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A case study of syntactic patterns of Egyptian Colloquial Arabic-English code-switching

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A Thesis Submitted to

The Department of Applied Linguistics

in partial fulfillment of the requirements for

The Degree of Master of Arts in Teaching English to Speakers of Other Languages

By

Salma Mohamed Farid Abdel-Khalek Farid

Under the supervision of Dr. Amira Agameya

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To my Father

May your soul rest in peace

&

To my Mother

For everything

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Abstract

The present study investigated the structural patterns of Egyptian Colloquial Arabic (ECA)-English code-switching in the domains of classroom and interviews at the American University in Cairo (AUC) by applying Pieter Muysken's typology of code-mixing and relating it to the work of Poplack (1980) and Myers-Scotton (1993). It also aimed to stand on the nature of inflectional derivational and close-classed morphemes affixed to code-switched lexical items. The nature of the study was descriptive exploratory in which textual linguistic analysis was employed to analyze audio-recorded verbal data. The data was collected by observing four undergraduate classrooms held by the Department of English Language Instruction at AUC and conducting three focus group interviews with AUC graduate students. The results indicated that insertion pattern was more frequent in both domains, followed by alternation and congruent lexicalization (CL), which occurred more frequently in the interview domain. The results also showed that ECA definite article *il-* was utilized with English nouns in the insertion and CL patterns in both domains. While verb inflections were affixed to ECA verbs in classroom domain and to English verbs in the interview domain. The results indicated the use of English as the matrix language in classroom domain and the variation of the matrix language between ECA and English in the interview domain.

Keywords: code-switching, structural patterns, insertion, alternation, congruent lexicalization, Egyptian Colloquial Arabic, ECA, Muysken

Table of Contents

List of Abbreviations

CS: Code-switching

CM: Code-mixing

ECA: Egyptian Colloquial Arabic

MLF model: Matrix Language Frame model

ELI: Department of English Language Instruction

IPA: International Phonetic Alphabet

AUC: American University in Cairo

Transcription Conventions

The present study uses the IPA system. Basic transcription conventions are as follow:

Arabic	IPA Symbol
ا	ɑ/ɑː/ɑ̃
ء	ʔ
ث	θ
ج	g
ح	ħ
خ	x
ز	z
ش	ʃ
ص	ʂ
ض	ɖ
ع	ʕ
غ	ġ
ف	ʃ
و	w/uː/ɔ/ɔː/œ/ʊ
ي	y/i/iː/e/eː
ه	h
ة	-ɑ

List of Symbols

*****	pause
…	indicate elided part(s) in an utterance
( )	English translation of ECA utterances
[ ]	researcher's comments
F	facilitator/female
G	graduate student
I	instructor
M	male
UG	undergraduate student

Participants were given a coding system. Started by their (a) gender, female (F) or male (M), (b) class, undergraduate or graduate, and (c) a number.

For example: FUG1 is female undergraduate first participant

MG23 is male graduate twenty-third participant

List of Tables

Chapter One
Introduction

1.1 Overview

Code-switching (CS) is a sociolinguistic phenomenon which occurs in bilingual spoken discourse by switching and alternating between "two languages within a single discourse, sentence or constituent." (Poplack, 1980, p. 583). This phenomenon can be examined within linguistic, sociolinguistic, or psycholinguistic frameworks (Pfaff, 1997). Several studies have been carried out to investigate the conversational, functional, and syntactic functions of CS in the field of applied linguistics. In later years, studies conducted by Muysken (1997, 2000) looked into CS from a structural perspective that examined how CS is realized syntactically by applying a typology that classified the realization of CS into insertion, alternations, and congruent lexicalization. Insertion occurs when lexical items from one language are embedded in the constituents of another language. Alternation, on the other hand, occurs when grammatical structures from two languages appear in a given constituent but each structure retains its grammatical form. The last of Muysken's typology, congruent lexicalization, is realized when lexical items from two languages contribute to the grammatical formation of the phrase. Thus, Muysken succeeded in introducing a new method in terms of combining different syntactic approaches into a single structural framework to investigate the phenomenon of CS.

The term code-switching itself is not agreed upon among linguists. Some view the process of alternating between languages as code-mixing (Appel & Muysken, 1987; Muysken 1997, 2000), others view lexical borrowing as a separate process and refuse to include it under the umbrella of CS (Poplack,1980), while others view all these concepts as one by arguing that there is a fine line

between them making it difficult to distinguish between them (Myers-Scotton 1993). For the purposes of the present study, however, code switching will be the term used for this phenomenon.

Despite the lack of agreement regarding the scope of CS, all researchers agreed that CS is an utterance produced by a bilingual in which elements of two languages are combined. An ideal bilingual according to Weinreich, can switch between two languages in a speech event (Weinreich as cited in Poplack, 1980, p.588). In the Egyptian society, this phenomenon is clearly observable, as a significant number of citizens code-switch between Egyptian Colloquial Arabic (ECA) and English. The current study examined American University undergraduate students' code-switched utterances by applying Muysken's (1997, 2000) approach in order to shed more light on the syntactic and structural features of CS between ECA as the low 'variety' in the Egyptian society and English as a second language. Thus, providing a further insight to the scope of CS, specifically in the domain of ECA-English CS.

1.2 Linguistic Situation in Egypt

The Egyptian society is a diglossic one, where there are two varieties of Arabic spoken by the people. In Egypt, the 'high' variety is Modern Standard Arabic which is the official language used in governmental, religious, and national media contexts. The 'low' variety, on the other hand, is ECA which Egyptians speak in their everyday life. This conforms with Ferguson's (1959) concept that any diglossic community is characterized by two varieties, the 'high' variety and the 'low' variety.

Schneider (2010) and Schaub (2000) argued that Egypt is situated in the 'expanding circle' of Kachru's (as cited in Schaub, 2000) three circles model of the use of the English language. In his model Kachru presented three circles, the 'inner circle' where English is spoken by native speakers; the 'outer circle' in which English is the official language of a country; and the

‘expanding circle’ which consists of countries that were once colonized by English speaking countries or those where it is widely spread as a second language. (Schneider, 2010, p. 379) Schuab (2000) argued that since English in Egypt is spreading in the domains of “medicine, higher education, the sciences, [and] tourism”, its use can be moved from the ‘extended circle’ to the ‘outer circle’ (p. 225). One can view this point as valid; however, the fact remains that English in not the official language of Egypt, but rather it is the most widespread second language in the country.

In many educational systems around the globe, including the Egyptian educational system, English is the medium of instruction in private schools and in universities in many countries (Crystal, 2012; Schaub, 2000). Accordingly, the current situation in Egypt is one where English is being taught as a second language in national and private schools. In the former, students begin to learn English when they start their middle year, while in the latter, students are introduced to English starting from their preschool stage (Schaub, 2000). Many students coming from the middle class, as Graddol (2006) describes them, graduate now from schools as bilinguals in two languages, which in turn leads them to code-switch using their bilingual repertoire in their spoken discourse – whether intentionally or not. Several of these students attend private universities where the medium of instruction is English. According to Myers-Scotton (1993), the higher the level of education students receive, the more the chance they will be bilinguals (p.34).

The fact that English has become a requirement for education, coupled with the fact that many jobs require proficiency in English, should be taken into consideration when one reflects on codeswitching in Egypt. This exceptional status of English encouraged Egyptians to converse in English not just for employment prospects but also for prestigious status. For instance, Hussein (2018) in her study argued that Cairene mothers code-switch between English and Arabic to show

off their "socio-economic status" and to help their children in acquiring a second language early on (pp, 55-56). Thus, code-switching became an integral part of Egyptians' daily conversations.

1.3 Code-switching

CS has been the focus of many studies which looked into this phenomenon from a functional or a morphosyntactic perspectives within the frames of sociolinguistics and bilingualism. Gumperz (1982), for example, examined how the "shared background knowledge" of a speech community enables speakers to code-switch in their daily conversations. He defined CS as a process in which relationships are assimilated and "social backgrounds are not matters of common agreement" (Gumperz, 1982, p.70). For him, conversational CS takes place when interlocutors alternate between two grammatical systems of two different languages. He presented six conversational functions to describe when people code-switch (See section 2.4.2). Poplack (1980), shared with Gumperz this notion of alternation by stating that CS "is the alternation of two languages within a single discourse, sentence, or constituent." (p. 583). She argued that there were two aspects to CS, the functional and linguistic aspects, and postulated the free morpheme constraint and the equivalence constraint to examine code-switched instances. In the first constraint, Poplack (1980) proposed that switching occurs after a non-bound morpheme constituent by giving the example "una buena exCUSE [eh'kjuws]" (a good excuse) (p. 586). According to her, the code-switched English lexical item *excuse* is preceded by a Spanish non-bound morpheme constituent *una buena* which satisfies the free morpheme constraint. In the equivalence constraint, Poplack (1980) argued that CS occurs between the two languages with neither of them violating any grammatical rules in the uttered discourse.

Besides looking at CS from a functional approach, other researchers investigated it from a morphosyntactic perspective. Myers-Scotton (1993), for example, proposed the Matrix Language

Frame model (MLF) in which there are two languages, the dominant language/matrix language, and the minor language/embedded language - which is the language that a bilingual switches to in his/her speech. According to her, the matrix language supplies the system morphemes which are the lexical items that provide the morphosyntactic frame of the constituent, while the embedded language provides the content morphemes that convey "semantic meaning" to the rest of the constituent as in the following Spanish-English code-switched constituent "La organizacion empozo en *nineteen seventy-six*" which is translated in English to "The organization started in 1976" (Jacobson, as cited in Myers-Scotton, 1993. P. 123). This example provides the Spanish preposition *en* as the system morpheme in the prepositional phrase "en *nineteen seventy-six*" and since system morphemes are provided by the matrix language, Spanish in this constituent phrase is the matrix language. In addition to proposing the MLF model, Myers-Scotton (1993) and Myers-Scotton and Jake (2001) applies two principles: the system morpheme principle and the morpheme order principle. The first hypothesizes that in a code-switched constituent all system morphemes will come from the matrix language. While the latter theorizes that only one embedded language lexeme and any number of matrix language morphemes appear in any given code-switched constituent. In addition, the morpheme order principle indicates that the matrix language is responsible for providing the surface syntactic order of the constituent phrase. Myers-Scotton (1993) provided several examples to support her hypotheses as in example (1) which is taken from a study conducted by Bentahila and Davies (as cites in Myers-Scotton, 1993, p, 89). In this Moroccan Arabic-French CS example, Myers-Scotton argued that Moroccan Arabic provides the syntactic structure of the sentence which is verb-subject order since the tense/aspect structure is realized in Moroccan Arabic system morpheme *na:Du*. Thus, the matrix language of this sentence is Moroccan Arabic, while the embedded language is French since it is realized by content

morpheme noun phrase *les privé.* Thus, this analysis satisfies the system morpheme principle. As for the morpheme order principle, if Myers-Scotton's argument that *les privés* is an embedded language island which consists of an article and a noun and follows the grammatical rules of French is taken into consideration, then, this utterance satisfies the morpheme order principle. This can be attributed to the fact that Moroccan Arabic system morpheme *na:Du* is the head that governs the whole utterance by providing its syntactic structure of verb-subject order.

(1) na:DU *les privés*

arose the private practitioners'

'The private practitioners arose'

An examination of past literature indicated that many researchers examined CS from either a morphosyntactic perspective by applying Myers-Scotton's MLF model or from a functional approach by looking into conversational functions (Bader & Minnis, 2000; Deuchar, 2006; Eid, 1992; Khan & Khalid, 2017; Koban, 2013; Mohammed, Hameed, & Yasin, 2015). A recent study conducted by Youssef (2016) tackled conversational and morphosyntactic approaches by investigating English-Cairene CS in the context of bilingual university professors while conversing with their students during lectures. However, his examination of the morphosyntactic aspect can be argued to have been of a pure functional purpose in order to report on the participants' CS behavior. He did not examine the syntactic behavior of their code-switched utterances.

A structural framework that managed to combine the approaches of Poplack (1980), Myers-Scotton (1993), and Labov (1972) into one comprehensive approach to syntactically analyze CS was introduced by Muysken (1997, 2000). Muysken introduced three structural patterns which he termed as a typology. These are insertion, alternation, and congruent lexicalization. He argued that each one of these patterns is either derived from or based on previous

literature (Muysken, 2000). He postulated that insertion is, in part, equivalent to Myers-Scotton's matrix language frame model given that CS behaves similarly in both approaches since the inserted code-switched lexical item occurs in a matrix structure. Muysken (2000) explained this by arguing that the inserted item can be characterized as a single morpheme or more than one morpheme. One of the examples he gave was the Navaho-English CS utterance, "na'iish-*crash* là" which is translated to "'I am about to pass out.'" (Canfield, as cited in Muysken, 2000, p. 5). According to Muysken the English inserted verb stem *crash* is a code-switched lexical item that has been embedded in the matrix structure of Navaho which agrees with what Myers-Scotton proposed in her MLF model. Muysken (2000) then proposed his alternation typology and explained that it is based on Poplack's equivalence constraint since they share the same notion that CS occurs in long constituents consisting of two languages with each language adhering to its syntactic rules. The last of Muysken's typology, congruent lexicalization, is based on Labov's language variation. According to Muysken, Labov (1972) investigated phonological variation as a type of language change but did not consider it a CS process. Muysken, on the other hand, adopted this concept of language variation but applied it to syntactic behavior of code-switched utterances. Thus, by relying on past literature in the field of CS, Muysken managed to present a comprehensive syntactic framework to analyze intersentential CS in new light.

1.4 Domains of Language Use

A domain according to Romaine (2003) is an abstract notion that represents how an activity is a combination of "specific times, settings, and role relationships." (p. 518). An interlocutor's specific use of language can occur in a single domain or in more than one. Fishman (as cited in Holmes, 2013) introduced five domains that exist in almost any community, family, friendship, education, religion, and employment. Holmes (2013) argued that domains of language

use are not a prefixed criterion. She explained that depending on the situation in which the language presents itself, several domains can be added to the already existing ones.

Several of these domains can be recognized in the Egyptian community by observing the way people communicate and interact more closely. It is notable that the phenomenon of CS occurs in a few of these domains. Egyptians code-switch between ECA and English in the domains of home, education, work, and friendship – just to name a few – if we take into consideration Gumperz' (1982) argument that any speech act involves the production of grammatical structures as well as semantic meanings despite the unawareness of the spoken discourse producer. It is important to observe how Egyptians code-switch in different domains in order to find out whether there are any structural differences in the CS patterns that bilinguals use in each domain.

1.5 Research Gap

Based on the above-mentioned discussion, most of the literature looked into one aspect of CS, either the functional aspect or the syntactic aspect. To the best of the researcher's knowledge, there are few studies that coherently combined all aspects of CS. Muysken (1997, 2000) managed to gather all three patterns of CS, develop them, and formulate them into a coherent approach for other researchers to follow. He applied his approach on data sets collected from doctoral dissertations (Muysken, 2000). It is notable that even studies examining his structural patterns of insertion, alternation, and congruent lexicalization looked into them by investigating data sets gathered by other researchers (Green & Wei, 2014). In addition, most of the available literature looked into CS between English and various languages other than ECA (Green & Wei, 2014; Deuchar, Muysken, & Wang, 2007).

Hence, the current study aimed to fill this gap by applying Muysken's approach as a structural framework to bilingual speech; and investigating whether all three patterns appear in

ECA-English code-switched spoken discourse of AUC undergraduate and graduate students and if one of these patterns is more prevalent than the other two. The study also related Muysken's patterns to previous work on CS done by Poplack (1980) and Myers-Scotton (1993).

1.6 Research Questions

The following research questions are posed to identify and provide a syntactic representation of the code-switched patterns used in the spoken discourse of AUC undergraduate and graduate students as well as investigating, reporting, and describing the morphosyntactic features of each code-switched pattern and the change in their domains of language use.

1. What are the structural patterns of ECA-English CS?
2. What are the main morphosyntactic features of the code-switched patterns?
3. Do CS structural patterns change with a change in the domains of language use in classroom and interview settings, and if so, how?

1.7 Delimitations

The aim of the study is to examine CS patterns in ECA-English spoken discourse, the emergence of any other Arabic variety in the collected data will be overlooked. The study examines only two domains of language use, university/classroom and interviews, other domains are not included. Moreover, since the sample of the study is restricted to AUC undergraduate students, generalizing the results to a larger population will prove to be challenging.

1.8 Definitions of Constructs and Terms

Code-switching: "is the selection by bilinguals or multilinguals of forms from an embedded variety (or varieties) in utterances of a matrix variety during the same conversation." (Myers-Scotton, 1993, p. 3).

Morphosyntax: is the study of how syntax and morphology interact to form grammatical

structures.

Structural patterns: are Muysken's (2000) typology of insertion, alternation, and congruent lexicalization.

Insertion: is the process in which "lexical items" or constituent phrases are inserted "from one language into [the] structure" of another language. (Muysken, 2000, p. 3)

Alternation: occurs "between [the] structures" of the two languages (Muysken, 2000, p. 3)

Congruent lexicalization: is "material from different lexical inventories [utilized] into a shared grammatical structure." (Muysken, 2000, p. 3)

Morphosyntactic features: are inflectional, derivational, closed class morphemes that are realized in code-switching instances.

Inflectional morphemes: give grammatical structure to the base morphemes they are inflected to, they can "mark properties such as tense, number, person … [and] they never change the grammatical category of the stem to which they are attached." (Fromkin, Rodman, & Hyams, 2014, p. 46).

Closed class morphemes: are free morphemes also known as function words for they denote "grammatical relations", like conjunctions, prepositions, articles, pronouns, and verbs (Fromkin, Rodman, & Hyams, 2014, p. 35).

Egyptian Colloquial Arabic: is the spoken variety used by the majority of Egyptians. It is also co-exists with Standard Arabic in the Egyptian society (Bassiouney, 2009)

Constituents: "The natural groupings or parts of a sentence" (Fromkin, Rodman, & Hyams, 2014, p. 82)

1.9 Operational Definitions

Code-switching: in the present study CS will refer to the use of two languages, ECA and

English, by bilinguals in spoken discourse by integrating an embedded language in the matrix language (Myers-Scotton, 1993).

Morphosyntax: is the process of how ECA and English will interact in code-switched instances and how the syntactic and morphological aspects of each have an impact on CS patterns.

Insertion: are instances of CS when English lexical items are inserted in ECA constituent phrases or ECA lexical items are inserted in English constituent phrases.

Alternation: is ECA and English lexical items being used simultaneously in the same constituent phrase. They might share the same length and semantic meaning, but they are not syntactically related.

Congruent lexicalization: refers to the lexical items from both ECA and English sharing the same CP with each language variety adhering to the grammatical structure of the phrase.

Constituents: are the constituent phrases realized in the patterns of CS. They might be noun phrases, verb phrases or adjective phrases that are being provided by either ECA or English.

Inflectional morphemes: are Egyptian Colloquial Arabic bound morphemes that are inflected to code-switched constituents.

Closed class morphemes: are Egyptian Colloquial Arabic free closed class functional morphemes realized in code-switched constituents.

Domains of language use: the current study will investigate CS in the domains of classroom and interviews.

Chapter Two
Literature Review

2.1 Introduction

This chapter provides a general overview of research in sociolinguistics with regard to code-switching as a socially motivated phenomenon. It provides a discussion of some of the theoretical frameworks that dealt with the phenomenon of CS. The literature is organized by providing an overview of CS and then by themes and sub-themes to introduce the theoretical frameworks. The first section is an overview of CS with relation to bilingualism and the variance usage of the terms, CS, code-mixing, and borrowing. The second section provides a discussion of conversational CS and studies carried out to investigate it. The following section deals with two theoretical syntactic approaches to CS and examines a non-exhaustive discussion of studies which looked into syntactic issues. It also provides an investigation of studies that are purely syntactic in nature. The last section offers a detailed discussion of Muysken's (1997,2000) typology as the major structural framework in order to provide a syntactic analysis to ECA-English code-switched utterances which has not been previously discussed in the literature, to the best of the researcher's knowledge.

2.2 Sociolinguistics and Code-switching

2.2.1 An Overview

Sociolinguistics examines "the relationship between language and society" (Holmes, 2013, p. 1). It investigates the social factors as well as the linguistics factors that account for how people speak in various situations (Holmes, 2013; Meyerhoff, 2011). The study of sociolinguistics enables sociolinguists to attain information about (a) how a language functions in a given society, (b) the way language use is reflected in a speech community, and (c) the manner by which people identify

themselves through language (Holmes, 2013). In any speech community sociolinguists are interested in the way members of this community utilize their linguistic repertoire to socially communicate with other members.

This led sociolinguists to analyze how people interact with one another through their language use. Wardhaugh and Fuller (2015) identified this process as a system where people use certain codes in communicating together (p. 3). They argued that multilingual interlocutors use more than one system and produce utterances from more than one grammatical structure. This process was later identified as code-switching which Jake and Myers-Scotton (2009) defined as

> language use that consists of material from two or more language varieties at any level from the discourse to the clause. However, it is only when switching is within a clause containing elements from more than one variety – that is, a bilingual clause – that the languages are truly in contact. (p. 207).

The following sections discuss the relationships between CS and bilingualism, code-mixing, and borrowing, respectively. Section 2.2.2 looks into the relation between CS and bilingualism and how CS is greatly affected by the former. Section 2.2.3 looks into how CS is viewed by researchers from different perspectives and the controversy of labelling the process of alternating between two languages, or more, as CS or code-mixing. While section 2.2.4 investigates the controversial issue of whether lexical borrowing is part of CS process or a separate process.

2.2.2 Code-switching and Bilingualism

The above-mentioned definition of CS by Jake and Myers-Scotton (2009) provided a more comprehensive understanding of the term CS in bilinguals' speech utterances. For these utterances

to be rationalized and vocalized they have to be integrated by bilinguals or multilinguals in their speech events. An ideal bilingual is defined as one who "switches from one language to the other according to appropriate changes in the speech situation (interlocutor, topics, etc.) but not in an unchanged speech situation, and certainly not within a single sentence" (Weinreich, as cited in Poplack, 1980, p.588). Bentahila and Davies (1983), Gumperz (1982), Pfaff (1997), and Poplack (1980) all agreed with Weinreich in that CS occurs in a speaker's speech. However, while Weinreich maintained that bilinguals do not switch between two languages in the same phrase, Gumperz, Poplack, and Pfaff argued that such switches can occur within the sentence level in the same speech event.

Bilingualism is a worldwide phenomenon. It has been argued that half of the world's population are bilinguals, regardless of their age or social class, where they converse with one another on the basis of sharing the exact knowledge of any given two languages (Grosjean & Miller, 1994). Bilinguals use their language repertoire, specifically their knowledge of the grammatical systems of the two languages, to incorporate certain lexemes from the second language into their speech by modifying them to match the phonological and morphological systems of their native languages. Grosjean and Miller labeled this process as borrowing. Nearly a decade prior to Grosjean and Miller's (1994) work, Bentahila and Davies (1983, p. 302) defined CS as "an utterance or interaction of which some parts are clearly in one of the bilingual's language and other parts in the other language". However, contrary to Grosjean and Miller's (1994) view, Bentahila and Davies (1983) defined this process as CS. They also argued that bilinguals use "unassimilated word[s]" from the second language in their spoken discourse.

2.2.3 Code-Switching vs. Code-Mixing

Code-mixing (CM) is a term used by some researchers to define the process of switching between two languages or more whether this switch occurs in the same constituent phrase or as a stand-alone lexical item (Pfaff,1997). McClure (1977) proposed that CM occurs at the intrasentential level when a bilingual utters a "lexical item" from one language in the constituent phrase of the other language. According to her, these lexical items have not been borrowed into the bilingual's native language. Like McClure, Appel and Muysken (1987) defined all intrasentential code-switched instances as CM from which they excluded all borrowed lexical items. Nonetheless, whether Muysken wavered between using the terms CM and CS as in his use of the former in his 1997 article and his use of both terms in his book published in 2000, the fact remains that he maintained his usage of the term *intrasentential switches* in his work. According to Appel and Muysken (1987), "Intra-sentential switches occur in the middle of a sentence, as in 'I started acting real CURIOSA [(strange), you know].'" (Appel & Muysken, 1987, p. 118). This example shows a mixing instance between two languages in the same sentence in which the code-switched word "CURIOSA" occurs in the middle of the English sentence. Furthermore, Appel and Muysken (1987) differentiated CM from borrowing by postulating that if foreign words are fully integrated in any given language, they are viewed as borrowed lexical items. They explained this by mentioning that the French word *maître d'* is a borrowed word that has been fully integrated in American English. Thus, in the sentence "The maître d' put us in a little dark corner of the restaurant", which they provided in their study, *maître d'* is considered a borrowed word and not a CM instance (Appel & Muysken, 1987, p. 121).

Myers-Scotton (1993), on the other hand, argued that in several past studies like those of Kachru and Swigart, the term CM was used to encompass all intrasentential code-switched

utterances whether they occurred in full constituents or in single lexical items She postulated that CM was used in place of the term borrowing for the authors did not find it essential to make any distinction between borrowed items and code-mixed items from the embedded language.

For the convenience of the current study the term CS will be used. It is a more commonly used term at the present time than that of CM. Moreover, the researcher views CS and CM as two sides of the same coin; thus, there is now reason to distinguish between them.

2.2.4 Code-switching vs. Lexical Borrowing

Borrowing is "the introduction of single words or short, frozen, idiomatic phrases from one variety into the other where they become part of the native language grammatical system and are assimilated into the morphological and syntactic system of the native language (Gumperz, 1982, p. 66). Gumperz' definition agrees with the two factors Pfaff (1997) proposed to distinguish between borrowing and CS which are based on the phonological and morphosyntactic aspects inflected on embedded lexical items and the frequency of these items in "the speech community." (p. 345). In addition, Haspelmath (2009) introduced two more factors that influence lexical borrowing (a) "social and attitudinal factors", and (b) "grammatical factors" (p. 35). According to him, CS has been classified as a type of "contact-induced speech behavior" while borrowing is a type of "contact-induced language change" (Haspelmath, 2009, p. 40). As such, he argues that both phenomena cannot be considered as one entity although it is hard to distinguish between the two when only one word from the donor language appears in the utterance of the recipient language. He continues his argument by postulating that such a word can be categorized either as a loan word or as a code-switched word. However, to properly classify a lexical item, one must understand how the mental lexicon of an interlocutor functions. Since, this is difficult to measure, examining whether the word appears in monolinguals speech or not is considered a better method.

A monolingual speech is when a person possesses the lexical knowledge of only one language, which is most commonly known as a person's native language. For example, Egyptian citizens who are not learned in any other languages than their Arabic native language can phonologically and syntactically integrate the English word *computer* in their monolingual speech as it is more frequently used by most Egyptians rather than it is Arabic counterpart *ħa:səb ʔali*:. Thus, if a word happens to appear in monolinguals' utterances then it is a loanword but if this is not the case, then, it is a code-switched word.

In fact, loan words were termed *nonce borrowing* by Poplack, Sankoff, and Miller (1988), who proposed that nonce borrowed lexical items are single lexical items or bound morphemes produced by bilinguals by integrating them morphologically and syntactically into their native language. Later, Grosjean (2001) provided a simpler definition of *nonce borrowing* by stating that a nonce borrowed lexical item "involve[s] both the form and the content of a word" (p.6).

There are few researchers who did not make a distinction between borrowing and CS, for example Myers-Scotton (1993). This is the same line of reasoning that was employed in the present study. No distinction between borrowing and code-switched lexical items will be made for ease of analysis.

2.3 Sociolinguistic Approaches to Code-switching

2.3.1 Conversational Code-switching

Conversational code-switched instances are speech utterances that occur in a bilingual's speech which belong to "two different grammatical systems or subsystems" (Gumperz, 1982, p.59). Gumperz' notion of CS entailed that an interlocutor switches from the native language to a second language in a speech utterance either to respond to another interlocutor or to emphasize the spoken message by using the second language. Thus, CS has a functional aspect when it is

utilized by bilinguals who share the same social network and a similar "background knowledge" that enable them to code-switch during a conversation (Gumperz, 1982, p. 72).

Gumperz postulated six conversational functions of CS: (1) quotations, (2) addressee, (3) interjection, (4) reiteration, (5) message qualification, and (6) personalization versus objectivization. In his 1982 study, Gumperz explained his six conversational functions. He mentioned that bilinguals use *quotations* when they are conversing informally. In some cases, they might use reported speech to speak informally to their friends and colleagues. According to him, interlocutors use the second function *addressee* when a speaker wishes to signal out one of the addressees and direct his/her message to this specific person. In other cases, CS occurs either to serve as a sentence filler in the case of *interjection* or as a repetition of the same message in both languages. This repetition serves as a *reiteration* which can be articulated literally or with a degree of modification. It serves either as an added explanation or as an emphasis on what was previously mentioned. Furthermore, Gumperz explained that a speaker might use one language to utter the message and code-switch to another message in order to achieve the fifth function *message qualification*. The last of his conversational functions is *personalization versus objectivization* in which an interlocutor uses code-switching to distinguish between what is personal and what is objective. These functions are employed by bilinguals who share the same "background knowledge", of two languages, in their spoken discourse. Moreover, Gumperz argued that a person can choose a certain language while he/she is articulating his/her own thoughts as a way of associating oneself with the subject matter at hand. The other language, on the other hand, is used to distance oneself from certain matters or issues. Thus, CS plays a role in identifying when bilinguals associate themselves and when they distance themselves depending on their choice of language.

Although Gumperz conducted his study to investigate which functions are used by bilinguals, he argued that they cannot occur without the two languages forming "syntactic and semantic relations" (Gumperz, 1982, p. 61). He explained this by comparing spoken discourse to written discourse in which both discourses cannot be realized without having a grammatical coherent structure as well as well-formed meaning. Nonetheless, Gumperz argued that in the case of spoken discourse, interlocutors are unaware of such relations. He concluded that CS involves a process of merging two grammatical systems into one that enables bilinguals to use one or more of the above conversational functions to carry on a conversation. However, he mentioned that further study is needed to look into how interlocutors interact socially and how CS functions in "social … interpersonal relations." (Gumperz. 1982, p. 99).

A study that applied Gumperz' (1982) conversational functions was carried out by Abu Mathkour (2004), who collected his data from Jordanian television programs by recording six hours of televised programs from 18 females and 15 males. Abu Mathkour aimed to investigate which of Gumperz' functions are being used in English-Jordanian Arabic CS and if the interlocutors' gender plays a role in choosing a certain function. His findings revealed that the participants used five functions, namely, *quotation*, *interjection*, *reiteration*, *message qualification*, and *personification.* According to Abu Mathkour (2004), women had the highest percentage in *interjection* code-switched utterances due to their tendency to use polite phrases such as *please* and *thank you* to indicate their usage of the prestigious variety, English in this instance (p. 11). In contrast, men had the highest percentage in *message qualification* utterances; however, Abu Mathkour did not provide any explanation for such a high percentage which can be viewed as a drawback in his study. Nevertheless, depending on his general findings he argued that gender plays a role in bilinguals' choice of using a certain conversational function and added that further

research should be conducted using real life conversation instead of televised programs.

A recent study conducted by Youssef (2016), also looked into the communicative functions of English-Cairene Arabic CS in the context of bilingual university professors while conversing with their students during lectures. Like Abu Mathkour (2004), Youssef investigated CS functions by applying Gumperz' (1982) conversational functions. His findings revealed that the professors code-switched to English to utilize it as the medium of instruction and code-switched to Cairene Arabic when they were socializing with the students in order to from social bonds with them and to express solidarity in a positive manner.

Both studies conducted by Abu Mathkour (2004) and Youssef (2016) looked into data collected from a university setting. While, Abu Mathkour gathered his data from 33 participants, 18 females and 15 males, Youssef, on the other hand, gathered his data from only seven participants, one male and six females, all of whom were PhD holders. Due to the fact that Youssef's participants were small in number and that the two samples were of a convenience nature, the two studies cannot be generalized to a larger population. Hence, both researchers mentioned in their concluding remarks that future research should be conducted to investigate the issues at hand in a broader scope. Abu Mathkour suggested that future work should look into interlocutors' interaction in everyday spoken discourse, while Youssef mentioned that although his study filled "a gap in L2 classroom CS research on a specific language pair" it has paved the way for future research conducted in this field (Youssef, 2016, p.24).

2.4. Syntactic Approaches to Code-switching

2.4.1 Functional Code-switching

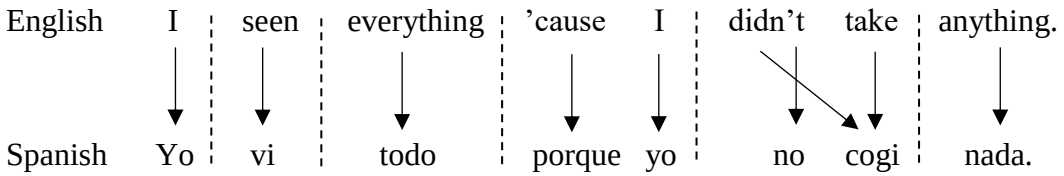
When Gumperz introduced his conversational CS, there were other studies arguing that examining the functional aspect of CS is insufficient. Poplack (1980) argued that a closer syntactic

examination of CS should be taken into consideration. Hence, she introduced the free morpheme and equivalence constraints to account for the syntactic features in CS utterances in order to account for her claim that code-switched patterns are not just realized as an entity in a speech event, but rather that they can occur in constituent phrases.

The free morpheme constraint states that any given lexical item can be code-switched after constituent phrases on the condition that it is not a bound morpheme. Poplack (1980) explained this constraint by giving the example "EAT - iendo" (eating) to show that the Spanish bound morpheme -*iendo* (-ing) cannot be affixed grammatically to the English verb stem *eat* since both lexical items adhere to the phonological rules of their respective languages (p.586). She stated that only when a bound morpheme from one language is phonologically integrated to a lexical item from another language then CS can occur. However, she argued that this was not proven in her study or in any other study. Later, Sankoff and Poplack (1981) provided a precise definition for this constraint stating that a switched lexical item must be phonologically integrated into the language of the bound morphemes in order for it to be qualified as a code-switched utterance. They provided an explanation of the free morpheme constraint in their 1981 study by providing two examples to demonstrate when lexical items are phonologically integrated and when they are not. The first example was English-Spanish lexical item "*run - eando"* (running) which follows the same line of reasoning as the above example "eat - iendo*"* where each lexical item follows the phonological rules of its respective language; thus, CS cannot be realized in this instance. The second example Sankoff and Poplack (1981) provided was "*flipeando"* (flipping). According to them, the English verb stem *flip* and the Spanish bound morpheme -*eando* have phonologically integrated to form one lexical item (p.5). However, they contradicted their claim that such an instance is considered a switch, and argued that in cases where two lexical items are integrated

"phonologically, morphologically, and syntactically" this item is considered "to be a Spanish form" and not an instance of CS (Sankoff & Poplack, 1981, p. 5). Thus, analysis based on the free morpheme constraint should look at the morphological syntactic integration of the lexical item in addition to its phonological integration (Poplack, 1980; Sankoff and Poplack,1981).

After identifying the lexical items based on the free morpheme constraint, they were tested against the equivalence constraint. According to Poplack (1980) and Sankoff and Poplack (1981) this constraint examines whether code-switched instances violate any syntactic rules of the languages involved or whether they follow the grammatical rule for the position they appear in in their respective languages. The following example "I seen everything 'cause *no cogi na'*." provided by Sankoff and Poplack (1981, p. 6) shows how English-Spanish CS conforms to the equivalence constraint from a syntactic point of view. The authors provided the following illustration in order to demonstrate the syntactic structure of the above-mentioned code-switched sentence in both languages:

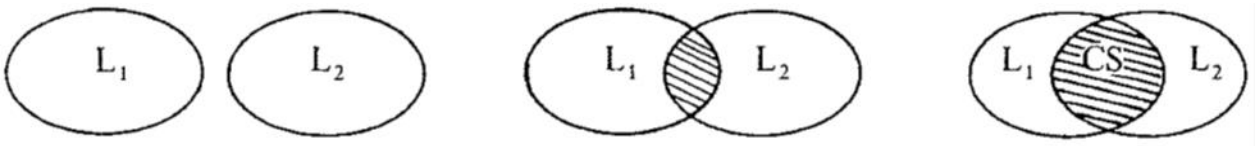


According to Sankoff and Poplack, lexical items laying between the dotted lines can be switched for they share the same syntactic categories, while the arrows "indicate the surface relationship of the two languages" (Sankoff and Poplack, 1981, p. 6). Thus, English-Spanish code-switched occurrences does not violate the syntactic rules of the surface structure they appear in according to the equivalence constraint.

In addition to introducing the free morpheme constraint and the equivalence constraint to the field of CS, Poplack (1980) introduced three syntactic patterns of CS (1) inter-sentential switching, (2) tag-switching, and (3) intrasentential switching. Figure 1 shows the different

representations of these types. Intersentential CS is when a code-switched lexical item from the second language (L2) occurs at the sentence boundary of the first language (L1). The following example, "It's very deterministic. … Deterministic *ya'ni e:*?" ('Deterministic' means what?" is taken from Youssef's (2015) study on English-Cairene Arabic CS. In this example, the Arabic code-switched lexical items *ya'ni e:* occurs at the end of the English phrase. Thus, it occurs at the sentence boundary of the English constituent. In contrast, tag-switching is realized by uttering a tag or a fixed phrase from either language into the other one. Youssef (2016) gave an example from the data he collected for his study, as in the use of *istaghfarullah-al' az̲i:m* (God forbid) in the sentence "We as audience imagine the actors as go::ds. (.) *istaghfarullah-al' az̲i:m.*" (p. 11). He explained that in Cairene Arabic, such fixed phrases are used to "fulfill an exclamatory or phatic function". In the previous example *istaghfarullah-al' az̲i:m* satisfies the exclamatory function. The last syntactic pattern Poplack introduced is the intrasentential pattern. This pattern occurs when CS is realized in the same constituent phrase and the code-switched lexical item(s) is governed by the syntactic rules of both languages. Poplack (1980) gave the following code-switched intrasentential example "Why make Carol SENTARSE ATRAS PA' QUE (sit in the back so) everybody has to move PA' QUE SE SALGA (for her to get out)?" (p. 589). In this example, she hypothesized that the code-switched Spanish lexical items conformed to the syntactic rules of English as well as those of Spanish since in either language this constituent phrase will be articulated in the same syntactic structure. In addition, Mohammed, Hameed and Yasin's (2015) in their examination of informal Iraqi dialect-English CS introduces numerous examples that explain Poplack's concept of intrasentential CS. One of these examples was "ishtarait *tire* jadeed li seiyarati Besabab *tire* kadeem fihi *puncture"* - the researchers provided the following translation "because the old ***tire*** has ***puncture*** I bought new ***tire***" for this code-switched instance (p. 201).

According to them, their participants switched to English while maintaining the grammatical structure of their Iraqi dialect by inserting single-word switched noun *tire* twice in the correct allocation as well as using the noun *puncture* in prepositional phrase "*fihi* puncture."



a. Inter-sentential switching b. 'tag'-switching c. Intra-sentential switching

Figure 1. Representation of code-switching grammars (reproduced from Poplack 1980:615)

In their study of Puerto Rican Spanish-English CS, Sankoff and Poplack (1981) investigated CS syntactic features by applying the free morpheme and equivalence constraints. Their focus was mainly on syntactic features of CS, how bilinguals produce them and if the shift from one grammatical system to another is apparent. Sankoff and Poplack used data which Poplack collected in an earlier study consisting of recording 20 participants in order to reexamine it within a syntactic framework. The participants were Puerto Ricans and ranged from those having an even knowledge of both Spanish and English to those more fluent in Spanish. To check the credibility of the code-switched instances Sankoff and Poplack (1981) gathered, they examined these instances against "speech samples of a Puerto Rican bilingual speaker" (p. 9) in order to provide a comprehensible view of how the grammars of both languages are realized. Their findings indicated that a new grammatical system emerged when the "lexicon of the two mono-lingual grammars" is merged into one (p.16). One of the several rules they presented is $VP^{sp:v} \rightarrow V^{sp:v}\ ADV^{sp:v}$ where VP stands for verb phrase, V and v for verb, ADV for adverb and sp for Spanish (p. 18). According to Sankoff and Poplack (1981), a constituent phrase is realized by a Spanish verb and an adverb which is either provided by Spanish or English. In the following example they provided, "Uno no pedia comer carne [we couldn't eat meat] *every day*. (S.L./20)", the VP *couldn't eat meat* is

realized in Spanish while the ADV *every day* is provided in English. Thus, providing two different lexical categories from two different languages in the previous example, sustain the viability of the above-mentioned rule. Nonetheless, they mentioned that further research must be done to examine the universality of the free morpheme and equivalence constraints specifically on intrasentential CS between languages that do not have the same word order.

In recent years, researchers' interest in syntactic aspects of CS grew. Several studies examined intrasentential CS patterns by looking into code-switched instances between English and diverse languages. Among these studies are Koban (2013) and Mohammed, Hameed and Yasin's (2015) studies which examined Turkish/English and informal Iraqi dialect/English CS, respectively. In her study, Koban (2013) applied Poplack's intersentential and intrasentential switching on her data to examine CS utterances "in the speech of first and second generation Turkish-English bilingual adults" living in the United States of America (p. 1174). She collected her data by tape-recording face-to-face interviews with 20 Turkish-English bilinguals. Koban mentioned that the aim of her study was to examine both intersentential and intrasentential CS. According to her, intersentential CS is realized "by a switch from one language variety to another outside the sentence or the clause level", while intrasentential CS occurs "at the clause, phrase, or word level." (Koban, 2013, p. 1175). In her findings, Koban argued that utterances as "Onun için çok böyle birkaç ay çok rahatsız ol-du-m okul-da. *There was almost communication."* which is translated to "Therefore, I felt very uncomfortable for a few months when I was at school. There was almost no communication." are considered intersentential CS for the switch occurs with a shift from the first sentence in Turkish to the second sentence in English. On the other hand, she explained that intrasentential utterances like "Yani o da böyle *coincidence* gibi birşey", which the researcher translated to "I mean it was like a coincidence", do not violate the grammars of neither

Turkish nor English for the English code-switched lexical item *coincidence* is realized in the same position of its -would have been - Turkish counterpart. Koban concluded that second-generation speakers produce more intrasentential utterances than intersentential utterances. She attributed this to the participants' proficiency level in both Turkish and English. This entailed that in order to produce such phrases, the bilingual interlocutor must be knowledgeable in both languages' grammatical systems.

2.4.2 Matrix Language Frame Model

The Matrix Language Frame model (MLF model) was introduced by Myers-Scotton (1993) to examine the syntactic aspects of CS produced by bilingual interlocutors. Myers-Scotton proposed that there are two languages in a bilingual's speech. The first language is the matrix language which is the dominant language in code-switched utterances. The other language is the minor/embedded language which is the language that a bilingual switches to in his/her speech. In a later study, Myers-Scotton (2001) revised her model and identified matrix language as the "abstract frame" supplying the grammatical construction, mainly the morphosyntactic frame, of the constituent phrase. In the MLF model, the matrix language supplies the system morphemes which are the lexical items that provide the morphosyntactic frame of the constituent phrases. These include inflections, "quantifiers, determiners, and possessive adjectives" (Myers-Scotton, 1993, p. 100). The embedded language, on the other hand, provides the content morphemes that convey "semantic meaning" to the rest of the morphosyntactic phrase of the constituent phrase. These include verbs, nouns, pronouns, prepositions, and adjectives (Myers-Scotton, 1993, pp. 100-101). Myers-Scotton (1993, 2001) provided numerous examples to explain the notions of matrix and embedded languages as well as system and content morphemes. The following example "It's only essential services *amba-zo zi-na*-function right now.", which is translated as "'It's only

essential services that function right now.'", is a Swahili-English code-switched utterance (Myers-Scotton, 1993, p. 130). According to Myers-Scotton analysis, the matrix language in this example is Swahili even though it only provides two lexical items. This can be attributed to the fact that in her MLF model Myers-Scotton argued that the matrix language provides all system morphemes as in relativizer *amba-zo* (which) and tense-aspect relation in *zi-na* which provides the present tense of the sentence in the previous example, while the embedded language provides content morphemes as in pronoun *It,* adjective *essential,* and noun *services.*

In addition to her MLF model, Myers-Scotton (1993) introduced two principles under the MLF model to test the nature of the code-switched lexical items whether they are free or bound morphemes. These two principles are the system morpheme principle and the morpheme order principle. The system morpheme principle hypothesizes that in a code-switched constituent all system morphemes will come from the matrix language. Example (2) is a code-switched instance between Yoruba and English (Oloruntoba, as cited in Myesr-Scotton, 1993, p. 108). This example sheds light on the system morpheme principle. All system morphemes in *ni* (copular verb), complementizer *ti* (that), and pronouns *o* (it) and *mo* (I) are being supplied by Yoruba. Likewise, the preposition *to* and pronoun *me* are also system morphemes that are being provided by English. An explanation of such an occurrence can be driven from Myers-Scotton's MLF model in which she argued that a given embedded language can provide both system and content morphemes, but only the matrix language provides system morphemes. Thus, following her line of reasoning, since Yoruba in this example is the sole provider of system morphemes it is considered the matrix language, while English is the embedded language since it provides the content morphemes in verb phrase *come naturally to me.*

(2) Awon nakan ti o *come naturally to me* ni mo *like*

those things that it is I like

'I like those things that come naturally to me.'

The morpheme order principle, on the other hand, states that only one embedded language lexeme and any number of matrix language morphemes appear in any given code-switched constituent. Example (3) is taken from the Chinese-English corpus (as cited in Myers-Scotton & Jake, 2001). Chinese in this example is the matrix language since it supplies the system morphemes in pronoun *wo* (I) and adverbs *hao* (quite) and *yixia* (once). While English is the embedded language for it supplies the content morphemes in noun *reference* and the verb *check*. These content morphemes confirm the morpheme order principle hypothesis that a sole embedded language lexeme appears in a code-switched constituent phrase. In this case *reference* and *check* appear in two separate constituent phrases which contain several matrix langauge morphemes.

(3) wo you hao [ji-tiao **reference**] [yao **check** yixia]

I have quite a few-CL reference must check once

"I must check quite a few references."

Numerous studies have applied the MLF model to code-switched verbal data in order to test its universality and investigate the morphosyntactic frame supplied by the matrix language. Among these studies are Bader and Minnis (2000) and Deuchar's (2006) studies in which researchers depended on gathering conversational data. While Bader and Minnis gathered their data, for a span of seven months, from an Arabic-English bilingual child aged four years old, Deuchar collected five hours of 11 conversations between 30 Welsh-English bilinguals. As mentioned earlier these studies were carried out to examine morphosyntactic elements of CS. Thus, Bader and Minnis (2000) investigated morphological and syntactic switching in their participants' utterances. For the morphological switching they looked into Arabic definite article *il-* (the) and

preposition *bi-* (in) that are affixed to English nouns. They mentioned that in certain occasions the definite article *il-* and preposition *bi-* are contracted to *bil* in formal speech as in the case of Example (4) (Bader & Minnis, 2000, p. 390). Since system morphemes are realized by the contracted Arabic definite article and preposition *bil* and content morphemes are realized by the English noun *jail* in this constituent phrase, Bader and Minnis concluded that Arabic is the Matrix language, while English is the embedded language. In addition, their findings presented the different affixes which are realized with either Arabic or English lexical item as the case of how *bil* is affixed to the noun *jail*.

(4) *taʕaal biddi ʔahuTTak bil*-jail

come I-want put-you in-the

'Come, I want to put you in the jail.' (said jokingly to his father)

Studies investigating CS did not only look into morpheme affixation, but also examined the role of subject-verb agreement in determining the matrix language. Deuchar's (2006) study examined how finite verbs and clitics, in the absence of the former, help in identifying system morphemes; hence, the matrix language. Example (5) is one of numerous examples she gave to support her claims. In this example, Deuchar (2006) argues that second-person clitic *ti'n* (you're) is a system morpheme, supplied by Welsh, where the verb *n* agrees with the subject *ti* (p. 1999). Thus, according to her, Welsh is proven to be the matrix language.

(5) o ti'n **gorgeous**

oh PRON.3S-PRT gorgeous

'Oh you're gorgeous'

In addition to the above-mentioned studies that looked into CS from a syntactic perspective by applying Myers-Scotton's MLF model, a study was carried out by Bassiouney (2009) to

investigate ECA and Modern Standard Arabic (MSA) CS in the diglossic community of each by applying Myers-Scotton's model to 30 hours of oral production that "consisted of mosque sermons, university lectures and political speeches." (p. 43).

In her findings Bassiouney stated that there were occurrences of mixed lexical items provided by both ECA and MSA as in (a) ECA negative marker and MSA verbs, (b) ECA demonstrative marker and MSA nouns, and (c) ECA aspectual marker (*b*-prefix) and MSA verbs. Bassiouney (2009) argued that in certain examples ECA and MSA were both classified as the matrix language since they supplied system morphemes as in the following example *ha:ða k-kala:m laysa ka:fiyan* which she translated to (This kind of thing is not enough). In this utterance MSA supplied the system morphemes *ha:ða*, *laysa*, and -an as a case marker, while ECA supplied the system morpheme *k*- which is an "assimilated definite article (p. 48).

Bassiouney concluded that Myers-Scotton did not develop her model in a way that allows researchers to investigate diglossia since diglossic CS is more complex in nature, especially since in her case study, it was difficult to decide whether certain morphemes were provided by ECA or MSA like the *il*- definite article. She concludes that Arabic diglossia might not be suitable to be examined applying by Myers-Scotton MLF model. In addition, Bassiouney postulated that the MLF model is best used with languages that have different morpheme systems like Arabic and English.

Thus, studies were carried out to investigate the universality of the MLF mode in which the model proved to be applicable to different sets of languages as have been discussed earlier in this section. It is noteworthy that other studies have looked into how the grammars of two different languages are integrated to form a coherent unit which enables the bilinguals, whether intentionally or not, to provide grammatical code-switched utterances. Thus, the next section provides an

explanation and analysis of few studies that dealt with this issue.

2.4.3 Arabic-English/French Code-switching Syntactic Studies

This section will discuss studies which examined code-switched instances between Arabic and either English or French from a syntactic point view. An examination of how two different language grammatical systems are integrated into a unified system through the process of CS is presented (Bentahila & Davies, 1983; Eid, 1992; Ziamari ,2007).

One of the earliest studies that looked into Moroccan Arabic-French CS was carried out by Bentahila and Davies (1983). The aim of this study was to examine the grammatical structure of CS within "syntactic units" (Bentahila & Davies, 1983, p. 304). Bentahila and Davies based their study on a compiled corpus by recording seven and a half hours of naturally spoken discourse in which the participants were unaware that their conversations were being recorded. They looked into code-switched occurrences in declarative, interrogative, and adverbial clauses. However, their main concern was investigating verbal behavior in code-switched utterances and how the switching is realized in noun and prepositional phrases as well as how it occurs with Arabic inflections. Example (6) shows an example from Bentahila and Davies's (1983) corpus where Arabic inflectional morpheme *j* is affixed to French code-switched infinitive verb *fonctionner* (p. 315).

(6) mbqaš j *fonctionner*

'it stopped imperfect – *work* (it stopped working)'

In addition to looking into Arabic inflectional morphemes occurring with French infinitive verbs, Bentahila and Davies argued that Arabic verbs and adjectives appear in plural forms with French plural subjects and nouns, respectively. In example (7), the Moroccan Arabic adjective *zdad* (new), in the plural form, agrees in number with the plural noun *deux cents wagons* (p. 317)

(7) deux cents wagons zdad

‘two hundred carriages new’

By examining how CS occurs in different environments in Moroccan Arabic-French utterances, Bentahila and Davies (1983) provided the following grammatical constraint to govern such code-switched instances: “All items must be used in such a way as to satisfy the (language-particular) subcategorization restrictions imposed on them.” (p. 329). In other words, CS is realized in all sentence boundaries if it does not violate the grammars of both languages.

Investigating syntactic structures of verb insertions still intrigue researchers. Long after Bentahila and Davies (1983) conducted their study, Ziamari (2007) looked at verb and noun insertions in Moroccan Arabic-French CS by applying Myers-Scotton MLF model. Similar to Bentahila and Davies’s method of compiling their own corpus, Ziamari compiled her own corpus by recording 11 hours of conversations between male and female students in formal and informal settings. However, Ziamari recorded and compiled her corpus in a span of three year. Thus, her study is characterized as being longitudinal in nature.

After compiling her corpus, Ziamari looked into verb and noun insertions in code-switched utterances by assuming that the matrix language is Moroccan Arabic and the embedded language is French. She argued that French verbs are inflected with Arabic morphemes as in example (8) in which French verb *atteindre* is inserted in the Moroccan Arabic clause and inflected with prefix morpheme *t* (will) and suffix morpheme *i-h* (it).

(8) γ*a* *t*atend*i-h*
going 3rd sg. fem. imperfect “atteindre”
“She will attain it”

Moreover, she noticed that when noun insertions occurred, they were usually accompanied by French definite articles which she stated have been proved in previous studies. In addition to

the use of French definite articles, she noticed that her data yielded instances when French indefinite articles and possessives occur with nouns as in "*had* mon genre" in which French possessive pronoun *mon* (mine) preceded the noun *genre* (Ziamari, 2007, p. 283). Through her examination, Ziamari concluded that male participants are more inclined to use verb insertions, while female participants are more innovative in their use of indefinite articles and possessives in code-switched noun insertions.

Apart from studies that looked into code-switched syntactic boundaries and verb and noun insertions, a study was conducted by Eid (1992) to examine how CS is realized at the clause level. She looked into Arabic-English CS by collecting her data from six Egyptian-Americans through tape-recording five hours of naturally occurring conversation between two to three participants at a time. One of the aspects of CS that she investigated was how pronoun doubling is apparent in code-switched instances. Eid argued that a pronoun doubling is realized when the same pronoun is uttered twice, once in the first language and once in the second language. According to her findings, participants double their pronouns in main and embedded clauses for two reasons. The first reason is that a subject pronoun is doubled to occur in the same language that provides the main verb, as in "Fa hiyya (so she) she PSYCHOLOGICALLY SHE'S IN EGYPT." (Eid, 1992, p. 59). The second reason is that the doubled pronoun is uttered in the English code-switched constituent phrase to reflect the gender, number, and person of the Arabic verb, in this case the repetition of the English pronoun *she* reflects the gender and number of the Arabic subject *hiyya* as a singular feminine subject.

The above-mentioned studies offer an overview of how syntactically CS can be examined through investigating the grammatical position of the code-switched items as well as providing a syntactic explanation for such occurrences. The current study aims at analyzing and explaining the

syntactic categories of code-switched constituent phrases, whether they are noun phrases, verb phrases, or some other category, by applying Muysken's typology.

2.5 Muysken's Typology

The theoretical framework presented in this section is the approach that will be applied to analyze the collected verbal data from AUC undergraduate students. Muysken (1997, 2000) has proposed a structural approach where he introduced a typology of three syntactic patterns, (a) insertion, (b) alternation, and (c) congruent lexicalization. He argued that each one of these structural patterns corresponds to (a) Myers-Scotton's MLF model, (b) Poplack's equivalence constrain, and (c) Labov's (1972) work on CS, respectively.

2.5.1 Insertion

Muysken (2000) stated that the insertion typology he is proposing is equivalent to Myers-Scotton's MLF model, in which CS instances occur in the frame of a matrix language. Although, Myers-Scotton considered CS and lexical borrowing as the same notion, Muysken argued that they are in fact two separate notions. His rationale was based on the fact that when insertion occurs in a code-switched constituent, it is in the form of a lexically borrowed item whether it is one lexical item or more than one (Muysken, 2000, p.3). He defined a constituent as "any syntactic unit [whether it is] a lexical item …, or a phrase" (Muysken, 2000, p. 61). In addition, he argued that an inserted lexical item is considered as a constituent as in example (9) taken from Myers-Scotton's (1993) study (as cited in Muysken, 2000, p. 62). This example shows that the English phrase *wash all the clothes* is considered a verb phrase constituent even though *wash* is inflected with Swahili prefixes "Ni-ka-".

(9) Ni-ka-*wash all the clothes.*

lsg-PST-wash all the clothes

'I washed all the clothes.'

However, in his book, Muysken (2000) stated that according to Haugen (as cited in Muysken, 2000) nouns are the most borrowed lexical item in insertion patterns; hence, Muysken's view that insertion occurs in "constituent-internal" structures. Example (10) shows that the French noun *bijouteries* is a borrowed lexical item which is inserted in the internal Dutch constituent phrase "Je hebt *bijouteries*"

(10) Je hebt *bijouteries,* je hebt kleren.

'You have /jewellery/, you have clothes.'

(Muysken, 2000, p. 70). A close examination of example (10) shows that nouns appear in "a nested a b a structure", as Muysken (2000) suggested (p. 63). Thus, the French noun *bijouteries* occurs between Dutch constituent phrases "Je hebt" and "je hebt kleren". In addition, nouns are characterized as being content words that add semantic meanings to phrases which leads us to link Muysken's insertion pattern to Myers-Scotton's MLF model since the latter has argued that (a) CS occurs intrasententially in constituent phrases and (b) code-switched lexical items are provided by content morphemes where nouns are endowed as such.

2.5.2 Alternation

The second typology Muysken (2000) introduced is alternation. He argued that it departs from Poplack's equivalence constraint in which CS is realized in the same constituent phrase with no violation of the grammatical structure of both languages (Poplack, 1980, p. 586; Muysken, 2000, p.4) (See section 2.4.1). Muysken postulated that switching occurs in separate constituents with one constituent appearing in one language while the other appearing in another language. Unlike insertion that is realized with a single lexical item, alternation code-switched constituents consist of several lexical items. These items can occur at either the beginning/end of another

language constituent or it can occur between two constituents of another language. However, the crucial element that defines alternation is the fact that the code-switched CP does not syntactically fit within the other constituents.

(11) Nous on parle francais le flamand *en de hele boel.*

'We speak French, Flemish/and all the rest.'

Example (11) taken from a study by Treffers-Daller (as cited in Muysken, 2000, p. 100) provides an explanation of such an alternation pattern in which the Dutch code-switched conjunction constituent *en de hele boel* occurs as a stand-alone constituent following the French constituent "Nous on parle francais le flamand" and showing no sign of syntactically agreeing with it. Thus, example (11) conforms to Poplack's equivalence constraint which indicates that CS can occur in longer constituents with each language constituent behaving syntactically different, i.e. conforming to its own grammatical rules.

2.5.3 Congruent Lexicalization

The last of Muysken's typology is congruent lexicalization which is based on variational shifting in language style occurring in spoken discourse (Muysken, 2000, p.4). Muysken argued that congruent lexicalization is similar to Labov's (1972) study on language variation and change since both notions examine style variations. However, while Labov (1972) looked into phonological variation and did not consider it as a code-mixing process, Muysken investigated syntactic variation in spoken discourse and termed it code-mixing. Muysken (2000) suggested that switches in congruent lexicalization form when two languages "share the grammatical structure of the sentence, [whether] fully or in part." (p.122). These switches are characterized by being "back-and-forth switches" which can reoccur in any part of the phrase (Muysken, 2000, p.132). In addition, since in congruent lexicalization no language is more dominant than the other, as in the

case of insertion, functional lexical items like articles and pronouns and content lexical items like nouns and verbs are both used in code-switched instances.

Muysken argued that for switched lexical items to be viewed as congruent lexicalization the two languages utilized must show a certain degree of similarity. They can (a) share the same grammatical system and lexicon as in the case of one language that has several dialects or (b) be two different languages that either share a similar grammatical system and a different lexicon or share a similar lexicon but a different grammatical system. The first option relates to Labov's notion of phonological variation and how one language can have more than one phonological variation. Muysken has built upon this concept and postulated that variation can occur syntactically in spoken discourse and be regarded as code-mixing.

In his work, Muysken (2000) provided numerous examples that explain how speakers of two similar languages in either their grammatical systems or lexicons produce congruent lexicalization utterances. Example (12) is taken from a study by Moyer (as cited in Muysken, 2000, p. 146) which looked into another two similar languages, Spanish and English. In this example there is an element of back-and-forth switches between Spanish and English. The speaker changes the produced utterance from Spanish to English then back to Spanish and finish it in English. Thus, satisfying the main criteria of congruent lexicalization typology.

(12) Yo no comprendo como un gobierno *can allow* una cosa asi *to happen.*

'I do not understand how a government / can allow / a thing like that /

to happen.'

Another similar pair where congruent lexicalization might be realized is ECA and English for they share the same grammatical system of subject-verb-object order. However, this claim cannot be sustained until actual data analysis commence and findings have been drawn.

In any case, it is apparent from the above analysis that Muysken managed to formulate his own concept of syntactic language variation by basing his congruent lexicalization typology on Labov's (1972) concept of phonological variation in the English language and identifying this variation as code-mixing - which is the term he adopted in his work.

2.5.4 Conclusion

Studies that investigated Muysken's typology aimed at applying them to previously collected data like the study conducted by Green & Wei (2014) which examined the cognitive control processes of CS that drive insertion and alternation patterns. Green and Wei provided examples in their study that have been collected previously by Gardner-Chloros, Muysken, Nortier, and Wei (as cited in Green and Wei, 2014). Moreover, another study carried out by Deuchar, Muysken and Wang (2007) aimed to test Muysken's typology "on specific date sets" concerned with bilinguals' speech. Their data ranged from Welsh-English to Taiwanese-Mandarin Chinese CS that the authors previously collected to conduct a previous study.

To conclude, based on the previously discussed literature review, it is apparent that few studies applied Muysken's typology and the researcher, to the best of her knowledge, was unable to locate any studies where ECA-English CS was analyzed using Muysken's typology; hence, the need for conducting the current study in order to fill this gap in literature. Thus, the current study aimed to apply and test Muysken's typology on collected ECA-English CS verbal data from AUC undergraduate and graduate students to gain a first-hand knowledge of which structural pattern, insertion, alternation, or congruent lexicalization, is apparent in code-switched utterances. It also intended to relate Muysken's typology to the work conducted by Poplack (1980) and Myers-Scotton (1993) on CS. In addition, the study also aimed at identifying if one of these patterns was more dominant than the other two.

Chapter Three
Methodology

3.1 Introduction

This chapter introduces the research methodology adopted in the present study to answer the research questions. The chapter begins with the research design, followed by a description of participants involved in the study. Then, a detailed description of instruments followed by data collection procedures and methods of data analysis is presented. The chapter ends with a brief discussion of a sample analysis collected from a pilot study conducted by the researcher prior to the actual data collection procedures.

3.2 Research Design

The design of the current study was of a descriptive exploratory nature, as the main purpose of the study was to provide answers to the research questions. The data was analyzed using the linguistic analysis method. Textual analysis of the data was implemented on the transcribed spoken discourse whether it was provided by classroom observations or in-depth interviews.

3.3 Participants

The participants involved in this study were AUC undergraduate students taking English classes held at the Department of English Language Instruction (ELI) and AUC graduate students enrolled in master's degree programs. Undergraduate students enrolled in ELI classes did not receive the expected grade on the proficiency test that qualifies them to start their major immediately. The undergraduate participants' level of proficiency in English varied depending on whether they were enrolled in the intermediate or advanced level in the Intensive Academic English Program – which is one of the programs offered by ELI. Based on the piloting study the researcher conducted by observing one of the ELI classes before data collection procedures

commence, it was noted that several of the students in this program were using their bilingual knowledge of ECA and English to code-switch between the two languages, specifically when they were engaged in pair and group work. Classroom observations ranged from four to five classes in order to record a substantial amount of data that is needed to answer the research questions. As for AUC graduate students, they were chosen based on a convenience sample and were asked to volunteer in an in-depth interview. They will be interviewed in focus groups of three students. The aim was to gather between one and a half hours to two hours of verbal data. Thus, the number of participants will weaver between 9 to 12.

3.4 Instruments

An audio-recorder was used to record classroom sessions to obtain the verbal data needed for the current study. Before audio-recording these sessions, permission of the Institutional Review Board (IRB) was acquired as the data was collected from human subjects. After receiving the IRB approval, instructors were approached to get their permission to observe their classrooms and audio-record them. After conducting the classroom observations, verbal data was collected through conducting in-depth interviews. Verbal data collected from these interviews served in comparing it against data collected from classroom observations in order to provide answers to the third research question.

The in-depth interview was conducted with three students in a small focus group (Appendix A). At the beginning of the interview, participants' permission was obtained by having them sign a consent from. The interview took about 20-35 minutes. The interview was conducted in ECA and English by altering the language use while asking the questions. At the start of each interview the participant was given a demographic questionnaire to answer in order to gain knowledge of their age, educational background, and their (personal) opinion regarding their level of proficiency

in English (Appendix B). It should be mentioned that conducting in-depth interviews was not the researcher's first choice. The intention was to recruit undergraduate volunteers from the classroom sessions that were observed. A few students volunteered but unfortunately, they did not show up for the interviews. Thus, other measures needed to be taken and a convenience sample of graduate students at AUC was chosen to participate in the in-depth interviews.

3.5 Data Collection Procedures and Methods of Data Analysis

First phase of the data collection procedure was collecting verbal data by observing classroom sessions and audio-recording them. The data was transcribed using the International Phonetic Alphabet (IPA) and translated into English. The IPA was adopted in this paper "for [it represents] all the possible sounds of the world's languages." (Ladefoged, 1990, p. 550). Hence, the easiness of transcribing ECA lexical items which in turn will make the transcribed data easily readable by those who do not possess any knowledge of ECA. In the transcribed data, English lexical items will be underlined, and Arabic lexical items will be in italics.

Graduate students were approached and asked if they can volunteer in an in-depth interview and answer a demographic questionnaire (See section 3.4). The in-depth interviews were audio-recorded, transcribed using IPA, and translated as well. Those parts that did not affect pattern choice were omitted from larger utterances. Then, the two sets of data were compared to explore and identify the similarities and/or differences in terms of code-switched structural patterns used and morphosyntactic features utilized.

Further examples that support the study's findings are provided in appendices C and D. The former shows categorized examples in context from the classroom setting. While the latter shows other examples that were longer in nature. These examples in appendix D have been color coded through highlighting to reflect each of the three patterns. The color-coding system is as

follows: (a) insertion in yellow, (b) alternation in green, and (c) congruent lexicalization in turquoise. In addition, ECA morphemes inflected to English nouns have been highlighted in purple.

3.5.1 Muysken's Analytical System

The collected data was analyzed by implementing a syntactic approach following Muysken's (1997, 2000) typology (See section 2.5 for further discussion). Muysken introduced three patterns in his analytical system, *insertion*, *alternation*, and *congruent lexicalization*. Insertion deals with lexical items from a specific language that are inserted in a structural pattern of another language. Alternation occurs when lexical items from two languages are being uttered simultaneously in the same constituent phrase without having any syntactic relation. Contrary to alternation, lexical items from the two languages share one constituent phrase in which they follow the grammatical structure of the phrase. As such, code-switched utterances were identified according to each given pattern by presenting them in context, whenever appropriate.

Concurrently, Muysken's analytical pattern was related to the work of Poplack (1980) and Myers-Scotton (1993). According to Muysken, his insertion and alternation patterns are similar in nature to Myers-Scotton's MLF model and Poplack's equivalence constraint, respectively.

3.6 Sample analysis

By using Muysken's approach, the researcher was able to apply his structural patterns to a sample data which was collected from one of the classes held by the English Language Instruction department. The topic being discussed during this class was academic writing on social media issues. Appendix E shows code-switched instances gleaned from the pilot sample before transcribing the data while appendix F shows the transcribed glossed translated examples of these instances. The sample data in appendix E was collected as part of a pilot study conducted to check

the reliability of the classroom observational process.

Example (13) shows a clear pattern of insertion in which the code-switched lexical items are provided by the English language. Both the noun (N) *writing* and the noun phrase (NP) *social media* are lexically borrowed items that fit in the syntactic structure of the Arabic constituent phrases. They are both preceded by the definite article *il-* (the) and occur in the final position of the constituent phrase each is realized in. Since the class discussion was on how to academically write and report on a social media issue, the student used her bilingual knowledge to borrow loan words from her English repertoire and insert them in her Arabic constituent phrase.

(13) *bas da-h mohəm ʕaʃaʃan il-*writing *ħatkɔːn ʕala il-*social media.

But this is important for the writing will be on the social media.

The following example, example (14), is another case of insertion as well as an alternation pattern. In this example, the student code-switches to English by alternating between Arabic and English constituent phrases which is in the form of the constituent phrase *I don't think.* According to Muysken (2000), alternation occurs when two different language structures are present in the same sentence although they are not structurally related but share the same length. This constituent phrase is not complete in form; however, it has the same length and the same meaning of the Arabic constituent phrase that precedes it. Thus, alternation pattern criterion is satisfied in this sentence. With regard to the insertion pattern in this example, there are two code switched verb phrases (VPs) which are structurally embedded in the Arabic constituent phrases. The first VP *to beat her up* is a fixed phrasal verb expression that the student retrieved from her English lexical repertoire, while the second VP consists of borrowed loan words that she used to finish up her Arabic constituent phrase.

(14) *məʃ ʕaɾʃah* I don't think ... [pause] *ʔənɔ hɔwa to beat her up* [pause] *ʃa-ʔakarar*

ʔɘnɔ ʔana accept this.

I don’t think that if he beats her up I will decide that I should accept this.

The syntactic analysis of the verbal data collected for this study followed the same line of analysis as in the above examples to answer the research questions.

Chapter Four
Results and Discussion

4.1 Introduction

The current study aimed to investigate the structural patterns of ECA-English CS by applying Muysken's typology (1997, 2000). The study also looked into morphosyntactic aspects which were realized in these code-switched patterns. Finally, it compared and contrasted CS structural patterns in the domains of classroom and interviews to check if they show any similarities or differences in use. A linguistic analysis was conducted to provide answers to the research questions. This chapter presents the results and findings of the study with regard to each research question. The first section reports on ECA-English CS structural patterns used by students through analyzing the data collected from undergraduate and graduate AUC students by conducting classroom observations and in-depth interviews, respectively. The second section provides a linguistic analysis of the morphosyntactic features used with code-switched patterns in both settings. The third section reports on the similarities and differences in the use of structural patterns in the domains of classroom and interviews by comparing the patterns that were present in classroom observations and in-depth interviews, respectively.

4.2 Structural Patterns in ECA-English CS

This section attempts to answer the first research question which investigates the structural patterns of ECA-English CS by looking into and analyzing produced utterances by AUC undergraduate and graduate students. The first section provides a frequency count of used utterances in the classroom observations setting. The second section provides a linguistic analysis of the findings in the setting of classroom observations based on investigating the patterns according to Muysken's (1997, 2000) typology whether it is insertion, alternation, or congruent lexicalization. The findings are related to the work of Myers-Scotton's MLF model (1993) and

Poplack's (1980) equivalence constraint. The third section provides an analysis of two types of utterances present in classroom observation data, (a) those that appear in context containing two patterns of Muysken's typology in different intervals, and (b) analytically ambiguous utterances that can be analyzed according to not only one pattern but to two of Muysken's patterns. In the second type of utterances, the two patterns will be explained, compared and contrasted against one another, after which the researcher will state her own preference for analysis and validate her rationale for choosing this preference. As for the fourth section, it provides a detailed linguistic analysis of verbal data collected from the in-depth interviews collectively.

4.2.1 Frequency of Structural Patterns

As the main aim of the study was to examine the structural patterns of code-switched utterances in the speech of AUC undergraduate students, the data was collected by audio-recording English classes held at the ELI department. A total of three classes were audio-recorded. One of the classes was recorded twice as two instructors were teaching this class at different timings. The number of instructors whose classes were observed was four, three non-native Egyptian speakers and one native speaker. The number of students combined in the four audio-recorded sessions was 54 students, two of whom were disregarded, a female student from the gulf area and a male student from African origin, as the data was meant to be collected from Egyptian students only. Table 1, below, shows (a) the duration of each session, (b) the number of students in each session, and (c) the number of students producing the code-switched utterances. It also provides the number of the most prominent structural patterns, insertion, alternation, congruent lexicalization, mixed patterns, or complex patterns noticed in each of these sessions.

Table 1
Structural Patterns in Classroom Observations

Session	Duration (in minutes)	No. of Ss	Actual Participants	Structural patterns				
				I	A	CL	MP	CP
1	41	13	5	5	2	2	1	0
2	50	14	5	7	3	1	1	1
3	20	12	4	9	0	1	0	1
4	54	13	5	3	1	0	1	0

Note. No. = number; Ss = Students; I = insertion; A = Alternation; CL = congruent lexicalization; MP= mixed patterns; CP= complex patterns

Table 1 also shows two types of patterns, mixed patterns and complex patterns. The former, are different patterns that occur at the same speech event, while the latter are patterns that could be analyzed based on two of Muysken's analytical systems. In addition, the frequency count in Table 1 indicates that not all students produced CS utterances. This might be due to the fact that not all students participated during classroom sessions. Thus, this could be explained with reference to their level of shyness and self-confidence to speak in front of their colleagues. This assumption is based on the researcher's own observation. Out of the total number of students in each class, only four to five students code-switched between ECA and English. Furthermore, a few of the students who actively participated in class did their best to speak in only English and were cautious to not utter any Arabic words, for they felt the need to practice the English language in a safe environment.

Table 2, below, shows the total number of code-switched utterances produced by AUC undergraduate students during classroom observations. It also indicates the number of female students as opposed to male students.

Table 2
Structural Patterns in Classroom Observations According to Gender

Structural Patterns	Total No. of CS utterances	Gender	
		Females	Males
Insertion	20	8	5
Alternation	4	3	1
CL	2	2	0
Mixed Patterns	3	2	2
Complex Patterns	2	2	0

Note. No. = number; CL = Congruent Lexicalization; CS = code-switched.

It is evident from Table 2 that insertion pattern was the most frequent pattern in all sessions at 20 utterances. While alternation and congruent lexicalization patterns stood at 4 and 2 utterances, respectively. For those who managed to code-switch, females code-switched slightly more than males in the insertion pattern with eight females producing 14 instances out of 20 occurrences of inserting ECA or English lexical items in main constituent phrases with one student using insertion in the same utterance five times (See example 20, section 4.2.2.1). Similarly, females produced three utterances, while males produced only one utterance in the alternation pattern. Female and male students tied at their use of mixed patterns more. The most difficult pattern of Muysken's typology, congruent lexicalization was produced by females at 2 utterances which is the case with complex patterns as well.

To reach conclusions regarding the above tabulated numbers, a linguistic analysis was conducted to investigate and identify the nature of the code-switched utterances. The following sections, 4.2.2, 4.2.3, and 4.2.2, elaborate on the findings and provide a discussion of the most

prominent code-switched utterances in the collected verbal data.

4.2.2 Structural Patterns in Classroom Observations with Undergraduate Students

4.2.2.1 Insertion

The insertion pattern, according to Muysken (1997, 2000), occurs when a bilingual code-switches between two languages in the same constituent phrase by inserting lexical items from one language into the grammar of another language. There were two insertion pattern types present in the current data, that of ECA lexical items appearing in English constituent phrases and English lexical items appearing in ECA constituent phrases.

A first look at the collected data indicated that the majority of the inserted lexical items came from ECA and only few items were supplied by English. However, as will be discussed briefly, contrary to the expected belief of the researcher, most of the code-switched lexical items are inserted in the main structure of English constituent phrases. This might be due to the fact that the data was collected from English for academic purposes classes where the medium of instruction is the English language.

4.2.2.1.1 ECA in English constituent phrases

The first insertion pattern type that prevailed in the data was that of ECA lexical items inserted in English constituent phrases. Examples (1) to (6) below provided by classroom observations, show a clear case of insertion according to Muysken's definition where lexical items, provided by one language, are embedded in another language structure constituent phrase, in our case ECA in English constituent phrases.

(1) Context: At the beginning of the lesson the instructor is checking who had started working on their upcoming assignment and who had not.

I: How many of you started in deadline four?

FUG1: I read my articles … and I highlighted the important things, but I didn't write it yet *il-sara:ħ-a*

(I read my articles … and I highlighted the important things, but frankly I didn't write it yet)

(2) Context: The instructor is telling the students how to paraphrase the article they will be using in their oral presentations. One of the students was recounting how she paraphrases the article.

FUG14: I paraphrased**ya*ʕni:*my words, *yaʕni:* what I'm gonna said in the presentation I wrote it … I paraphrasing *yaʕni: bas*yaʕni:* did the [incomprehensible English words] with that I'm going to say, *yaʕni:* I paraphrased the words.

(Well, I paraphrased what I am going to say in my presentation.)

(3) Context: The instructor is informing the students about when he will be meeting them in his office for individual conference. After writing the times on the whiteboard he realized that he had switched the days.

I: Actually, I think I've just switched.

MUG2: *ʔah ma*-I told you this, you told me no

(No matter what I told you, you kept saying no)

I: I am sorry!

(4) Context: The instructor took the students outside the classroom to sit in the plaza. The following prompts motivated the students' answers: what do you actually want to do next? He was trying to find out the topics they would love to cover in the upcoming lessons.

MUG11: Comic books

FUG10: e:h!

(WHAT!)

MUG11: *walla:hi:*, it's a good topic and it can be academic.

(Really! It's a good topic and it can be academic.)

[Few moments later, after a commotion form most of the students]

MUG11: *walla:hi:*, it can be academic.

(Really! It can be academic.)

(5) Context: The instructor and the students were discussing the PowerPoint presentations criteria.

FUG1: But the citation would be more than 10% of the grade.

I: [astonished] It'll be?

FUG1: Yes.

I: That is why you are printing this one. I don't need to see your citation list.

FUG1: I will not put it in the PowerPoint?

I: Exactly! You don't have that slide; you print it out and you give it to me.

FUG1: [overlapping] I will not put the slide [end of overlapping], *ʕalaʃan* last semester was more than 10% of the grade.

(Because last semester it was more than 10% of the grade.)

The above examples were not only analyzed by applying Muysken's typology but also by examining and analyzing them using Myers-Scotton's (1993) MLF model since Muysken related his insertion pattern to Myers-Scotton's model. He argued that his pattern followed the same line of reasoning as that of Myers-Scotton's model for both agreed that there is a main language in

which lexical items from another language are embedded/inserted into.

By analyzing the above examples, (1) to (5), using Muysken's insertion pattern and Myers-Scotton's MLF model it was clear that AUC undergraduate students utilized the usage of ECA discourse markers and conjunctions by inserting them in English constituent phrases. The most used ECA discourse marker by undergraduate students were *yaʕniː* (I mean, well) whose meaning differs depending on context. Other ECA discourse markers present in the study are *il-saraːħ-a* (frankly), *ʔah* (yes), exclamation word *ma* (expressing wonder), and adverbial *wallaːhiː* (really). The data also indicated the use of the conjunction *ʕalaʃan* (because) in an English constituent phrase.

Example (1), repeated below for convenience, showcases the first instance of an ECA discourse marker in *il-saraːħ-a* (frankly) which is considered by Fraser (1990) as a commentary pragmatic marker that "encode an entire message" (p.386).

(1) Context: At the beginning of the lesson the instructor is checking who had started working on their upcoming assignment and who had not.

I: How many of you started in deadline four?

FUG1: <u>I read my articles … and I highlighted the important things, but I didn't write it yet</u> *il-saraːħ-a*

(I read my articles … and I highlighted the important things, but frankly I didn't write it yet)

According to Fraser (1990) an interlocutor will use such a pragmatic marker to communicate a certain message. This ECA pragmatic marker *il-saraːħ-a* (frankly), has the function of admitting that the student has not started on her assignment yet. A syntactic examination of *il-saraːħ-a* (frankly) in this sentence shows that it acts like an adverb which agrees

with Fraser's (1990) notion that pragmatic discourse markers are supplied by different lexical categories, adverbials being one of these categories. This insertion of *il-saraːħ-a* coincided with Muysken's criterion of insertion pattern, which states that a lexical item from one language is inserted into the main constituent frame of another language. Thus, in example (1), it is the case that the ECA discourse marker *il-saraːħ-a* is inserted in the initial position of the English constituent phrase to convey a specific meaning to the hearer.

If we apply Myers-Scotton's (1993) MLF model to the code-switched utterance *I read my articles … and I highlighted the important things, but I didn't write it yet il-saraːḥ̩-a* in example (1) above, it is apparent that system morphemes are supplied by subject-verb agreement and tense/aspect in *I read*, *I highlighted*, *I didn't write*, possessive adjective *my*, conjunction *but*, and adverb *yet*. While content morphemes are supplied by pronouns *I*, and *it*, nouns *articles, things*, and descriptive adjective *important.* According to Myers-Scotton's model all system morphemes must be supplied by one language; it is the content morphemes that can be supplied by both matrix and embedded languages. Since in this utterance all the system morphemes are supplied by English, it is safe to assume that the matrix language is English with the insertion of ECA discourse marker *il-saraːħ-a* (frankly).

Example (2) provides more insight on ECA discourse marker *yaʕniː* (I mean, well) and its various meanings, the code-switched utterance in this example is repeated below for convenience.

(2) FUG14: I paraphrased**yaʕniː**my words, *yaʕniː* what I'm gonna said in the presentation I wrote it … I paraphrasing *yaʕniː bas*yaʕniː* did the [incomprehensible English words] with that I'm going to say, *yaʕniː* I paraphrased the words.

(Well, I paraphrased what I am going to say in my presentation.)

According to Ghobrial (1993), *yaʕni:* "would signal a continuation but with qualification of what has been mentioned." (p. 27). Ghobrial stated that *yaʕni:* has different meanings; it can mean (I mean) if it modifies or clarifies the previous utterance, or it can have the same meaning and function as the English discourse marker (well) (p. 45).

Thus, the above example gives more insight to the nature and function of ECA discourse marker *yaʕni:*. In the first instance *I paraphrased*yaʕni:*my words*, *yaʕni:* acts as a pause filler, while in the second and fifth instances *yaʕni: what I'm gonna said in the presentation I wrote it* and *yaʕni: I paraphrased the words*, respectively, it means well. As for the third and fourth instances *I paraphrasing yaʕni: bas*yaʕni: did the [incomprehensible English words] with that I'm going to say*, the meaning of *yaʕni:* is ambiguous since the constituent phrase *yaʕni:* and *bas*yaʕni:* occur in is incomplete. Hence, the difficulty to decide on a matrix and embedded language for this utterance. Although, in the fourth instance it might be considered as a pause filler since it was preceded by an actual pause. As such, the ECA discourse marker *yaʕni:* is inserted in the following English constituent phrases *I paraphrased*yaʕni:*my words,* and *yaʕni: what I'm gonna said in the presentation I wrote* it, and yaʕni: *I paraphrased the words*.

The insertion pattern in the above-mentioned utterances conforms to Myers-Scotton's MLF model since the system morphemes were supplied by English, like in subject-verb agreement and tense/aspects relations in I *paraphrased*, *I'm gonna*, and *I wrote*, in the use of determiner *the*, and possessive adjective *my*. Like example (1) above, content morphemes were supplied by English nouns in *presentation* and *words*. By analyzing example (2) from both Muysken and Myers-Scotton's perspectives, it is appropriate to postulate that this student resorted to use ECA *yaʕni:* as either a pause filler or as a discourse marker meaning (well) in her English constituent phrases

There were other occurrences of ECA discourse markers in examples (3) and (4), gleaned

from context and repeated below for convenience.

(3) MUG2: *ʔah ma-*I told you this, you told me no

(No matter what I told you, you kept saying no said no)

(4) MUG11: *wallaːhiː*, it's a good topic and it can be academic.

(Really! It's a good topic and it can be academic.)

[Few moments later, after a commotion form most of the students]

MUG11: *wallaːhiː*, it can be academic.

(Really! It can be academic.)

In example (3), MUG2 code-switched from ECA to English by uttering two ECA discourse markers, *ʔah* (yes) and exclamation word *ma-* followed by English constituent phrase *I told you this, you told me no*. When uttered together these two ECA discourse markers indicate a sense of wonder and assertion of what was previously mentioned by another interlocutor, particularly when they are being realized in the initial position of the English phrase. As such, ECA discourse markers, *ʔah* (yes) and exclamation word *ma-* were inserted in the English matrix language that was supplied by English system morphemes in subject-verb agreement and tense/aspect relation in *I told* and y*ou told*, respectively.

Similar to example (3), in example (4) above the two code-switched utterances *wallaːhiː! It's a good topic and it can be academic* and *wallaːhiː! It can be academic* start with ECA discourse marker *wallaːhiː* (really) in the initial position. This discourse marker is adverbial in nature and considered by Fraser (1990) as a commentary pragmatic marker (p. 388). Thus, *wallaːhiː* is inserted in these English constituent phrases according to Muysken's criteria and Myers-Scotton's MLF model. According to the latter's model, all the system morphemes in these two utterances are supplied by English in subject-verb agreement and tense/aspect relation in *it's* and *it can be*.

Contrary to the use of ECA discourse markers in the above examples, (1) to (4), in which they were treated as inserted ECA lexical items in the matrix language of English. In example (5), gleaned from context below for convenience, the code-switched utterance, ECA conjunction *ʕalaʃan* (because) was inserted in an English constituent phrase based on Muysken's criteria.

(5) FUG1: *ʕalaʃan* last semester was more than 10% of the grade.

(Because last semester it was more than 10% of the grade.)

However, this utterance cannot be analyzed using Myesr-Scotton's (1993) MLF model since ECA conjunction *ʕalaʃan* is treated as a system morpheme since it is a function word. Other system morphemes were supplied by English as copula *be* in *was*. In her model, Myers-Scotton indicated that system morphemes are supplied by one matrix language only, while content morphemes can be supplied by either the matrix language or embedded language.

In addition to applying Muysken's insertion pattern to the above-mentioned examples, Myers-Scoton's MLF model was applied to decide on the nature of the main language and embedded language in code-switched utterances. It was evident that there were two lexical categories that mainly determined the matrix language as English. These were subject-verb agreement and tense/aspect categories.

The subject-verb agreement category that was employed to determine the matrix language as English in the previous examples, examples (1) to (5), was also employed by Deuchar (2006) in her study of Welsh-English CS. In her results she indicated that Welsh is the matrix language because it offers the correct usage of subject-verb agreement. Although English is the common language between this study and Deuchar's study, the embedded language is different which proves that Myers-Scotton's MLF model is applicable to test different morphosyntactic frames provided by given matrix languages.

4.2.2.1.2 English in ECA constituent phrases

The second insertion type that presented itself in the data was English lexical items embedded in an ECA constituent phrase as in example (6).

(6) Context: The instructor was asking the students which study skills they wish to have more practice on.

I: What skills do you still need to improve?

FUG12: Reading

I: Okay! We can bring you readings to the class and listening.

FUG12: Listening, ʔəħna məʃ [sound trailed off]

(We are not [missing words] listening.)

I: Okay, so reading and listening

FUG12: *ʔaʔɔlaː-k, boš xaliː-ha* <u>reading</u>

(Tell you what, just reading)

This example shows that the English noun *reading* is inserted in the final position in the ECA constituent phrase *ʔaʔɔlaː-k, boš xaliː-ha* (tell you what), according to Muysken's insertion pattern.

In addition, due to the absence of ECA conjunctions and discourse markers applying Myers-Scotton's model to the above example was convenient. Following her model, the matrix language was determined by the ECA use of inflectional bound morphemes. The first utterance in this example *Listening, ʔəħna məʃ,* containing the free first-person plural pronoun allomorph *ʔəħna*, was disregarded from the analysis since it is an incomplete utterance and cannot be ascribed to a certain pattern. However, the second utterance contained two ECA suffixes, the *-k* (you) in *ʔaʔɔlaː-k* and *-ha* (it) in a*xaliː-ha* (let it). The former suffix *-k* (you) is a bound second person masculine singular pronoun, while the latter suffix *-ha* (it) is a bound third person feminine singular

pronoun. It is noticeable that these bound suffixes are ECA object pronouns in nature suffixed to the verbs in order to mark them for number and person. Thus, in this sense, they are system morphemes provided by the matrix language ECA, while the embedded language is provided by the English content morpheme *reading.*

4.2.2.2 Alternation

Alternation occurs when the two code-switched languages are realized simultaneously in the same constituent phrase; however, the two languages are not syntactically related. In the current study alternation only occurred six times, three of which will be discussed in this section and three will be discussed later in section 4.2.3.1 due to their occurrence with another pattern.

Similar to the use of discourse markers in the insertion pattern, they appeared in the alternation pattern as well. Example (7) below shows the use of ECA logical connector *bas* (however) and discourse marker *yaʕni:* (well) in the initial position of the constituent phrase uttered by FUG9 who then alerted her use of language to English and uttered the noun phrase *she was verbal*.

(7) Context: Two female presenters were receiving their feedback on the oral presentations, which they have delivered for the instructor and the rest of the students.

I: [addressing the whole class] What do you think of FUG10 [name is omitted]?

FUG9: [addressing FUG10] … you were talking really quickly [incomprehensible word] *bas yaʕni:* she was verbal.

(You were talking really quickly, … however, she was verbal.)

It must be mentioned that the utterance *bas yaʕni she was verbal* was analyzed as a separate

phrase since what preceded it was incomprehensible and the researcher was unable to transcribe it. In this utterance, FUG9 code-switched between ECA and English by altering her use of language from ECA to English to finish her utterance in order to signal out one of the female presenters.

The other two instances of alternation occurred in the context of example (8) below. This example is taken from the second classroom session; thus, the students are presumed to share the same social network that enabled them to code-switch with each other.

(8) Context: The instructor was asking the students about the topics they would like to cover in the upcoming lessons.

I: What topics do you actually wanna talk about?

MUG11: Psychology

FUG10: *ya gamãʕ-a ʔawmɔː-h mən həna*

(Hey guys, take him away from here.)

MUG11: [Laughing] *ʔana il-mɔtaħdəθ il-rasmiː*

(I am the official spokesman)

By examining example (8), it was clear that students FUG10 and MUG11 have code-switched to ECA in *ya gamãʕ-a ʔœmuː mən həna* and *ʔana il-mɔtaħdəθ il-rasmiː*, respectively, in response to MUG11 previous answer *Psychology*. Thus, alternation in this example occurred on the level of turn-taking in the conversation and not in a single student's utterance. This might not conform to Muysken's (2000) definition of code switching that it occurs simultaneously in the same constituent phrase; however, his earlier definition of alternation stated that "Alternation is … a special case of code-switching as it takes place between utterances in a turn or between turns" (Muysken, 1997, p. 361).

4.2.2.3 Congruent Lexicalization

The most complex pattern of Muysken's typology is congruent lexicalization in which lexical items from different languages are realized in a constituent phrase while adhering to the grammatical structure of this phrase. Muysken stated that in a given utterance, the switches tend to appear in a back-and-forth movement between the two spoken languages.

Similar to alternation, several congruent lexicalization utterances were examined in this section and later in section 4.2.3 where they occur with another pattern or can be analyzed according to two of Muysken's patterns. It should be noted that in this section and the following section, section 4.2.3, congruent lexicalization is analyzed based on the researcher's claim that ECA-English constituent phrases share the linear grammatical structure of subject-verb-object order.

(9) Context: The instructor was asking the students to prepare an outline for their final oral presentation. He assigned them a paraphrasing activity for homework. One of the students asked him the following questions.

FUG7: *yaʕni:* <u>for paraphrasing</u> *ʔəħna* <u>due tomorrow</u> *wala-h*?

(Is the paraphrasing task due tomorrow or not?)

I: Due tomorrow.

This above example, example (9), is the sole congruent lexicalization utterance present in verbal data collected from classroom observations. A linear grammatical analysis was conducted to identify the nature of this constituent phrase pattern. There were two main phrases in this example *yaʕni: for paraphrasing* (well for paraphrasing) and *ʔəħna due tomorrow wala-h* (are we due tomorrow?). The first phrase *yaʕni: for paraphrasing* consists of ECA discourse marker *yaʕni:* (well) and English prepositional phrase *for paraphrasing*. While the second noun phrase *ʔəħna*

due tomorrow wala-h consists of ECA pronoun *ʔəħna* (we) and English adjectival phrase *due tomorrow wala-h*. It is clear that each lexical item whether provided by ECA or English falls in the correct grammatical position in this constituent phrase even in the absence of an apparent verb, which satisfies the previously mentioned definition of congruent lexicalization pattern.

In addition, the utterance *yaʕniː for paraphrasing ʔəħna due tomorrow wɔl-aʔ* adhered to one of the main characteristics Muysken proposed which is that the code-switched lexical items appear in a back-and-forth manner between ECA and English. This back-and-forth movement between the two languages, according to Muysken, made it impossible to stand on a matrix language in this pattern, unlike the insertion pattern, for both functional and content lexical items are produced by both languages. Thus, this proves the researcher's claim that congruent lexicalization is produced by bilinguals' of ECA and English since they share the grammatical system of subject-verb-object order.

4.2.3 Mixed and Complex Patterns in Classroom Observations with Undergraduate Students

This section elaborates on mixed patterns that appeared at different intervals in the same context as well as complex patterns that could be analyzed in two different manners according to Muysken's typology. The former type of utterances was a straightforward type to be analyzed. The latter type, on the other hand, was analyzed based on two different patterns from which the researcher provided her preference to one of these patterns as well as a valid rationale for this preference.

4.2.3.1 Mixed Patterns

The data has yielded a few instances where insertion and alternation patterns were present in the same constituent phrases as in the first code-switched utterance *good eːh, ya ʕam ʔit-nayəl* (Good! Really! Piss off!) in example (10) below. This example provides an instance in which

students produced utterances by using insertion and alternation patterns.

(10) Context: After watching a YouTube video on the different age generations, the instructor asked the students to write few sentences to define their generation. While the students were writing, the teacher played some music in the background.

MUG4: *tab*, Mr. there is a good*****a good*****song

(Well, Mr, there is a good song.)

MUG5: good *eːh, ya ʕam ʔit-nayəl*

(Good! Really! Piss off!)

MUG6: ħaraam ʕalikʊm baʔa

(Intended meaning: Shut up! I want to concentrate)

MUG4: called "my rear view", *ħaga kəda-h*

(It is called "my rear view" or something like that)

I: I have no idea what you just said but thank you for your input.

As can be seen in the above example, example (10), MUG4 inserted an ECA code-switched interjection word *tab* (well) in an English constituent phrase *Mr. there is a good******a good******song* which acts as the matrix language as it provides system morphemes in copula be *is* and indefinite article *a*. Although English noun *song* and descriptive adjective *good* are content morphemes, the morphosyntactic frame of this constituent phrase is provided by English system morpheme *is.* In fact, MUG5 repeated the lexical item *good* that MUG4 realized in his utterance as an inserted English content morpheme in the initial position of the ECA matrix language.

In addition, MUG5 utterance, *good eːh, ya ʕam ʔit-nayəl*, does not satisfy the congruent lexicalization pattern characteristics either since each of the lexical items does not occupy the same grammatical structure and there is so no back-and-forth movement between ECA and English.

This leaves us with alternation pattern which is plausible in this case since the three exclamation constituent phrases are composed of one English constituent *good* and two separate ECA constituents e:*h* and *ya ʕam ʔit-nayəl* that occur simultaneously. Although Muysken (2000) stated that alternation pattern occurs in the same constituent phrase and the previous analysis deviates from this, it can be argued that, although this utterance is combined of three constituent phrases, it is realized by the same student creating a well-formed exclamatory structure.

The last utterance in example (10), *called "my rear view", ħaga kəda-h*, there is an alternation between the English verb phrase *called "my rear view",* and ECA noun phrase *ħaga kəda-h* (something like that). According to Muysken (2000), alternation occurs when there is a "smooth mixing, in which the transition between the two languages is seamless" (p. 101). Thus, in the previous utterance the transition is moving smoothly from English to ECA. In addition, Muysken's (2000) *left-dislocation* criterion in which a word in the second constituent refers back to a word in the first constituent is present in this utterance. (p.101*)*. The ECA noun phrase *ħaga kəda-h* (something) refers to the name of the song *"my rear view"*. Thus, satisfying the *left-dislocation* criterion.

Hence, this shows that the students do not use a specific pattern while CS, but they will resort to using two of Muysken's patterns while communicating verbally. The findings also indicated that the most used patterns students combine together in the same speech event are insertion and alternation.

4.2.3.2 Complex Patterns

This section analyzes the complex patterns that appeared in the verbal data. It was noticed in the data that certain utterances had the tendency to be analyzed based on either the insertion or the congruent lexicalization pattern. All of these complex patterns were produced by female

learners. From the researcher's own point of view based on classroom observation sessions, this could be attributed to female learner's tendency to talk more in the classroom and their ability to code-switch more than males.

(11) Context: FL1 addressed a male student across the classroom and told him to distract the instructor because she was going to give them a listening activity. FUG13 told the male student to do his presentation, so they don't do the activity

FUG13: *ħa-t-ʕməl* listening

(She will give us a listening activity)

In example (11), the learner's utterance *ħatəʕməl listening* (She will give us a listening activity) could be analyzed based on Muysken's insertion pattern as well as by determining the matrix and embedded language according to Myers-Scotton's (1993) MLF model; or it could be analyzed by applying Muysken's congruent lexicalization pattern to the constituent phrase.

According to Muysken's insertion pattern, the English noun *listening* is inserted in the grammatical ECA structure of *ħa-t-ʕməl* (she will do). If we dissect this ECA structure, we will find that the tense marker *ħa-* is prefixed to the verb stem *ʕmal-a* to indicate a potential action in the near future (Aboul-Fetouh, 1969. pp. 37-38). While the *t-* (she) is a third person feminine singular subject prefix that denotes gender to the verb. The two prefixes combined together with the conjugation form of the verb *ʕmal-a* form the system morpheme *ħa-t-ʕməl* which based on Myers-Scotton's (1993) MLF model contains subject-verb agreement as well as carrying the tense/aspect markers. In addition, the English noun *listening* based on Myers-Scotton's model is considered a content morpheme. Thus, based on Myres-Scotton's model, the matrix language is ECA since it supplied system morphemes, while the embedded language is English for it supplied content morphemes.

Furthermore, in congruent lexicalization pattern, both functional and content lexical items are provided by either language. In the above example, the ECA structure *ħa-t-ʕməl*, consisting of a subject and a verb, is followed by an English object *reading* which indicates that both languages are realized in the same grammatical structure. However, since one of the main criteria of congruent lexicalization is that CS occurs in a back-and-forth manner, this utterance does not qualify as being congruently lexicalized. Thus, the researcher is inclined to categorize the utterance as an insertion pattern since it fully satisfies the characteristics of Muysken's criteria and those of Myers-Scotton's MLF model, while it violates two of the congruent lexicalization criteria as stated previously.

Another instance of a complex pattern was produced by a female learner in example (12) below. Similar to example (11) this utterance can be analyzed based on either the insertion pattern or the congruent lexicalization pattern.

(12) Context: Two female students were going to present individually in practice for their upcoming mini oral presentations. One of them was about to present. The instructor was asking her colleagues who wants to keep a check on how many minutes the presentation took.

I: Who will keep time?

FUG8: I'll keep time.

FUG9: I'll keep time.

FUG8 & FUG9: Both of us will keep time.

FUG10: <u>After five minutes</u> *ʔarrãʃiː-niː*

(Tell me after five minutes)

FUG8: Okay!

The above example was examined by applying Myers-Scotton's (1993) MLF model and then relating it to Muysken's typology. In the utterance *After five minutes ʔarrãfiː-niː*, the system morphemes were supplied by ECA verb phrase *ʔarrãfiː-niː* (let me know) and the content morphemes were supplied by English prepositional phrase *After five minutes*. In the ECA verb phrase *ʔarrãfiː-niː*, subject-verb agreement is shown in the relationship between the verb stem *ʔarrãf* and the suffix *-niː* (I) which is first person feminine singular subject. The long vowel *iː* which precedes the latter suffix marks the tense/aspect of the verb which is the simple present tense. By combining the verb stem with these two suffixes, the verb *ʔarrãfiː-niː* is formed. Thus, since the system morpheme is supplied by ECA, according to Myers-Scotton's model, this is the matrix language. The content morphemes, on the other hand, are provided by English prepositional phrase *After five minutes* which is composed of preposition *after* and nouns *five* and *minutes*; therefore, English is the embedded language in this constituent phrase. Thus, this analysis is in accordance with Muysken's notion of insertion that a given lexical item, English in the above example, is being inserted in the grammatical structure of the ECA constituent phrase. Hence, this utterance is an insertion pattern.

As stated earlier, example (12) can also be analyzed as a congruent lexicalization pattern. This analysis followed the same line of reasoning as example (11). The constituent phrase in example (12) *After five minutes ʔarrãfiː-niː* consisted of an ECA verb phrase *ʔarrãfiː-niː* where the verb is marked for tense and gender by the aspectual and subject prefixes *-iː-niː*, respectively. This verb phrase is preceded by an English prepositional phrase *After five minutes*. If we apply Muysken's definition of congruent lexicalization, we will reach the conclusion that the prepositional and verb phrases share one grammatical structure in which there is no occurring conflict when this phrase is uttered by the undergraduate student. The utterance also shows the

process of topicalization in which in both ECA and English grammatical structures prepositional phrases are fronted. In spite of this, and similar to the case in example (12), since there is no back-and forth-movement between the two code-switched languages, such an utterance cannot be defined under the congruent lexicalization pattern.

From the above analysis, it is clear that in the case of complex patterns, the most apparent patterns were insertion and congruent lexicalization. By examining both patterns in the provided examples and applying Muysken's (2000) typology and Myers-Scotton's (1993) MLF model, it became evident that the insertion pattern prevailed in these code-switched instances and provided a clear rationale for being the accurate pattern for such utterances, unlike the congruent lexicalization pattern which proved to be lacking when it came to the back-and-forth movement between the two languages, the use of functional and content lexical items and subject-verb-order grammatical structure.

4.2.4 Structural Patterns in In-depth Interviews with Graduate Students

This section provides an analysis of the structural patterns found in verbal data collected from graduate students at AUC. The total number of interviews conducted was three interviews which consisted of three informants in each interview. The interviews were designed to take between 30 to 45 minutes; however, they lasted from 19 to 35 minutes. This can be ascribed to the fact that the students knew one another as they were enrolled in the same program. Due to the fact that the researcher was only a facilitator and gave the floor to the informants to converse in an informal manner, most of the provided utterances were longer than those provided by undergraduate students in the classroom context. Only insertion pattern appeared on its own in shorter utterances. However, in longer utterances all three patterns of insertion, alternation, and congruent lexicalization occurred simultaneously, which made it difficult to separate the three

patterns in order to analyze them and provide a solid discussion. Thus, this section deals with each utterance as a case on its own by providing an analysis, a discussion, and the researcher's rationale for choosing a certain pattern when appropriate. The analysis was conducted by applying Muysken's (1997, 2000) typology and relating his patterns, when appropriate, to Poplack's (1980) equivalence constraint and Myers-Scotton's (1993) MLF model.

As indicated earlier, insertion pattern was provided in shorter utterances as in example (13).

(13) F: FG19 ʔɑːləṭ ʔennah-ɑ ħɑṭɑːxod il-comps, FG20 ħɑtekteb thesis, ʔintɑ ħɑteʕmel eh?

(FG19 said she will sit for the comprehensive exam, while FG 20 is going to write a thesis, what about you?)

MG18: *ʔin ʃaːʔ Allah w-Rabina yesahəl ħ-kteb* proposal *w-ħa-xɔʃʕala il-*thesis.

(God willing, I will start on my proposal and then move on to my thesis)

In this example, the facilitator asked MG18 question eight in another way since FG19 and FG20 provided answers to this question earlier on in the discussion. The response MG18 produced indicated the use of English nouns *proposal* and *thesis* as embedded words in the matrix language of ECA. Since they are technical words inserted in the structure of the ECA constituent phrase. The matrix language was also determined by applying Myers-Scotton's model. According to her, inflected verbs are supplied by system morphemes which determiners the matrix language. Thus, the use of ECA inflectional bound morpheme *ħ-* (first person singular male marking future tense) as a prefix to ECA verb *ʔakteb* (write) and *ʔaxɔʃ* (move on) is further proof that ECA is the matrix language.

(14) F: tɑyəb ʕɑizeːn teʃtɑġalə eh bɑʕəd mɑ-texɑlɑṣə il-mɑjestɑ̃r

(What is your dream job after graduating?)

FG20: I want to work here [refers to AUC]. I want to work in the ELI [sound trailed off]

FG19: there is actually an opening *law baṣit-iː ʕala il-*website *betaʕ il-*openings [cut-off by F2]

(If you browse the website for vacancies, there is an opening in ELI)

FG20: *ʔah!* Yes! *ma-*[name omitted] told me, *ma-*she told me I should be applying. [incomprehensible] prepare for applying.

(Yes! [name omitted] told me to apply for the job.)

In example (14), FG20 responded to question 10 about what kind of occupation the participants would like to enroll to after earning their master degrees. Like example (13), insertion pattern prevailed in this utterance. In response to FG20 wishes to get hired in AUC, FG19 altered from an English constituent phrase *There is actually an opening* to an ECA constituent phrase *law baṣit-iː ʕala il-website betaʕ il-openings* which contained two inserted English nouns *website* and *openings.* Furthermore, like example (13), these technical words are inserted in the matrix language of ECA. Further indication it that content morphemes are supplied by English nouns in *website* and *openings* and system morphemes are supplied by tense/aspect subject-verb relationship in the verb b*aṣit-*iː.

In addition, in FG20 response in the above example *ʔah! Yes! ma-[name omitted] told me, ma-she told me I should be applying*, there are insertions of ECA exclamation mark *ʔah* (yes) and the filler *ma-* in the English constituent phrase. There was no need to apply Myers-Scotton's model in this instance for two reasons: (a) the whole phrase is supplied in English and (b) *ʔah* and *ma-*

does not have any syntactic or semantic functions in this utterance expect that they act as fillers to fill in the pauses between each constituent phrase.

The insertion pattern then started to occur with an alternation pattern as in examples (15). This utterance was produced by FG20, who is a mother, in response to a polite request from the researcher to tell the focus group more about her son.

> (15) FG20: [name and age of the child has been omitted] hɔwa kuwayyis dəlwaʔati:, *hɔwa fel-madərasa zay ma-ʔənti: ʕarfah, hɔwa fi:* pre-KG … *ʔana daxal-t-ɔ tabʕan badri: ʕalaʃan ʔənt: ʕarfah il-serãʕ b-taʕ il-ʔamaken w-il-*interview *w-il-ħagat il-faziʕah illi b-tətʕmel … w-baʕdi:n baʔa ħagat tanya il-waħed by-xaf minha w-bysmaʕh-a fi: il-madares bybaʔa nəfsɔ y-*limit *il-*effect *b-taʕh-a … fi: ħagat ʔana məʃ ʕaizah y-*acquire, *fi: ħagat ʔana məʃ ʕaizah y-*acquire … *boşi: hɔwa* [child's name is omitted] *ʕemoman il-bait hɔwa il-*comfort zone whenever he gets out *bybaʔa məʃ mərtaḥ w-mədayʔ ...*
>
> (He is doing fine at the moment. He is in school as you know. I had to enroll him early because of the interview process and to make sure he has a spot in the school. I was also looking for a school where I can limit the effect of the horrible things we hear about happening in schools. Well, he feels more comfortable at home and whenever he gets out, he always feels uneasy.)

In this example, FG20 uses the insertion pattern and then moves to the alternation pattern by the end of the utterance. A first look at this oral production might be slightly perplexing as to the nature of the matrix and embedded languages. However, a closer examination indicated that all the English nouns as well as verbs like *pre-KG, interview, effect, acquire,* and *comfort zone* are inserted in ECA constituent phrases, according to the criteria of Muysekn's insertion pattern.

Moreover, by applying Myers-Scotton's (1993) MLF model to example (15), it is clear that content morphemes in this utterance were supplied by both ECA and English. For instance, most of the pronouns were supplied by ECA like in *hɔwa* (he), *ʔana* (I),and *ʔənt:* (you-feminine). In addition, nouns are being provided by both ECA and English like in *madərasah* (school), *ʔamaken* (places), *madares* (schools), *interview, limit, effect,* and *comfort zone*. While system morphemes were supplied by ECA definite article *il-* (the) and subject-verb agreement tense/aspect relation in *ʕarfah* (you know-feminine), *daxal-t-ɔ* (I enrolled him-feminine), *b-tətʕmel* (are done-feminine), *by-xaf* (he become afraid-masculine), *bysmaʕh-a* (he listens to things-feminine), *ʕaizah* (I want to-feminine). All of these verbs were marked in the present tense and agreed with the inflected pronouns in number and gender. Hence, given the fact that the morphosyntactic frame of these constituent phrases are supplied be ECA lexical items, the matrix language is ECA and the embedded language is English.

The alternation pattern in the above example, example (15), appeared by the end of the oral production in *whenever he gets out bybaʔa məʃ mərtaħ w-mədayʔ.* There were two separate constituent phrases in this utterance, the first is the English constituent phrase *whenever he gets out* which is followed by the ECA verbal phrase *bybaʔa məʃ mərtaħ w-mədayʔ* (he feels uncomfortable). This coincides with Poplack's (1980) equivalence constraint, for each constituent phrase agrees with the grammatical structure of the language it is uttered in. Thus, there is no violation in the above example of either grammatical systems.

In addition, since the ECA and English constituent phrases, *whenever he gets out bybaʔa məʃ mərtaħ w-mədayʔ,* consisted of more than one lexical item and they have a similar length, this agrees with Muysken's (2000) criterion of alternation pattern that lexical items are utilized simultaneously, and they can share the same length.

(16) MG18: *ʔana kənt ʃi: madərasa ħokomya ʃ-maʕraʃəʃ minhum ħad delwaʔty yəʕtəbar xaləş,w-lama b-ʃoʃhʊm ʃain w-ʃain yaʕni:.bas yaʕni: il-*contact *ma-bəni: w-bənhʊm [cut off by FG20]*

FG20*: ma-ʃi:ʃ* bond *zay [incomprehensible]*

MG18*: wala* bond *w-wala* contact *laʔəno ʔaşlan kəl ħaga ʔəxtalaʃət il-*setting *w-il-*culture *w-il-*exposure*, kəl ħaga ʔəxtalafət ʃ-*we never went to the same direction *ʃ-ʕalaʃan* kəd-a [hmm] *yaʕni:*ʃ-*that is why**ʃ-*I feel there is a huge gap.

(I went to a governmental school and I lost contact with my school friends. Actually, I stumble upon them every now and then but there is no bond between us anymore because we went into different directions)

A similar structure to example (15) was example (16), which was a response to a deviation in the interview which occurred after FG20 told the focus group about her son and the school enrollment process. All three students then began discussing school enrollment and if they still have friends from school. In this example, MG18 provided insertion patterns at the beginning of the utterance and then altered from English to ECA, in a back-and-forth movement to explain his point.

This is clear in inserting an English noun as in *contact* in the matrix language of ECA in the first constituent phrase, *bas yaʕni il-*contact *ma-bəni: w-bənhʊm,* produced by the graduate student. It is noticeable that after FG20 cut him off, MG18 continued with his utterance by CS between ECA and English in what Muysken (2000) defined as the back-and-forth movement. This movement started with the use of English nouns *bond, contact, setting, culture* and *exposure* in

alternation with ECA lexical items *wala* (or), *w* (and), and *il-* (the) in the utterance *wala bond w-wala contact laʔəno ʔaṣlan kɔl ḥaga ʔəxtalafət il-setting w-il-culture w-il-exposure*.

Then, the back-and-forth movement changed from ECA constituent phrases to English constituent phrases in a linear pattern which satisfies Poplack's (1980) equivalence constraint in *kɔl ḥaga ʔəxtalafət f-we never went to the same direction*. In this utterance, MG18 switched from the ECA constituent phrase *kɔl ḥaga ʔəxtalafət* to the English phrase *never went to the same direction* without violating the grammar structure of each phrase.

It was also noted that the three code-switched English constituent phrases in the above example, example (16), *ʃ-we never went to the same direction, ʃ-that is why,* and *ʃ-I feel there is a huge gap,* always started with an ECA inflectional bound morpheme *ʃ-* which is a resultative marker that precedes a possible explanation for what previously was mentioned.

(17) MG18: [course name is omitted] *yaʕni:* I was worried about*****and I think*****I kinda enjoy it*Ah! I enjoy the analyses *illi: ʔəħna b-nəʕməlh-a wil-ħagat di: kɔlah-a yaʕni.* It turned out to be a lot better than I have expected. *w-illi: hɔwa yaʕni:* everyone told me it is very theoretical, including you, *ʃa-yaʕni:* I think it's a lot better than [sound trailed off] … I *yaʕni:*[hesitation] ʔana kədah kədah b-ħəʃaz il-kelmətain we b-nəsahom baʕdah-a b-talat daʔayʔ ʃa-yaʕni: for me I understand but I forget the details… *ʕalaʃan kəd-a I enjoy it.* law ʔana ħ-t-kaləm ʕala *il-theories* zay ma-kɔna b-nəʕməl ʃi: il-gamʕat il- ħɔkomia ʃ-xalas [incomprehensible]

(I was worried about a certain course [name was omitted] but I am enjoying it. It turned out to be better than I have expected since everyone told me it is very theoretical, including you. I especially enjoy the analyses we do and that we

are not tackling it from a theoretical point of view like we used to do in our governmental universities. However, I do understand the subject-matter but I tend to forget the details after two to three minutes.)

The data also yielded an instance, as in example (17) above, where the three patterns, insertion, alternation, and congruent lexicalization, were used in one long utterance forming a complex pattern provided by MG18 in response to a question regarding the most subject the informants were apprehensive to enroll in, which later they found that they enjoyed it the most. In the above utterance provided by MG18, there was a clear use of the insertion and alternation patterns. The insertion pattern can be seen in the use of *ya̲ʕni:* and *ʃa-ya̲ʕni:* (both meaning well) as discourse markers as well as the use of ECA definite article *il-* (the) with the English noun *theories*. The determining factor for deciding on the matrix and embedded languages is that the ECA discourse markers were inserted in the initial or middle position of English constituent phrases (a) *yaʕni: I was worried about**and I think**I kinda enjoy it* (b) *w-illi: hɔwa yaʕni: everyone told me it is very theoretical, including you*, and (c) *fa-yaʕni: for me I understand but I forget the details*. Thus, in these code-switched instances English is the matrix language, while ECA is the inserted language.

By applying Myers-Scotton's (1993) model to the above example, example (17), the system morphemes were supplied by English, like for example copula be in *was*, tense/aspect in *was worried* and *think* which also show a subject-verb agreement with pronoun *I*. While ECA as an embedded language supplied the insertion of discourse markers in the initial position of English constituent phrases in for example *yaʕni: I was worried about**and I think**I kinda enjoy it**.* Thus, ECA is the embedded language and English is the matrix language. This holds for the whole utterance expect the last constituent phrase *law ʔana ħ-t-kaləm ʕala il-theories zay ma-kɔna b-*

nəʕməl ʃi: il-gamʕat il- ħɔkomia ʃ-xalas in which the ECA definite article *il-* is inflected to English noun *theories.* In this instance only the latter English noun is inserted and realized in an ECA constituent phrase.

The above example also indicated a congruent lexicalization pattern in *I enjoy the analyses illi: ʔəħna b-nəʕməlh-a wil-ħagat di: kɔlah-a ɣaʕni:. It turned out to be a lot better than I have expected.* As Muysken argued, congruent lexicalization is identified when the two language adhere to the same grammatical structure and there is a back-and-forth movement between the two languages. In the above instance, both English and ECA share one syntactic structure for the first part of the phrase *I enjoy the analyses* is an English nouns phrase, while the second part *illi: ʔəħna b-nəʕməlh-a wil-ħagat di: kɔlah-a ɣaʕni:* is an ECA complementizer phrase that completes the meaning of the constituent phrase. The back-and-forth movement criterion is satisfied since the following constituent phrase *It turned out to be a lot better than I have expected* completes the meaning of the previous phrase.

There were also two instances of alternation in example (17) in (a) *w-illi: hɔwa ɣaʕni: everyone told me it is very theoretical* and (b) *ʕalaʃan kəd-a I enjoy it*. According to Poplack (1980) and Muysken (2000) code-switched lexical items appear in a given constituent phrase without violating the syntactic structure of each language. In the above two instances, clearly there is an alternation between ECA lexical items and English lexical items in which ECA always appear at the beginning of the constituent phrase followed by English. In addition, there is a similarity in the length of ECA and English constituent phrases which is another criterion of alternation pattern. Hence, classifying these utterances as alternation patterns.

From the above analysis of example (17), such an utterance produced by an ECA-English student can be considered a comprehensive example for it showcases all three structural patterns,

insertion, alternation, and congruent lexicalization, and how they occur in a long utterance.

In conclusion, the data collected from the interview setting indicated the use of the insertion pattern in short utterances. While in longer utterances graduated students managed to produce more than one pattern in their code-switched oral production.

4.3 Morphosyntactic Features of Code-switched Patterns

This section provides an answer to the second research question which aimed to investigate the most prominent morphosyntactic features of ECA and English code-switched instances in Muysken's three patterns, insertions, alternation, and congruent lexicalization. The study aimed at examining if present morphosyntactic features appear across all patterns or are specific to certain pattern. The examples presented in this section are gleaned from classroom observations and in-depth interviews contexts in order to provide specific answer to the second research question.

The findings indicate that ECA definite article *il-* (the), which is a closed class morpheme in the ECA vernacular, was always provided in the insertion pattern followed by an English noun. Unlike its counterpart English definite article *the,* which appears as a stand-alone lexical item, *il-* is considered by researchers as an inflectional bound morpheme which is prefixed to the following lexical items, typically this lexical item in an adjective or a noun (Abdel-Malek, 1971, p. 26). In the interviews, *il-* was always realized in the insertion pattern with English nouns as can be seen below in examples (18) to (22). These nouns were supplied from the students' repertoire to serve the subject-matter they were discussing as in *thesis, website, opining, interview, comfort zone, contact, setting, culture, exposure* and *theories*.

(18) ʔin ʃɑːʔ Allah w-Rɑbinɑ yesahəl ħɑkteb proposal w-ħɑxɔʃ ʕɑlɑ *il-*thesis.

(God willing, I will start with the proposal, then move to the thesis stage.)

(19) There is actually an opining lɑw bɑṣ̣it-i: ʕɑlɑ *il-*website betɑʕ *il-*openings

(There is actually an opining if you look at the website.)

(20) ʔənti: ʕarfah il-serãʕ b-taʕ il-ʔamaken w-*il*-interview … w-baʕdi:n baʔa ħagat tanya il-waħed by-xaf minha w-bysmaʕh-a ʃi: il-madares bybaʔa nəfsə y-limit *il-effect* b-taʕh-a ... ʕemoman il-bait həwa *il*-comfort zone whenever he gets out bybaʔa məʃ mərtaḥ w-mədayʔ

(You know how applying to schools is and how the interview process is … and there are things happening at schools, I wish to limit its effects … Anyways, home for him is the comfort zone, whenever he goes out he always feels uncomfortable)

(21) yaʕni: *il*-contact ma-bəni: w-bənhʊm … kəl ħaga ʔəxtalafət *il*-setting *w-il*-culture *w-il*-exposure

(Well, the contact between me and my friends … there is nothing is common between us now, neither the setting, the culture, nor even the exposure.)

(22) law ʔana ħ-t-kaləm ʕala *il-theories*

(If I were to speak about the theories)

The findings also reveal that ECA definite article *il-* can be used in the congruent lexicalization pattern as in example (23) below, gleaned from example (9). This example provided an instance where ECA definite article *il-* (the) was affixed to Arabic preposition *ʃi:* (in) to form the prefix *ʃəl* (in the) which preceded English nouns *animation* and *transition*.

(23) *laʔ yaʕni: il-*animation *ʕa:di: wala ʃəl-*transition**.** … *il-kalam bi:nɒt*

(In other words, will the animation be standardized, or the words will bounce in the transition.)

This finding is similar to the results Badr and Minnis (2000) reported in their study in

which they investigated morphological switching in the utterances of an Arabic-English bilingual child. The Arabic variety the researchers looked into was Jordanian and they found out that the child always used *bil-* which is the equivalence of ECA *ʃəl-* , where both prefixes mean (in the). The child always affixed *bil-* to nouns in code-switched utterances. Furthermore, the child's use of Arabic definite article *bil-* with English nouns enabled the researchers to conclude that since definite articles are supplied by system morphemes and nouns are supplied by content morphemes. Hence, the matrix language is Arabic and the embedded language is English.

Thus, the above finding agrees with those of examples (24) and (25) in which ECA definite article *il-* is affixed to English nouns *presentation* and *questions*, respectively.

(24) *ʔəltəlak ʔœm ʔəʕməl il-*presentation!

(I told you to do your presentation?)

(25) *ma-il-*questions *tawiːl-a ʔawiː*

(Well! The questions are very long.)

Thus, if system morphemes are provided by ECA definite article *il-* and ECA subject-verb agreement in *ʔəltəlak* and *ʔəʕməl*, while content morphemes are provided by English nouns *presentation* and *questions*, it can be argued that ECA as a matrix language supplies the morphosyntactic features of these code-switched utterances to complement English embedded nouns in the constituent phrase.

(26) *ħa-t-ʕməl* listening

(She will give us a listening activity.)

(27) After 5 minutes *ʔarrãfiːniː*

(Tell me after five minutes)

Regarding the above examples, examples (26) and (27), gleaned from examples (11) and

(12), respectively, both verb phrases *ħa-t-ʕməl* (she will do) and *ʔarrãʃiː-niː* (let me know) are morphologically inflected for gender and number. The first verb phrase *ħa-t-ʕməl* is affixed by prefix *ha-* (will) which realized the tense/aspect of the verb in the near future as well as prefix *t-* (she) which is a third person feminine singular subject that marked the subject-verb agreement. While in the second verb phrase *ʔarrãʃiː-niː*, the verb is affixed by long vowel *iː-* which indicated the simple present tense/aspect of the verb, while suffix *niː-* is affixed to the verb to denote the subject-verb relationship for it is a first person feminine singular pronoun. In the above two examples, although the code-switched lexical items are provided by English in the form of content morphemes in *listening* and *After 5 minutes*, it is ECA morphological features in *ħa-t-ʕməl* and *ʔarrãʃiː-niː* that hold the grammatical structure of the sentence by providing the functional lexical items.

As previously explained, morphologically inflected verb phrases for gender and person were present in the complex patterns in which they could have fallen under either the insertion pattern or the congruent lexicalization pattern. However, as the researcher preferred to categorize these two instances of CS under the insertion pattern, based on examples (26) and (27) (See section 4.2.3.2). Thus, it is reasonable to postulate that even morphosyntactic features of verb phrases occurred in the insertion patterns.

(28) w-baʕdiːn baʔa ħagat tanya il-waħed by-xaʃ minha w-bysmaʕh-a ʃiː il-madares bybaʔa nəfsɔ *y-<u>limit</u>* il-effect b-taʕh-a

(There are certain things that one hears happening at schools, that I would like to limit their effects.)

(29) *ʃiː ħagat ʔana məʃ ʕaizah y-*<u>acquire</u>

(There are certain things that I don't want him to acquire.)

Another interesting finding was the usage of ECA preposition *fiː* (in) in the above, examples (28) and (29) gleaned from example (15). When it preceded nouns, whether ECA or English nouns, it was realized in its literal meaning as a preposition as in *fiː il-madares* (in the schools). However, when it preceded ECA noun *ḥ*agat, it acted as an existential expression like in *fiː ḥagat ʔana* (there are things I …) where *fiː ḥagat* refers to the things the student does not wish her son to acquire in school.

Moreover, contrary to the realization of inflectional bound morphemes with ECA verbs as in examples (26) and (27), examples (28) and (29) show that in the interview setting, ECA inflections were realized with English verbs. In these two examples, the ECA inflectional bound morpheme *y-*, which is a third person singular masculine subject (Abdel-Malek, 1971, p. 37), is affixed to the English infinitive verbs *limit* and *acquire* to mark the tense/aspect of the verb which is the present tense.

In example (28) above, the prefix *y-* refers to *il-waħed* (one) and *nəfsɔ* (himself) which are ECA masculine pronouns. In addition, *il-waħed nəfsɔ* is an idiomatic expression used by males and females equally; thus, it is normal for the female student to use it in her utterance. On the other hand, the prefix *y-* in example (29) refers to the suffix *–h* in *ʕaizah* (want him) which is a third person singular masculine subject. It marked both subject-verb agreement as well as realized the tense of the sentence in the present form. These findings, that ECA prefix *y-* is bound to English infinitive verbs, agrees with Bentahila and Davies's findings which indicated that Arabic inflectional morpheme *j* was always affixed to French infinitive verbs.

This relationship between verb and bound inflectional morphemes was also discussed by Ziamari (2007) in her study where she examined Moroccan Arabic-French CS. Her results indicated that French verbs were inserted in Moroccan Arabic constituent phrases and

morphologically inflected with Arabic morphemes. The current study shows a degree of similarity and difference to Ziamari's (2007) study. Both studies argue that inflectional morphemes have a rule in determining the syntactic structure of given constituent phrase; thus, determining the matrix and embedded languages of code-switched utterances . On the other hand, the difference between the two studies should not be overlooked. While Ziamari concluded that Arabic morphemes are affixed to French verbs, the current study established that ECA morphemes are inflected to either ECA or English verbs as in examples (26-27) and (28-29) above, respectively. This inflection is mainly realized in the insertion pattern when ECA is the matrix language. This difference might point out to how Arabic bilinguals of different varieties utilize their knowledge of both language systems in CS.

In addition to the realization of *il-* and *y-* in the insertion pattern in code-switched lexical items, in data collected from the interviews there was an instance of using ECA resultative marker *f-* at the start of code-switched English constituent phrases in the alternation pattern as can be seen in example (30), gleaned from example (16).

(30) kɔl ħagɑ ʔəxtɑlaʃət *ʃ-*we never went to the same direction ʃ-ʕɑlaʃan kədah [hmm] yɑʕniː**.** *ʃ-*that is why**.** *ʃ-*I feel there is a huge gap.

(I feel there is a huge gap between me and my friends since we went into different directions.)

In this example, the student, MG18, used resultative *f-*, which is an inflectional bound morpheme meaning *so* in this context, by affixing it to three different constituent phrases (a) *we never went to the same direction*, (b) *that is why*, and (c) *I feel there is a huge gap*. In these utterances resultative *f-* precedes the English pronouns *we* and *I* and conjunction *that* to indicate a certain outcome for the informant's actions.

In conclusion, ECA morphosyntactic features were most prominent in insertion pattern in both settings of classroom observations and interviews. Furthermore, most inflectional bound morphemes appeared in noun and verbs phrases. In the case of nouns phrases, bound morphemes were supplied by ECA definite article *il-*, while nouns were supplied by English. Similarly, in the case of verb phrases, inflectional bound morphemes were supplied by ECA to mark number, gender, and tense, while the verbs were supplied by ECA in classroom observation setting and by English in in-depth interview setting. It is noticeable that code-switched English nouns and verbs used by students, whether undergraduate or graduate students, were all technical terms that express the subject matter discussed in class as in *thesis*, or the context of the interview questions as in *website, opening, comfort zone, theories, limit,* and *acquire*.

4.4 Domains of Language Use

This section deals with the third and final research question by looking into how CS structural patterns occur in the domains of classroom and interviews. In a domain of language use, interlocutors utilize their specific knowledge of the language to participate in speech act events. The current study dealt with the way AUC undergraduate and graduate students produce ECA-English code-switched utterances in a classroom setting as well as in an interview setting. The main aim of this research question was to compare how AUC undergraduate students code-switch in both settings. However, Undergraduate students proved to be elusive in attending the interview by not showing up after volunteering for the interview. Thus, since collecting data from undergraduate students was not possible, the data was collected from AUC graduate students by choosing a convenience sample and approaching the students to gain their consent with the sole aim of comparing the structural patterns of the two data sets.

The first noticeable element in both data sets was the length of code-switched utterances.

In the classroom setting, due to the nature of ELI classes, code-switched utterances produced by undergraduate students were short in nature. These short constituent phrases were uttered in order to (a) respond to instructor's questions, (b) give feedback to their colleagues, or (c) produce side-remarks. The utterances tended to be short since the main language of instruction at AUC is English and students are expected to converse with their instructors and colleagues in English. On the other hand, in the interview setting, the utterances were lengthy partly because the facilitator did not interrupt the graduate students except to ask questions; and partly because in each of the three in-depth interviews conducted, the three informants knew one another due to the nature of the program they are enrolled in. Thus, they felt at ease to converse with one another and code-switch frequently.

The analysis of the two data sets suggests that whether the utterances were short or long, the most present pattern in the data was the insertion pattern, followed by alternation, and congruent lexicalization. In both domains of language use, the majority of inserted words were nouns followed by verbs. This finding confirms what Muysken's (2000) proposed in his hierarchy that nouns are the most frequent borrowed lexical item since single lexical items are easily borrowed than complex lexical items (p.74). In the current study, the most code-switched lexical items in the insertion pattern in both domains were supplied by English nouns. These nouns were characterized by being technical terms that serve the context of the conversation whether it was during classroom sessions or in-depth interviews.

It was noticed that the all these English nouns in the domains of classroom and interview were constantly inflected with the same morphosyntactic feature which is ECA definite article *il-* (the). Furthermore, verb inflections were present in the two domains; however, while in the classroom domain verb inflections were realized with ECA verbs, in the interview domain verb

inflections were realized with English verbs. Nonetheless, such inflections mainly appeared in the insertion pattern similar to the usage of ECA definite article *il-*. The one exception of realizing the inflection morphemes in the insertion pattern was the realization of resultative *ʃ-* with English pronouns and conjunctions in the alternation pattern. With respect to the congruent lexicalization pattern, no morphosyntactic features appeared in classroom observation data. While in the data collected from interviews, there were two occurrences of ECA definite article *il-* affixed to English noun *milestones* and inflectional bound morpheme *y-* affixed to English verb *discover* in examples two and four, respectively, from the examples present in appendix D.

The following chapter provides a conclusion of the findings of the present study by synthesizing the results and analysis presented in the current chapter. It also offers the implications and limitations of the study as well as recommendations for further research.

Chapter Five
Conclusion

5.1 Conclusion

The study investigated ECA-English CS from a syntactic perspective by looking into the structural patterns of CS through applying Muysken's typology and relating it to past literature (Poplack, 1980; Myers-Scotton, 1993). It aimed to stand on the structural nature of code-switched instances and if any one pattern was utilized more than the rest of the patterns by the study's population. The patterns under investigation were those Muysken (1997, 2000) introduced as insertion, alternation, and congruent lexicalization.

An investigation of oral production of undergraduate and graduate AUC students showed that insertion pattern was the most used pattern in student's ECA-English code-switched utterances followed by alternation and congruent lexicalization. In the insertion patterns it was found that undergraduate students in the classroom domain either embed ECA lexical items in English constituent phrases or they embed English lexical items in ECA constituent phrases. Graduates students in the interview domain, on the other hand, embed English lexical items in ECA constituent phrases. In the classroom domain, the inserted lexical items were either noun phrases or verb phrases and they were no more than two lexical items, especially if they were supplied by ECA, while in the interview domain, the inserted lexical items were constantly supplied by English nouns. In the alternation pattern, code-switched lexical items appeared in both domains where students altered from ECA to English more frequently in longer utterances. The last pattern, congruent lexicalization, revealed that students code-switched between ECA and English in a back-and-forth movement in long constituent phrases in which lexical items provided by both languages obey the shared grammatical sentence of the constituent phrase.

Appendices C and D provide other examples from classroom observations and interview

settings that reinforce the results that insertion pattern occurred more than alternation and congruent lexicalization patterns. However, it was noticed that congruent lexicalization pattern occurred more in interviews than classroom observations. This can be attributed to the nature of the oral production in the interview domain. The longer the context the utterance is produced in, the higher the probability that congruent lexicalization pattern will be utilized. In addition, the examples in appendices C and D also support the findings that ECA discourse markers, particularly *yaʕniː*, are realized in English constituent phrases and English nouns are used in ECA constituent phrases.

Furthermore, the study investigated the morphosyntactic features of code-switched patterns. It aimed at providing an insight to the nature of morphemes used in ECA-English CS structural patterns and how syntactically the morphemes are affixed to lexical items. It was found that ECA marker resultative *ʃ-* was inflected in the alternation pattern to English pronouns and conjunctions.

Another finding was that ECA definite article *il-* was prefixed to English nouns in insertion and congruent lexicalization patterns. While verb phrases in the insertion pattern were affixed by ECA inflectional bound morphemes either as prefixes or suffixes to ECA verb conjugations in the classroom domain and to English verbs in the interview domain. Despite their position, they always carried tense/aspect relations, gender, number, and subject-verb agreement.

Apart from subject-verb agreement and tense/aspect categories in the above analysis, the data yielded that undergraduate students used ECA conjunctions and discourse markers in the insertion pattern. These two categories were treated as insertion words according to Muysken's definition of the pattern. At the same time, since Myers-Scotton (1993) did not mention in her "schematic representation of content and system morphemes categories" the grammatical

categories of conjunctions and discourse markers (pp. 100-101), conjunctions were treated in the current study as system morphemes since they are free morphemes and are considered function words (Larsen-Freeman et al., 2016, Fromkin et al., 2014).

In her study of English/Shona CS, Myers-Scotton (1993) considered English conjunctions like *but, because, and,* and *or* as discourse markers that were lexically borrowed items in Shona. She argued that these conjunctions are logical connectors that "may be considered as content, not system, morphemes"; however, she mentioned that in certain occasions it is unclear to which category a logical connector falls into (Myers-Scotton, 1993, p. 202). This might be the underlying reason behind not classifying discourse markers in her model (Myers-Scotton, 1993, p. 101). In fact, Fraser (1990) maintained that discourse markers are grouped together due to their pragmatic nature for they are provided by a number of lexical categories as adverbs, verbs, coordinate conjunctions, and interjections (p. 388). This view agrees with Ghobrial's (1993) notion of ECA discourse marker, in particularly the Cairene dialect, for they "do not constitute a separate grammatical category." (p.24). According to him, ECA discourse markers are supplied by adverbials, coordinate conjunctions, verbs, and lexicalized phrases (Ghobrial, 1993, p. 25). Although both Fraser and Ghobrial viewed coordinate conjunctions as discourse markers, in this current study ECA conjunctions was considered as system morphemes as stated earlier and discourse markers were treated as a separate category that does not belong to either system or content morphemes.

5.2 Implications of the Study

This study provides an insight into the structural patterns and morphosyntactic features of ECA-English CS. By looking into these issues, the study is adding another aspect for researchers to consider which is analyzing ECA-English CS from a syntactic perspective since it has not been

investigated thoroughly in the literature. Recent research that investigated ECA-English CS aimed to examine the phenomenon from either sociolinguistic aspects, attitudinal behavior, or stylized performance (Amin, 2018; Hafez, 2015; Hussein 2018; Reigh, 2014). Thus, a new perspective to the issue can add to the existing literature on ECA-English CS.

Another implication of the study was how CS patterns were influenced by the context of use. In the classroom domain, undergraduate students were required to interact in English since it is the medium of instruction at the AUC. Thus, the matrix language was English in most utterances, specifically in the insertion pattern. In the interview setting, in contrast, the matrix language varied between ECA and English among the graduate students. This can be ascribed to the fact that the interview was conducted in a relaxed friendly atmosphere where all interviewees share the same educational background and social network. Hence, the interviewees felt more relaxed to select the language they wished to converse in.

The study also indicated that Muysken's (2000) insertion pattern is utilized more than alternation or congruent lexicalization patterns by AUC students in the domains of classroom and interviews. In the classroom domain, female learners showed a higher tendency to code-switch in the insertion and congruent lexicalization patterns. This could not be measured in the interview domain since eight out of the nine participants were females. Thus, comparing the usage of the two genders to reach a result would not have been valid.

In addition, the study has shown that morphosyntactic aspects are mostly realized in the insertion pattern in both domains of language use where inflectional bound morphemes are affixed to noun and verb phrases, in the case of the latter the morphemes were affixed to mark (a) subject-verb agreement, (b) gender, (c) number, and (d) tense/aspect relations.

5.3 Limitations of the Study

There are a number of limitations that must be mentioned. The most important of which is that the study's findings cannot be generalized since the verbal data was collected from AUC community. Thus, it aimed at investigating code-switched utterances produced by AUC undergraduate students in classroom sessions and graduate students during an in-depth interview. Furthermore, the verbal data was collected from classroom observations involving first year undergraduate students as well as in-depth interviews conducted with graduate students whose age range varied from 24-38. This is considered a limitation by the researcher since the initial aim of the study was to contrast undergraduate students' utterances in the classroom and interview domains. However, due to the fact that undergraduate students did not participate in the interviews, other measures had to be taken. In addition, the majority of the population taking part in the interview were females, only one male participant took part in the interview as he was the only Egyptian male student enrolled in the graduate program at the time of conducting the research.

Another limitation was the number of interviews conducted. Due to the fact that the data was collected from a convenience sample, only three interviews were carried out with a total of nine participants, had the researcher had more time to conduct more interviews, she would have been able to collect a substantial number of interviews to provide more insight to ECA-English CS structural patterns.

5.4 Recommendations for Further Research

There is a lack in the literature, to the best of the research knowledge, regarding examining ECA-English CS from a syntactic perspective since most of the studies looked into other varieties of Arabic. Thus, further studies investigating this issue can be conducted to overcome the limitations of the current study by choosing a different sample, recruiting more participants, or

having a balance in the selected population between females and males participants. Moreover, other instruments than those used in this study can be utilized, as well-supported findings can be reached if naturalistic data were to be collected. In addition, comparative studies can investigate the differences and similarities of morphological features which ECA and other Arabic varieties bilinguals utilize while CS between their Arabic variety and English.

References

Abdel-Malek, Z. N. (1971). *The closed-list classes of colloquial Egyptian Arabic*. The Hague: Mouton.

Aboul-Fetouh, H. M. (1969). *A morphological study of Egyptian Colloquial Arabic*. The Hague, Paris: Mouton.

Abu Mathkour, H. A. (2004). Arabic with English: Code-switching in Jordanian Arabic. *Social Sciences and Humanities, 3*(1), 1–12.

Amin, A. (2018). Code-switching in relation to gender and social class: The case of an Egyptian TV series (Master's thesis).

Appel, R., & Muysken, P. (1987). *Language contact and bilingualism*. London: Edward Arnold.

Bader, Y., & Minnis, D. D. (2000). Morphological and syntactic code-switching in the speech of an Arabic-English bilingual child. *Multilingua*, *19*(4), 383–403.

Bassiouney, R. (2009). *Arabic sociolinguistics*. Edinburgh, United Kingdom: Edinburgh University Press.

Bentahila, A., & Davies, E. E. (1983). The syntax of Arabic-French code-switching. *Lingua, 59*(4), 301–330.

Crystal, D. (2012). A global language. In P. Seargeant & J. Swann (Eds.), *English in the World: History, diversity, change* (pp. 151–196). Milton Park, Abingdon, Oxon ; New York, NY: Routledge.

Deuchar, M. (2006). Welsh-English code-switching and the Matrix Language Frame model. *Lingua*, *116*(11), 1986–2011.

Deuchar, M., Muysken, P., & Wang, S.-L. (2007). Structured Variation in Codeswitching: Towards an Empirically Based Typology of Bilingual Speech Patterns. *International*

Journal of Bilingual Education and Bilingualism, *10*(3), 298–340.

Eid, M. (1992). Directionality in Arabic-English code-switching. In A. Rouchdy (Ed.), *The Arabic language in America* (pp. 50–71). Detroit: Wayen State University Press.

Ferguson, C. A. (1959). Diglossia. *Word*, *15*(2), 325–340.

Fraser, B. (1990). An approach to discourse markers. *Journal of Pragmatics*, *14*, 383–395.

Fromkin, V., Rodman, R., & Hyams, N. (2014). *An introduction to language* (10th ed. International ed.). Boston: Wadsworth Cengage Learning.

Graddol, D. (2006). *English next*. UK: British Council.

Green, D. W., & Wei, L. (2014). A control process model of code-switching. *Language, Cognition and Neuroscience*, *29*(4), 499–511.

Grosjean, F. (2001). The bilingual's language modes. In J. L. Nicol (Ed.), *One mind, two languages: Bilingual language processing*. Oxford; Malden, MA: Blackwell Publishers.

Grosjean, F., & Miller, J. L. (1994). Going in and out of Languages: An example of bilingual flexibility. *Psychological Science*, *5*(4), 201–206.

Gumperz, J. J. (1982). *Discourse strategies*. Cambridge, UK: Cambridge University Press.

Hafez, R. (2015). Factors affecting code switching between Arabic and English (Master's thesis).

Holmes, J. (2013). *An introduction to sociolinguistics* (4th ed.). London: Routledge.

Hussein, G. (2018). Code-switching between Cairene mothers and their children in public: A study in language attitudes (Master's thesis).

Jake, J. L., & Myers-Scotton, C. (2009). Which language? Participation potentials across lexical categories in codeswitching. In L. Isurin, D. Winford, & K. De Bot (Eds.), *Multidisciplinary approaches to code switching* (pp. 207–242). Amsterdam/Philadelphia: John Benjamins Publishing Company.

Khan, A. A., & Khalid, A. (2017). Pashto-English codeswitching: Testing the morphosyntactic constraints of the MLF model. *Lingua*, *201*, 78–91.

Koban, D. (2013). Intra-sentential and Inter-sentential Code-switching in Turkish-English Bilinguals in New York City, U.S. *Procedia - Social and Behavioral Sciences*, *70*, 1174–1179.

Labov, W. (1972). *Sociolinguistic patterns*. Philadelphia: University of Pennsylvania Press.

Ladefoged, P. (1990). The revised international phonetic alphabet. *Language*, *66*(3), 550–552.

Larsen-Freeman, D., Celca-Murcia, M., Frodesen, J., White, B., & William, H. A. (2016). *The grammar book: Form, meaning, and use for English language teachers* (3rd ed.). Boston, MA: National Geographic Learning, Heinle Cengage Learning.

McClure, E. F. (1977). Aspects of code-switching in the discourse of bilingual Mexican-American children. In M. Saville-Troike (Ed.), *Linguistics and anthropology* (pp. 93–115). Washington, DC: Georgetown university press.

Meyerhoff, M. (2011). *Introducing sociolinguistics* (2nd ed.). New York: Routledge.

Mohammed, M. Q., Hameed, F. W., & Yasin, M. S. M. (2015). Code-switching between informal Iraqi Dialect and English language among Iraqi undergraduate students at Baghdad university. *International Journal of Education and Research*, *3*(6), 193–208.

Muysken, P. (1997). Code-switching processes: Alternation, insertion, congruent lexicalization. In M. Pütz (Ed.), *IMPACT: Studies in Language and Society* (Vol. 1, pp. 361–380).

Muysken, P. (2000). *Bilingual Speech : A typology of code-mixing*. Cambridge, UK; New York: Cambridge University Press.

Myers-Scotton, C. (1993). *Duelling languages: Grammatical structure in codeswitching*. Oxford: Clarendon.

Myers-Scotton, C. (2001). The matrix language frame model: Developments and responses. In R. Jacobson (Ed.), *Codeswitching worldwide II* (pp. 23–72). Berlin, New York: Mouton de Gruyter.

Myers-Scotton, C., & Jake, J. L. (2001). Explaining aspects of code-switching and their implications. In J. L. Nicol (Ed.), *One mind, two languages: Bilingual language processing*. Oxford, UK; Malden, MA: Blackwell Publishers.

Pfaff, C. W. (1997). Contacts and conflicts: Perspectives from code-switching research. In M. Pütz (Ed.), *Language Choices: Conditions, constraints, and consequences*. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Poplack, S. (1980). Sometimes I'll start a sentence in Spanish yTermino en Espanol: Toward a typology of code-switching. *Linguistics*, *18*(7/8), 581–618.

Poplack, S., Sankoff, D., & Miller, C. (1988). The social correlates and linguistic processes of lexical borrowing and assimilation. *Linguistics*, *26*(1), 47–104.

Reigh, E. (2014). Language attitudes in an Egyptian discourse community (Master's thesis).

Romaine, S. (2003). Multilingualism. In M. Aronoff & J. Ress-Miller (Eds.), *The handbook of linguistics* (2003rd ed., pp. 512–532). Oxford, UK: Blackwell Publishers.

Sankoff, D., & Poplack, S. (1981). A formal grammar for code-switching. *Paper in Linguistics*, *14*(1), 3–45.

Schaub, M. (2000). English in the Arab Republic of Egypt. *World Englishes*, *19*(2), 225–238.

Schneider, E. W. (2010). Developmental patterns of English. In A. Kirkpatrick (Ed.), *The Routledge handbook of world Englishes* (pp. 372–384). Milton Park, Abingdon, Oxon ; New York, NY: Routledge.

Wardhaugh, R., & Fuller, J. M. (2015). *An introduction to sociolinguistics* (7th ed.). Sussex, UK:

John Wiley & Sons.

Youssef, I. (2016). English-Cairene Arabic classroom code-switching: An interactional-sociolinguistic approach. *International Journal of Arabic-English Studies, 16,* 7–28.

Ziamari, K. (2007). Development and linguistic change in Moroccan Arabic-French codeswitching. In C. Miller, E. Al-Wer, D. Caubet, & J. C. E. Watson (Eds.), *Arabic in the city: Issues in dialect contact and language variation* (pp. 275–290). London;New York: Routledge.

Appendices

Appendix A: In-depth Interview

1. ايه رأيكم في الجامعة؟ مبسوطين فيها؟

   What do you think of the university? Are you pleased being graduate students at the AUC?

2. تعرفوا بعض من قبل الجامعة و لا اتعرفتم على بعض هنا؟

   Did you know each other before enrolling or met on campus?

3. ايه اللي انتوا شايفينه في الجامعة الامريكية مش موجود في الجامعات الخاصة التانية؟

   What qualities did you find in the university that does not exist in other private universities?

4. بتدرسوا ايه؟ حتتخصصوا فيه ايه بالظبط؟

   What are your majors? And are you going to specialize in a certain field?

5. ايه اكتر مادة شدت انتباهكم في الكورسات اللي اخدتوها؟

   What was the most intriguing subject you have taken?

6. ايه المادة اللي كنتوا متخوفين منها قبل ما تخدوها و بعدين عجبتكم؟ و هل ناويين تتخصصوا فيها و لا لأ؟

   What is the subject you were dreading to enroll in and when you did you find it interesting? Are you going to specialize in it?

7. مين ناوي يكتب رسالة ماجستير و مين حياخد الامتحان علشان يتخرج؟

   Who will be writing a thesis and who will be sitting for the comprehensive exam?

8. ايه موضوع رسالة الماجستير بتاعتكم؟

   What is the topic of your theses?

9. حد فيكم بيشتغل بجانب الجامعة؟ ايه و فين؟

   Anyone working beside being a graduate student? What and where?

10. طيب عايزين تشتغلوا ايه بعد ما تتخرجوا؟

    What is your dream job after graduating?

11. فيه حد فيكم ناوي يسافر بره بعد التخرج؟ فين؟

    Anyone planning to travel abroad after graduation? Where?

12. ايه طموحاتكم و احلامكم؟

    What are your dreams and ambitions?

13. بخلاف الجامعة و الماجستير بتحبوا تعملوا ايه في وقت الفراغ بتاعكم علشان تفصلوا من المذاكرة؟

    Beside college, what do you like to do in your free time to escape the monotony of studying?

14. في حد بيحب يلعب رياضة مثلا او يرسم؟

    Anyone plays sports or paints?

15. مين فيكم متجوز و عنده أولاد؟

    Who is married? Do you have any children?

16. كلموني عن اولادكم؟ سنهم قد ايه؟ في مدرسة و لا لسه؟

    Can you tell us about your children? How old are they? Are they in schools?

17. ايه اكتر حاجة بتحبوا تعملوها مع أولادكم؟

    What is the most enjoyable thing you love to do with your kids?

Appendix B: Demographic questionnaire

Basic Information:

1. Name: _____
2. Age: _____
3. Gender: _____
4. Nationality: _____ Other: _____
5. Area of Residence: _____

Education:

6. High School: _____
7. University: _____
8. What is your class standing right now?
    - Undergraduate
    - Graduate

Language(s):

9. Mother tongue: _____
10. Describe your level of proficiency in English
    - Excellent
    - Very good
    - Good
    - Poor

Appendix C: Structural patterns in classroom observations

Insertion

1. Context: The instructor was telling the students that she has been reading their journals.

   I: I took a look at every one's journals today. The ladies are fine.

   FUG18: are *eːh!*

   (What!)

   I: the ladies are fine.

2. Context: The following are responses to a question asked by the instructor on the reading activity.

   I: We need the first part.

   FUG21: *ʔah ma-da-h il-*first part.

   (Yes! This is the first part)

   [Then, the student recounted her answer in English. Answer was omitted since it is very long and will not affect the results]

   A few moments later, MUG22 narrated his answer in English to which the instructor gave the below respond. [Again, answer was omitted for same reasons previously mentioned]

   I: you can expand on it

   MUG22: but that is good *yaʕniː*

   (Well, this is good)

   I: Hmmm

Alternation

3. Context: Answer to one of the reading activity questions.

   FUG21: *tab w-illi: katəb* National Academic of Arts

   (What if someone writes National Academic of Arts.)

Mixed patterns

4. Context: After the students read the assigned article. The instructor asked them about the main idea of this article. One of the male students asked for clarification; then he recounted his answer to which a female student commented on.

   MUG19: *hɔwa* I wrote [incomprehensible], I should just write one-point *yaʕni:* *main idea.

   (I should just write one-point, I mean as a main idea.)

   FUG20: I think it is right, *ʔaşloh hɔwa ʃəl-ʔawəl*ʔaşloh hɔwa ʃəl-ʔawəl,* [hesitation] *ʃi: ʔawəl il-*article *lazəm y-t-kaləm ʃəl-ʔawəl ʕala il-*importance *b-taʕet il-*bees

   (I think this answer is correct because he should mention the importance of the bees at the beginning of his answer)

Appendix D: Structural patterns in in-depth interview

1. F: ايه رأيكم في الجامعة؟ مبسوطين فيها؟

(What do you think of the university? Are you pleased being graduate students at the AUC?)

FG27: *hia ʔaltaʃ kəti:r, kaman k-gaməʕa-h xasa-h ʔalta ʃ kəti:r mən il- gaməʕa-h il-xasa-h illi ʔana kənət ʃi:ha illi hia* [name of university omitted/uttered in English], [name of university omitted/uttered in English] *ka:nət yaʕni: bəʔəs baʔəs.*

FG26: mən nəħyət

FG27: workload *ka:n təʔi:l gədan w-ʔana b-ʃtaġal w-il-*administration *ʕandəhəm məʃ məʃ baidəki: mesa:ħa-h t- ʕmeli: ʔai: ħaga*

FG26: you mean *w-ʔənti: b-t-ʃtaġali: baʔa, məʃ məʃ* k-student?

FG27: *il-ʔetnain ʕala ʃekra-h, il-ʔetnain, w-ʔənti:* student, *ʔənti: hi:nãk ʕalʃan t-dresi: bas maʃe:ʃ mesa:ħa-h l- ʔay ħaga tani:a.* w-ʔənti: b-t-ʃtɑġli:, ʔənti: hi:nãk ʕɑlʃɑn t-ʃtɑġali: bas [laughing] illi hɔwa yɑ ħɔmar b-tədres, ya ħɔmar b-t-ʃtɑġɑl … *hina, ħasait ʔenɔ ʃih* sense of community *kəda-h ma-kanəʃ mægu:d hi:nãk*. *il-*feedback *ʔaltaʃ b-kəti:r, el-nass ʔaltaʃ mən nəħyət illi howa.*

FG28: [cut-off- FG26] They are very helpful *w-kəda-h*.

FG27: helpful *ʔah*

2. F: What are your majors? And are you going to specialize in a certain field?

[It should be noted that the student went on to talk about her dream job and what she wants to do after graduating. As such, the research did not feel the inclination to interpret her and let her finish up her utterance in order to collect a spontaneous speech utterance.

FG28: *Boşi: ʔana* I really like teaching a lot, it's my passion. *Bas ʔana bardo-h baħeb il-* [name of field omitted/uttered in English]. *ʃ-ʃarħana-h ʔənɔ-h hɔwa ʕarʃa-h* it's a bigger umberalla. *illi hɔwa* [name of field omitted/uttered in English] *t-ħəti:-h il-* [name of program omitted/uttered in English] *di: bəl-nissba-h lya-h ħəlwa-h ʔawi: l-ʔenɔ-h ʔana b-ħəb il-ʔetnain. ʔana kaman, ʔana məʃ* bɑs a teacher, *ʔana kaman* translator ʃ-da-h [name of major/uttered in English] *bi:ʃədni: kaman fi: il-*translation. *w-il-ʔetnain dɔ:l ʔana baħebohəm, yaʕni: da-h* is my passion, *yaʕni: baħeb il-ʃəkra-h b-taʕet il-*education, *w-baħeb il-ʃəkra-h b-taʕet* you kind have a hand in raising a whole generation *w-ʔənti: yaʕni:* you are raising kids. *məʃ bas, yaʕni: ʔənti: b-təlʕabi: zai:* a second role *ʕan il-*parenting *keda-h* you know. *ʔana b-ħəb il-ʃəkra-h di:, ʕagəbani:, ʔənɔ-h ʔana ʔa-*shape, *yaʕni: məʃ* shape, kind of assist in shaping *il-* students personality, students' mentality, student's way of thinking . *ħata law ʔənti:* you are not imposing this on them, *bas ʔənti: b-təsaʕadi:-hɔm ʔeno hɔmã y-*discover themselves, to an extent of course.

ʃ-ʔɑnɑ ʕɑgəbɑni: il-ʃəkrɑ-h di:. ʃ-dah ʕɑlɑ gannəb, ʔah! *ʔana baħeb ʔawi: il-*teaching *w-nəʃsi: ʔatxasas fəh* like forever. *w-ʕala il- nəħya-h il-tani:a-h bardɔ-h* translation, I'd like to do that as [incomprehensible English word] bɑrdɔ-h forever, *l-ʔenɔ-h b-ħəs ʔenɔ-h hɔwa b-tʃaġali: fi: dəmaġək ʔawi:, ʕaməl zai: il-*math *ʔawi:*.

3. In response to a question about the children of one of the students, she gave the below utterance.

F: [addressing FG26] il-welɑ:d məgɑnəni:nək wɔlɑ ʕɑməle:n e:h məʕaki:?

FG26: *tabʕan* literally, *ʔana ma-b-ʕməlʃ ħaga ʔɔwəl ma-y-dəxlɔ il-bait, ʃ-ma-y-nəʃaʕəʃ ʔaʕməl ħaga ʔaşlãn, yaʕni: kəʃãya-h bas il-*time *ʔenɔ-h ʔana ʔaʃok il-ʔeʃətebaka:t w-*

il-xena:ʔat w-il-darəb w-il-ʃata:yəm w-il-ħagat illi b-yəʕəmelɔha maʕ baʕəd di:, ʃ-mogarəd ma-y-dəxlɔ mən il-bait ʔana b-rəmi: il-waraʔ w-tabʕan b-y-bʔa-h lunch time *ʕandi:.*

[son name is omitted] ʃi: ʔɔlã ʔəʕədadi: ʕandɔ-h ʔetna:ʃar sana-h, w-[daughter name is omitted] taman sene:n, daxəle:n baʔa ʃi: il-teenage *w-ʔəbtada-h y-ħəs b-naʃəso-h.*

FG27: [overlapping] ħ-nəkbar baʔa.

FG26: kəl ħaga tabʕan gəda:l … *bas hɔwa baʔa delwaʔty b-y-ħawəl ʔenɔ-h hɔwa e:h* to distance me, "laʔa-h il-məzakəra-h b-taʕəti: malke:ʃ daʕwa-h bi:ha".

….

w-baʕdi:n hɔma-h ʃi: il-madərasa b-y-ʕamələ-h ʔenɔ-h hɔwa baʔa delwaʔty independent *w-le:h* student record *w-hɔwa illi il-ma ʃrɔ:ḍ y-kətəb l-naʃsɔ-h, …,* ʃ-ʔana tabʕan ma-baʕəraʃəʃ ʔay ħaga, ʔana b-ʕraʃ mən il-dara:gat. *ʃi:n ya ħabi:bi:* il-record, bətaʕɔ-h ʔabyaḍ warəd … *ʔasmaʕ baʔa kəda-h* piece of news *ʕala* il-whatsapp. e:h da-h [name of son is omitted] ʕala ʃəkra-h ʔə nta ʕanədak ʔemtəħan.

hɔwa bas good reader. *ʔaʔədar ʔaʔɔ:l ʔale:h yaʕni: b-y-ħeb y-ʔəʔra-h ʃi:* il-history, *b-y-ħeb y-ʔəʔra-h ʃi:* il-science, *il-ħagat di:.*

FG28: ʔənti: illi xalәti:-h y-ʕəməl kəda-h?

FG26: hɔwa tabeʕəto-h kəda-h ʃɔwi:a-h, ʔaktar, *hɔma-h tabʕan ʃi: il-madərasa ka:nɔ b-y-ħwlɔ y-xalɔ: ʕandɔhom* il-skills *di: mən w-hɔm a ṣoġi:are:n,* il-reading, *lakən hɔwa, hɔwa b-y-ħeb kəda-h.*

4. The students were giving their views on certain aspects of the thesis writing process.

FG30: I feel *ʔənɔ-h il-sara:ħ-a yaʕni: law ka:n ʃi:h* option *ʔənɔ-h yxalɔ: ʔa:xər* semester *li:na ʃi:* il-master's *yebʔa bas* devoted *ləl* thesis *bas, b-ħaθ ʔənɔ-h maʃi:ʃ, ma-b-yəbʔa:ʃ ʃi:h*

distractions.

FG29: [overlapping] distractions

FG30: da-h yəbʔa ʔaʃəḍal keteːr ləl gawda-h b-taʕət il-ħaga illi b-tətʔadəm.

FG29: … *yaʕniː yaʕniː ʔəntiː ʃiː* il-thesis, *ʔah ʔəntiː b-t-kətebiː**you are supposed to be *yaʕniːyaʕniː* a prospective researcher and everything *bas ʃiː il-ʔaxərʔəntiːyaʕniːʔəntiː* you need guidance because you don't have that much knowledge *ʕalaʃan t-məʃiː ʃiː il-ḍaːreːʔ il-ṣaːħeːħ*.

FG31: [overlapping] ʔah, ʔakeːd.

FG30: [overlapping] ʔah

FG29: ʃ-at least you are supposed to have milestones. *həma il-*milestones *bil-nəssba-h liːhəm* are deadlines, because they have [incomprehensible English word] stuff to do, *bas da-h məʃ ṣaħ, məʃ maʕnã ʔənə-h ʔənta ʕandak ħagat keteːra-h ʔənə-hʔənta* ignore your students completely. Your supervisor or your examiner, whatever, *ʔənta il-maʃrɔːḍ ʔənə-hʔənta* you have your own input which is different from mine. *ʔana ʕandiː perspective k- k- yaʕniː* mini-researcher, *bas ʔənta* you have been a researcher for years *ʃ-ʔənta il- il- input b-taʕətak* is important, *ʔənta il-maʃrɔːḍ t-ʃədəniː ʕalaʃan ʔana ʔaʕraʃ a-*build *ʕala il-*knowledge *b-taʕətak maʕ il-*knowledge b-taʕətiː. *lakən* it's it's not [hesitation] it's a coordinated effort not an individual effort.

5. Facilitator asked the students a variation of question 13 in the form of:

tayəb b-t-ħəbɔː t-ʕəməlɔː eːh bɑːʕeːdan ʕan il-gamʕa-h w-il-derɑːsa-h e- il-mɑgestãr, ʃɔwayet wʔət il-ʃɑːrɑːġ illi ʕandokɔm baʔa b-təʕmelɔ ʃiː eːh?

FG30: I do like *barəḍɔ-h* music, art, travelling. I used to travel a lot *bas* starting *il-*semester

illi ʃɑːt ʃiːh ħagat keteːra-h [incomprehensible ECA word]. … *begad wallaːhi* I'm having a hard time ʕalaʃan ʔana full time job. *il-*[name of employer is omitted/uttered in English] *il-*load *ʃiːha ʂaʕəb*, maʕ kəda-, ʃ-momken lama ʔaxəlaṣ [sound trailed off]. *Barəḍə-h* I like to go out with my friends, shopping *baʔa*, trying different restaurants, Ammm.

Appendix E: Piloting sample

1.	S1	بس أنا رايحة انهاردة
	T	You're going
	S1	.class بعد ال ... همم
2.	T	By the way, I was thinking maybe we don't have to like [pause] discuss social media … Do you have any ideas that you would like to discuss?
	S1	. social media حتكون على ال writing بس ده مهم علشان ال
	T	It is.
	S1	ideas for ايه بقى
	T	Any topics would you like to discuss.
	S1	بس أكيد السؤال حيبقى ايه ال advantages و ال disadvantages of social media
	T	Even if it is, we have like 20 classes of P2
	S1	social media هو كتير شوية على ال
3.	T	So, what do you think of this story?
	S1	in what way يعني
	T	Just the overall sense, what do you think?
	S2	I agree with ..., I wanna مثلاً [pause] when I grow up and I realized that my mother posted a video of me crying on Facebook and everyone knows about, I won't be happy with my mom, thatـف is no way.
4.	S3	مش شرط انه هو [hesitation] انه I don't think مش عارفة

فاقرر انه أنا [pause] to beat her up انه هو [pause] bullying

accept this.

5. S1 (asking the teacher) هو احنا حنقسمه علينا

T Each group is responsible for one criterion. So, you are responsible for “delivery”.

S1 . percent اللي هو عليه اكتر

…….

S1 (asking her colleagues)

organization ولا ال delivery هو احنا علينا ال

S7 delivery خلينا في ال

……

S1 intonation ما تعرفش يعني ايه

S2 لأ ما اعرفش يعني ايه

S1 طب خلاص ده جهل منك

S7 و لا أنا أعرف

S2/S7 intonation يعني ايه بقى

Appendix F: Piloting sample transcribed glossed examples

1. *baʕəd il-*class.

   ‘After the class.”

2. *Bas da-h mohem ʕalʃan il-*writing *ħ-t-kɔːn ʕala il-*social media.

   ‘but this is important for the writing will be on social media.’

3. *Bas akiːd il-soʔal ħ-yebʔa-h eh il-*advantages *w-il-*disadvantages of social media.

   ‘but for sure the question will be what the advantages and disadvantages of social media.’

Appendix G: Consent Forms

THE AMERICAN UNIVERSITY IN CAIRO
INSTITUTIONAL REVIEW BOARD

Documentation of Informed Consent for Participation in Research Study

Project Title: *Syntactic Patterns of Egyptian Colloquial Arabic-English Code-switching: An application of Muysken's typology*

Principal Investigator: Salma Mohamed Farid – salmafarid@aucegypt.edu - 01065889494

*You are kindly asked to participate in a research study. The purpose of the research is to explain and analyze certain grammar patterns Egyptians produce while speaking both in Egyptian Colloquial Arabic as well as in English. The findings may be published, presented, or both. The expected duration of your participation is expected to be one hour, the duration of your classroom session.

*The procedures of the research will be to audio-record your discussion with your instructor and your peers while you are undergoing your daily classroom session. At the end of the session, you will be asked to volunteer in a semi-structured interview at a later date.

*There *will be no* risks or discomforts associated with this research.

*There *will be no* benefits to you from this research.

*The information you provide for purposes of this research *is confidential.* The audio-recorded data will only be used for the purpose of the study. Your identity will not be revealed to anyone.

*Questions about the research, your rights, or research-related issues should be directed to Salma Mohamed Farid at 01065889494.

*Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or the loss of benefits to which you are otherwise entitled.

Signature _____

Printed Name _____

Date _____

THE AMERICAN UNIVERSITY IN CAIRO
INSTITUTIONAL REVIEW BOARD

Documentation of Informed Consent for Participation in Research Study

Project Title: *Syntactic Patterns of Egyptian Colloquial Arabic-English Code-switching: An application of Muysken's typology*

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*You are kindly asked to participate in a research study. The purpose of the research is to explain and analyze certain grammar patterns Egyptians produce while speaking both in Egyptian Colloquial Arabic as well as in English. The findings may be published, presented, or both. The expected duration of your participation is expected to be one hour, the duration of your classroom session.

*The procedures of the research will be to audio-record your discussion with your students while you are undergoing your daily classroom session.

*There *will be no* risks or discomforts associated with this research.

*There *will be no* benefits to you from this research.

*The information you provide for purposes of this research *is confidential.* The audio-recorded data will only be used for the purpose of the study. Your identity will not be revealed to anyone.

*Questions about the research, your rights, or research-related issues should be directed to Salma Mohamed Farid at 01065889494.

*Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or the loss of benefits to which you are otherwise entitled.

Signature _____

Printed Name _____

Date _____

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INSTITUTIONAL REVIEW BOARD

Documentation of Informed Consent for Participation in Research Study

Project Title: *Syntactic Patterns of Egyptian Colloquial Arabic-English Code-switching: An application of Muysken's typology*

Principal Investigator: Salma Mohamed Farid – salmafarid@aucegypt.edu - 01065889494

*You are being asked to participate in an in-depth interview consisting of 3 to 4 informants and answer a demographic questionnaire. The purpose of the research is to explain and analyze certain grammar patterns students produce while speaking both in Egyptian Colloquial Arabic as well as in English. The findings may be published, presented, or both. The expected duration of your participation is 30-45 minutes.

*The procedures of the research will be answering the demographic questionnaire first. Then, as a focus group of 3 to 4 students you will take part in an audio-recorded in-depth interview.

*There *will not be any* risks or discomforts associated with this procedure.

*There *will be* benefits to you from this interview. You will be offered refreshments and snacks.

*The information you provide in the questionnaire and the audio-recorded in-depth interview *is confidential.* Your responses will only be used for the purpose of the study. Your identity will not be revealed to anyone.

*Questions about the research, your rights, or research-related issues should be directed to Salma Mohamed Farid at 01065889494.

*Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or the loss of benefits to which you are otherwise entitled.

Signature _____

Printed Name _____

Date _____

Appendix H: IRB Approval letter

CASE #2018-2019-089

THE AMERICAN UNIVERSITY IN CAIRO
INSTITUTIONAL REVIEW BOARD

To: Salma Farid

Cc: Sara Tarek

From: Atta Gebril, Chair of the IRB

Date: March 1, 2019

Re: Approval of study

This is to inform you that I reviewed your revised research proposal entitled "**Syntactic Patterns of Egyptian Colloquial Arabic-English Code-switching: An application of Muysken's typology**" and determined that it required consultation with the IRB under the "expedited" category. As you are aware, the members of the IRB suggested certain revisions to the original proposal, but your new version addresses these concerns successfully. The revised proposal used appropriate procedures to minimize risks to human subjects and that adequate provision was made for confidentiality and data anonymity of participants in any published record. I believe you will also make adequate provision for obtaining informed consent of the participants.

This approval letter was issued under the assumption that you have not started data collection for your research project. Any data collected before receiving this letter could not be used since this is a violation of the IRB policy.

Please note that IRB approval does not automatically ensure approval by CAPMAS, an Egyptian government agency responsible for approving some types of off-campus research. CAPMAS issues are handled at AUC by the office of the University Counsellor, Dr. Ashraf Hatem. The IRB is not in a position to offer any opinion on CAPMAS issues, and takes no responsibility for obtaining CAPMAS approval.

This approval is valid for only one year. In case you have not finished data collection within a year, you need to apply for an extension.

Thank you and good luck.

Atta Gebril

Dr. Atta Gebril
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