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A Sociolinguistic Investigation of SMS Code-Switching Among Students:
The Case Study of The English Language Students at the University of
Abdelhamid Ibn Badis

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'English Language and Linguistics'

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Dedication

I dedicate this work to my family, to my friends and to all those who supported me and helped me throughout the process.

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Abstract

The emergence of new modes of communication such as SMS over the past twenty years resulted in the use of special codes, including code mixing and code switching. This study investigates the use of code-switching in SMSs among EFL students in Mostaganem University. More specifically, it probes into the following: whether the participants mix Algerian Arabic with English in their text messages, the reasons they code switch for if ever they do so, and the patterns of code-switching they apply. To undertake this qualitative study, two research instruments have been used, namely an online questionnaire and a corpus of the participants' SMSs. The content analysis of the findings demonstrated that code-switching is widely used among EFL students when texting each other, and this is done for various reasons, chiefly lack of words, when there are no equivalent terms, economy (the use of abbreviations and acronyms), expressing emotions, when the receiver speaks English, prestige, humour and the use of technical terms. Data also showed that the examined SMSs are in line with the linguistic features of Netspeak identified in the literature and that four patterns characterise code-switching from Algerian Arabic to English, namely tag-switching, intra-sentential switching, inter-sentential switching, and intra-word switching. This suggests that new technologies as well as studying a foreign language encourage code-switching among students and results in the development of patterns that characterise their SMSs. More research is needed to tell if those patterns and reasons occur when other languages are involved in code switching.

Key words: SMS, code-switching, EFL students, types of code-switching, reasons for code-switching.

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LIST OF ABBREVIATIONS

A.A: Algerian Arabic

CMC: Computer Mediated Communication

CMD: Computer Mediated Discourse

CS: Code-Switching

EFL: English as a Foreign Language

IM: Instant Messaging

SMS: Short Message Service

SNS: Social Networking Sites

PHONETIC TRANSCRIPTION

Arabic Script	IPA symbol	Symbols used in Romanized A.A
Consonants		
أ - الهمزة	ʔ	2
ب	B	B
ت	T	T
ث	θ	Th
ج	ʒ	J
ح	H	H
خ	X	X
د	D	D
ذ	ð	Dh
ر	R	R
ز	Z	Z
س	S	S
ش	ʃ	sh
ص	ʃ	Ch
ض	s ^ʕ	S
ط	d ^ʕ	D
ظ	t ^ʕ	T
ع	ð ^ʕ , z ^ʕ	DH, Z
غ	ʕ	ʒ
ف	ɣ	Gh
ق	F	F
ك	Q	Q
گ	K	K
ج	g	G
ل	L	L
م	M	M
ن	N	N
ه	H	H
	W	W
ي	J	Y
V	V	V
Vowels		
ا	a:	a:
ي	i:, e:	i:, e:
و	u:, o:	u:, o:
اَ فتحة	A	A
اِ كسرة (ِ)	I	I
اُ ضمة (ُ)	U	U

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GENERAL INTRODUCTION

Since the first message sent in 1990, the Short Message Service (SMS), developed within the mobile phone industry, has occupied a huge place in our world. It has become our way of communication with others as it facilitates the interaction from one person to another in our daily life. As it has already been mentioned, the frequent use of SMSs among people and especially among youth is widely spread nowadays; hence, a new way of language use is spread among them. This type of communication is characterized by the so-called phenomenon of “code-switching.” People may mix or shift between languages, dialects, varieties, etc in order to express themselves meaningfully. Barasa (2010) conducted a study on SMS texting, email, IM and SNS chats in Computer Mediated Communication in Kenya. She examined the languages used in Kenya which are English, Swahili, Sheng and vernacular languages and she found a number of reasons of code-switching, namely rapidity, least effort, space limitation, creativity and fun. Another study by Caparas, P., and Gustilo, L. (2017) who examined the reasons of CS in Facebook wall posts and status updates of Filipino college students and professionals. They assumed sixteen reasons for which they code-switch and the most frequent reason was the lexical need. While other well-known scholars such as Carol-Myers Scotten, Shana Poplack, John, J., Gumperz, and Valdez Fallis focused on the spoken form of CS. In their studies, they have investigated this phenomenon in conversations without referring to its written form. The technological development brought a new way of communication which is the written speech and it is less focused on. Thus, this study attempts to explore code-switching as a written form mainly in SMS and tries to find other reasons of CS.

This research paper is motivated by a number of reasons to bring about the topic of SMS code-switching. In fact, the code-switching phenomenon has been the interest of many scholars; however, the majority of research focused on the spoken form of code-switching and few investigations have been undertaken on the written form especially the language via mobile

phones. Thus, since not enough studies have been done on the written forms, specifically code-switched messages/ SMSs, the current study attempts to fill this gap. In addition, it offers a new form of language situation among youth. Meanwhile, it can also benefit educators, students in the field of Linguistics and other concerned members of the speech community.

This study aims at investigating code-switching in relation to an electronic device, the mobile phone. It seeks to know whether alternation of codes is used among EFL students of Mostaganem University. Also, it tries to discover the reasons for which EFL students may alternate between codes when texting. Another objective is to explore any existing patterns of CS employed by the participants in their SMSs.

This research attempts to explore the below research questions:

1. Do EFL students code-switch in their SMSs?
2. If yes, what are the reasons that EFL students report for code-switching in their SMSs?
3. Are there any patterns of CS in those students' SMSs?

The following hypotheses are the suggested answers for the research questions:

1. EFL students use code-switching when texting each other because they study English.
2. EFL students use intra-sentential switching, inter-sentential switching and tag switching reported by the literature.
3. EFL students alternate between English and Algerian Arabic because of the influence of English they study at university.

The study is conducted at Mostaganem University in the English language department. An online questionnaire was posted on Facebook to EFL students. It was shared on Facebook groups of L1, L2, L3, M1, while Master II students were grouped in a Messenger discussion group where they were sent the questionnaire to respond.

This dissertation consists of three chapters. The first chapter presents an overview of the main studies of code-switching and Computer Mediated Communication research. It is made up of two parts. The first part deals with the various definitions of code-switching, its types and functions. The second part sets for language and the Internet. The second chapter explains the methods that have been used for conducting the research. It describes the sample of the study, the research tools, and the procedure. Ultimately, it states the method chapter's limitations. Then, the third chapter presents, analyses and discusses the obtained results through the data collection tools. The outcomes of this study will answer the research questions and the objectives set previously.

CHAPTER ONE: Literature Review of Code-switching and Computer Mediated Communication

Introduction

As technology is occupying a huge place in our world, people may find themselves forced to mix, to shift or to switch between codes. They may even create a new language in order to cope with the changing needs. This gives researchers the chance to investigate the phenomenon of code-switching in relation to electronic writings. Thus, the current chapter is divided into two parts. The first section defines the concept of CS and states its types as well as its functions. The second part consists of Computer Mediated Communication (CMC). It, also, focuses on the Short Message Service (SMS) as it is the researcher's main study focus, and its genres illustrated with examples. Finally, the chapter shows the relationship between code-switching and Computer Mediated Communication.

1. Code-Switching

1.1. Definition of Code-Switching

The Cambridge dictionary (2020) defines the concept of code as a form of language spoken by people in particular part of a country. In the same vein, Brown K. and Miller. J (2013) argue that code is a label to describe languages, dialects, and "sociologically determined communication systems (p.83). Code is, therefore, a term to cover the spoken form of language.

Sometimes, speakers of a given language mix words and clauses of two or more languages in their speech. The fact of mixing codes led scholars to propose different definitions of code-switching (henceforth CS) which is often called code alternation.

Carol Myers-Scotton (2006, p. 239) defines code switching as: “[t]he use of two language varieties in the same conversation.” Mercy Ugot (2009, p. 29) explains that codeswitching is composed of mixed sentences with different languages. Furthermore, recently, the term is interpreted in the Cambridge dictionary (2020) as: “The [act](#) of [changing](#) between two or more [languages](#) when you are [speaking](#).” Additionally, Poplack (1980) explains it by referring to bilinguals who have the tendency to alternate between languages. John J. Gumperz (1982, p. 59) interprets it as: “the juxtaposition within the same speech exchange of passages of speech belonging to two different grammatical systems or subsystems.” (As cited by KATJA F. CANTONE, 2007, p.54-55) P. Muysken (2001, p.17) argues that CS is the cooccurrence of various codes in one single utterance. In addition, Fallis (1978) states that code-switching is the alternation between two codes at the level of the word, the phrase, the sentence or the clause.

From the above-mentioned definitions, code-switching refers to the shift, the alternation and the mixing of, at least, two codes in the same conversation or even within the same sentence.

1.2 Types of Code-Switching

There are various categorizations of code-switching. Appel, R., and Muysken, P. distinguish between three kinds: tag switching, inter-sentential and intra-sentential CS. The researcher is using these types as they apply to written code which fit the object of the researcher’s study.

1.2.1 Tag Switching

Tag switching is related to the speaker’s use and insertion of tags almost anywhere in a discourse in another language. This kind of switching is called by Poplack (1980) *emblematic* switching. For example, a Master II student of Linguistics may advise a Master I student of Linguistics concerning Phonology by saying: Li9 teba3 ghaya m3a prof bech tjib no9ta cheba,

you know! / liq tebaŝ ɣaja mfa prof beŝ tdzib noqta feba /]. (You need to follow well with your teacher to get a good mark).

1.2.2 Intra-Sentential Switching

It is a kind of code-switching which occurs within the sentence (Crystal, D, 2001, p. 118). It is regarded as a code-mixing, i.e. it is a mixing of two codes without changing the topic, the speakers or the setting. For instance, in their daily conversations inside the department, English language students use different examples about the intra-sentential code-switching, they may say for example: *rseltlek hadik scholarship, bessah I'm not sure yla lel Master degree wela la / rseltlek hadik scholarship, besaħ I'm not sure jla lel Master degree wela la /*. (I sent you that scholarship, but I'm not sure if it is for the Master degree or not).

1.2.3 Inter-Sentential Switching

The third type, which is inter-sentential switching, happens at sentence boundaries. Crystal (2001) states that this pattern takes place “between sentences” (p. 118). It is when someone uses two independent clauses with two different languages, i.e. the first clause being in L1 and the second one in L2. To illustrate this kind of language alternation, you may consider the following illustration: *I have bought a dress from an online shop, mais je ne l'ai pas encore reçu*. (I have bought a dress from an online shop, but I have not received it yet).

In addition, Gumperz (1982) proposes two other patterns of CS: Situational and Metaphorical code-switching.

1.2.4 Situational Code-Switching:

It is the situation which leads a speaker to code-switch. In other words, the speaker moves from one code to another according to the situation. For instance, in the courtroom, a lawyer

and a judge use Standard Arabic when addressing each other, while outside the court, they use their local Algerian Arabic.

1.2.4 Metaphorical Code-Switching

It is driven by the change of language varieties within the same social setting. It refers to the speaker's repetition of the same utterance in another language to clarify meaning. For example, a sociolinguistic teacher may alternate between English and Arabic languages while explaining to his/ her students by saying: code-switching houa al ta7awoul al loughawi / huwa al taħawul al luyawi/.

1.3 Functions of Code-Switching:

There are other types of CS in addition to those mentioned above. Some scholars relate these types to the functions of CS. Appel and Muysken (2006) suggest six functions of code-switching namely, the referential, the directive, the expressive, the phatic, the metalinguistic and the poetic.

1.3.1 The Referential Function: applies when someone does not have the sufficient knowledge about the language that s/he is using in communication. Thus, a person may alternate codes when a specific word is not available in that language, or when they lack words. For example, Algerian immigrants when speaking in French they may switch into Algerian dialect by saying “bled” “wesh”, etc.

1.3.2 The Directive Function: is also known as a participant-related function of code-switching. It is about including or excluding a participant in a given conversation through using a foreign language. For example, Algerian people speaking Tamazight may use this language in front of Arabic-speakers to keep them out of their conversation.

1.3.3 The Expressive Function: expresses feelings to others while conversing and stressing self-identity by using more than one language. For example, the conversation between

fluent bilingual Puerto Ricans in New York is full of code-switching to stress their Spanish origins.

1.3.4 The Phatic Function: as cited in Appel & Muysken's book (2001) this kind of function is called metaphorical switching by Gumperz and Hernández-Chavez (1975). It is to show a change in intonation and the emphasis of important parts of a conversation. For example, a comedian tells a whole joke in a standard variety than he/she switches into vernacular such as the urban dialect.

1.3.5 The Metalinguistic Function: is defined by Myers-Scotton (1979) as the impression of other interlocuters through speaking different languages; it is the show off of one's language competences. For example, market salespeople in Algeria switch between Algerian Arabic and French.

1.3.6 The Poetic Function: is about switching words, puns and jokes from one language to another in order to entertain and to amuse. It is found mostly in literary texts.

Example: a quote from Ezra Pound's Canto XIII (as cited by Appel R. & Muysken P. 2005):

“Yu-chan to pay sycamores
 of this wood are lutes made
 Ringing stones from Seychoui river
 and grass that is called Tsing-mo' or P.WAIJ
 Chun to the spirit Chang Ti, of heaven
 moving the sun and stars
 que vos vers expriment vos intentions
 et que la musique conforme » (p. 120)

To sum up, it can be inferred that more than one function may apply in one context where code-switching occurs such as the referential and the expressive. Besides that, these implicitly expressed functions may, also, depend on the intentions of the code-switchers.

2. Computer Mediated Communication (CMC)

2.1 Definition

J. Michel Metz (1994) defines CMC as any kind of communication that is transmitted through the use of electronic devices. While, Higgins (1991) describes it as “human communication via computer.” Interestingly, CMC evolved as a new variety that is different from everyday speech and writing.

CMC is different from face to face conversation because it lacks the simultaneous feedback, the tone, the facial expressions and the gestures which are generally replaced by emoticons, but at the same time CMC facilitates the interaction with different CMC users. (Crystal, 2006). CMC is different from writing, since one is able to refresh the page, to cut and to copy and paste pieces of writing such as in e-mails, to hypertext, and joining a word or an image to another page.

CMC forms are either asynchronous or synchronous. The asynchronous form does not require all involved users to be present simultaneously, and it includes e-mails, SMS (Short Message Service), discussion board, etc. The synchronous form needs all the involved parties to be available at the same exact time and it comprises video conferences, discussion/ chat groups, instant messaging blogging, chatrooms, etc.

2.2 Text Messaging (SMS language)

Among the codes that are used through the technological means of communication, such as the Internet, is the use of textos in messages. “Text messages”, “texting” or “textos” are short,

written, mixed and informal discourses which are sent and/or received simultaneously through using the Short Message Service (SMS) in mobile phones.

According to Crystal, D. (2001) the Short Message Service was developed within the mobile phone industry in the early 1990's, but it was not popular until 1998. (As cited by Mahmoud A. Al-Khatib and Enaq H. Sabbah, 2008, p. 37). Bodomo (2009) states that the first SMS message was "MERRY CHRISTMAS" sent in Britain in 1992 (p.112). Furthermore, "The Short Message Service (SMS) allows interaction only between machines, meaning that from one mobile phone to another. The text can comprise "words or numbers or an alphanumeric combination." (ActiveXperts Software B.V, 2020). In other words, one can understand that SMS texts are the process of transmitting messages, in a quick manner, from one mobile phone to another. They are not sent directly from sender to recipient, but via an SMS centre which is the Short Message Service centre. The latter's role is to treat and to manage the short messages.

SMS language is the same as the spoken language in the sense that it enables far distanced users of cellular phones to send greetings, to share their personal and daily life as well as to exchange information.

2.3 Computer Mediated Discourse (CMD)

In order to adapt their language with the new technological means of communication, CMC users have resulted a new way of language called Computer Mediated Discourse (CMD). The latter can be referred to as: "Netspeak", "Electronic discourse", "Internet discourse", "Weblish", "Netlish", "Digital discourse", "Online discourse", etc.

One of the pioneers in the research of language use on the Internet, Susan C. Herring, defines CMD as "... the communication produced when human beings interact with one another by transmitting messages via networked computers."

Herring states that CMD is a speciality under the general discipline of CMC since it deals only with language and language use in computer networks. In the same vein, David Crystal (2006, p.19) supports Herring's claim by arguing that CMD, which he calls it "Electronic discourse", deals with interactions and dialogues, whereas CMC "focuses on the medium itself."

2.4 The Netspeak's Language Features

Netspeak is a word composed of two terms "Net" and "Speak". "Net" refers to the "Web", whereas "speak" includes both of talking and writing, and, at the same time, it involves receptive elements which are listening and reading. Netspeak or Internet Language are terms for language use by means of computer-mediated technology. David Crystal (2006) says: "[t]he core feature of Internet is its real or potential interactivity."

Crystal (2006) refers to Internet language as "written speech" (p. 27). In the same vein, Wired style, a guide book, describes it by saying: "[w]rite the way people talk.' Thus, Internet Language is the association of spoken and written language which is generally regarded as a threat endangering people's quality of written production. However, Crystal (2006) rejects this idea and he says that this change brought to language is not necessarily negative because it brought many advantages to people. Hence, the writer will list some linguistic features of Netspeak.

2.4.1 Linguistic Shortenings

CMC users tend to shorten their language due to the restricted space they have on their screens especially on mobile phones' screens. Thus, this leads to the use of the following phenomena:

2.4.1.1 Acronyms and Abbreviations:

The use of acronyms and abbreviations is highly frequent when it comes to CMD/ electronic discourse.

Acronyms' examples:

AYSOS ['Are you stupid or something?']

CID ['Consider it done']

CIO ['Check it out']

GTG ['Got to go']

WDYS ['What did you say?'].

Individual words can be reduced to two or three letters:

PLS ['please'], THX or TX ['thanks'], WE ['whatever'].

B4N ['Bye for now'], CYL ['See you later'], L8R ['later'].BBS ['bulletin board system'], BCC ['blind carbon copy'], DNS ['domain name system'], FAQ ['frequently asked question'], HTML ['Hypertext Markup Language'], ISP ['Internet service provider'], URL ['uniform resource locator'].

Abbreviations' examples: The table below shows almost all the abbreviations that electronic devices' users may employ when typing their messages.

Figure 01: Some abbreviations used in Netspeak conversations.

afaik	as far as I know	hhok	ha ha only kidding
afk	away from keyboard	hth	hope this helps
asap	as soon as possible	ianal	I'm not a lawyer, but . . .
a/s/l	age/sex/location	ic	I see; [in MUDs] in character
atw	at the weekend	icwum	I see what you mean
awhfy	are we having fun yet?	idk	I don't know
bbfn	bye bye for now	iirc	if I remember correctly
bbl	be back later	imho	in my humble opinion
bcnu	be seeing you	imi	I mean it
b4	before	imnsho	in my not so humble opinion
bfd	big fucking deal	imo	in my opinion
bg	big grin	iou	I owe you
brb	be right back	iow	in other words
btw	by the way	irl	in real life
cfc	call for comments	jam	just a minute
cfv	call for votes	j4f	just for fun
cm	call me	jk	just kidding
cu	see you	kc	keep cool
cul	see you later	khuf	know how you feel
cul8r	see you later	l8r	later
cya	see you	lol	laughing out loud
dk	don't know	m8	mate
dur?	do you remember?	mtfbwu	may the force be with you
eod	end of discussion	na	no access
f?	friends?	nc	no comment
foacl	falling off the chair laughing	np	no problem
f2f	face-to-face	nwo	no way out
fwiw	for what it's worth	obtw	oh by the way
fya	for your amusement	o4u	only for you
fyi	for your information	oic	oh I see
g	grin	otoh	on the other hand
gal	get a life	pmji	pardon my jumping in
gd&r	grinning ducking and running	ptmm	please tell me more
gmta	great minds think alike	rip	rest in peace
gr8	great	rotf	rolling on the floor
gsoh	good sense of humour	rotfl	rolling on the floor laughing
rtfm	read the fucking manual	tuvm	thank you very much
rtm	read the manual	tx	thanks
ruok	are you OK?	tyvm	thank you very much
sc	stay cool	wadr	with all due respect
smtoe	sets my teeth on edge	wb	welcome back
so	significant other	w4u	waiting for you
sohf	sense of humour failure	wrt	with respect to
sol	sooner or later	wtfigo	what the fuck is going on?
t ⁺	think positive	wtg	way to go
ta4n	that's all for now	wu	what's up?
tafn	that's all for now	wuwH	wish you were here
thx	thanks	X!	typical woman
tia	thanks in advance	Y!	typical man
tmot	trust me on this	yiu	yes I understand
tnx	thanks	2bctnd	to be continued
tffn	ta-ta for now	2d4	to die for
ttt	to tell the truth	2g4u	too good for you
t2ul	talk to you later	2l8	too late
ttyl	talk to you later	4e	forever
ttyt	to tell you the truth	4yeo	for your eyes only

Note: Reprinted from (David Crystal, 2006, p. 91-92): Language and the Internet.

2.4.2 Graphology

Netspeak is distinguished with its graphology from the traditional writing, as it involves sophisticated fonts and styles of writing regardless of bold and italics. Besides, it allows the use of lower case everywhere. However, capitals can be used to emphasize either a given word, for example, “this is a VERY important point”, or to state a given business name.

2.4.3 Spelling

When it comes to the use of English in CMC devices, people tend to use US English more than the British one. For example, the plural -s is replaced with -z such as in “gamez”. Spelling errors are not considered to be a lack of language proficiency, but rather a “function of typing inaccuracy.” The use of non-standard spellings as in “yep, yup, yay, nope, nooo” or forms like “kay” and “sokay” [it’s Ok], etc.

2.4.4 Punctuation

Internet language tends to be almost absent from any punctuation because of either typing speed or lack of knowledge. However, some sort of symbols are used to express pause, such as the ellipsis dots (...), emphasis and attitude as in using repeated exclamation marks (!!!!!), and some other punctuation combinations to express someone’s mood/ facial expression as in the use of smileys and emoticons, for example; ☺ : -) or ☹ : - (.

2.4.5 Omission

Netizens, users of the net as named by Crystal, omit letters from words to gain more space and to be as quick as possible when sending and receiving messages. This can be seen in the following examples, “r” for “are”, “u” for “you”, “nu” for “new”, etc.

2.5 Code-Switching in Computer Mediated Communication

The study of code-switching related to Computer Mediated Communication has grabbed the interest of many linguists. Thus, several research studies have been conducted in order to examine their relationship. Under this subtitle some of the previous studies done on CS and CMC are reviewed.

Cecilia Montes-Alcalá (2007) analysed the posts of 15 Spanish-English bilingual bloggers (10 women and 5 men) who used code-switching, over the course of one year, from January 2005 to January 2006. After analysing 150 pages, she discovered 7 functions for using CS which are:

- Lexical items: bloggers switch between languages because of biculturalism and not because of the lack of proficiency.
- Triggered switches: sometimes a switched word or expression may initiate a switch in what follows or precedes it.
- Quotes: switching in order to quote someone else.
- Elaboration: code-switching is used in order to further explain an idea.
- Tags: alternating codes with the use of some idiomatic expressions since there is no equivalent expression in the original language.
- Emphatic: CS used for emphatic reasons.
- Free: it is when a writer switches in order to show his/her skills of other language(s). Montes-Alcalá referred to it as “It could also be argued that the reason behind these switches is entirely stylistic” (p. 169).

Barasa (2010) conducted a study on CMC genres (E-mail, SMS, IM, SNS) among two Kenyan groups: university students and urban professionals known as (yuppies). She examined

various languages used in Kenya which are English, Swahili, Sheng and vernacular languages. When analysing the data collected for these languages, she assumed a number of reasons behind code-switching which are summarized in four points, below:

- Rapidity: in a synchronous CMC genre, which requires rapidity when responding to someone, the user types the first word that comes to his/her mind without paying attention to the language used.
- Least effort: the sender, sometimes, uses a word or a phrase from a different language, since it is shorter and typed easily than the original language.
- Space limitation: the limits of CMC messages length results code-switching in order to gain more space.
- Creativity and fun: the switched part can be the result of the user's creativity.

Barasa (2010) found that English and Swahili were highly used among that category of people who are considered "elite." And the vernacular languages were the least used because CMC technology is not friendly with vernacular languages.

Conclusion:

All in all, it is important to say that code-switching in CMC differs from the spoken form of CS in terms of context yet they share many resemblances. Meaning that CS is not confined only to the spoken form, but it embraces the written one as well. In short, the emergence of new modes of communication like SMS over the past twenty years has increased practices of code alternation among people.

INTRODUCTION

This chapter investigates the phenomenon of code-switching in mobile text messages among EFL students at Mostaganem University. It attempts to examine the linguistic choices available to EFL students when writing their SMS. It is important to recall the questions of this study that are: do EFL students code-switch in their SMSs? If yes, what are the reasons that EFL students report for code-switching in their SMSs? Are there any patterns that are determined when instances of CS occur in those students' SMSs?

1. Research Method

The current study aims at exploring the phenomenon of code-switching between Algerian Arabic and English in SMS among students. Its objectives are to identify types, if any, of code-switching existing in SMSs and which one is mostly used. It, also, tries to investigate the reasons behind mixing between the above-mentioned languages.

As the main objectives of the study are to find out patterns and to infer meanings from those text messages, a qualitative research will serve as a better approach to investigate participants' interpretations and motivations. It emphasizes the exploration and the understanding of social or human experiences. Jennifer Mason (2002, p. 01) says : “[t]hrough qualitative research we can explore a wide array of dimensions of the social world, including the texture and weave of everyday life, the understandings, experiences and imaginings of our research participants, the ways that social processes, institutions, discourses or relationships work, and the significance of the meanings that they generate.”

2. Sample of The Study

2.1 Participants

The sample of the study at hands included 60 students. Those students served to answer the questionnaire and to provide examples of their own textos. The participants are Algerians studying the English language at the University of Abdelhamid Ibn Badis. They were selected randomly. Gender and age as well as the English level of the participants were not taken into account as these variables are not part of the research questions; thus, it was preferred not to include them. Participants were selected from different university level from First-year to second-year Master degree. The reason for choosing students of English is their familiarity with English and the likelihood that they use English in their SMSs in comparison to other students of other majors.

2.2 Text Messages

A corpus of 100 messages was collected from the participants. The text messages, written by the students, were obtained after asking their permission via social media (Facebook, Instagram and WhatsApp). Some screenshotted their SMSs and sent them via social media to the researcher, others copied their SMSs when filling the questionnaire, as they were asked to illustrate their answer providing an example from their own textos. Some were cooperative and sent the whole SMS conversation. After analysing the SMSs, only 81 messages were kept and the others were rejected since they were irrelevant. Examples of the selected SMSs are shown in appendix 02.

3. Data Collection Tool

3.1 Questionnaire

To accomplish the aims of the study, I have designed an online questionnaire using “Google forms” and sent it on Facebook to participants enrolled in the English department of

Mostaganem. The questionnaire consists of two parts that take 15 minutes to be answered. The first part aims at knowing whether students use CS when texting, and if English is used and mixed with A.A. It, also, purposes to gather samples of SMSs from the participants, and to see their familiarity with CS in SMSs. This part includes four questions. The first three questions are of the closed-ended type, whereas, the fourth one is a multiple-choice question. The second part intends to extract the communicative functions that EFL students aim to achieve through mixing between English and A.A in their text messages. It consists of a closed-ended question in which the subjects are asked to tick eight answers that best describe their reasons behind mixing between Algerian Arabic and English.

4. Procedure

The online questionnaire was posted on Facebook groups of students including L1, L2, L3 and M1 students and it was sent via Messenger to M2 students of English on the 9th of May, 2020. Since the researcher knows many EFL students from M2, they were gathered in a Messenger group and they were asked to respond the questionnaire. To help spread the questionnaire in a short period of time, I asked some EFL classmates to post it on Facebook groups and to send it to their EFL classmates/ friends. The questionnaire was explained for the assistants in order to give clear instructions to the respondents in case they find difficulties in understanding the questions. It was designed as not to let one user respond twice the questionnaire to avoid having two different answers from just one user. The respondents were explained that their answers were kept anonymous

The questionnaire was distributed at first to some EFL students to determine if the questions were clear and unambiguous to the target population. After modifications, those students involved in the pilot study were excluded from the actual research to ensure the outcome's reliability.

5. Methods of Data Analysis

A content analysis was used for both examining the questionnaire and the students' SMSs. This choice is because it allows working on written texts. As Cole (1988) stated content analysis is a "method of analysing written, verbal or visual communication messages." In the same vein, Holsti, 1969; Krippendorff, 1980 argues that a content analysis helps in extracting and describing patterns from "a manifest content" and "this technique helps to make inferences about intentions and effects." (As stated in International Handbook of Internet Research, by Jeremy Hunsinger · Lisbeth Klastrup · Matthew Allen, 2010, p. 234). This fits best with identifying the existing patterns, if any, in the collected SMSs and making inferences from them about the intentions of the students when texting each other.

I prepared the SMSs for analysis, re-read to understand all data related to the types of code-switching used by the participants. Then, data were coded into types of code switching following the typology proposed by René Appel and Pieter Muysken (2005), namely intra-sentential code switching, inter-sentential code switching and tag switching. Through analysing the second part of the questionnaire, it has been found that the subjects employ all the reasons proposed by the already mentioned scholars. The reasons include the referential, the expressive, the metalinguistic, and the poetic. The other two functions were excluded, since they are used in the spoken form of CS and not in the written one. Besides, the participants showed interest in the reasons of CS suggested by the researcher.

6. Limitations

The first limitation related to the method chapter is the lack of participants who accepted to take part in the research. Besides, the second restriction is related to the data-collection

instrument. Since most of the students do not know the researcher on real ground, but only through the virtual world, they were reluctant to send their SMSs.

Conclusion

This chapter has presented the method of collecting data in order to explore code-switching in the SMSs of EFL students at Mostaganem University, the types of codeswitching they use and the reasons for using code alternation. The sample of the study consisted of university students and a sample of text messages gathered online. One collection tool was used which is an online questionnaire. To analyse the obtained data, a content analysis was used. The findings and analysis of those data will be presented in the subsequent chapter.

INTRODUCTION

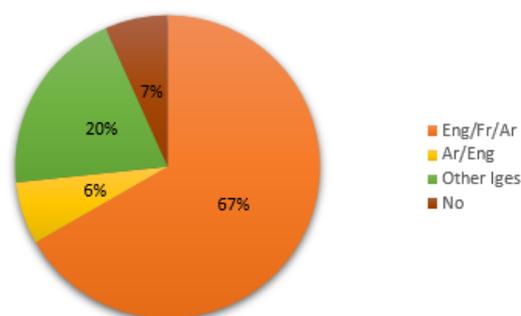
The last chapter attempts to discuss the data collected from the questionnaire directed to EFL students of Mostaganem University as well as to analyse the obtained SMSs. It describes the results in relation to the linguistic model mentioned in the literature review. It summarises the main findings. And, finally, it gives recommendations in the conclusion part.

1. Description of The Results

1.1 Reporting Results of The First Part of The Questionnaire

In this section, a description of the obtained results from the questionnaire will be presented and transcribed. Also, this part seeks to extract the main patterns of CS found in the SMSs. There are some responses that were deleted since they were inappropriate. The reported results of the questionnaire are below:

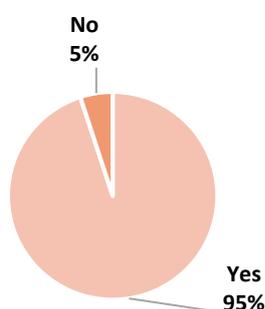
Question 01: Do you use more than one language when sending SMSs? If yes, what are they?



Graph 01: Students' use of languages in SMS

This question is related to the other following questions. It attempts to know if participants mix codes in their SMSs. As it is remarkable in graph 01, the majority employ CS when texting each other. This allows them to answer the coming questions. However, those who responded with “No” cannot.

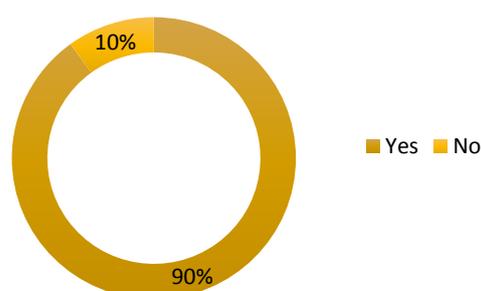
Question 02: Do you use English in your SMS? if yes, move on to the other question please.



Graph 02: Students' use of English in their SMS

A closed-ended question. This question gets a bit deeper into the study’s main interest as it seeks CS between A.A and English. Thus, its main aim is to know whether students text in English with their peers. Results demonstrated that 57 (95%) out of 60 EFL students use English in their SMS. While, only, 3 (5%) of them do not use it.

Question 03: Do you mix words or sentences in English with words or sentences in Algerian dialect? if yes, can you please provide examples from your SMS?



Graph 03: Students' mixing between English and Algerian Arabic in their SMS

The third question is proposed to see the percentage of students' mixing between A.A and English. Also, it aims to gather the SMS corpus. Findings showed that 90% of the students tend to mix words/sentences in English with words/sentences in Algerian dialect, and this gives a notion that EFL students practise the language that they are learning. Whereas, only 10% do not code-switch in English.

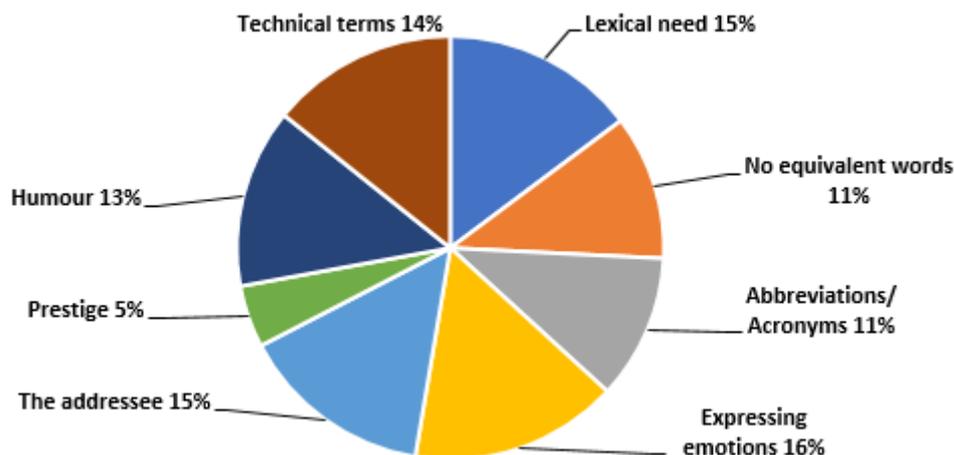
Question 04: How often do you switch in your SMS in a typical week?



Graph 04: Students' SMS code-switching frequency in a typical week

The fourth question is a multiple-choice one which targets the frequency of CS use among participants. As we see in the graph, most of the participants selected either almost in all their SMSs, only once/twice a week, or never, which means that CS is overused in text messages. Again, this proves that CS is popular amongst the recent generation.

1.2 Reporting Results of The Second Part of The Questionnaire



Graph 05: Students' reasons of mixing between Algerian Arabic and English

The question of the second part is a closed-ended one; its objective is to know why mobile users embed mixed codes in their text messages. Eight answers were suggested to indicate the main functions of CS. The responses, however, were reasonable in demonstrating the participants' aim behind using CS. 15% was the stake of the first option which is when I lack words. 11% said that they use it when they do not find the equivalent word. Whereas, 11% do it because of abbreviations and acronyms. 16% chose the option of expressing emotions, the other 15% of the participants picked the option of when the receiver speaks English. 5% ticked the sixth suggestion which is prestige. 13% tend to code switch when joking, while, 14% of the participants do it when using technical terms. It has been, also, noticeable that one user may code switch for different reasons.

2. Discussion of The Findings

Findings showed that the overwhelming majority switch back and forth between A.A and English. This suggests that EFL students are highly influenced by the language they are specialized in at University. That's why it is present almost in all their SMSs. This finding is supported by the patterns found in their text messages. Examples from their textos show that

code mixing is not only prevalent, but a characteristic of their SMSs. The following instances illustrate this phenomenon:

“Hey **honey**, hiii **darling** kiraki, **my sweetest love** isselmek, Morning **beauty**, salam kirakiii dayeraaa maaaa **I miss you** so much, “... w golileh **keep up**”

“Sabahoo **honey**, see u at 13h inshaallah, **good luck** <3”

“Nchlh, I’m hungry matawlish :3”

“**Good luck** to you to <3.”

“**i’m going to play videogame** ila tji”

“Hambouk ma3lich t helpinii Rani vrai mast7akatak Don't worry sa3a w nkoun 3andak Saha ftourak I hope tkouni saliti”

“Ni jaya be there in 15 .”

“The screen tcha9et”

“I m feeling 3ayan a bit”

The most prevalent pattern of code switching is intra-sentential CS. Consider the following examples. Again, A.A segments are written in bold and each example fragment is followed by its corresponding English translation on a new line.

Example 01: « hiii darling **kiraki** »

Translation: « hiii darling how are you? »

Example 02: “**bghit na3tik** question **nta kifah 3areft** intentions **ta3** her friend cuz **heya** never met you, weird **wallah**”

Translation: “I wanted to ask you a question. How did you know about the intentions of her friend? because she never met you, that’s weird I swear”

The following two examples are also extracted from the corpus obtained. They are examples of tag switching which is ranked the second because it is easily incorporated in the sentence.

Example 01: “So mana9rawch ghadwa **right?**”

Translation: “So, we won’t study tomorrow right?”

Example 02: “**Omg** chehal he's cute 😊 »

Translation: “Oh my God how cute he is!”

Instances of inter-sentential switching and intra-word switching were very few in number compared to the other two types. On the other hand, tag switching is less in number compared to the high frequent use of intra-sentential CS.

Inter-sentential CS is the least used by EFL participants, since it requires two independent sentences. The first being in L1 and the second being in L2.

Example 01: “finally ! Lets go eat something **msba7 rani n9ara3lk.**”

Translation: “finally! Let’s go eat something. I was waiting for you since morning.”

Example 02: “Are u there yet ? **Ena hada win Rani Jaya**”.

Translation: “Are you there yet? I am still on my way.”

Intra-word switching is another pattern discovered while analysing the SMSs. This type of CS occurs within a word. According to Grimstad, Lohndal & Afarli (2014) intra-word switching “occurs at morpheme boundaries.” (As cited by Dustin Hilderman, Accounting For Intra-word Codeswitching In a MOGUL Framework, University of Victoria).

Consider the following examples:

Example 01: " 3yit **nwaiti** aya khrejt see ya"

Translation: “I waited a lot for you so I left. See you!”

Example 02: « Hambouk ma3lich **t helpinii** Rani vrai mast7akatak »

Translation: « Could you please help me! I really need you.”

The lexical elements ‘wait’ and ‘help’ are English lexical items, but the suffixes attached to them are Algerian Arabic ones. Thus, A.A is considered to be the ‘host code’ and English is the ‘guest one.’

Data analysis has shown that there are a number of technical elements that might be responsible for the wide use of English or switching between English and Arabic (with Arabic Roman scripts) in mobile text messaging. Among the reasons that students reported for code switching were: lack of words, no equivalent words, expressing emotions, prestige, humour, when the receiver speaks English, abbreviations/ acronyms and technical terms.

Most participants said they code switch when expressing their feelings and emotions. David Crystal (1987) says “[c]ode switching is triggered when the speaker is emotionally affected (e.g. upset, excited, tired, happy, surprised, scared or distracted) (as cited by Skiba, 1997). That is why EFL students find it difficult sometimes to use Algerian Arabic words to express their feelings and emotions. The study results show that 16%, the highest percentage, of the subjects use English in order to express their emotions. This agrees with Mayyada Mahdi Ra’uf’s study (2017) who showed that expressing feelings and emotions is one of the main reasons of CS. It corresponds also to Halim, N.S and Maros, M. (2014) who conducted a study on the functions of code-switching in Facebook Interactions and found that switching for indicating emotions was among the multiple reasons of CS. Some examples are as follows, “Hey **honey**”; “hiii **darling** kiraki”; “**my sweetest love** isselmek”; “Morning **beauty**”; “salam kirakiii dayeraaa maaaa **I miss you** so much”; “... w golileh **keep up**.”

It was pointed out by 15% of students that their lack of words in A.A and English pushes them to mix codes. Thus, they mix between those languages interchangeably in order to compensate their lack of language proficiency. This occurs because they do not know either

language completely. For example, when texters are texting in a hurry, they find a difficulty in remembering the A.A word “7arfiyan”; thus, they directly switch into English by using the word “literal.” As a result, instead of saying “Rani n7awes 3la al-ma3na al 7arfi” they say “Rani n7awes 3la literal meaning” (I am looking for the literal meaning). The reason for the difficulty is not that they do not know the correct word, but that they do not use this word frequently. Hence, switching to English makes it easier and faster to retrieve the word. This matches with Sutrismi’s study (2014) on the use of Indonesian English code-mixing in Facebook where he referred to it as the “need filling motive.”

A high percentage of students (15%) switched to English when the receiver of the SMS speaks English. Texters feel compelled to write in English and this is because the receiver speaks English, only. For example, a student may respond to his/her teacher in English because the message was written in English. Thus, the addresser’s use of language is governed by the addressee’s language. This is noticeable in the following example:

Teacher: “Salam (the student’s name), hope you are doing well, would you please inform your classmates that tomorrow’s lecture starts at 9h. I’ve sent an email to (another student’s name) but I feared he’ll not see it in time. Much appreciated, tnx.”

Student: “Hello sir, no problem i’ll post on fb right away”

A study conducted by Shafie, A. L., Azida, N., Osman, N., on the languages of the college texters in which they found that SMS language depends on the receiver, the sender, the relation between them, their education and the purpose of the message. Thus, this denotes that SMS language is not stable.

It has been noticed that academic, scientific and technical terms were widely used among EFL students, who deal with multiple fields of study in their educational approach, because such use of terms is attributed to lecturing in English. The spread of scientific terms that are

mostly used among students, such as test, exam, britciv (British Civilization), esp (English for Specific Purposes), IQ (Intelligence Quotient), consultation, lesson, prof (professor), W.E (Written Expression), quiz, M2 (Master II), and others are important reasons behind switching to English. 14% of them have chosen this function as one of their motivations behind alternating codes. The same reason was found by Al-KHATIB and Sabbah (2008) that students switch into English when employing academic and technical terms.

The study findings showed that code-switching may be a signal of joking and that the switching itself may be considered humorous. 13% of the subjects tend to joke when code switching. This is quite clear in the following SMS examples:

“Oh my sidi rebi” (Oh my God!), “Rani rayah 3and el head-father (the texter added a comment by saying “someone who is called بوراس” (I am going to see Bouras), “are u mahboula 😊....” (Are you crazy?). This corresponds to Barasa’s study (see chapter I) as she found that students may code-switch in CMC for creativity and fun reasons.

It was found out that 11% of the students switch to English because it enables them employing abbreviations and acronyms which help in reducing the number of characters. Texters seek to use the fewest number of letters since it provides more space for writing; thus, no need to pay extra money for using the service, and it facilitates the quick communication. Consider the examples below:

“Ok **c u** there, mazal ba9i nedirlha remediation, then i will send it to u”

“Hey bb , **plz** send me l cour nt3 esp . Hhh”

“**Omg** chehal he's cute 😊 »

« Rah na9es 3andek el **IQ** :3 »

« Rani f foyer **rn** »

“Love **xoxo**”

“Hey honey, can we please meet ghir 3end mima, **cuz** Papa geli circulation ghadi t’chedkom kun t’howdo downtown.”

“Meet you ghodwa nchalah **lol**”

“What's up **bro** I wish **u r** good inshalah Ki tkhrj m first floor hh”

“... hada num ta3ii tani **TC** »

This is not surprising as writing SMS requires short textos and that the user makes less efforts in typing them. Gumperz (1982) supports this by saying that bilinguals tend to use the shortest and the easiest words to ease their communication. It was found in Halim and Maros's study (2014) that “switching for principle of economy” is also used among the code-switchers in Facebook. The research's results agree, also, with Leslei Kahari study (2014) in which it was found that students code switch in their textos because of the ease and the swiftness of writing which allow them employing abbreviations and acronyms.

Other 11% of the participants tended to code-switch when there are no equivalent words. This function is used when bilinguals or multilinguals are unable to find the appropriate terminology, or identical word(s) from the L2 vocabulary to match the word(s) of their native language (L1). For instance, the Arabic terms “Ramadan” and “Eid” do not have equivalent terms in the English language simply because English people are not Muslims. This reason, as described by Al-KHATIB and Sabbah (2008) serves the “Socio-cultural and religious functions” where the texter attempts to express him/herself for facilitating inta-cultural communication. For illustration, the following are examples taken from the obtained text messages: “Hello, **saha ftourkom**”; “saha **eidkom** ntuma teni have a lovely day May God accept from you.”; “Omrii saha **ramdankom** may God accept from you and all your family.”

Finally, findings illustrated that 5%, the lowest percentage, of the students believe that such use may enhance their prestige. Hence, they tend to use a sizeable number of expressions from

English in their text messages. Among these are the easiest and the shortest expressions related to greeting, thanking and apologizing. The following are one of the most frequent expressions used by the text writers: Hi, sorry, good night, Morning “good morning”, miss you, ok, take care (sweetie), please, thanks (a lot), thank you, bye, good luck, see you and so on. This, also, corresponds to A. Al-Khatib and H. Sabbah’s investigation (2008) where they found that prestige is among the reasons of SMS CS among Jordanian University students. Similarly, it agrees with Sutrismi’s study (2014) which demonstrated that showing prestige is a motive behind written CS. The following are some illustrations from the SMS corpus:

" 3yit nwaiti aya khrejt **see ya**"

“**Hi dear** kirakii”

“Sabahoo **honey**, see u at 13h inshaallah, **good luck** <3

Nchlh, I’m hungry matawlish :3

Good luck to you to <3.”

The analysis of the collected data validates the research hypotheses. Indeed, EFL students use code-switching when texting each other because they study English. EFL students use intra-sentential switching, inter-sentential switching and tag switching reported by the literature. However, results demonstrated that another type of CS is used which is intra-word code switching. In addition, EFL students alternate between English and Algerian Arabic because of the influence of English they study at university and this is observed when they use abbreviations and acronyms.

Conclusion

The current study attempted to find whether students code switch in their SMS, the reasons for and the patterns in doing so. Findings showed that code switching between English and A.A

is overwhelmingly used among EFL students, and that a Romanized version of Algerian Arabic is used along with English expressions extensively. Findings of participants' SMSs also indicated that they employ four types of code-switching, namely tag switching, intra-sentential CS, inter-sentential CS and intra-word switching. There are reasons that might be responsible for using such types of code-switching. Among these are the lexical need or when there are no equivalent terms, economy (the use of abbreviations and acronyms), expressing emotions, when the receiver speaks English, prestige, humour and the use of technical terms. However, expressing emotions' reason was mostly found in this research as English is more expressive than the mother tongue. Finally, since the research focused on the use of mobile phones' text messages by EFL students, it is expected that this research will help next researchers to conduct a study among students of other majors. It is also suggested, for further research, to analyse and to apply the theory of code-mixing and code-switching on Youtube Podcasters.

GENERAL CONCLUSION

This study aimed at investigating the phenomenon of code switching in mobile text messages of EFL students of Mostaganem University, the linguistic patterns of their SMSs and the reasons for code-switching.

After analysing the questionnaire's answers and the text messages through using a content analysis which helped the researcher to infer meanings, the study results revealed that the overwhelming majority of the participants mix codes, especially English and A.A, when texting each other. It has been, also, revealed that four types of code-switching were employed by EFL students, namely tag-switching, intra-sentential switching, inter-sentential switching, and intra-word switching. Besides, findings showed that there are eight reasons that push the students to mix between English and Algerian dialect. The eight reasons are: the lexical need, the absence of equivalent terms, economy (the use of abbreviations and acronyms), expressing emotions, when the receiver speaks English, prestige, humour and the use of technical terms. It was discovered that switching to A.A served the function of the absence of equivalent terms mainly religious terms. Data showed that students utilize English as a mark of prestige, to fill gaps in the language, or to serve the function of technical terms. Moreover, it has been noticed that humour and expressing emotions seem to be linguistic elements that often activate CS in both directions (i.e., both from A.A to English and vice versa). The occurrence of such lexemes and phrases as *hi*, *hello*, *good night*, *good morning*, can be seen as CS; however, some of them have now become within the linguistic luggage of some of the students.

There are some limitations for the study that should be noted. First, many of books dealing with the topic of this research were not accessible. Thus, the researcher could not attain them. Second, the results of this study cannot be generalized to all students because of the lack of participants as they were hesitant to share their private SMSs.

The research conducted in this dissertation has led to some useful results and conclusions that confirm the study's hypotheses. It has shown the spread of some of the functions of code-switching. Hence, future research may explore other functions of code-switching proposed by other scholars such as Poplack and Hoffman. Also, further studies are recommended to use the same linguistic model in a different context or with different participants, such as South African students studying English in Mostaganem University. Reflecting on and re-evaluating the research findings is another suggestion for future research.

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Appendix 01

The Online Questionnaire :



Students' Questionnaire

Dear student, this questionnaire is part of a research that aims to investigate if you use English with Algerian Arabic in your SMS and the reasons behind this alternation. The questionnaire will not exceed 15 minutes to complete. Thank you for your contribution to this research.

Note: code-switching is, simply, moving from Arabic into English by mixing Arabic with English words or sentences. Arabic refers to the Algerian dialect such as the spoken Arabic of Algiers, of Tlemcen, of Mostaganem, etc.

*Obligatoire

PART 01:

Do you use more than one language when sending an SMS? if yes, what are they? *

*

Votre réponse

Do you use English in your SMS? if yes, move on to the other question please. *

YES

NO

Do you mix words or sentences in English with words or sentences in Algerian dialect? if yes, can you please provide examples from your SMS? *

Votre réponse

How often do you switch in your SMS in a typical week? *

Almost in all my SMSes

Only Once/ Twice a week

Never

PART 02

The reasons behind mixing between English and Algerian dialect when texting.

Please tick the answers that best describe your reasons behind Algerian dialect-English mixing in your SMS. You can tick more than one option. *

- I mix Algerian dialect with English when I lack words.
- When there are no equivalent words.
- Because it provides more space for writing. When English words are shorter (abbreviations , acronyms).
- When I want to express my emotions.
- When the receiver speaks English.
- When I want to impress the receiver.
- When I want to add a sense of humour.
- When I use technical terms. (For example, when discussing about a given module that you study: Speech act theory, Vikings, literature, phonetics...).

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Appendix 02

Screenshots of The Collected SMSs:

