).

Findings suggested that code-switching does occur in online written discourse and the functions and reasons for switching codes are similar to those of verbal communication. However, while most of the functions of code-switching in spoken discourse that were proposed by Appel and Muysken (2006) can be applied to written communication such as the referential, expressive and metalinguistic function, there are also functions that are not as relevant such as the poetic function. The result supports Chen's (2007) findings where the expressive, referential and metalinguistic were identified as the most common functions of code-switching in online forum discussions.

In future research, the occurrence of code-switching in asynchronous CMC can be observed in a larger number of participants containing students of different faculties so that the results are more substantial. Other than that, studies can be undertaken to explore the occurrences of code-switching and the different functions that it might serve in topic-specific context. As age and gender issues were not addressed in this paper, research can be done to find out whether code-switching triggers different functions between different genders and age groups in written discourse online.

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Appendix A

Results

Appel and Muysken's (2006)
six functions of code-switching

- Referential
- Directive
- Expressive
- Phatic
- Metalinguistic
- Poetic

Malik's (1994) ten reasons
for code-switching

- Lack of facility
- Lack of registrational competence
- Semantic significance
- To address different audience
- To show identity with a group
- To amplify and emphasize a point
- Mood of the speaker
- Habitual expressions
- Pragmatic reasons
- To attract attention

Figure 2: Appel and Muysken's (2006) six functions of code-switching and
Malik's (1994) ten reasons for code-switching

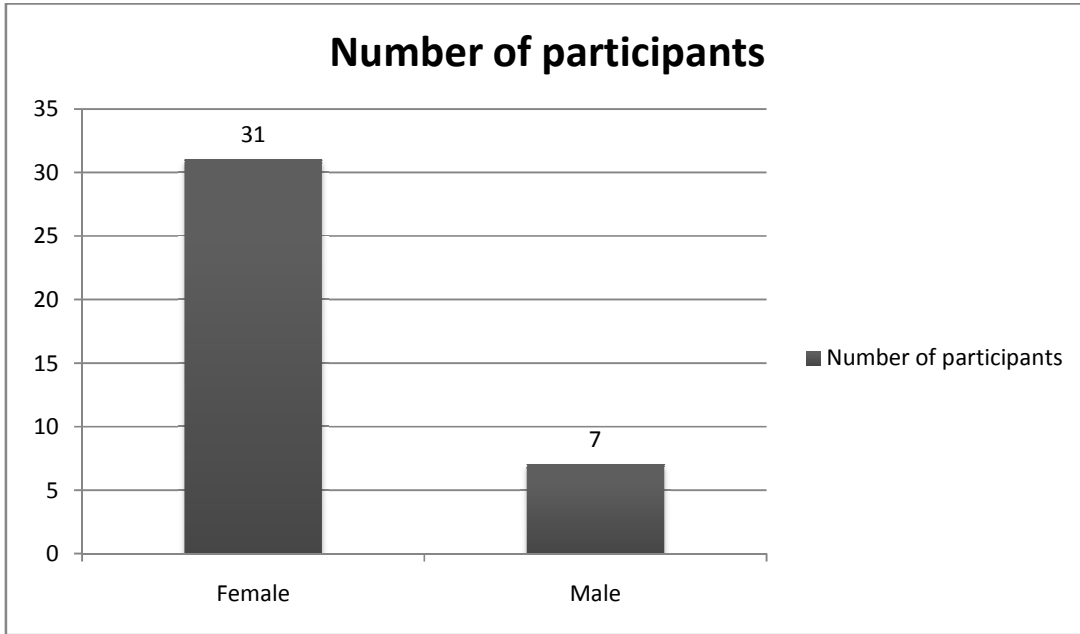


Figure 2: Microsoft Excel output shows the frequency distribution of gender

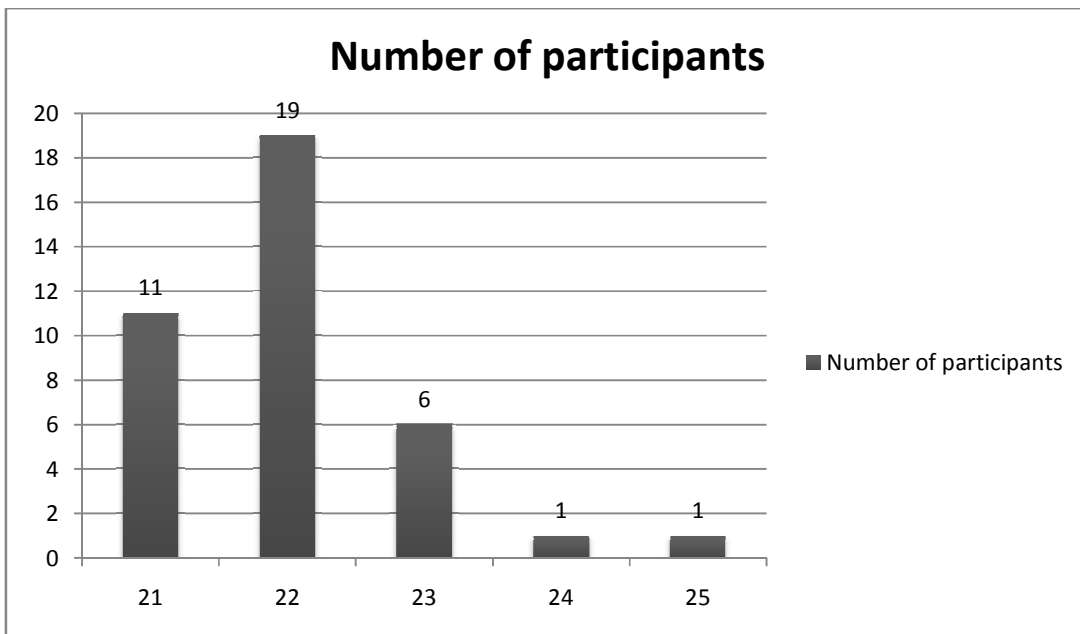


Figure 3: Microsoft Excel output shows the frequency distribution of age

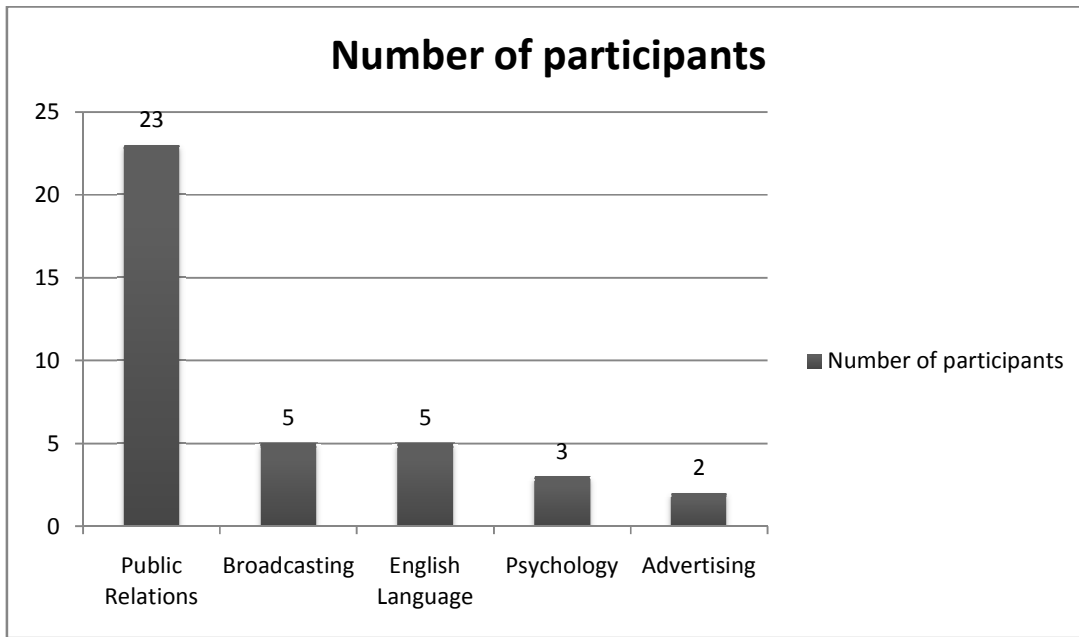


Figure 4: Microsoft Excel output shows the frequency distribution of course

Functions of code-switching	Number of occurrences	Percentage (%)
Referential function	31	49.21
Expressive function	17	26.98
Metalinguistic function	9	14.29
Directive function	4	6.35
Phatic	2	3.17
Poetic function	0	0
Total	63	100

Table 1: Microsoft Excel output shows the number and percentage of code-switching occurrences based on Appel and Muysken's (2006) six functions of code-switching

Reasons for code-switching	Number of occurrences	Percentage (%)
Lack of facility	19	30.16
Lack of registral competence	12	19.05
Habitual expressions	12	19.05
To amplify and emphasize a point	6	9.52
Mood of the speaker	5	7.94
To show identity with a group	5	7.94
To address different audience	4	6.34
Semantic significance	0	0
Pragmatic reasons	0	0
To attract attention	0	0
Total	63	100

Table 2: Microsoft Excel output shows the number and percentage of code-switching occurrences based on Malik's (1994) ten reasons for code-switching

Appendix B

Samples

- (1) won fullhouse n lose in mini mahjong. lol...吃炸胡 twice,小相公!
- (2) 芋头糕+糯米饭+油炸鬼....lolz....nice breakfast
- (3) 在书房做 FYP.....忘记带钱包出来,想喝汽水都不能~>.<
- (4) 看 journal 看到眼睛变成@@..... 一天到底要睡几次啊~~~ zzz
- (5) 你觉得我有可能在一夜之间把 Literature Review 变出来吗? 救命 啊
!!!!!!!!!!!!!!!!!!!!
- (6) 脑缺氧~>.< @@ 快点写完 6 页的废话然后去见 supervisor
- (7) 开始有点怕怕~我真的能在 week 7 之前做完 FYP 吗? 主啊~~~>.<
- (8) 啊~那就是我最后一个 Sem 的时间表
- (9) 我爱你呀~exam 。 。 。
- (10) u took my 功夫-by gidden izzit? forgot to explain to u, it is not 武侠小说, it is more on 剧情 n 科幻 de, although involve some kung fu description la...still, it is quite nice de novel la, haha.
- (11) what i wanna say is.... we cannot see she take her own baby to the 托儿所 la!!!! if not our answer sure will be different...Zzz
- (12) xie xie soooooo much ahhh..XD my lappy can temporary survive..^^
- (13) 今晚的我有点 emo.....
- (14) 很 blur 啊~!!! 竟然把 milo 粉倒进碗里... 而不是倒进杯子里... @@
- (15) 完全没有开学 feel 咯... =="
- (16) 读书也要看 mood 的嘛~你饶了我啦!

- (17) 从来没有中暑到这种地步~痛苦死我了 T.T~~~~
- (18) 好心疼啊..... 我的 dear 生病了 =(
- (19) fan till max! ><"
- (20) pls la...dun sing la...sing i also T_T...听~~~海哭的声音~~~
- (21) Would like to dedicate this song to Elva Yap~我们一起加油~哈哈
- (22) 苦过后更加清, is it true Shiau Peng Yip ??
- (23) today give supervisor scold oh, coz i late go work, LOL, finally give ppl 抓到痛脚
aredy, start from tml i should early abit liao....
- (24) autograph book? 知其然，不知其所以然~
- (25) 茫茫人生好像荒野....i m freaking exhausted...
- (26) merry christmas, furong ren~~ =P
- (27) to all my bro, 清醒了就要面对现实生活，可是千万不要忘记我们一同疯狂和放肆过，一同抵抗这世界的洪流将我们冲走....