

Summer 8-2018

# Multilingual Codeswitching Between Arabic and English: Structural Patterns, Conversation Strategies, Identity Exhibitions, and Educational Applications

Alaa Alhamdan

Follow this and additional works at: <https://knowledge.library.iup.edu/etd>

---

## Recommended Citation

Alhamdan, Alaa, "Multilingual Codeswitching Between Arabic and English: Structural Patterns, Conversation Strategies, Identity Exhibitions, and Educational Applications" (2018). *Theses and Dissertations (All)*. 1653.  
<https://knowledge.library.iup.edu/etd/1653>

This Dissertation is brought to you for free and open access by Knowledge Repository @ IUP. It has been accepted for inclusion in Theses and Dissertations (All) by an authorized administrator of Knowledge Repository @ IUP. For more information, please contact [cclouser@iup.edu](mailto:cclouser@iup.edu), [sara.parme@iup.edu](mailto:sara.parme@iup.edu).

MULTILINGUAL CODESWITCHING BETWEEN ARABIC AND ENGLISH:  
STRUCTURAL PATTERNS, CONVERSATION STRATEGIES, IDENTITY EXHIBITIONS,  
AND EDUCATIONAL APPLICATIONS

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Philosophy

Alaa H. Alhamdan

Indiana University of Pennsylvania

August 2018

Indiana University of Pennsylvania  
School of Graduate Studies and Research  
Department of English

We hereby approve the dissertation of

Alaa Hamdan Alhamdan

Candidate for the degree of Doctor of Philosophy

---

---

Lilia P. Savova, Ph.D.  
Professor of English, Advisor

---

---

Dana Lynn Driscoll, Ph.D.  
Associate Professor of English

---

---

Curtis Porter, Ph.D.  
Assistant Professor of English

ACCEPTED

---

Randy L. Martin, Ph.D.  
Dean  
School of Graduate Studies and Research

---

Title: Multilingual Codeswitching Between Arabic and English. Structural Patterns, Conversation Strategies, Identity Exhibitions, and Educational Applications

Author: Alaa H. Alhamdan

Dissertation Chair: Dr. Lilia P. Savova

Dissertation Committee Members: Dr. Dana Lynn Driscoll  
Dr. Curtis Porter

This study explores naturally occurring data of the codeswitching use of Arabic and English by multilingual Arab students as they attend Arabic weekly cultural seminar sessions during their temporary stay and study in the US. More precisely, it captures their codeswitching use via video recordings which it subjects to linguistic, conversation, sociolinguistic, and education-focused discourse analyses with the implementation of the mixed-method approach. The findings reveal that when codeswitching, multilingual Arab students use different structural patterns that include the use of both Arabic and English as the matrix and embedded languages, or an equal participation of the two. When one of them is used as the embedded language, it provides content morphemes. The conversation analysis reveals that when participants codeswitch, they use conversation strategies, such as storytelling, speech overlaps, and topic management. The sociolinguistic analysis reveals that participants codeswitch to exhibit personal identity through humor and debate, group identity to consolidate ingroup alignment, and outgroup identity to signify distance. Lastly, the education-focused discourse analysis reveals that codeswitching is used to increase curriculum accessibility; (1) to establish the meaning of unfamiliar concepts through translation, clarification, and confirmation; and (2) to expand the discussed academic concepts through elaboration and commenting. In sum, this study seeks to explore what Arabic/English codeswitching looks like and what meanings and purposes it serves in its specific context.

## ACKNOWLEDGMENT

Pursuing a doctoral degree abroad was an overwhelming experience for me and my family, and without the help and support from many, it would not be possible to achieve. Hence, to them, I would like to express my gratitude. First and foremost, thank you Allah, my ultimate Sustainer and Bestower, for paving this road for me to take, for showing me light within darkness and good within hardship, as from you, I gain peace and strength.

The journey of writing this dissertation was ambitious but rewarding because of the persistence and uplifting guidance of my committee chair, Dr. Savova. Thank you for sharing with me sides of your academic and professional richness. Thank you for your positive vibes that fed my focus and determination to complete this work. Words cannot express enough my appreciation to you for your sincerity and helpfulness advising me throughout this process.

I also extend my appreciation to my committee members, Dr. Porter and Dr. Driscoll for accepting to read this dissertation and providing their thoughtful ideas and comments. Thank you for sharing your unique perspectives and intelligence to improve this dissertation.

What gave this journey more meaning is my people, who were there since the beginning of my life and educational journey. I am thankful to my first nurturer and educators, my father (Dr. Hamdan M. Alhamdan) and my mother (Haya O. Almubaraz) for instilling in me the value of seeking truth and internalizing wisdom. I am also thankful to my siblings for empathizing with my hardships and celebrating my accomplishments. Thank you for your care and support.

I am very thankful to my husband and best friend (Ahmed S. Alrahmah) for his great and continuous support and patience since my undergraduate years. Thank you for not ceasing to believe in me when I doubted myself. Thank you for standing beside me and joining me in this long walk. I am also thankful to my beloved children (Hashem) and (Mohammad) for inspiring

me in every way and helping me to learn more about myself and life. Your expression of interest and pride in what I do motivates me.

Finally, I am thankful to all my participants who showed willingness to be part of this study. I am grateful to all who helped to make this dissertation possible.

## TABLE OF CONTENTS

| Chapter |  | Page |
|---------|--|------|
| ONE     | INTRODUCTION.....  | 1    |
|         | Focus of the Study.....                                      | 2    |
|         | Researcher’s Motivation.....                                 | 3    |
|         | Significance of the Study.....                               | 7    |
|         | Purpose of the Study .....                                   | 8    |
|         | Research Questions .....                                     | 9    |
|         | Context of the Study.....                                    | 10   |
|         | Glossary of Main Concepts.....                               | 11   |
|         | Overview of Dissertation.....                                | 13   |
| TWO     | LITERATURE REVIEW.....                                       | 14   |
|         | Relevance of the Study.....                                  | 15   |
|         | Finding the Literature.....                                  | 16   |
|         | Multilingualism.....   | 17   |
|         | Multilingualism.....   | 17   |
|         | Multilinguals.....   | 19   |
|         | Codeswitching .....  | 22   |
|         | Conceptualizing Codeswitching .....                          | 23   |
|         | Codeswitching and Related Terms.....                         | 26   |
|         | Multilinguals’ Codeswitching.....                            | 28   |
|         | Codeswitching: Linguistic Perspective.....                   | 29   |
|         | Matrix Language Frame (MLF) Model .....                      | 32   |
|         | 4-Morpheme (4-M) Model.....                                  | 35   |
|         | Codeswitching. Sociolinguistic Perspective.....              | 43   |
|         | Codeswitching and Identity .....                             | 45   |
|         | Codeswitching. Conversation Analysis Perspective.....        | 48   |
|         | Codeswitching. Education-Focused Discourse Perspective ..... | 52   |
|         | Chapter Summary .....  | 55   |
| THREE   | METHODOLOGY.....   | 57   |
|         | Research Questions.....                                      | 57   |
|         | Mixed Method.....  | 59   |
|         | Quantitative Analysis.....                                   | 61   |
|         | Qualitative Analysis.....                                    | 63   |
|         | Combining Quantitative and Qualitative Analysis.....         | 66   |
|         | Research Design.....   | 67   |
|         | Participants.....  | 68   |
|         | Site.....  | 71   |

| Chapter |  | Page |
|---------|--|------|
|         | Data Collection.....                                     | 72   |
|         | Transcription Methods.....                               | 74   |
|         | Data Sample.....   | 77   |
|         | Data Sets.....   | 78   |
|         | Validity of the Study.....                               | 81   |
|         | Ethical Considerations.....                              | 82   |
|         | Chapter Summary.....                                     | 83   |
| FOUR    | DATA ANALYSIS.....                                       | 85   |
|         | Introduction.....  | 85   |
|         | Codeswitching. Linguistic Analysis.....                  | 87   |
|         | Whole-Language Level Analysis.....                       | 89   |
|         | Sentence-Level Analysis.....                             | 97   |
|         | Morpheme-Level Analysis.....                             | 103  |
|         | Codeswitching. Conversation Analysis.....                | 116  |
|         | Story Telling.....                                       | 118  |
|         | Speech Overlaps.....                                     | 124  |
|         | Topic Management.....                                    | 128  |
|         | Miscellaneous.....                                       | 132  |
|         | Codeswitching. Sociolinguistic Analysis.....             | 133  |
|         | Personal Identity Exhibition.....                        | 134  |
|         | Group Identity Exhibition.....                           | 139  |
|         | Codeswitching. Education-Focused Discourse Analysis..... | 145  |
|         | Increase Curriculum Accessibility.....                   | 146  |
| FIVE    | DISCUSSION AND CONCLUSION.....                           | 157  |
|         | Introduction.....  | 157  |
|         | Summary Data Analysis.....                               | 157  |
|         | Research Question 1.....                                 | 160  |
|         | Research Question 1a.....                                | 160  |
|         | Research Question 1b.....                                | 162  |
|         | Research Question 1c.....                                | 164  |
|         | Research Question 2.....                                 | 166  |
|         | Research Question 2a.....                                | 166  |
|         | Research Question 2b.....                                | 168  |
|         | Research Question 2c.....                                | 169  |
|         | Research Question 3.....                                 | 170  |
|         | Research Question 3a.....                                | 170  |
|         | Research Question 4.....                                 | 172  |
|         | Research Question 4a.....                                | 173  |
|         | Conclusion.....  | 174  |
|         | Significance of the Study's Findings.....                | 178  |



| Chapter   | Page |
|---|------|
| Directions for Future Research.....                       | 181  |
| REFERENCES.....   | 184  |
| APPENDICES.....   | 194  |
| Appendix A - IRB Approval Letter .....                    | 194  |
| Appendix B - Permission Letter for The Study's Site.....  | 196  |
| Appendix C - Teacher Informed Consent Document .....      | 197  |
| Appendix D - Legal Guardian Informed Assent Document..... | 199  |
| Appendix E - Child Voluntary Assent Document .....        | 201  |
| Appendix F - Sample Data Transcription .....              | 203  |

## LIST OF TABLES

| Table |   | Page |
|-------|---|------|
| 1     | List of Conversation Analysis Conventions and Abbreviations.....                                    | 65   |
| 2     | Overview of Research Questions, Information Needed, and Data Analysis Methods.....                  | 69   |
| 3     | Participants.....   | 71   |
| 4     | Details of Data Sets.....   | 79   |
| 5     | Summary of Data Sets.....   | 80   |
| 6     | Summary of Data Sets. Individual Categories' Representation in the Study's Data Corpus.....         | 158  |
| 7     | Codeswitching. Linguistic Analysis. Data Occurrences. Numbers and Percentages.....                  | 161  |
| 8     | Codeswitching. Conversation Analysis. Data Occurrences. Numbers and Percentages .....               | 167  |
| 9     | Codeswitching. Sociolinguistic Analysis. Data Occurrences. Numbers and Percentages .....            | 170  |
| 10    | Codeswitching. Education-Focused Discourse Analysis. Data Occurrences. Numbers and Percentages..... | 173  |

## LIST OF FIGURES

| Figure   | Page |
|--|------|
| 1 MLF model for linguistic analysis.....   | 34   |
| 2 4-M model for linguistic analysis.....   | 37   |
| 3 The language structures of codeswitching. MLF and 4-M models combined.....   | 42   |
| 4 Summary of the research design.....  | 68   |
| 5 Data collection and analysis.....  | 77   |
| 6 Linguistic Analysis. Whole-language, sentence-level, and morpheme-level Analyses.....                                | 88   |
| 7 Whole-language level analysis. Distribution of matrix language frequencies.....                                      | 90   |
| 8 Linguistic Analysis. Distribution of intra-, inter-, and extra-sentential codeswitching Instances.....               | 97   |
| 9 Content morphemes. Distribution of frequently occurring types.....   | 105  |
| 10 Conversation Analysis. Distribution of main conversation strategies.....  | 117  |
| 11 Conversation Analysis. Distinctive thematic foci of major conversation strategies.....                              | 118  |
| 12 Sociolinguistic Analysis. Distinctive foci of sociolinguistic practices in Codeswitching.....                       | 134  |
| 13 Sociolinguistic Analysis. Exhibiting personal and group identity.....   | 135  |
| 14 Educational-focused discourse analysis. Distribution of codeswitching use to increase curriculum accessibility..... | 147  |
| 15 Education-focused discourse analysis. Using codeswitching strategies for Curriculum accessibility.....              | 147  |

## CHAPTER ONE

### INTRODUCTION

*Sal: Personally, I will admit that, when I go to public places such as banks and restaurants, I sometimes spontaneously use some English phrases and without intending to do so or try to embarrass others. Do you experience the same when you go out to places and interact with people?"*

*Qusai: [laughter] Noooo, I'm a Jeddah boy, I'm Hejazi. When I start to speak with others in public, I use Arabic. However, English comes out of my mouth smoothly when, say, you and I get engaged discussing topics. So usually when I'm talking with you in Arabic, woop [gesture with his arm], an English word or two would pop up and then more English would come. When I see that you are engaged with me in both Arabic and English, then I know we understand each other well." (Sal, 2012)*

This is an excerpt from a YouTube interview between two Arab returnees who have lived for several years in the US and the UK before returning to their Arab home countries. Their conversation is centered on their codeswitching between Arabic and English, how it happens, how they manage it, and how others react to it. As a response to continuous criticism from viewers and others, Sal's goal for conducting the interview and posting it online is to educate his audience, and to discuss and justify his constant codeswitching in his YouTube videos.

According to those criticisms, switching between Arabic and English or interspersing English words into Arabic conversation is inappropriate and disrespectful to the listeners because those who don't understand these insertions would feel alienated or excluded (Gumperz, 1982).

However, although some still voice their opposition to codeswitching between languages, the latter is becoming more prevalent among a growing number of Arab millennials today. Thus,

Sal's YouTube video offers an informal justification for his codeswitching but also a criticism of those who condemn such codeswitching practices. It is also a testimony to the nature of codeswitching as a common, undeniable, and expanding phenomenon.

### **Focus of the Study**

The issue of codeswitching has become central to multilingualism research in the last few decades. Although the initial interpretation of codeswitching as a language behavior regarded it as "interference" from one language to another (Wienrich, 1953), research quickly grew to reexamine its complex nature and significance. Demonstrating their conclusions derived from naturally occurring recorded data, recently, more researchers argue that the practice of codeswitching is not only natural but also inevitable when two or more languages are in contact (Nilep, 2006). Furthermore, a substantial shift in opinion now attributes codeswitching to the rich and skilled language performance of multilingual speakers (Myers-Scotton, 1993) who now use multiple linguistic and cultural resources available to them (Auer, 1995).

As this conversation continues, more studies in various multilingual communities and different contexts emerge to further explain the nature of codeswitching as a naturally occurring linguistic practice typical for individuals conversant in more than one language and culture. Besides being a multilingual language practice, codeswitching is also as diverse as multilingual speakers and communities are. Exploring such diversity has been central in recent codeswitching research, thus leading to its deeper and more accurate understanding. Consequently, multilingual codeswitching has emerged as a field of study on its own as well as a main focus of interest and relevance to several other disciplines such as bilingualism, multilingualism, linguistics, sociolinguistics, and psycholinguistics (Isluin, Winford, & PeBet, 2009).

This dissertation presents an exploratory study of linguistic and sociolinguistic patterns of multilingual Arab children's codeswitching between English and Arabic occurring in weekly seminar sessions at their local community. More specifically, it focuses on these children's codeswitching practices in the context of acquiring Arabic linguistic and Islamic cultural knowledge that is lacking in their US schooling. It looks at linguistic and sociolinguistic patterns of the students' codeswitching instances between English and Arabic when interacting with one another and their teacher. Also, it seeks to enrich the understanding of codeswitching practice through a mixed-method research approach. Hence, this dissertation seeks to contribute to the ongoing conversation on codeswitching as a feature of multilingualism, often defined as the use of multiple languages by the speakers in the same interactional episode. Also, it attempts to identify and clarify the nature of the inevitable switching between languages typical for multilinguals.

### **Researcher's Motivation**

Besides my observations of adult, adolescent, and child codeswitching from Arabic to English and vice versa, my personal experience motivated me to select this topic: Observing my children and their friends codeswitch from Arabic into English, taking linguistics classes and learning about language development, teaching Arabic to a group of children in the U.S., as well as hearing parents like me openly worry about their children's codeswitching and about their life back in their Arab communities convinced me that codeswitching is not casual or accidental and that I wanted to understand it better as well as help others overcome their doubts and apprehensions about their own and others' codeswitching.

Growing up in a monolingual society that views its language, Arabic, as sacred, I have heard passionate discussions and read authoritative publications about the illegitimacy of using

or switching to another language while speaking Arabic. So much so, that I fully bought into the movement by the Arabic Language Assembly (ALA) who strive to resist the use of foreign words in Arabic speech and publications and has pledged to Arabize or find Arabic equivalents for foreign words adopted in the process of colonization and globalization. Like many other Arabs, I was convinced in the veracity of this notion. However, my conviction started to wane after my family and I moved to the US in 2010.

When my two sons enrolled in an American public school, I found myself in an emergency situation. My older son, then a first grader, struggled adjusting to the new place's language and culture. As a parent, I tried to provide him with all the support I could to help him learn enough to function in English as fast as possible. Fearing the worst, at home, I started showering him with as much English as possible by speaking and reading to him in English to prepare him for the next day. I also provided him with a great number of additional resources such as digital media and books. While I primarily focused on him, his brother learned English along with him. In a couple of months, I gladly noticed that my sons' English was improving fast. However, to my consternation, English was also gradually becoming my sons' dominant language. I found the result shocking and deeply disturbing, but confident in my motherly love and good intentions, I set my next task to be securing a balance in my sons' use of Arabic and English as they develop their proficiency in both. I threw myself into that with equal passion making sure that Arabic is present in my children's daily use for family and social interaction, literacy development, and for future academic purposes.

Thus, I felt like a winner but not for long. Being exposed to and immersed in both English and Arabic, they often switched between them. They switched within and between sentences. At first, I wasn't aware of this behavior and since I understood both languages, I

didn't see anything wrong or unacceptable about it. Often, talking with my sons, I even found myself a willing participant in this codeswitching behavior to maintain the conversation and to stay connected with my children. However, soon, as I started to reflect on their codeswitching, I took it seriously, especially when we went back home to visit family for the first time. My family and friends blustered me with comments, opinions, and advice about my children's use of two languages simultaneously. Many of them were concerned that English was weakening their knowledge of Arabic and Arabic culture. To this day, I remember my mother saying, "If your children continue speaking like this, they will end up knowing neither Arabic nor English!" Such comments scared me even more because I didn't know what exactly was happening or why. On the positive side, it motivated me to study this issue closely. But still, these comments reminded me of the predominant social stigma on codeswitching when speaking Arabic, and, at that early stage, of the potential harm behind it.

Furthermore, learning about linguistics and language development during my bachelors, masters and doctoral degree coursework, I became more motivated to inquire about codeswitching. In addition to my children, I have become more aware of the language behavior of many other multilingual children in my local community here in the US where, according to the US Department of Education, the percentage of multilingual children enrolled in the US public school has increased from 8.8 to 9.2 percent in one decade (U.S. National Center for Education Statistics, May 2015). Of these students, the second largest group speaks Arabic as a home language. It is important to note that the statistics only includes multilingual students who attend ELL classes, while many others are not counted because they are not enrolled in ELL classes. In fact, most of the participants in this study are not enrolled in ELL or ESL classes.



My perspective on codeswitching further expanded and I became even more motivated to study the nature of codeswitching here in the US, at my local community, where, for a year, I had the opportunity to teach Arabic language and Islamic studies at the Arabic Sunday school. During that year, I learned that codeswitching is not exclusive to my children. I noticed that many of the multilingual children constantly switch between Arabic and English when they communicate with each other and with their teachers, especially when they know that their teacher understands and shares their linguistic repertoires. As I constantly observed them and interacted with them, I've become more interested in understanding the nature of their codeswitching practices, especially in the informal learning sessions they attend at their Sunday seminar sessions. I observed how multilingual Arab children attending the school codeswitch between Arabic and English constantly. Although some of them know some other languages, the use of English and Arabic dominates their linguistic production, as these are the dominant languages of instruction at home and here in the US.

These children don't seem to be aware of their codeswitching behavior. Their parents, however, express concerns about their language use, especially if they expect to return home after completing their academic and professional specialization. In their conversations here, at the local community, and online, on social media, they often express how much they wish that their children could separate these languages and use them just like their monolingual children counterparts. Like YouTuber Sal, perhaps these children do not see an issue in codeswitching between languages. Their parents, however, feel deeply worried and helpless. Observing how most of these parents are not aware of the linguistic nature of their children's codeswitching piqued my motivation to conduct this study. I ask, how should this language behavior be understood? What causes and motivates these children to codeswitch? I noticed myself becoming

more aware of the codeswitching practices of these children but what motivated me to study this issue even more closely are the repeated concerns about and the rejection of codeswitching by these children's parents. Conducting close analyses of these children's codeswitching should help parents, the general public, and the research community gain a deeper insight into codeswitching, which could ultimately lead to an informed and rational attitude towards it.

### **Significance of the Study**

Situating the study of codeswitching in complex multilingual communities would contribute to the understanding of the significance of linguistic, social, discourse, and cultural meanings of language use among multilingual speakers (Heller, 1988). This study's linguistic and sociolinguistic analyses aim to inform and influence how codeswitching as a language practice is perceived by multilingual children's educators and communities. While there is a growing interest in multilingual education for young students in Arab countries, codeswitching is usually rejected by many parents, educators, and educational institutions. Hence, this study seeks to reveal codeswitching as a natural process and a feature of multilingualism. It hopes to extend the understanding and recognition of this language use. As multilingualism is spreading and becoming the norm worldwide, this study contributes to the presentation of codeswitching as a linguistic practice which informs and is informed by research and practices in several disciplines such as linguistics, sociology, and education. Also, this study's findings hope to inspire policy makers in education departments in many places to provide appropriate accommodation and support for multilingual children attending their schools.

Further, while there is ample research on codeswitching, the majority of the studies are concerned with 'balanced' multilingual communities (will be discussed in detail in Chapter Two) where the use of multiple languages is the result of geographical positionality, such as those in

several European countries or postcolonial south east Asia and Africa. The literature shows that a few studies have addressed multilingual Arab children (Atawneh, 1992; Al-mansour, 1998; Alenzi, 2001). These studies focus on comparing codeswitching practices of Arab children with those of adults in the same community. They are mainly concerned with how their collected data correspond to linguistic restrictions imposed by the languages in use. Also, the findings of these studies are compared with those from earlier studies that examine language pairs that are different from theirs, such as English and Spanish (Gumperz, 1988). Further, all previous studies on English/Arabic codeswitching use either a quantitative or a qualitative method. The focus of most of these studies is either on the linguistic aspects or on the sociolinguistic features of their collected data. However, this study examines the structural and sociolinguistic features of the codeswitching occurrences by multilingual Arab children through a mixed-methods approach. It seeks to identify the nature of codeswitching among multilingual Arab children in a new context and through focused linguistic and sociolinguistic analyses. In addition to expanding research on codeswitching of ‘unbalanced’ multilinguals, this study seeks to provide insights on how grammatical structures from two languages from different language families cohabit the same speech event.

### **Purpose of the Study**

The purpose of this study is to capture and explore multilingual Arab children’s codeswitching practices during their weekly sessions organized by their local community. It closely examines the linguistic and grammatical patterns as well as the sociolinguistic implications of the participants’ codeswitching occurrences. Also, it examines recurring conversation structures in their multilingual interactions. Specifically, this study identifies four components of the recorded codeswitching incidents:

- *Linguistic*. Identify types of linguistic elements that the participants use when codeswitching. The ‘Matrix Language Frame’ (MLF) Model and its subsequent 4-Morpheme (4-M) model;
- *Discourse*. Identify types of conversation structures that the participants use when codeswitching. Conversation Analysis (CA);
- *Sociolinguistic*. Identity related social meanings and strategies the participants exhibit to achieve their communicative goals when codeswitching;
- *Educational*. Identify educational applications of codeswitching.

### **Research Questions**

Therefore, this study’s research questions are:

1. In the context of linguistics, what structural patterns do multilingual Arab students use when engaging in Arabic/English codeswitching?
  - a. What structural patterns do they use at the whole-language level when codeswitching?
  - b. What structural patterns do they use at the sentence level when codeswitching?
  - c. What structural patterns do they use at the morpheme level when codeswitching?
2. In the context of Conversation Analysis, what conversation strategies do multilingual Arab students utilize when engaging in Arabic/English codeswitching?
  - a. What conversation story-telling strategies do they utilize when codeswitching?
  - b. What conversation speech-overlap strategies do they utilize when codeswitching?
  - c. What conversation topic-management strategies do they utilize when codeswitching?

3. In the context of sociolinguistics, what personal and group identities do multilingual Arab students exhibit when engaging in Arabic/English codeswitching?
  - a. What personal identities do they exhibit when codeswitching?
  - b. What group identities do they exhibit when codeswitching?
4. What educational purposes do multilingual Arab students pursue when engaging in Arabic/English codeswitching?
  - a. What meaning establishment strategies do they use when codeswitching?
  - b. What meaning expansion strategies do they use when codeswitching?

### **Context of the Study**

In order to meet the purpose of this study and answer its research questions, I designed an exploratory study situated in a specific context. The study draws on the data retrieved from video recordings of multilingual Arab children's interactions in seminar sessions in a local community in Western Pennsylvania in the US. These are weekly two-hour Arabic sessions organized by the Saudi Student Association at that university.

The context of this study involves the above seminar sessions in Arabic religious and cultural studies to supplement these children's education in mainstream American public schools with an exposure to Arabic academic and cultural content. More specifically, it involves students in a classroom where they strive to develop their literacy in Arabic language and Islamic culture. This context engages the students in interactions with each other and the teacher where codeswitching occurs between all the participants during these sessions. It comprises four main components, i.e., the classroom, the teacher, the students, and the textbooks. The sessions are held weekly in a campus building at a university in Western Pennsylvania. The primary aim of these seminar sessions is for multilingual Arab children to maintain and develop their Arabic

language skills and expand their knowledge of Islamic culture. The sessions aim to assist the students in learning the Arabic equivalents of the academic concepts they learned in English as well as to help them understand their content and communicate it effectively in Arabic. The sessions involve some lecturing and discussion in a form of questions, answers, and comments. It is important to note that the Arabic language they learn in these sessions is mostly new to them although in their local community and annual trips to their home counties they have been exposed to the cultural practices it represents.

The teacher in these sessions is an Arab who speaks English as a second language. In these sessions, the teacher shares the textbook and other materials digitally, through the use of an LCD projector. The textbooks, free and accessible to the public, are downloaded from the Saudi Arabian department of education's website. The textbooks are written entirely in Arabic. The aim of selecting these textbooks is to teach the students the academic language of Arabic. Yet, language use during these sessions is not restricted to Arabic only by neither the school nor the teacher. The textbooks used are *My Language* and *Islamic Manners and Behaviors*. They are the required textbooks young Arab students use in Arabic language classes in most Arab countries.

### **Glossary of Main Concepts**

In this section, for greater clarity, I provide working definitions of key and frequently used terms in this study. First, concepts are explained through global dictionary definitions followed by their intended meaning in the context of this dissertation. Also, Chapters Two and Three provide broader definitions and detailed discussions of these terms.

***Multilinguals.*** Multilinguals is a contemporary term of bilinguals and refers generally to individuals who use more than one language even if limited to an oral or written discourse, which doesn't always require an overall proficiency (Cenzo, 2013). More specifically, it refers to

individuals who can engage in more than one language in full interactional events. In this study, multilinguals refers to the participant children and their teacher who codeswitch from Arabic into English and vice versa in order to maintain and expand their Arabic by learning new concepts.

***Codeswitching.*** Codeswitching occurs when speakers of two or more languages use these languages alternatively in the same interactional situation (Woolard, 2004; Matthews, 2007). In this dissertation, I use the term codeswitching to refer to the language practices of the multilingual Arab participants in this study as they switch between Arabic and English engaging in inter-sentential, intra-sentential, and extra-sentential codeswitching.

***Inter-sentential switching.*** Inter-sentential switching refers to switches between languages that occur between sentences (Appel & Muysken, 2005). In this dissertation's data analysis, I use inter-sentential codeswitching to differentiate it from intra-sentential and extra-sentential switching.

***Intra-sentential switching.*** Intra-sentential switching refers to codeswitching that occurs within sentences, phrases, and words (Milroy & Muysken, 1995). It is sometimes referred to as 'codemixing,' but for the purposes of this study, I have adopted the earlier terms as they provide narrower distinction between the broadest and commonly referred to types of codeswitching.

***Language morphemes.*** In linguistics, morphemes refer to every segment in language from the smallest to the largest units that carry meaning (Mathewes, 2007). In this study, this term appears in the structural analysis of codeswitching incidents by the participants. Also, it refers to different types of morphemes such as content and system morphemes, which are distinguished based on their syntactic functions.

***Conversation Analysis.*** Conversation analysis (CA) refers to a methodological approach that focuses on analyzing and interpreting oral communication between people (Have, 2007). In this study, I use CA to analyze codeswitching occurrences by multilingual Arab participants during

weekly seminar sessions. CA provides the discourse and sociolinguistic analysis in this study. More specifically, by examining the participants' conversation strategies, I aim to gain a clearer understanding of what this study's codeswitching practices target and accomplish in communication.

### **Overview of Dissertation**

Chapter One introduces the study's focus by placing the issue of codeswitching in a brief discussion of the existing literature. Following this is the researcher's motive to peruse this topic in the specific context of this study. Additionally, it discusses the goals and significance of this study at scholarly and social levels. Following Chapter One, which offers a broad overview of the study, are two chapters which address the issue of codeswitching in depth. For example, Chapter Two contextualizes the study through the presentation and discussion of the literature on multilingual codeswitching. In doing so, it elucidates major theories and models to be used for analyzing the study's main focus. Specifically, it examines definitions and major perspectives of multilingualism and codeswitching as related phenomena. It also reviews related studies of codeswitching in similar contexts in order to demonstrate the demand for an expanded understanding of the issue at its center. Chapter Three focuses on the methods and designs selected to execute the study and answer its questions. It explains the procedures intended for the study's participants, site, context, data collection, and methods and processes of analysis. Chapter Four subjects the study's data to several analyses, linguistic, conversation analysis, discourse, and sociolinguistic. Chapter Five provides answers to the study's research questions and a conclusion to this study.



## CHAPTER TWO

### LITERATURE REVIEW

As discussed earlier, this study aims to examine and analyze captured codeswitching instances by multilingual Arab children attending seminar sessions in their local community in the US. In order to better investigate this issue, this chapter discusses relevant theories and studies found in the literature. It also reviews main areas relevant to this study: multilingualism, codeswitching, linguistic structures, and sociolinguistic practices. It aims to discuss current theories in these areas in order to reveal the essence of codeswitching as a multilingual behavior of social origin and significance.

This chapter begins by discussing the relevancy of this study's research focus. Furthermore, it describes the methods used in the literature review. In addition, it introduces multilingualism as one of the main factors determining the concept of codeswitching and discusses common definitions and different views on this topic. Then, it reviews the literature on codeswitching in relation to multilingualism, including definitions and key arguments. Also, it focuses on the grammatical and sociolinguistic perspectives on codeswitching as used in this study. More specifically, it discusses the prevalent definitions, their use in the literature, as well as the theories and models adopted for this study's data analysis. In the linguistic analysis of the data, it introduces and defines the Matrix Language Frame (MLF) model and its supplement, the 4-Morpheme (4-M) model. It discusses their appropriateness for the linguistic analysis and explains how they identify the linguistic aspects of codeswitching practices in this study. In the sociolinguistic analysis, it discusses the issue of identity in the context of the conversation analysis approach to the study of codeswitching. It also reviews research that examines codeswitching in educational contexts and its contribution to codeswitching in such contexts.

Finally, it summarizes the existing gap in the literature, which calls for the need for conducting the current study in particular and of such studies in general.

### **Relevance of the Study**

Prior to the review and discussion of the scholarly work on this study, it is important to mention that the issue of multilingual codeswitching is not a new occurrence in public discourse and has gained attention and raised concerns in Arab communities over the years. The existence of codeswitching practices dates back to a century and a half ago in reference to the prophet Mohamad and his multilingual multicultural community. Nowadays, however, this issue is discussed in the mainstream media, such as television shows, newspapers and online forums from various Arab countries. Many authors, television-show hosts and guests, scholars, and even religious authorities are speaking publicly on the issue of young Arabs codeswitching between Arabic and other languages but mainly English. Mostly, the discussion highlights the increasing use of codeswitching from Arabic to English among millennials and the need to analyze such speech acts from linguistic, social, and ethical perspectives. It also emphasizes the reasons for viewing codeswitching as an acceptable communication practice (Almunajid, web islamqa.com 2008; YouTube ALMohajer, 2014)). As an ultimate public acknowledgement of its importance, codeswitching is the topic of a TED talk delivered in Arabic in Lebanon (Suzain Talhulk, TED talk, 2015). In it, the speaker highlights the ways in which finding a balance could be reached in terms of using both English and Arabic in the same speech event. The issue of codeswitching is also discussed in daily conversations in Arab communities. As discussed earlier in Chapter One, codeswitching has been the subject of strong-held beliefs and passionate arguments in Arab societies but substantial scholarly research on this subject is still badly needed to enlighten the various aspects of this growing public debate.

## **Finding the Literature**

Since the goal of this study is a scholarly examination of codeswitching between Arabic and English, its literature review focuses on scholarly publications that include peer-reviewed articles, book chapters, and books. The goal of reviewing the literature here is to examine key theories and findings by experts on codeswitching as a field of study as well as identify a gap in existing research which would help contextualize this study's research questions and methodology.

The current study on codeswitching seeks information from several disciplines including, but not limited to, linguistics, sociolinguistics, and education. Therefore, my search for sources includes publications from these disciplines. My research begins with accessible search engines such as Google Scholars, and databases such as EBSCOhost and JStore. For getting better access to many peer-reviewed articles from various journals, I open two Web windows simultaneously, one with my university library database and the other with Google Scholar. This allows me to attain faster access because the two websites are synchronized for a faster download process of articles.

In my search for sources, I use key terms from my dissertation title such as multilingualism, codeswitching, and Arabic-English codeswitching. Examining several reviews and studies and their references has led me to identifying key scholars whose work directly relates to my study, such as Auer (1984, 1988, 1998, 1999), Milroy and Muysken (1995), Myers-Scotton (1995), Insurin and Windfor (2013), Cenzo (2013). The inclusion of sources depends on their relevancy to the study's focus. For saving and organizing sources, I use NoodleTools ([www.noodletools.com](http://www.noodletools.com)), which allows me to annotate and extract key passages and quotes. In order to reveal the problem and present the main argument of this study, I organize the following

review of the literature around major components of the study's research questions: multilingualism, codeswitching, grammatical approaches to codeswitching, sociolinguistic approaches to codeswitching, and studies of codeswitching in educational contexts. This will facilitate narrowing this study's focus.

### **Multilingualism**

The issue of multilingualism is of core significance to the focus of this study.

Understanding the nature and manifestations of multilingualism is crucial in facilitating the data analysis in this study. It helps in contextualizing the problem and in identifying the nature of the participants' linguistic and cultural situation. Hence, here, I review the literature that discusses defining and understanding multilingualism and its ecology.

### **Multilingualism**

As a language phenomenon, multilingualism is complex and sometimes problematic to define due to various differences among individuals and communities. Earlier definitions attempt to define multilingualism relying on criteria of proficiency or frequency (Aronin & Singleton, 2012). Some even limit it to full proficiency of two or more languages (Braun, 1937). However, a recent and broader definition of multilingualism refers to the linguistic practices of individuals who are able to use two or more languages to some degree, and on either or both the oral and the written level (Edwards, 1994; Aronoff & Rees-Miller, 2003). More specifically, it refers to individuals who can engage in multiple languages in interactional events and on varying proficiency levels (Aronin & Singleton, 2008). In other words, the concept of multilingualism focuses on the use and production of languages rather than on the mental cognitive processes of knowing them. Likewise, codeswitching research views it as such and is interested in the study of multilinguals as users of more than one language (Auer, 1984).

The reviewed literature shows that there is no consensus on a narrow definition of multilingualism or on whether it is fundamentally different from bilingualism (Edwards, 1994). Although some ascribe multilingualism to the mastery of three or more languages (Kemp, 2009), multilingualism is comparatively recent as a more generic and inclusive term for phenomena such as bilingualism, trilingualism, or plurilingualism (Cenzo, 2013). Multilingualism also accounts for the complexity of the language practices of individuals growing up in contact with speakers and communities of different language practices whether they are monolinguals, multilinguals, or a mixture of both (Kemp, 2009). Hence, the term multilingualism is no longer treated as a mental state only, but as a dynamic performative process that is affected by ecological situations, both unpredictable and changing. Therefore, multilingualism is seen as an easily and quickly spreading speech practice in modern societies (Edwards, 1994).

The very complexity of defining multilingualism lies in the fluidity of the nature of language and the nature of the proficiency, functionality, and identity of speakers in multilingual contexts (Cenzo, 2013). Among those, the often-cited issue is identifying a multilingual's native language or which of his/her languages comes before the others (Edwards, 1994), especially for children who grow up learning and using multiple languages. This view is aligned with the holistic approach to multilingualism in that languages used by multilinguals are never in comparison with what is perceived as a native speaker of a language (Cenzo, 2013). Rather, it looks at the multilingual individual as a whole. Therefore, in this study, I use the term multilingualism in the discussion of codeswitching as it refers to the diverse linguistic and proficiency backgrounds of the participants in this study. The common linguistic practice they share is that they all engage in full communicative episodes using either or both English and Arabic in the same speech events.

## **Multilinguals**

As multilingualism spreads globally, research interest in this phenomenon has increased. As multilinguals are outnumbering monolinguals (Edwards, 1994; Romaine 1995), the increase of multilingualism is attributed but not limited to several factors, such as colonization, globalization, immigration, spread of technology, and high mobility (Aronin & Singleton, 2012; Blackledge & Creece, 2012; Edwards, 1994; Martin-Jones).

As a result of varying and even overlapping factors for the spread of multilingualism, research also discusses a distinction between multilingual individuals and multilingual communities despite the evident overlap of the two and the fuzziness of such a distinction (Aronin & Singleton, 2012). Furthermore, however, there is an acknowledgment of variation among individuals and within communities. Thus, individuals become multilinguals under different circumstances and for different reasons. For example, those who live in monolingual communities that are not geographically mobile become multilinguals to meet personal goals (Jasone, 2013). Other individuals become multilinguals as a result of mobility, thus, they learn to speak the host county's language besides theirs (Jasone, 2013). Yet other multilinguals who grow up in high mobility minority groups learn to use more than one language on a daily basis by being involuntarily part of two or more monolingual communities (Edwards, 1994). These multilinguals are compelled to learn the language and engage in the literacies of the states or communities they need to function in. Their geographical mobility allows them to gain access to languages beyond the language of their ethnic heritage. Understanding these types of multilinguals requires studying them as situated in their local contexts (Cenzo, 2013; Edwards, 1994).

In this study, Arab children's multilingualism is mainly gained as a result of mobility. When they move to the US and attend school in their host countries for a number of years, they are compelled to learn to speak their home country's language as well as their host country's language (Jasone, 2013). Also, as a result of moving and mixing with diverse individuals and peers, they sometimes learn other varieties of both English and Arabic. Yet, while they share the same general context, the nature of their multilingualism varies based on familial and individual differences. For example, their knowledge of and experience in their two main languages, English and Arabic, varies in a number of ways. Also, some of them learn other languages through interactions with their school peers or through attending official classes such as Spanish, German, and French. While all of my participants are part of both the American and the Arab communities, they are not exposed to both languages in the same degree. For example, some of them have only one multilingual parent and others have both multilingual parents. Also, the varied levels of their language proficiency and literacy affects their use of each language. Yet, as far as oral production is concerned, it is hard to judge which of their languages is dominant as they use both on a daily basis.

Further, it is assumed that multilingual children of immigrants develop distinct types of multilingualism depending on how they use their learned languages in different situations. The question often asked is of what language are these multilingual children considered natives (Kemp, 2009)? In fact, the linguistic situation of these children challenges the very concept of nativism as they learn to speak their home language and the language of their host community on varying scales, where their knowledge of each language changes as their exposure to each differs in type and in degree. In other words, the defining factor here is the functionality of each

language in their linguistic repertoires. Participants in this study build and relate to their multilingualism by geographical, social, spiritual, and intimate experiences and exposure.

With regards to multilingual communities, the literature differentiates between balanced communities, i.e., those in which multiple languages have historically existed in confined time and space, and unbalanced or mobile communities, i.e., those who are mobile between monolingual states (e.g., the Arab community in this study). Such differentiation is relevant to codeswitching research. For example, when the practice of codeswitching is examined in such communities, most practices of codeswitching are considered marked (Myers-Scotton, 1993). However, codeswitching practices in a balanced multilingual community are viewed as unmarked or predictable (Myers-Scotton, 1993). Although Arab communities in Arab countries are considered monolingual, codeswitching is not an alien practice among them. Yet, their codeswitching swings between marked and unmarked depending on their familiarity with these languages and the latter's approval status among different groups. Some switches to English are embraced after being practiced for a while and, hence, well understood and accepted (will be discussed in greater detail in the following section). A factor perhaps is that in local Arab communities more individuals are becoming multilinguals with the increase of mobility and the spread of technology. Here, it is important to note that research on multilingualism and related language contact phenomena such as codeswitching are usually examined in communities of a geographical and sociolinguistic stability (Kemp, 2009). Those who are perceived as 'balanced' multilingual communities are immigrants who have settled in a place for a long time without moving (Cenzo, 2013). However, high mobility multilingual communities are usually overlooked in codeswitching research.



Since multilingualism is not a process with a beginning and an end but rather a continuum or a state of being that individuals experience in various ways and at various degrees and levels, it is almost impossible to discuss it as distinctly compartmentalized. The very diversity of multilinguals cannot be ignored when it comes to studying the ways in which they utilize their linguistic resources. Therefore, examining either or both multilingual individuals and communities as individuals and as groups should be situated in their specific contexts (Aronin & Singleton, 2012). Usually, heterogeneous communities with multilingual and multicultural repertoires differ from monolingual communities in that they don't employ a unified common linguistic system. Therefore, as individuals engage in communicative events with interlocutors in multilingual communities, they negotiate their choice of language considering other speakers' linguistic repertoires (Auer, 1988). The fact is that the sociolinguistic realities and ecology of such communities are varied within and that those variations continue to grow influenced by diverse factors (Spolsky, 2009).

### **Codeswitching**

Understanding multilingualism and the existing perceptions about multilingualism informs this study's analysis of codeswitching among multilinguals. Even when the focus is on one of these concepts, both have to be understood to enable researchers to become fully cognizant of their proposed studies. Codeswitching is one of the communication strategies multilinguals employ in their verbal and written communication. Codeswitching as a practice is recognized when two or more of speakers' languages or linguistic varieties are combined in the same speech event. Before becoming a field of study on its own, codeswitching has been at the center of discussion since earlier research in multilingualism and second language acquisition (Aronin & Singleton, 2012). Since the identification of codeswitching as 'interference'

(Wienirich, 1953), research has sought to understand it and interpret it from several perspectives. As the number of multilinguals is increasing and the practice of codeswitching is explored, codeswitching is believed to have linguistic and social significance for individuals, communities, and languages. Thus, it is important to extend the interpretation of this issue to new cases and contexts. In this study, I use linguistic and sociolinguistic analyses to capture and examine codeswitching occurrences of multilingual Arab students attending weekly educational seminar sessions in Arabic. In order to accomplish this, it is imperative to define codeswitching in relation to multilingualism, examine linguistic, sociolinguistic, and educational theories, as well as apply critical models of analysis to the gathered data.

### **Conceptualizing Codeswitching**

Researchers interested in multilingual codeswitching propose different definitions based on the varying perspectives they adopt and the conclusions they make. For example, from the linguistic perspective, codeswitching is defined as the practice of speakers alternating languages on structural levels including discourse, sentence, phrase, word, or utterance (Poplack, 1980, Bokamba, 1989). More specifically, that means combining words from two distinct languages without any assimilation (Haugen, 1956). From the sociolinguistic perspective, codeswitching occurs when multilinguals resort to different discourse features in response to social factors, such as changing interlocutors, quoting another speaker, or changing topic (Blom & Gumperz, 1972; Auer, 1995). However, a more general definition of codeswitching comes from applied linguistics which views it as a speech practice associated with multilingualism and related to the nature of discourse and the interlocutors engaged in it. Namely, it occurs when two or more languages are used alternatively in one interactional situation (Johnson & Johnson, 1999). These definitions share a definition of codeswitching as a performative speech practice in which

multilinguals alternate between languages at all levels of expression, ranging from the utterance to the discourse level. This includes the various ways in which multilinguals perform such switching. For instance, they sometimes switch when they take turns during a conversation, within a single turn, or even within an utterance string produced by a single speaker (Melory and Mysken, 1995).

While multilingual codeswitching is observed and documented at different times and places, it is widely resisted, rejected, and stigmatized. A predominant belief in the anomaly of codeswitching exists even in multilingual societies (Chan, 2009). Despite naturalistic research about its inherent normalcy in the context of various language pairs, codeswitching is often equated to limited language ability or inability to express oneself consistently in one ‘pure’ language (Chan, 2009). The claim is that those who perform a full switch are the ‘ideal multilinguals’ whereas those who switch within sentences or phrases are not (Cummins, 1979). Such an opinion is observed in earlier research on codeswitching and specifically among the first scholars to coin this term (Vogt, 1954; Weinreich, 1953). For example, Weinreich (1953) suggests conditions under which codeswitching can be considered valid; one, where the situation (e.g., in terms of interlocutors or topic) dictates the switch, and, the other, where words from more than one language don’t mix in one sentence (Chan, 2009).

Further, in more recent research, codeswitching is attributed to language learning (Johnson & Johnson, 1999). In bilingualism research, codeswitching is attributed to the language practice of second language learners who need to use more than one language in a single discourse situation. Yet, others regard codeswitching as the skilled practice of multilinguals who reveal their instant access to and control over their linguistic repertoires (Mayrson-Scotton, 1998). The debate in the literature still continues on whether this practice is a hindrance to the

language learning process, but the reality is that codeswitching is a rather complex practice that is hard to generalize.

Moreover, it is argued that such language practices don't always constitute codeswitching, but rather switching and mixing languages that is common among many multilingual speakers, which proves that codeswitching is a natural and usually unintentional language behavior (Heller, 1988). Furthermore, sociolinguistic evidence shows that multilinguals decide their use of languages in accordance with the social situation in which they verbally participate (Milroy & Muysken, 1995). Such multilinguals do not seem to comply with prescriptions to always use either of their languages in all situations (Milroy & Muysken, 1995). Through empirical evidence, researchers suggest that multilingual speakers perform various types of codeswitching beyond the prescribed syntactic constraints, which includes switches within sentences (Poplack, 1980; Myers-Scotton, 1993). Despite multilinguals' violations of theorized constraints, they are usually aware of social situations that require the separation of languages. Thus, they intentionally suppress their other linguistic resources. Further, studies show that codeswitching is also common among children who grow up in language-contact contexts and at different degrees of exposure and stages of proficiency in the languages that become part of their daily lives (Redinger, 2010). Therefore, generally speaking, codeswitching is viewed as a purposeful optional choice (Romaine, 1994) and a meaningful tool that allows multilinguals to express social cues and maximize social meanings in their interactions (Valdes-Fallis, 1978).

Although the term codeswitching as a distinct language behavior was first coined by Hans Vogt (1954), it is recognized and discussed as a language behavior in work that appeared earlier and aimed to depict language change resulting from language contact (Weinreich, 1953).

Also, in earlier literature and studies, the term codeswitching is used to indicate alternation between dialects or even styles. For example, Gumperz (1972), considered a pioneer in the research on codeswitching, defines it as an inevitable linguistic practice in most of his earlier studies which focus on the use of varieties or dialects of the same language in communicative events. The use of the term ‘code’ in this case refers to dialects rather than to distinct languages. Although some use the term codeswitching to study switches between different dialects within the same languages, it is a more visible phenomenon among multilingual speakers (Auer, 1998) as evidenced by much of recent research on codeswitching related to the issue of multilingualism or bilingualism (Johnson, Johnson, 1999).

### **Codeswitching and Related Terms**

While codeswitching is the most apparent term in research on language contact, some use other terms such as “code mixing.” This term derives from earlier definitions of what constitutes codeswitching. For example, it is argued that codeswitching is performed by ideal multilinguals who switch languages at sentence boundaries and in the appropriate settings (Weinreich, 1953). Also, in the literature on codeswitching, the term “code mixing” is used to distinguish between intrasentential and intersentential switching. A switch that occurs between sentences is termed intrasentential, and a switch that occurs within a sentence, a single utterance, or even a word is termed intersentential (Milroy & Muysken, 1995). As a result of such classification, some prefer to use the term “code mixing” for switches that take place within a sentence or a smaller unit, i.e., for intersentential switches (Muysken, 2000). Also, other researchers discuss further what constitutes the grammar of intersentential codeswitching. For instance, Myers-Scotten and Jake (2001, p. 281) insist that the grammars of the two languages are in contact only in intersentential codeswitching. It is important to note that such terms are used in the literature to indicate the use

of more than one language in the same interactional events in either or both writing and speech. In this study, however, such terms capture and discuss multilingual Arab students' codeswitching instances only from their oral interactions during Arabic seminar sessions.

Another important distinction often discussed in the literature is between codeswitching and borrowing. It is recognized that when the speakers of a language borrow a word from another language they adopt it by applying to it their native linguistic and phonetic rules (Gardner-Chloros, 2008). However, when multilingual speakers codeswitch they preserve the linguistic features of each language, even when mixing the two languages in a single utterance. Therefore, linguistically, borrowing is technically a type of language contact different from codeswitching. The distinction between these two linguistic practices is not entirely clear, especially at a time of rapidly spreading technology and growing population mobility. For example, when Arab college students majoring in English were surveyed to identify borrowings from a given list of familiar words, they weren't always able to identify which words are of Arabic origin and which ones are not (Riema, 2016). It was especially difficult for them to identify 'core loans,' i.e., words that are linguistically assimilated into Arabic (Gardner-Chloros, 2008). The term 'core loans' was coined to distinguish them from 'cultural loans,' which refer to monolingual speakers' use of words from a foreign language due to the lack of native counterparts for the concepts they represent (Gardner-Chloros, 2008). However, this doesn't always apply to speakers from Arab countries. Even as monolingual speakers, although equivalents in Arabic exist, they use some English words as loans. The latter is regarded as common or preference use (Riema, 2016). Thus, such variations within borrowing and codeswitching refine the distinction to a narrower line between the two, especially when

multilingual interlocutors share the same linguistic background. In fact, it increases the relevance of codeswitching as a practice related to multilingualism.

### **Multilinguals' Codeswitching**

Despite the common view that the anomaly of codeswitching discourages and limits multilinguals from fully using their linguistic choices, research shows that codeswitching is common among them. Having the ability to access multiple languages for their mental representation of concepts, multilinguals are in a critical state when verbalizing meanings and thoughts, especially when conversing with individuals who share their linguistic background (Isurin, 2009). Although the multilinguals' linguistic systems play a decisive role in their choice of language exponents, most of the time it is the settings that determine what languages they select for use (Isurin, 2009). Sometimes, only one language can be used but in other situations more than one language is in use. When the latter is the case, the implication is that codeswitching is common, or, that there are no reasons or factors for enforcing the use of only one language (Winford & Isurin, 2009). In this case, multilinguals are expected to codeswitch (Winford & Isurin, 2009). Therefore, sometimes, factors such as discourse, context, and interlocutors dictate the multilinguals' choice of language and limit their expressiveness. The imposing of social and political settings in monolingual environments, which mandates the use of one language at a time also influences multilinguals' choice of languages. It is believed that such impositions of monolingual practices come from the spread of the nation states of Europe that have an undeniable impact on the world (Auer & Li, 2007).

However, in seeking to understand multilinguals' codeswitching, scholarly work explores various sociolinguistic motivations and factors, as well as some syntactic constraints and linguistic patterns of several language pairs. Specifically, studies on codeswitching are

conducted through a number of linguistic and other perspectives, mainly, grammatical (Poplack 1980; Sankoff & Poplack 1981; Joshi 1985; Di Sciullo & Williams 1987; Belazi et al., 1994; Halmari 1997), sociolinguistic (Myrson-Scotton, 1993a, 1993b, 1998), psycholinguistic (Windford & Insurin, 2009; Hell, 2009), sociocultural (Bucholtz & Hall 2005, Nilep 2006), and educational (Romaine 1989; Cenoz & Genesee 2001; and Fotos, 2001 among others). However, this study's methodological objectives focus on the linguistic and the sociolinguistic aspects underpinning multilingual Arab students' codeswitching between Arabic and English during their weekly educational seminar sessions. Below, I provide a discussion of the literature that focuses on multilingual codeswitching from these perspectives.

### **Codeswitching: Linguistic Perspective**

By reviewing the literature in this area, I aim to provide the background and framework for the first research question guiding this study:

1. In the context of linguistics, what structural patterns do multilingual Arab students use when engaging in Arabic/English codeswitching?
  - a. What structural patterns do they use at the whole-language level when codeswitching?
  - b. What structural patterns do they use at the sentence level when codeswitching?
  - c. What structural patterns do they use at the morpheme level when codeswitching?

In other words, what types of linguistic codeswitching do the participants perform on the whole-language, sentence, and morpheme level?

From the linguistic perspective, research on codeswitching analyzes the language knowledge at the multilinguals' disposal when they switch between two language systems in systematic or unsystematic ways. Researchers examining the linguistic structures within which



codeswitching occurs examine switches on the word, phrase, and sentence level (e.g. Poplack, 1980; Myers-Scotton, 1993a, Belazi et al., 1994). Their grammatical approach is by nature descriptive and focuses on describing the above types of codeswitching. For example, on the linguistic level, two main types of codeswitching are identified to differentiate between a switch that occurs between sentences, i.e., intersentential, or the classic codeswitch, and, intrasentential, i.e., a switch that occurs within a sentence (Poplack, 1980).

Studies have shown that intrasentential switching can sometimes extend from sentence boundaries to occur within word boundaries. That happens when language morphemes from one language are added to a word from another language (Romaine, 1989). Because this type of codeswitching forces the grammatical structures of different languages to converge, it is considered risky to perform (Poplack, 1980). Yet, this type of switching is common among Arab multilingual speakers. For instance, it is easy to observe the addition of the Arabic article ‘al’ to words instead of using the English definite article ‘the’ or replace the English plural marker ‘s’ with its equivalent in Arabic (Alenezi, 2001; Elenazi, 2001). Interestingly enough, Arabic loan words in English tend to be integrated with their Arabic article ‘al’ as in ‘alcohol’ and ‘algebra.’ Further, the intrasentential switching is viewed sometimes as the ‘bilingual clause’ (Scotton & Jake, 2000), which is the main focus of structural constraints models in codeswitching research. Also, tag-switching, or extra-sentential switching, indicates switching that occurs between an utterance as a tag or as an insertion, such as ‘by the way’ or ‘you know’ (Milroy & Muken, 1995). Extra-sentential switching also appears frequently in Arabic/English codeswitching studies (Alenazi, 2001; Khaled, 2006).

Emerging from sociolinguistic research from the middle of last century, codeswitching studies (Vogt, 1954; Haugen, 1956), are also gaining prominence in linguistics (Gumperz, 1967,

1970; Gumperz & Hernández-Chávez, 1970; Hasselmo, 1972; Timm, 1975). Focusing on the types of structural patterns, i.e., words and phrases that are selected and on the construction of sentences in the process of switching languages, linguistic research aims to identify general trends in structural restrictions controlling codeswitching. Proposed linguistic models attempt to predict typical structural constraints. Their findings have inspired extensions of theories of structural constraints on codeswitching (Bentahila et al. 1983; Blazi, Rubin & Turbio 1992, 1994; Di Sciullo, Muysken & Sing 1986; Myers-Scotton 1993; Nishimura 1997). Ultimately, their work provides evidence that revokes the myth that ideal multilinguals perform only intersentential switches in specific situations.

In studying constraints and restrictions on multilingual codeswitching, some find empirical evidence that not all codeswitching practices are structurally restricted (MacSwan, 2009), or that they simply do not apply to the cases they studied (Alenzi, 2001; Myers-Scotton, 2002; Safi, 1992; Woolard, 2004). Such different findings support the ongoing argument whether codeswitching is guarded with structural constraints. By studying naturally occurring talk, many appear to prove that previously identified constraints do not apply to various language pairs (Alenzi, 2001; Safi, 1992). However, although earlier proposed structural constraints are not valid for codeswitching patterns in different communities and language pairs (Myers-Scotton, 2002), there are some observed patterns or governing rules influenced by specific participating languages (Jeff Macswan 2005). Therefore, mostly, multilinguals do not randomly practice codeswitching (Myers-Scotton & Jake, 2000) because different language pairs merge in a coordinated manner (Mohamed, 2014).

As mentioned above, there is no consensus on any general structural constraints applicable to all cases and all language pairs in codeswitching. In the reviewed literature,

proposed models of language constraints categorize them as general constraints, specific language-related constraints, or constraints stemming from the matrix language model (Naseh 1997). Despite their diverse findings, the studies focusing on linguistic patterns of codeswitching share similar guiding objectives (Mohamed, 2014), i.e., identifying structural features of multilinguals' codeswitching talk, identifying the main and embedded languages used in a codeswitching occurrence, and identifying the language of origin of the morphemes in the codeswitched words. Also, such shared purposes generate possible structural constraints emerging from specific cross-linguistic integration.

In this study, I conduct linguistic analysis that adopts the Matrix Language Frame (MLF) model and the 4-Morpheme (4-M) model as its supplement. These models inform the linguistic analysis on every level, from language morphemes to syntactic structures (Myers-Scotton, 1995). Since the seminar sessions for the multilinguals in this study are in Arabic, the latter is expected to be the dominant or the 'Matrix' language for both content and discussions. Hence, the MFL model, which focuses on multilinguals' speech production and accounts for case specificity, flexibility, and inclusiveness, provides rich data that optimizes the linguistic analysis. The following section provides further information on the models selected for this study's linguistic analysis.

### **Matrix Language Frame (MLF) Model**

Within the framework of identifying the linguistic constraints on codeswitching, MLF is an influential model proposed by Myers-Scotton (1993), a prominent scholar of codeswitching. The MLF model suggests that when multilingual speakers switch languages, there is a language selected as a base while others remain embedded, mostly in the form of inserted elements from morphemes, words, and phrases. In other words, the languages switched are not used in equal

measures (Myers-Scotten & Jake, 2001). The MLF model is thought to evolve from the notion that languages are asymmetrical when produced in a codeswitching mode (Sridhar & Sridhar, 1980). Speakers are usually in mutual understanding and agreement about deciding which language is the matrix during their interactions. In the MLF model, the base or primary language during codeswitching imposes its structural rules on the embedded one. Thus, it tends to control the word order in sentences. The MLF model then asks which of the multiple participating languages determines the outcomes of the structural production of the multilinguals' codeswitched speech. Typically, the language chosen as the base language imposes its grammatical structure in the speech flow and is selected autonomously (Jake & Scotton, 2009). Further, the matrix language in codeswitching provides the morphosyntactic frame while the embedded language participates in the production of content lexicons (Myers-Scotten & Jake, 2001). Also, it is evident from the corpora collected from naturally occurring conversations that the embedded language elements are affected by the matrix language's morphemic rules, thus restricting the role of the embedded language. In other words, the matrix language is expected to set structural constraints in codeswitching (see Figure 1).

Moreover, an important issue often discussed in the context of the MLF model is language proficiency as a factor in language selection and switching, especially among developing multilinguals. Jake and Scotton (2009) suggest that while multilinguals may select a matrix language at the conceptual level, their choice further depends on larger settings such as the sociolinguistic and psycholinguistic aspects of discourse, as well as on the interlocutors' linguistic competence. Given this, they suggest that high proficiency in the matrix language is required and some proficiency in the embedded language is sufficient to set the structural frame for the multilinguals' codeswitching. Because the matrix language is the primary language for

communication, multilinguals have to have a good mastery of the structure of this language to use it as their main language in a discourse. When they don't, the structural frame is not always dictated by the matrix language but is shaped by the co-participation of the embedded language as well (Myers-Scotton & Jake, 2000).

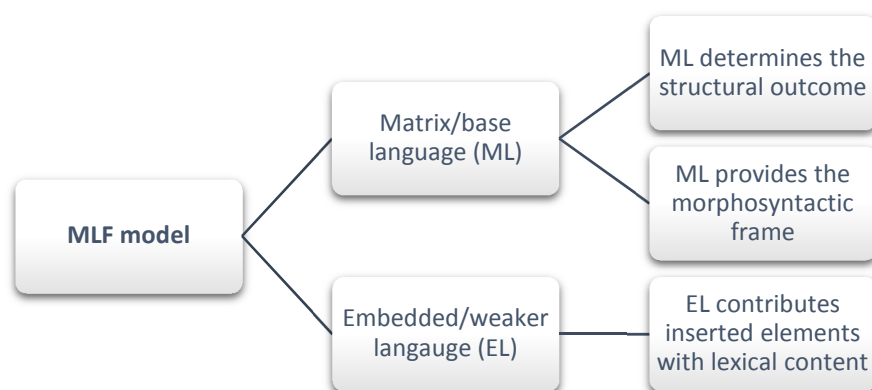


Figure 1. MLF model for linguistic analysis

This explanation, however, does not claim that the matrix language must always be the multilinguals' dominant language because codeswitching requires sufficient knowledge of the embedded language as well. While some suggest that the matrix language is usually the local or the mother tongue (Lahlou, 1991) of codeswitching in a multilingual community, differing situations can impose change of the matrix language even by the same multilingual speakers in the same conversations (Myers-Scotton, 1995). The selection of both the matrix and embedded languages is influenced by the way speakers are connected socio-psychologically with the language that dominates their language production, i.e., their matrix language (Myers-Scotton, 1995; Jake & Scotton, 2009).

On another paradigm, in certain situations, deciding the nature of the language hierarchy of dominant versus embedded languages and which is which can explain the speakers' identities and social relations in different settings. Thus, factors, such as sociolinguistic setting,

proficiency, and personal or group identity may govern the choice of the matrix and embedded languages. In fact, at the time of production, the whole process of codeswitching is not completely a conscious decision of multilinguals (Insulin, 2009). In this study, factors of proficiency, identities, and social relations among the participants, both in English and in Arabic, come at a competing level as they use both languages daily and as a group. This is especially true on the spoken level, which is the focus of this study. Hence, this study's participants' selection of the matrix language may occur in a nonlinear way (Meys-Scotton, 1995).

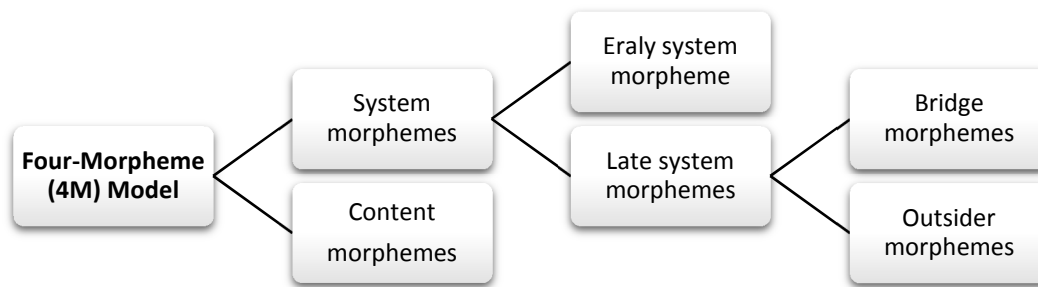
Linguistically speaking, the MLF model is similar to the idea of 'insertion' proposed by Backus (2001) in that they both agree that languages in codeswitching practices come in "interrelated hierarchies" (Meys-Scotton, 1995). The practice of insertion is observed in the codeswitching practices of multilingual children (De Houwer, 1995b; Allen, Genesee, Fish & Crago, 2002). Yet, the MLF model provides detailed framed identification of the types of language elements and of the way these language elements from more than one language form multilingual language production during codeswitching. They seem to agree that nouns that provide content information are the most commonly switched language element, even among young children (Nicoladis & Genesee, 2000). In the MLF model, they are identified as content morphemes that are critical for speakers' meaning making (Myers-Scotton & Jake, 1995).

#### **4-Morpheme (4-M) Model**

As this study intends to examine the linguistic structures within the codeswitching practices of multilingual Arab students, it is useful to adopt the 4-M model, which provides analysis on the morpheme and word levels as a supplement to the MLF model. The 4-M model is proposed as complementing to the MLF model since the latter only accounts for the distribution of the languages' elements in codeswitching but does not closely identify specific participating

morphemes and their functions. The 4-M model is a universal linguistic approach that explains content and system morphemes (Myers-Scotton & Jake, 2000a).

The 4-M model was first proposed by Myers-Scotton and Jake (2000a) as supplementary to the MLF model to be used in the analysis and categorization of the structural aspects of language contact phenomena like codeswitching. The 4-M model is a foundational model that elaborates on different participating morphemes in the structural construct of codeswitching (Myers-Scotton and Jake 2000a). It goes beyond the basic contrast of content versus system morphemes. In its abstract classification of morphemes, the 4-M model categorizes them according to types based on their roles and functions as linguistic elements. Further, such identification and distinction highlights essential language components. (Myers-Scotton & Jake 2000a). The identification of selected elements from the matrix and the embedded language is instrumental in discerning their roles in codeswitching practices. The 4-M model identifies two basic groups of morphemes, that is, content morphemes and system morphemes. On their part, system morphemes branch into one early system morpheme and two late system morphemes, i.e., the bridge and the outsider. Thus, and as the 4-M label suggests, the three system morphemes along with the content morphemes, form four groups of morphemes (Myers-Scotton and Jake 2000a). The following Figure 2 shows how the 4-M model classifies morphemes according to their linguistic functions (see Figure 2).



*Figure*

## 2. 4-M model for linguistic analysis

Following the MLF model, understanding the morphological and semantic roles and functions of each of the four morpheme types discussed above is central to analyzing codeswitching occurrences linguistically (Myers-Scotton and Jake, 2000a). First, content morphemes, as their label suggests, convey the core meaning or the main content of the produced language. The three types of system morphemes on the other hand, carry the relational and functional aspects of language. Unlike system morphemes, content morphemes are accessed at the conceptual level where they provide or receive thematic roles or, in other words, constitute the most meaningful components in clauses and sentences. Commonly, lexical items that belong to the content morphemes group are verbs, nouns, adjectives, and some that function as complementary-like elements. Gender and number morphemes, however, do not belong to this group. The latter are considered ‘early’ system morphemes.

More specifically, early system morphemes modify, complement, or specify the meaning in the direct maximal projection of the single content morpheme they depend on (Myers-Scotton & Jake, 2000a). They are secondary lexical components compared to content morphemes. In fact, they depend on or even adhere to them as prefixes, infixes, or suffixes. For example, the



plural marker 's' in English is a suffix. However, only one of the plural markers that is, the dual marker 'اِنْ/اِ' [a'a/an] in Arabic is a suffix. While English nouns use one morphological marker 's' (regular plurals) and vowel change (irregular plurals) to form plural nouns, Arabic has several early system morphemes, i.e., prefixes, infixes and suffixes that perform that role. Another example is the definite article 'the' in English and its counterpart 'el/al' in Arabic, which functions similarly in both English and Arabic in terms of form and use. Early system morphemes are similar to content morphemes in that they are thought to activate the lemma level, which is the conceptual level where core information is processed (Myers-Scotton and Jake, 2000a). Such activation happens during language production, though not necessarily equally for early system morphemes and content morphemes. The cognitive processing of content morphemes tends to be higher (Myers-Scotton & Jake, 2000a).

The other types of system morphemes are the late system morphemes and the late bridge morphemes such as, in English, the possessive 's' and the late outsider morphemes such as the third person singular 's'. The late system morphemes' role in clauses is merely structural, or for grammatical appropriateness. They link content morphemes that carry the semantic and pragmatic meaning without being part of it. An example of this is the preposition 'of' in English. As a late system morpheme, its function is to provide reference to a content morpheme outside the latter's direct maximal projection. An example of a late outsider morpheme in English is the verb's third person singular 's' that provides information about the subject but is not the immediate morpheme to which the subject is attached. Late system morphemes depend on grammatical information about the immediate maximal projection in which they occur. For this reason, the English third person 's' is an outsider system morpheme. Unlike early system morphemes, the late system morphemes, the late bridge morphemes, and the late outsider

morphemes do not alter the meaning of the content morphemes they are in contact with because they play secondary roles in sentences or clauses (Myers-Scotton & Jake, 2000a).

The above explanations of the different types of morphemes are supported with examples in English. In Arabic, however, late system morphemes may not correlate with their English counterparts. The four types of morphemes discussed within the 4-M model are not language-specific but, as seen from the brief comparison of the English and the Arabic plural markers above, variations do occur between languages. In other words, plurality accomplished with a suffix marker, e.g., a late outsider morpheme in English, may use a different type of morpheme in Arabic, i.e., a prefix, a suffix, an infix, or a combination of these. That is why the 4-M model classifies morphemes according to their linguistic functions. For example, early system morphemes may be content morphemes in Arabic and so forth. In fact, this is what makes this model applicable to different language pairs in codeswitching research.

In addition, the significance of the 4-M model is that it does not assign a fixed corresponding system similar to lexical or grammatical categories. Rather, it examines and evaluates morphemes based on their grammatical and semantic roles in linguistic structures within and across languages. The classification frame this model proposes focuses on the weight of meaning the different morphemes provide and on the degree to which they are affected by conceptual processing or, alternatively, by technical grammatical knowledge and production alone. Further, this model shows that the same lexical category (e.g., nouns) can occur as different morpheme types based on their role in the meaning making but not necessarily in verbal productions. This important feature validates the use of the 4-M model in analyzing multilingual codeswitching data, particularly compared to earlier hypothesized models of structural constraints.

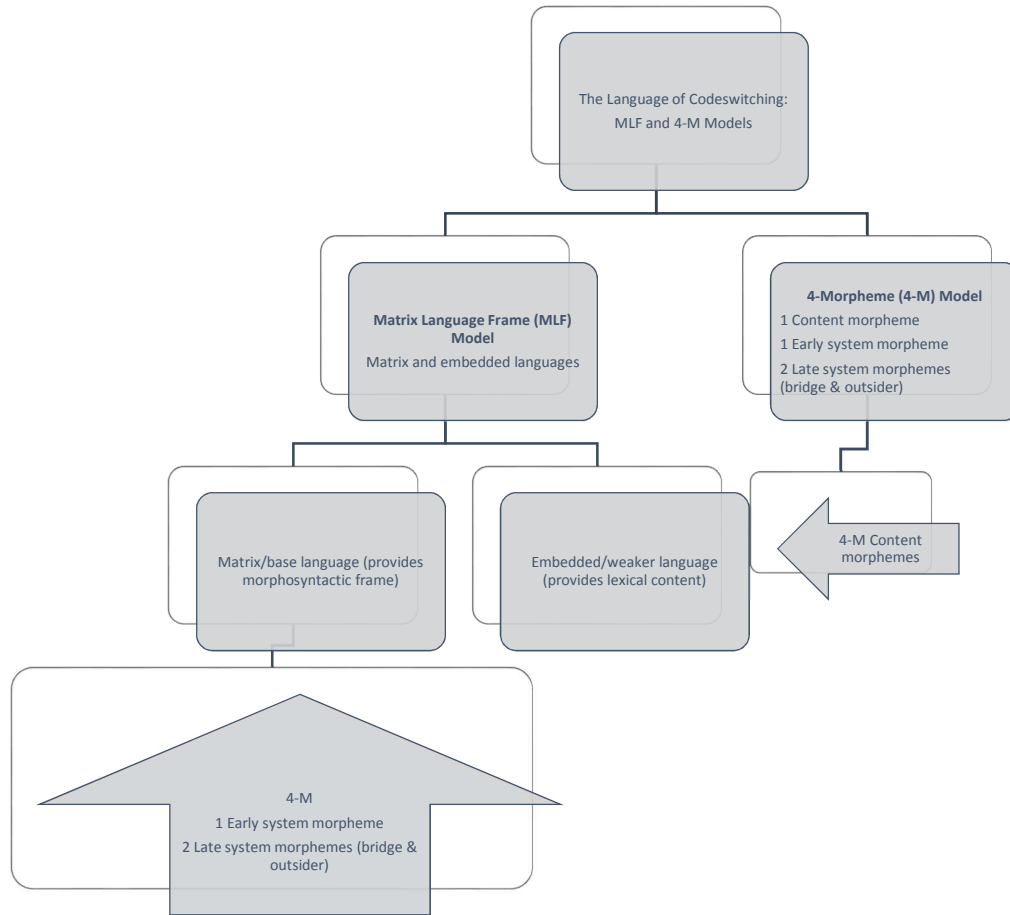
As the 4-M model is designed to investigate processes of cognitive access to and activation of linguistic elements, it would be useful here to apply it in determining what linguistic morphemes from both Arabic and English multilingual Arab students select during their participation in local weekly seminar sessions and particularly in their codeswitching occurrences. Furthermore, it offers a more inclusive and accurate method of distinguishing elements better than earlier concepts of ‘open and closed class elements’ or ‘functional elements.’ For example, not all closed class elements are of the same grammatical type. Thus, affixes as a group type differ vastly in their functional role. Also, not all functional elements share the same features; many functional elements are system morphemes, but some pronouns in both English and Arabic are content morphemes that receive thematic roles.

After reviewing published corpora of multilingual codeswitching data in various language sets, Myerson-Scotton and Jake (2009) as well as others who use the 4-M model find common occurrences of different morphemes derived from the matrix or embedded languages. According to their work, the following are fairly reliable predictions about the nature of switched morphemes:

- Content morphemes are the most switched elements from the embedded language into the matrix language;
- Early system morphemes of prepositions in phrasal verb allocations (e.g., make up) are the most switched elements in cases where English is the embedded language;
- Early system morphemes that are satellite prepositions with phrasal verbs are the second most frequent elements codeswitched from the embedded language into the matrix language;
- Early system morphemes that are prepositions are less frequently switched from the

- embedded language into the matrix one;
- Late bridge system morphemes that are prepositions are the least frequent elements codeswitched from the embedded language;
  - Late outsider system morphemes are codeswitched only from the matrix language;
  - Many subordinator content morphemes are codeswitched either from the embedded or from the matrix languages.

In this study, I use the 4-M model to examine switched elements on both the morphological and syntax levels. This will help to accurately identify what linguistic elements multilingual Arab students switch during their local weekly seminar sessions. Also, it will test the summarized predictions from other studies, which hypothesize occurrences of different types of morphemes in the codeswitched language. Although the 4-M model is not exclusively used to analyze codeswitching multilingual data, it is adequate for analyzing the language practices of multilingual codeswitching. In this study, the 4-M model is used in combination with the MLF model to provide a fuller picture of the structural features of interactional codeswitching (see Figure 3). Figure 3 shows how the two models could be used in conjunction, with the 4-M model complementing both the matrix and the embedded language production where the 4-M content morphemes complement the analysis of the embedded language's lexical contribution and the 4-M early system and late system morphemes (bridge & outsider) complement the analysis of the matrix or dominant language determining the structural outcome in the codeswitching episode.



*Figure 3.* The language structures of codeswitching. MLF and 4-M models combined

Identifying various constraints and patterns on the linguistic level of codeswitching data has impacted the understanding of multilinguals' use of languages. It has also inspired extensive work in the fields of syntax and grammar in general. Yet, the exclusive focus on linguistic structures in studying codeswitching is not sufficient to understand its complex sociolinguistic nature and its broader implications as language practice (Neilp, 2006). Inquiries into the sociolinguistic aspects of linguistic functions and meanings that clarify a variety of socially embedded contextual factors underpinning codeswitching are needed for a deeper understanding of codeswitching as a naturally occurring practice. Therefore, in addition to its linguistic

analyses, this study provides an added sociolinguistic perspective. Below, I review codeswitching as a sociolinguistic phenomenon in its relation to identity and the multilingual classroom.

### **Codeswitching. Sociolinguistic Perspective**

As mentioned earlier, the study of codeswitching emerged as a central sociolinguistic focus of research (e.g. Weinreich 1953; Gumperz 1964, 1982; Poplack 1988; Milroy & Muysken 1995; Myers-Scotton 1993, 1998; Muysken 2000; Auer 1998). Generally, sociolinguistics examines language use. And, as a manifestation of language use, codeswitching is a language contact practice that correlates with social and cultural elements on macro and micro levels. In codeswitching research, the sociolinguistic perspective seeks to investigate the social settings and conditions under which multilinguals choose codes (Bullouk & Teribio, 2009). Thus, it examines linguistic practices within a multilingual community that exists within two or more distinct languages and linguistic contexts (Heller, 1988). In the relevant literature, sociolinguists focus on the pragmatic aspects of codeswitching such as speech reporting, topic related discussions, and the importance of certain social roles. Further clarifications are provided in the following sections.

From a sociolinguistic perspective, codeswitching practices can impact or be impacted by the social and pragmatic factors of interactional situations (Gumperz, 1982). For example, using interactional analysis, an approach adopted from conversation analysis, codeswitching is identified as a ‘communicative source’ that functions at times as a ‘contextualization cue’ similar to gestures and prosody (Gumperz, 1982). Such contextualization strategies rely on prosodic cues in which codeswitching sometimes functions as one of the non-verbal cues to signal references such as topic shift or emphasis (Auer, 1984). Thus, within a conversation analysis

discussion frame, codeswitching plays a role in framing turn taking, the dynamic implicit sequence, and the selected organization, in a similar way to the way prosodic elements, verbal and non-verbal, provide framing to monolinguals' interactions (Auer, 1984; Wong & Waring, 2010). I elaborate further on the Conversation Analysis framework in a later subsection.

Such additional verbal supply from other languages is seen as an additional source of expression available to multilinguals (Auer, 1998). According to this view, multilinguals codeswitch in order to signal cues to their listeners to interpret the meanings of their intended messages semantically and pragmatically. This process is also referred to as meaning built through negotiation (Auer, 1988) where multilinguals communicate intended meanings that are not fixed or prescribed in a language production process that is riskier but more creative.

Consequently, in the center of research on the sociolinguistic perspective on codeswitching lie the communicative goals multilingual speakers seek to achieve switching between languages (Nilep, 2006). As a result of a macro-level examination of social meanings, some propose general factors and reasons why multilinguals codeswitch by suggesting lists of general functions, such as quotation marking, addressee specification, interjection, reiteration, message qualification, and "personalization versus objectivization" (Gumperz, 1982, p.80), as well as extended addition of other social and motivational factors for codeswitching (McClure & McClure 1988; Romaine 1989; Nishimura 1997; Zentella 1997). While the proposed general lists help to understand codeswitching practices, they are insufficient in providing explanations for some common functions (Auer, 1995). For example, no informative explanation is provided for reiteration instances, or for the purposes and reasons words or phrases are repeated in another language (Auer, 1995). Also, while the presumed list of functions applies to a certain interaction, it might not apply to another. Thus, deciding on the functions and the effects of a verbal

interaction or a turn in a conversation would be better understood through the analysis of a real observable specific and situated communicative event (Nilep, 2006).

### **Codeswitching and Identity**

As part of language and language use and as potential bearers of social meanings in a community, codeswitching practices are prominent aspects of the speaker's identity. From a sociolinguistic perspective, focusing on identity related meanings of multilinguals' codeswitching practices, it is most important to distinguish between the 'we' code and the 'they' code (Gumperz, 1982) assigned to the matrix and to the embedded language in a conversation, respectively. Such a distinction represents multilingual speakers' connection and relations with the languages they use on a daily basis. The claim is that even though codeswitching is determined by multiple sociocultural backgrounds and contextual factors, the first language seems to be the "we" code whereas the second language seems to fit the "they" code. Studies show that multilinguals use their first language when they talk with family and close friends and use their second language when talking to outsiders (Gumperz, 1982). This proposition assumes a separation between communities or ethnic identities as they represent an individual's separate languages. Although the 'we versus they' dichotomy has been adopted as a valid distinction to be applied in the analysis of the social meanings of codeswitching, it is problematic in its clear-cut division between the two. While this distinction can be true in some cases, the difference can be complicated and fuzzy (Gafaranga, 2009). In some contexts, such a distinction may even be racist (Gafaranga, 2009). The role and function of multilinguals' ethnic language and their mainstream societal language rather depends on the nature of their multilingualism (Gafaranga, 2009). This is especially true about multilingual children who are developing and using their ethnic and society languages simultaneously. Thus, their languages serve as abstract and



conceptual processing of words rather than as racial behaviors. For such multilinguals, the ‘we/they’ codes are inseparable (Sebba and Wootton, 1998). Their languages in use are communicative resources to be employed, especially when no restrictions are imposed.

On a different note, and in relevance to the issue of identity, codeswitching could be caused by the difference in what each language denotes to multilingual speakers and their interlocutors. In certain situations, codeswitching is not necessarily a matter of the two languages’ status or relation, but rather about multilinguals’ conveying the true meanings of their messages to their listeners (Auer, 1998). The ability to choose with whom, what, at what point and where to codeswitch signifies the social awareness and pragmatic competence of multilingual speakers (Mohamed, 2014). Thus, a series of social factors, such as the nature of the relationships between speakers and the discourse elements of the setting and topic are attributed to codeswitching (Ritchie and Bhatia, 2004). Also, from the perspective of accommodation theory, speakers codeswitch to gain acceptance from their listeners or to reach their intended social goals (Giles et al., 1987).

According to the principle of identity exhibition territory, multilingual speakers make codeswitching choices after calculating and predicting the possible positive and negative outcomes of their linguistic choices in terms of achieving personal goals in the social sphere (Myrsen-Scotton, 1989). They test the limits of and negotiate different linguistic allocations as a way to exhibit and validate their social identities and relations. For example, multilinguals may codeswitch to use sounds of a shared ethnic language to indicate group affiliation (Isurin, 2009), which is a significant sociolinguistic factor of codeswitching (Myrsen-Scotton, 1989). Hence, multilinguals’ choices in switching between languages convey messages about their positionality as individuals in their communities (Leonore, 1998). Also, codeswitching contributes to

expressing social meanings of solidarity and intimacy between multilingual speakers. Although this might be true of all speakers, it is useful to observe that an analysis of multilinguals' codeswitching could reveal their ways of expressing solidarity and intimacy, which, in turn, could explain their exhibition of individual and group identities. For some multilinguals, choosing to switch to another language might indicate privilege or preference of one language over the other. This privileged status of one of their languages might stem from the multilingual speakers' shared ethnicity or linguistic background. Further, in order to examine how the practice of codeswitching relates to and determines identity expression, it is as important to examine how multilinguals navigate their identities on both personal and group levels (Valdís-Fallis, 1987).

As discussed earlier, the nature of a community's multilingualism and the extent to which codeswitching is practiced in it can serve as a 'contextualization cue' (Auer 1999; Gafranaga, 2007). When codeswitching is the norm and an everyday practice in a multilingual community, grammatical and semantic rules are developed and agreed upon as a language variety of their own. Then, codeswitching is an unmarked practice (Myrsen-Scotton, 1989). But when codeswitching's patterns are infrequent and unpredictable, it is a marked choice (Myrsen-Scotton, 1989). Further, the interaction's settings influence how often and what multilinguals codeswitch; sometimes only a few words are inserted and sometimes longer strings of language are switched (Isurin, 2009). Therefore, it is crucial to understand the cultural and social meanings of language use, as well as to examine the detailed cues of a multilingual conversation. While the proposed sociolinguistic factors are valid, they are not informative enough for every codeswitching situation (Auer, 1998). Also, as the interpretation of multilingual speakers' language use varies widely, it would be better analyzed as situated in their local settings, where,

in addition to everything said so far, multilinguals exhibit their group identities when they codeswitch. In the following section, I discuss the use of conversation analysis as an approach that accommodates local settings in the discussion of codeswitching in a specific interactional context.

### **Codeswitching. Conversation Analysis Perspective**

While the linguistic analysis of the participants' codeswitching instances affords an understanding of the structural features of their speech interactions, and while the sociolinguistic perspective affords an added understanding of the context in which they occur, the conversation analysis (CA) approach offers a further insight into the conversational structures that are the medium of their socially determined codeswitching practices. It is important to use CA in this study's data analysis because codeswitching mainly occurs in oral interactions or conversations. Thus, CA examines codeswitching in specific social contexts rather than within the frame of general grammatically or socially prescribed patterns that do not consider the particularity of a specific multilingual interactional situation (Auer 1984, 1988; Alfonzetti, 1992; Li & Wei 1994; Sebba 1994). CA is a methodological approach that focuses on analyzing and interpreting oral communication between interlocutors (Have, 2007). It originates from Sacks' (1963) *Lectures on Conversation*. In codeswitching research, CA is sometimes referenced as the sequential approach that focuses on multilinguals' codeswitching practices as they correspond to their locally situated meanings (Auer, 1998). Thus, it complements earlier approaches by identifying the interactional structures of codeswitching. In doing so, CA highlights the essential procedural tools multilinguals use to signal cues for their language choices (Auer 1998). In order to accomplish this, such prescribed categorizations of functions or grammar rules are discarded as they contradict the goals of this approach. Furthermore, besides refraining from grammatical analyses,

CA guides researchers applying CA to the analysis of oral interactions to refrain from imposing their own subjective interpretations on data.

Evidently, previous research that focuses primarily on linking codeswitching exclusively with the wider social constructs fails to provide sufficient explanations of its occurrences (Auer, 1984). Applying general social concepts or functions in the study of codeswitching can only serve the analysis symbolically. A close and comprehensive meaning of multilinguals' codeswitching can be achieved through CA as it magnifies where and why multilinguals select and exchange codes (Auer, 1998). Therefore, employing CA paves the way to answering questions such as where and why multilinguals codeswitch and how their intended meanings affect the dynamic of a communicative event. Because multilingual interactions are naturally dynamic and constructive, employing the conversation analysis approach forces such characteristics to be ascribed to codeswitching motivations, so analysis is conducted in sequential frame looking at all relevant contextualization cues (Auer 1995, 1998). Also, since codeswitching occurs in naturally occurring interactions, it must be treated as such in research for more comprehensive conclusions.

Additionally, CA addresses important issues of multilinguals' interactions as it is concerned with the latter's sequential development and as it emphasizes the natural processes of conversations by analyzing turn-by-turn language selection and switching (Auer, 1984). To successfully implement this approach, two principles must be present (Auer, 1984). First, the analysis must be based on detailed transcriptions of the interactions collected in natural settings. Such detailed transcriptions capture the 'trivia' of the verbal production (e.g., pauses, overlaps, fillers), which is essential for a fuller interpretation of the study's data. Thus, they play a role similar to the role prosodic elements play in interactions showing the way codeswitching itself

affects some interactional processes such as turn-taking and the selection of specific structures that convey the speakers' intentions (Isurin, 2009). These considerations reinforce the importance of examining prosodic elements in conversations. Since the main purpose of the conversation analysis approach is to understand what multilinguals intend to achieve through codeswitching, examining the 'trivia' in their interactions is accomplished through applying precise protocols in the process of recording and transcription (Jones et al., 2012). Furthermore, according to the second principle applied in conversation analysis, the data analysis must rely exclusively on the meanings emerging from the interactions as negotiated by the speakers. This is so because the meaning of the socially determined verbal production derives from the value all participants contribute to the communicative meaning. This principle limits the researcher from extending her interpretations beyond the participants' singled meanings as manifested in their performance.

Since it is not possible to equate such meanings with either the speaker's mental images or with the listeners' interpretations, both of which are mental processes, the main focus of the conversation analysis approach is on what is visible and observable in the communicative scene (Auer, 1984). As determining the mental processing of codeswitching is not currently possible, local contexts are put at the center when analyzing a specific case of codeswitching. Within conversation analysis, the sociocultural approach sees and describes codeswitching as the speakers' practice performed in situated contexts (Myrson-Scotton, 1995). Speakers collaboratively construct the language produced by each one of them as informed by their situation (Auer, 1984), which determines the social meaning of their process of interaction (Nilep, 2006). Thus, reasons and functions of language switching can only be determined in

relation to interactions produced within and by interlocutors who influence and are influenced by such situations.

Therefore, the context and situations of codeswitching instances are essential in conversation analysis. When speakers in a given communicative event negotiate choices of languages, their language production becomes unpredictable. Despite shared similarities, participants in this study are heterogeneous and their codeswitching is marked (Myerson, 1998) because they perform it in a new setting and with a language they don't necessary use daily. Therefore, language use is being consistently negotiated in a natural way in order to arrive at shared meanings of new concepts and content. Further, compared to other approaches such as the grammatical and the sociolinguistic, conversation analysis differs in that it examines the nature of language alternations as a conversation practice. While other approaches generally identify the settings and distributions of where codeswitching takes place, they fail to explain how it affects particular instances of language exchange (Auer, 1998, 208).

In this study, I use conversation analysis to examine the conversation structures multilingual Arab students utilize in their oral codeswitching exchanges during the weekly seminar sessions in Arabic they attend. Specifically, my adoption of this approach is based on two main advantages of using conversation analysis to examine the social meanings of codeswitching. First, CA focuses closely on the way the speakers' language choices in turn-taking consequently influence the utterances to come. Second, CA helps researchers to avoid extending their interpretations of conversation codeswitching beyond what language users intend by their codeswitching choices (Auer 1984). By examining the details of the way multilinguals structure their interactions, CA has expanded researchers' understanding of the nature of such interactions in various speech communities (Auer, 1998). Thus, the conversation analysis

approach facilitates the meaningful explanation of the specific significance and motives for code-switching practices. By doing this, CA adds specificity to the valuable general input gleaned from linguistic and sociolinguistic analyses of the participants' interactions. Thus, this study benefits from both the macro (i.e., linguistic and sociolinguistic) and microanalyses (i.e., conversation analysis) of its data.

### **Codeswitching. Education-Focused Discourse Perspective**

In this study, codeswitching behavior is observed in weekly seminar sessions that multilingual Arab students attend to maintain and develop their knowledge of the Arabic language and Islamic culture and religion. Thus, it is suitable here to review research conducted on codeswitching in educational contexts. While the sequential or conversation analysis approach to codeswitching requires detailed analysis of a specific discourse context, it also regards it as the main element of the sociolinguistic setting (Auer, 1998). Therefore, in addition to conducting sequential microanalysis of the collected data, it is insightful here to examine the widely shared discourse functions of codeswitching in educational contexts, especially given the fact that multilingual Arab students are a growing population in the American public schools.

Statistics show that multilingual students represent a growing population of students attending American public schools. For example, according to the 2014 condition of education report, the number of students who speak a home language other than English has increased by one million within one school year (U.S. Department of Education & National Center for Education Statistics, 2011b, p. 30). After Spanish, Arabic is the most common language students speak at home in the U.S. It is important to mention that such statistics relies on reports from students' parents via school enrollment forms. Some parents avoid reporting their home language when it's not English to prevent the automatic placement of their children in ELL/ESL classes.

These parents either fear that their children's proficiency in English would be misevaluated or try to avoid the stigma associated with such classes (Gilbertson, 2014, scpr.org). Moreover, more Arab students are becoming multilinguals through the increased relocation and travel of their families. Statistical reports from the Department of Higher Education in Saudi Arabia reveal that the number of the study-abroad students has increased from 9 in the 1950s to 157,000 in 2015 (www.moe.gov.sa). Many of these students move to a foreign country with their children. Thus, addressing the language, and particularly the codeswitching practices of a substantial number of Arab multilinguals speaking English becomes an educational and social task of vital importance. Beyond the statistical numbers, however, there seems to be limited research on the nature of their codeswitching, especially in educational settings.

Several studies in educational contexts conducted in diverse sites where codeswitching is observed emphasize three common categories of functions of codeswitching (Ferguson, 2003): 1) facilitating curriculum access, 2) managing classroom discourse, and, 3) easing interpersonal relations. As the first function indicates, both teachers and students use codeswitching to elaborate, annotate, or comment on educational content. Several studies find that codeswitching between languages facilitates the students' learning of academic concepts in a language new to them and encourages them to get more involved in class activities (Ferguson, 2003). Also, teachers use codeswitching to manage classroom discourse (Ferguson, 2003). When a teacher switches to the students' first language, students are alerted about their behavior, lack of participation or attention, or praised for their contributions (Ferguson, 2003). Thus, codeswitching in this function serves the transitions between talk on and off the main topic.

The third main function of codeswitching in this category is related to practicing the students' shared identities, which humanizes the classroom's atmosphere by enabling students to



exhibit their linguistic and other identities. Also, when teachers codeswitch between the language of the academic subject and the language of their students' communities they emphasize their relationship with their students, which contributes to meeting their pedagogical goals (Ferguson, 2003). In all reviewed studies (Ferguson, 2003), English is the medium language of instruction and the switches are made to the students' local languages. In this study, however, the language of instruction and materials is Arabic, whereas the switches are from and to both English and Arabic in a non-linear way.

In addition to these findings from the use of conversation analysis in the study of classroom codeswitching, scholars find that participants' purposes of codeswitching during classroom interactions are strikingly similar to the purposes for codeswitching in other situations outside classrooms, such as lacking knowledge of specific academic terms and changing topics (Liebscher & O'Cain, 2005). Moreover, another study conducted in the context of a Turkish EFL classroom (Üstünel & Seedhouse, 2005), identifies pragmatic functions of codeswitching use in classroom contexts that fall in Ferguson's (2003) three categories explained above, such as providing translation and teacher feedback. Similar to this, another study conducted in an EFL classroom in China (Qian, Tian, & Wang, 2009) concludes that some of the social functions of codeswitching in the classroom include effective participation encouragement and classroom management. Thus, codeswitching reinforces better ways of learning and fostering student-teacher relations.

While there are numerous studies on codeswitching as a language contact practice, there are only a few conducted in educational contexts, and even fewer focusing on English/Arabic as a language pair in codeswitching occurrences. For example, one exploratory study focuses on revealing students' attitudes towards codeswitching between English and Arabic in a science

class at Kuwait University (Alenezi, 2010). It uses a questionnaire with multiple choice and open-ended questions to survey students who report a strong preference for Arabic/English codeswitching. Other studies on English/Arabic codeswitching, mostly on codeswitching in everyday conversations, share similar findings, thus, reinforcing the findings from educational settings. For example, the most frequent switch by Arabs from English to Arabic involves words and phrases from cultural and/or religious semantic fields (Safi, 1992; Woolard, 2004; Myers-Scotton, 2002). Some common examples are the use of the greeting ‘Assalam Alaikum’, and the phrase ‘Alhamdulillah’ to mean ‘All praises to Allah’ as a comment on an incident or just as a common response to ‘how are you’. Furthermore, another survey finds that Arabs tend to codeswitch from Arabic to English in order to avoid precise language when discussing taboo or inappropriate topics (Bhatia, 2004), or, conversely, in order to use the precise language in reference to specific academic concepts that are fundamental to their English major studies. (Bhatia, 2004).

### **Chapter Summary**

This chapter provides a review of the literature based on the main purpose of this study, which is to capture, examine, and analyze codeswitching occurrences in multilingual Arab students’ speech during weekly seminar sessions at their local community’s Sunday school. The review of the literature also provides contextualization for the main research questions posed in this study. For this, it reviews discussions of the nature of multilingualism as well as its definitions. Following this, it introduces research on codeswitching as a central issue of multilingualism. Also, definitions and adopted approaches such as the linguistic, the sociolinguistic, and the conversation analysis are discussed separately. Finally, studies on codeswitching in educational contexts are reviewed and discussed to establish a common ground.

The following Chapter Three elaborates on the research methods to be implemented in this study. It discusses the methodology selected to achieve its goals and answer its research questions. This includes the explanation of this study's context, participants, site, design, and approaches to data analyses. The selection and design of research methods hope to answer the study's research question in an informative and socially responsible manner.

## CHAPTER THREE

### METHODOLOGY

This study aims to describe the codeswitching practices of multilingual Arab children attending weekly seminar sessions in Arabic religious and cultural studies. It focuses on examining the linguistic patterns and the social implications of their codeswitching on a macro scale and on analyzing the conversation structures in their codeswitching on a micro scale. This chapter describes the research methodology employed in accomplishing the study's goals. It discusses the study's research methodology and details the process of implementing the theoretical approaches and models that comprise it. It begins by explaining the choice of a mixed-method approach in relation to the study's goals and research questions. Then, it describes the study's research design, site, participants, and data collection methods. Furthermore, it depicts the processes of data transcription and analysis. Finally, it discusses issues of validating the study from the perspectives of the mixed-method and conversation analysis approaches. In the following section, I discuss how the adopted methodology facilitates the process of data analysis and helps to articulate findings that meet this study's goals.

#### **Research Questions**

1. In the context of linguistics, what structural patterns do multilingual Arab students use when engaging in Arabic/English codeswitching?
  - a. What structural patterns do they use at the whole-language level when codeswitching?
  - b. What structural patterns do they use at the sentence level when codeswitching?
  - c. What structural patterns do they use at the morpheme level when codeswitching?

2. In the context of conversation analysis, what conversation strategies do multilingual Arab students utilize when engaging in Arabic/English codeswitching?
  - a. What conversation story-telling strategies do they utilize when codeswitching?
  - b. What conversation speech-overlap strategies do they utilize when codeswitching?
  - c. What conversation topic-management strategies do they utilize when codeswitching?
3. In the context of sociolinguistics, what personal and group identities do multilingual Arab students exhibit when engaging in Arabic/English codeswitching?
  - a. What personal identities do they exhibit when codeswitching?
  - b. What group identities do they exhibit when codeswitching?
4. What educational purposes do multilingual Arab students pursue when engaging in Arabic/English codeswitching?
  - a. What meaning establishment strategies do they use when codeswitching?
  - b. What meaning expansion strategies do they use when codeswitching?

To fulfill the goals of this study and find methodologically valid answers to its research questions, the main data collection methods are: video-recording ten class sessions with the participants and their teacher; identifying the codeswitching occurrences in them; transcribing these codeswitching occurrences using conversation analysis key notations; conducting linguistic analysis of the codeswitching occurrences; conducting conversation analysis of the codeswitching occurrences and conducting a sociolinguistic analysis of the codeswitching occurrences. The video-recordings capture the participants' codeswitching practices as they occur in real time and in real class sessions. The identification of codeswitching episodes in the video recordings helps create the data sets for the study's analyses. The linguistic analyses,

following the Matrix Language Frame (MLF) and the 4-Morpheme (4-M) model, establish the word-level changes resulting from codeswitching. The use of conversation analysis transcriptions and key notations allows the identification of specific conversation structures and social meanings. To explain how this happens, the next section explicates the rationale for this study's selection of a mixed-method approach for its data analysis.

### **Mixed Method**

After discussing the literature on multilinguals' codeswitching, it is imperative to explain the methods implemented in conducting this study. Being a multifaceted linguistic, discourse, and sociolinguistic inquiry into the codeswitching practices of Arab students, this study benefits from a mixed-method research approach using both quantitative and qualitative methods for its data analysis (Johnson & Onwuegbuzie, 2004). By combining multiple viewpoints, the mixed-method approach directs research through a pragmatic perspective that leads to a better understanding of this study's central issues (Johnson, Onwuegbuzie, & Turner, 2007).

Moreover, leading research methodologists argue that the mixed-method approach is more effective in reaching deeper insights into the issues under research (Johnson et al, 2007) and that it should be adopted for several profound benefits, such as: one, providing breadth and corroboration by reaching better and deeper understanding; two, boosting elaboration and descriptions and enriches inputs, and, three, having greater validation and credibility by monitoring consistency and preventing contradictions (Johnson et al, 2007). In addition, the mixed-method approach allows for a single study like this to reach conclusions for its practical research questions and to use multiple perspectives that lead to finding useful applications in their specific contexts (Onwuegbuzie & Johnson, 2006).

Consequently, mixed-method researchers are expected to balance between incorporating quantitative and qualitative methods by keeping an equal balance between the two. Whereas this seems like the ideal implementation, in fact, researchers may lean towards one of the two a little more if they see the necessity of such a move (Johnson et al, 2007). Following the researcher's leanings towards a qualitative research paradigm, such a mixed-method approach could be labeled as qualitative dominant mixed-method, which mostly focuses on "a qualitative, constructivist-poststructuralist-critical view of the research process," and incorporates quantitative data and methods to add strength to the conducted study (Johnson et al, 2007, p. 124). Sometimes, the type of data and research questions determine the dominance of one approach, qualitative or quantitative, over the other.

This study employs the mixed method of both quantitative and qualitative analysis to codeswitched data, which will not only triangulate and crystalize findings, but also pave the way for clearer and better organized analysis accessible to scholarly audiences as well as the general public (Zentella, 1990). Further, the inclusive and expansive characteristics of this method will facilitate the process of obtaining a fuller picture of the issue at the center of this study. While methodologists legitimize the use of both quantitative and qualitative methods as appropriate for any type of research, only a few studies on codeswitching have used a mixed-method approach (Guba & Loncolin, 1994, as cited in Johnson et al, 2007).

The mixed-method approach is used in this study to analyze the data from video-recorded Arabic/English codeswitching occurrences, first, quantitatively, and, then, qualitatively. To ensure efficacy of the implementation of this method, consideration of the characteristics of both approaches is vital (Onwuegbuzie & Johnson, 2006). Here, in analyzing codeswitching practices, the quantitative approach involves the linguistic analysis following the Matrix Language Frame

(MLF) and the 4-Morpheme (4-M) models as comprehensive linguistic approaches that examine patterns of codeswitching practices on a structural level. It highlights the frequencies and patterns of different types of codeswitching and facilitates the categorization and coding for further analyses. Once the quantitative analysis identifies patterns and variables by providing statistical and typological showcase of codeswitching occurrences, the qualitative analysis details descriptions of codeswitching meanings in the targeted context. Such process helps elucidate the significance of qualitative explanations and findings.

To implement the mixed-method approach, the quantitative analysis is then complemented with a qualitative examination of the data. The qualitative analysis explains where and why multilingual Arab students codeswitch during their seminar sessions. It aims at reaching new insights and explanations of the contextual factors for codeswitching. The qualitative approach is conducted through the process of conversation analysis. Hence, the conversation analysis aims at discerning the social meanings of codeswitching in the context of multilingual Arab students' weekly seminar sessions. This study aims to thoroughly explore codeswitching through a quantitative linguistic analysis based on the MFL and its supplementing 4-M model, as well as through a qualitative analysis based on conversation analysis. Below, I explain the specific use of the quantitative and qualitative analyses in this study.

### **Quantitative Analysis**

In this study, the quantitative analysis mainly serves in highlighting the linguistic data and their statistical significance for this study. As the quantitative method is deductive by nature, providing numerical data for analysis invites testing of generalized theory and hypotheses (Litosseliti, 2010). Here, the quantitative analysis explores the frequency, central tendency, and



variables of the codeswitching occurrences. The quantitative analysis assists in answering Research Question 1 in this study.

**Frequency analysis.** Frequency analysis is a foundational procedure applied in codeswitching research. It examines the frequency of the main linguistic types of codeswitching discussed earlier in Chapter Two, i.e., the inter-sentential, intra-sentential, and extra-sentential instances. Also, it measures the frequency of codeswitching occurrences according to the MLF and 4-M models, which are interested in examining different types of morphemes relating to different participating languages on the inter- and intra-sentential levels. The examination of frequency reveals the categories of linguistic structures the participants use in their codeswitching practices. Within such an examination, the quantitative analysis generates a taxonomy of linguistic forms and the frequency with which the participants use them when codeswitching. As a result, it explains possible flexibility or restrictions in Arabic/English codeswitching linguistic formations. In this study, the frequency analysis elucidates the nature of the codeswitching practices specifically regarding the items switched and the exact point of the switch in the interactional episode. Also, the quantitative analysis of codeswitching frequencies reveals how often the participants codeswitch to exhibit issues of individual or group identity. Ultimately, the presentation of codeswitching frequencies smooths the rest of the analysis processes.

**Variability analysis.** The variability analysis explores variations of frequency among the types of codeswitching. More specifically, it examines any contrasting results of these codeswitching types' scores. Furthermore, it responds to hypotheses articulated according to the MFL and 4-M models. While in this study the use of Arabic is hypothesized to be the matrix language, variables of codeswitching occurrences test whether it is mostly the case. It also

reveals possible usefulness of one category over another linguistically, socially, and/or educationally. Further, the analysis of variability examines whether codeswitching practices change in patterns when occurring in response to the teachers' questions and when used for peer-to-peer interactions. Ultimately, in this multilingual codeswitching study, such quantitative analysis provides a foundation for finding linguistic patterns and social meanings in the gathered data (Litosseliti, 2010).

### **Qualitative Analysis**

While the quantitative paradigm explores 'what' multilinguals codeswitch, the qualitative analysis rigorously extends the understanding of the issue under investigation by examining 'where' and 'why' codeswitching instances occur. In doing so, this paradigm inductively enables reaching insightful findings and theories (Litosseliti, 2010). The qualitative analysis facilitates pinpointing elements for extensive explanation and interpretation of functions and meanings found in captured codeswitching instances. In doing so, it mainly follows guidelines from the conversation analysis approach to codeswitching. The latter enables a systematic qualitative data analysis that focuses on every individual instance of codeswitching and on the codeswitching instances of each participant (Maxwell, 1996). Such qualitative analysis seeks to accomplish this study's goals by examining and explaining the structure of the participants' interactions and the meanings and motives constituting their codeswitching.

**Conversation analysis.** In Chapter Two, I introduced conversation analysis (CA) as an approach that primarily studies speech interactions. I also discussed CA as an approach implemented to analyze codeswitching practices qualitatively. In this mixed-method approach study, conversation analysis is used for an in-depth analysis of the data. To further expand this discussion, here, I explain how this approach serves the purposes of this study and helps to

answer its proposed research questions. Qualitatively, CA is used here to reveal how the codeswitching practices of multilingual Arab students in their seminar sessions contextualize the meanings and structures constituting their interactions. This study follows the orientation of many CA studies in focusing on speakers' strategies attuning to their interlocutors, asking and answering questions, and participating in turn taking, speech repairing, and interrupting (Ritzer, 2007). Here, CA seeks to examine how participants accomplish their communicative goals through the practice of codeswitching.

Every codeswitching occurrence in this study is examined from a CA perspective. Looking at such codeswitching sequences could establish the speakers' positionality in the interaction, whether codeswitching is occurring at a turn taking, talk initiating, or interruption move. Since CA identifies the type of conversation structure in which codeswitching is taking place, the interpretation of the meaning and purposes of codeswitching is grounded in a greater amount of evidence. As CA looks at interactions as systematic and structured rather than random (Ehrlich & Romaniuk, 2013), it accounts for the fact that speakers frame their interactions at every turn and with every utterance they perform, thus revealing the meanings of their switches. Here, I follow techniques of implementing CA to codeswitching offered by Auer (1984, 1988, 1995) and Wei (1998). When implementing CA, I look at the preceding and following turns in the sequential string of codeswitching occurrences in order to bring the speaker's meanings in every codeswitching occurrence. Such an analysis reveals meanings relevant to identity and classroom discourse. Rather than attributing presupposed meanings to speakers, for my interpretation, I draw meanings from each codeswitching instance by studying the dynamic and complexity of every interactional episode. Adopting CA analysis, I demonstrate how codeswitching serves as a tool for facilitating communication and meaning making in general,

and as a tool for multilingual Arab students' expressing their identities, performing their relationships, and attuning to each other in their situated discourse codeswitching practices (Wei, 1998).

Here, for the purposes of this study, I explain the process of transcription and analysis of the captured codeswitching episodes. CA requires detailed sequential transcription that helps with the data mining for social meanings in interactions (Cromdal, 2005). In this study, I use Gail Jefferson's CA list of abbreviations as the most highly credited version, which also allows room for addition (see Table 1). In addition to using these abbreviations, I add the time the codeswitching occurrences occurred in each video for future analysis and reference. This facilitates the triangulation of data during analysis. The following symbols in table 1 are adapted from Gail Jefferson's transcription conventions (Jefferson, 2004) (see Table 1).

Table 1

*List of Conversation Analysis Conventions and Abbreviations*

| <b>Abbreviation Symbol</b> | <b>Label</b>              | <b>Meaning</b>  |
|----------------------------|---------------------------|---|
| [text]                     | Square Brackets           | Start and end of simultaneous utterances.                                     |
| (# of seconds)             | Timed Pause               | A number in parentheses indicates the time, in seconds, of a pause in speech. |
| (.)                        | Micropause                | A brief pause, usually less than 0.2 seconds.                                 |
| . or ↓                     | Period or Down Arrow      | Indicates falling pitch.  |
| ? or ↑                     | Question Mark or Up Arrow | Indicates rising pitch.   |
| ,                          | Comma                     | Indicates a temporary rise or fall in intonation.                             |

|                    |                                  |  |
|--------------------|----------------------------------|--|
| <text>             | Less than / Greater than symbols | Indicates that the enclosed speech was delivered more slowly than usual for the speaker. |
| ◦                  | Degree symbol                    | Indicates whisper or reduced volume speech.  |
| ALL CAPS           | Capitalized text                 | Indicates shouted or increased volume speech.  |
| underline          | Underlined text                  | Indicates the speaker is emphasizing or stressing the speech.                            |
| :::                | Colon(s)                         | Indicates prolongation of an utterance.  |
| (text)             | Parentheses                      | Translated peech from Arabic into English.   |
| ((italic text))    | Double Parentheses               | Annotation of non-verbal activity.   |
| S (student number) | Student                          | This identifies students with their number in the group as oppose to the teacher.        |
| T                  | Teacher                          | There is only one participating teacher in the study.                                    |

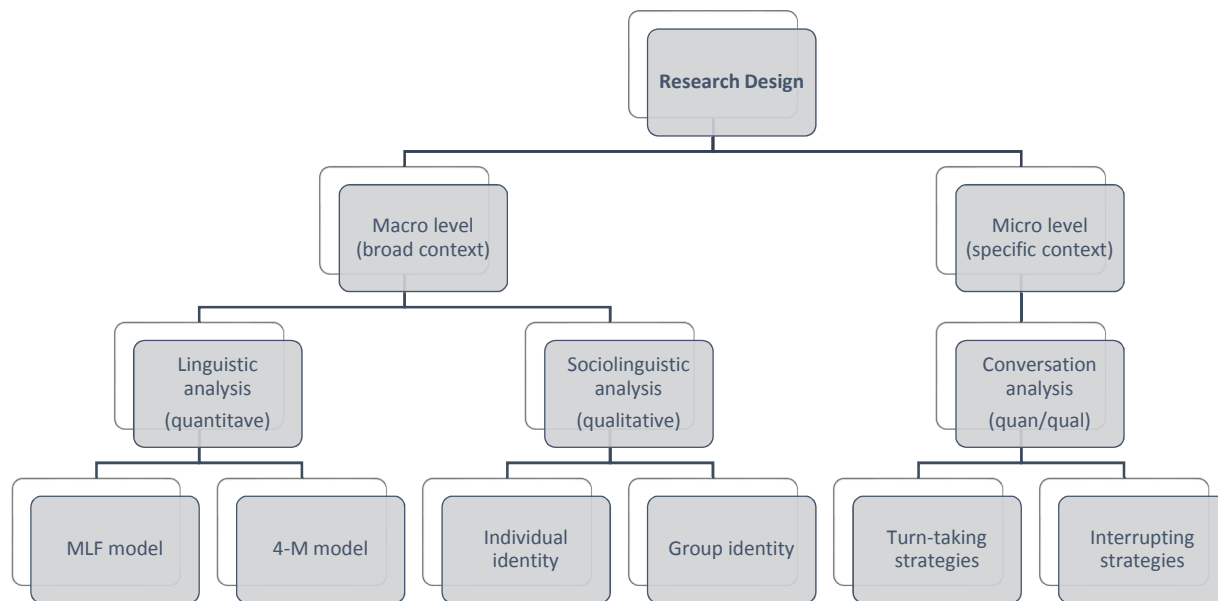
Note. Adapted with addition and change from " Glossary of transcript symbols with an introduction" by Jefferson, G. in Lerner, G.H. (Ed), ,2004, *Conversation Analysis: Studies from the first generation*. Amsterdam/Philadelphia: John Benjamins (pp. 13-31).

### **Combining Quantitative and Qualitative Analysis**

While data analysis starts quantitatively and continues qualitatively, as suggested earlier, such consecutive procedure cannot be possibly rigid. The complexity of the process of analysis may require combining quantitative and qualitative instruments when seeking appropriate and rich data analysis interpretations. For example, during the phase of qualitatively analyzing an emergent linguistic pattern of Arabic/English codeswitching, I was compelled to integrate quantitative evidence for its fuller interpretation. Therefore, the integration of both methods is an available option to extricate evidence for the study's findings recursively.

## **Research Design**

This mixed-method study aims to analyze codeswitching occurrences of multilingual Arab children's interactions during their weekly Arabic educational seminar sessions from both the linguistic and sociolinguistic perspectives. For its linguistic analysis, the study uses the Matrix Frame Model and its supplemental 4-M model. For its sociolinguistic analysis, it uses the conversation analysis (CA) approach. The following Figure 4 presents graphically the study's research design from a macro, i.e., a linguistic and sociolinguistic perspective, and from a micro, i.e., a conversation analysis perspective. It shows that the linguistic and sociolinguistic analyses are conducted from a global perspective, the former offering a purely structural perspective, and the latter providing a close examination of its general social implications. This macro approach is complemented by a close inspection of specific conversation exchanges recorded as they occur at an actual time and context (see Figure 4). In addition to its graphic representation, Table 2 presents the study's research design with regards to its research questions as analyzed within the framework of the adopted methods and models (see Table 2). Table 2 also illustrates the information needed to answer the study's research questions, the data sources that will provide the answers, and the methods used for collecting the data needed for analysis.



*Figure 4.* Summary of the research design

## **Participants**

Selection of participants is aligned with the purpose of this study. The participants in this study share core qualities and characteristics such as ethnic, linguistic, and cultural backgrounds. They also share socioeconomic status in terms of lifestyle and residency. Selecting participants of similar background and context is purposeful. It aims to help to accomplish the goals of this study and to provide answers to the proposed research questions (Creswell, 2007).

Table 2

*Overview of Research Questions, Information Needed, and Data Analysis Methods*

| <b>Research Questions</b>  | <b>Information Needed</b>  | <b>Data Analysis Method</b>                               |
|--|--|---|
| <p>1. In the context of linguistics, what structural patterns do multilingual Arab students use when engaging in Arabic/English codeswitching?</p> <ul style="list-style-type: none"> <li>a. What structural patterns do they use at the whole-language level when codeswitching?</li> <li>b. What structural patterns do they use at the sentence level when codeswitching?</li> <li>c. What structural patterns do they use at the morpheme level when codeswitching?</li> </ul>                 | <p>Identification of the linguistic patterns of multilingual Arabs' codeswitching practices</p>              | <p>Quantitative analysis: MLF and 4-M analysis models</p> |
| <p>2. In the context of Conversation Analysis, what conversation strategies do multilingual Arab students utilize when engaging in Arabic/English codeswitching?</p> <ul style="list-style-type: none"> <li>a. What conversation story-telling strategies do they utilize when codeswitching?</li> <li>b. What conversation speech-overlap strategies do they utilize when codeswitching?</li> <li>c. What conversation topic-management strategies do they utilize when codeswitching?</li> </ul> | <p>Identification of the interactional patterns of multilingual Arabs' codeswitching practices</p>           | <p>Qualitative analysis: Conversation Analysis</p>        |
| <p>3. In the context of sociolinguistics, what personal and group identities do multilingual Arab students exhibit when engaging in Arabic/English codeswitching?</p> <ul style="list-style-type: none"> <li>a. What personal identities do they exhibit when codeswitching?</li> <li>b. What group identities do they exhibit when codeswitching?</li> </ul>  | <p>Identification of the identity exhibition patterns of multilingual Arabs' codeswitching practices</p>     | <p>Qualitative analysis: Discourse Analysis</p>           |
| <p>4. What educational purposes do multilingual Arab students pursue when engaging in Arabic/English codeswitching?</p> <ul style="list-style-type: none"> <li>a. What meaning establishment strategies do they use when codeswitching?</li> <li>b. What meaning expansion strategies do they use when codeswitching?</li> </ul>   | <p>Identification of education-focused discourse patterns of multilingual Arabs' codeswitching practices</p> | <p>Qualitative analysis: Discourse Analysis</p>           |



All participants in this study are Arab students who have lived in the US for a period of time ranging from 3 to 5 years and plan to return to their home countries upon their parents' completion of their academic and/or professional goals. The participants, coming from Oman, Kuwait, and Saudi Arabia, are between 8-15 years old of both male and female gender (e.g., 3 females and 4 males). Seven students were selected for this study based on basic criteria, such as regular attendance and consistent verbal participation in the class. All have attended American public schools since their arrival and will continue to attend until their departure from the US (see Table 3). Their teacher, an Arab male attending graduate school in the US, is also a participant in this study. The participants sat in a U-shaped classroom where they all faced each other and the teacher. With their teacher, they participated in learning sessions that comprised brief teacher-led lectures and question-and-answer discussions. All participants engaged in these discussions at both formal and informal language levels. The participants were encouraged to ask further questions and comment on content which they seemed to enjoy. In terms of language use, the participants are assumed to be aware of the aim of such sessions, that is the consolidation and practice of Arabic. However, there were no restrictions imposed on them to use Arabic only.

Table 3

*Participants*

| <b>Participants</b> | <b>Gender</b> | <b>Age</b> | <b>Years in the US</b> |
|---------------------|---------------|------------|------------------------|
| S1                  | Male          | 12         | 7                      |
| S2                  | Male          | 13         | 4                      |
| S3                  | Female        | 11         | 4                      |
| S4                  | Male          | 11         | 5                      |
| S5                  | Female        | 10         | 6                      |
| S6                  | Female        | 9          | 5                      |
| S7                  | Male          | 9          | 6                      |

**Site**

As briefly mentioned in Chapter One, the site of this study is the campus of a public university in Western Pennsylvania. The site for this study was reserved with the assistance of the Saudi Students Association (SSA) at this university. SSA reserves rooms for their organized Ajial Academy, which provides language and cultural support for the children of Arab students. The site reserved for such activities, including the video-recorded sessions in this study, was a room in the College of Humanities and Social Sciences building or at the Student Union. Such rooms are reserved on behalf of the Saudi Students Association through the university registrar. Following guidelines given to the SSA by its primary sponsor, the Saudi Cultural Mission in DC, all the sessions recorded as part of this study took place at an on-campus location.

The on-campus rooms reserved for the Ajial Academy where multilingual Arab students attend weekly sessions are friendly and convenient for the purpose for which they are used. They

are equipped with important educational tools such as tables, chairs, LCD projectors, screens, and computers. Overall, the site is student-friendly and convenient for community events like these sessions. It is important to note that these educational sessions did not mandate attendance nor required grading of the students' performance. They are voluntary activities for both teachers and students, and are run as a voluntary, nonprofit, educational events.

I purposefully chose this site for data collection for a number of reasons related to my different roles and functions in this study. Personally, it was relevant to me as a former teacher and observer of the students in this study. It was also accessible for me as an insider researcher. Furthermore, the site also allowed a fixed place and time for the academy's sessions, hence it allowed for consistency in collecting data. It was also soundproof which secured a high-level video recording. Overall, as described here, the site allowed for greater credibility and reliance in conducting this study.

### **Data Collection**

In order to be able to accomplish the goals of this study, which included the examination of codeswitching occurrences by multilingual Arab students, I collected and analyzed data from a single source, i.e., from their videotaped weekly educational sessions. Therefore, the data for this study came directly from the context of these sessions where multilingual talk naturally occurred. Given the purpose and context of the study, I sought to obtain data from a targeted sample. Being a volunteer in the Saudi Student Association (SSA), I was able to observe multiple seminar sessions my participants attended. After noticing evidence of codeswitching behavior, I sought to obtain site permission (see Appendix B), the teacher's consent (see Appendix C), her students' (see Appendix E) and their parents' consent (see Appendix D) to

record these sessions after seeking and receiving approval from this university's IRB (see Appendix A).

All data collected for this study came entirely from the specific context of the participants' weekly held seminar sessions during the spring semester of 2017. The data obtained consists of 10 recordings of 10 seminar sessions, one and a half hour each. The data was gathered through video recording. The camcorder was placed in a corner of the room where it did not disturb the participants' classroom activities. I purposefully chose video recording over audio recording to be able to identify students and to obtain a better voice recognition and quality. I used a Sony camcorder and attached it to a long tripod. I prepared the camcorder before the start of every session and sometimes left the room once the session started to ensure effective recording of the sessions' interactions. I did this to avoid distracting the students and disrupting their work as well as to secure a natural setting for these recordings.

Prior to the process of recording, the participant teacher and the researcher informed the students of the purpose of study and the nature of their participation. I informed them of my studies status as a doctorate student working on my dissertation. They seemed to understand this as either or both of their parents were graduate students as well. Their teacher informed them of the recording before every session. The participants also learned about their rights to participate or not and about their ability to withdraw from the study at any time if they so chose. They learned that their real names do not appear in the study (see Appendix A). I noticed that the students were aware of the recording at the beginning of the first few sessions and tried to make some silly gestures before the camera in the beginning. After the sessions started, they seemed to ignore the presence of the camcorder and behaved naturally.

Obtaining multilingual speech from naturally occurring data is essential for meeting the goal of the study. The goal of gathering this type of data in particular was to ensure factual calculable evidence for the study. Since the study explores linguistic and sociolinguistic phenomena, audio and video recordings served the goal of such investigation. Also, this type of data met the requirement of conversation analysis methodology, as it emphasized the importance of collecting ‘naturally occurring’ interactions (Have, 1999). Moreover, in CA, the primary method of data collection is audio/video recordings. Critics of the CA method of data collection suggest providing what they call ‘missing data’ of information on participants’ status and background (Have, 1999). Following their suggestion, in this study I provide background information about the participants, such as age, gender, and social and geographical positioning as described here.

### **Transcription Methods**

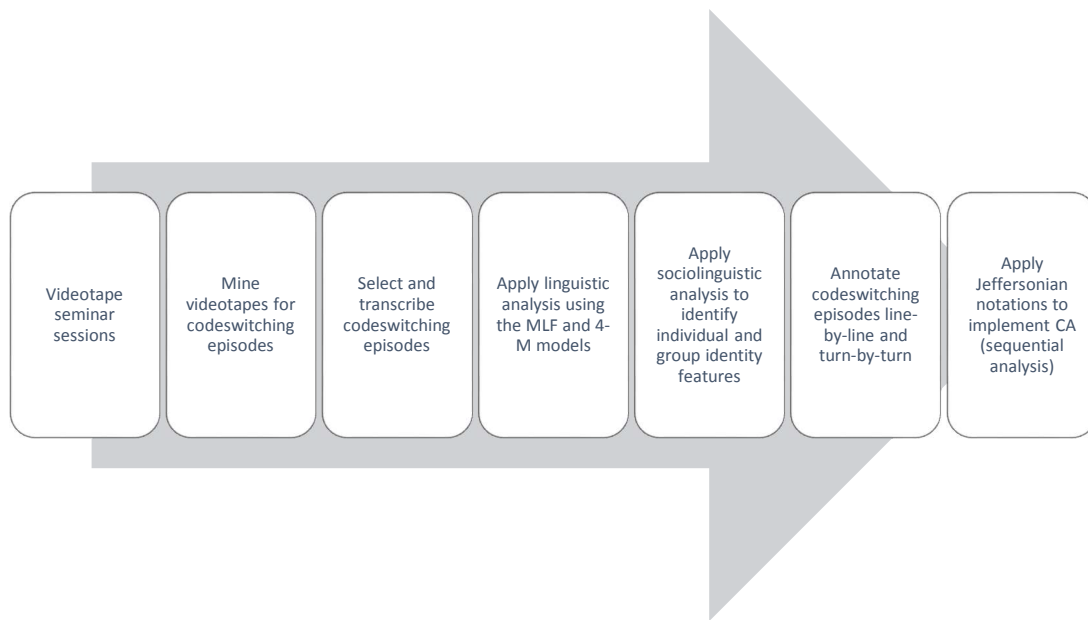
After elaborating on the site and procedures for data collection, here, I explain the process for transcribing the data collected from the video recordings. The target data were codeswitching instances between Arabic and English in the specific context of multilingual Arab students’ seminar sessions. Transcribing multilingual data is a complex and time-consuming task. It does not only demand several stages of transcription, but also a systematic organization and alignment of the two languages’ syntactic patterns and their accurate translations. While using transcription software such as Transana ([www.transana.org](http://www.transana.org)), a software program that assists in transcription and initial analysis of audio or video recordings, could be of a great assistance in this process, such software does not support Arabic/English multilingual data. The opposite direction of writing in the two languages hinders the computing processes from transcribing the data. Therefore, I had to transcribe the data manually following useful general

guidelines suggested by CA theorists (Gumperz & Berenz, 1993; Have, 1999). For example, according to Have (1999), the analysis of data derived from CA should invoke four basic stages: 1) obtaining recorded conversations as they occur naturally, 2) transcribing recorded data in a form of cohesive passages or divided in parts, 3) selecting purposeful sections as the study requires, and, 4) analyzing and reporting findings. Based on these guidelines, I transcribed the data from this study as follows:

- First, I examined the data based on the study's main purpose that is, to identify and select instances of codeswitching. Thus, in order to focus the data, I selected only those conversations where codeswitching occurred in interactions and left out the long stretches of monolingual and monologue speech. I made sure the selected instances were referenced to the videos with coded titles and times in order to be able to return to them with more accurate CA notations. Since the context of this study is specific and its goals are exploratory in nature, all instances of codeswitching were included in the data analysis.
- After purposefully selecting the codeswitching occurrences from the videotaped sessions, I completed the transcription of the selected codeswitching episodes. I also labeled, numbered, and timed the video-recordings to be stored and secured in an external drive. Furthermore, I matched each video segment and each uttered talk with the corresponding participant. My goal was to be able to use both video recordings and transcriptions in an in-depth qualitative analysis. Also, I organized transcribed codeswitching instances by topic. To provide a rich context, in addition to these transcriptions, I provided the corresponding teacher's question that generated the resulting responses and the codeswitching instances in them.

- Next, I identified each instance of codeswitching based on the type of the interaction it represents, for example, whether it is part of a discussion, an answer to a question, a comment on a lesson, a comment outside the lesson, or a side interaction between students.
- After identifying and selecting codeswitching instances for analysis and following the CA method of analysis, I numbered interactions in the transcript turn-by-turn and line-by-line for the purpose of providing coherent translations of the Arabic texts. Also, for typing convenience and for a clearer presentation, I used the Roman alphabet in transcribing English texts and the Arabic alphabet for transcribing Arabic texts.
- Next, I applied the conversation analysis transcription keys using the Jeffersonian notations in order to implement sequential analysis.

Figure 5 below offers a graphic representation of the data collection and analysis process (see Figure 5). The ten hours of video recordings contained talk stretches, which had some Arabic-only episodes as well as some codeswitching instances. Therefore, in transcribing recordings, I was selective for the purpose of saving time and subscribing to CA guidelines. Also, I applied CA annotating conventions to the transcribed talk to ensure the transcription of every codeswitching instance as it appears in context, which includes topic, interlocutors, and speakers. In addition, the emphasis on sequence was vital in annotating every instance for the purpose of revealing codeswitching meanings in context.



*Figure 5.* Data collection and analysis

The basic contribution of CA is the availability and inclusion of the prosodic details of interactional events such as pauses, length of silence, voice pitch that informed the analysis. In fact, the very purpose of the CA transcription system design was to provide the sequential patterns of targeted interactions (Have, 1999). The CA approach did not prescribe analysis that imposes preexisting meanings (Li, 1998). It only added to the original transcript details that enlighten the process of analyzing the data qualitatively (Have, 1999). CA was vital in capturing and interpreting locally emerging meanings in codeswitching practices.

### **Data Sample**

In this study, the data used for the mixed-method analyses are video recordings of the participants' codeswitching episodes occurring during weekly seminar sessions in Arabic and Islamic culture studies. To collect rich data with sufficient number of codeswitching episodes in them, the data sample consists of 10 video recordings of 10 seminar sessions collected during the spring semester of 2017. The recordings range from 42 to 55 minutes, each. For the purposes of this study, only codeswitching episodes were transcribed. While not targeted for analysis,



monologue and monolingual stretches of language occurring during these sessions were kept as references that may clarify the broader context of targeted codeswitching episodes. The transcription record for each data set ranges from 4 to 6 pages. The initial count of the transcribed codeswitching instances ranges from 43 to 87 instances per session. Overall, the transcribed data from all ten data sets include a total of 523 codeswitching occurrences. I applied a mixed-method approach in the analysis of the transcribed data from all data sets of the participants' codeswitching episodes. Further details on the data sample are provided below. Table 4 below presents the data sets thus obtained (see Table 4).

### **Data Sets**

All data were obtained from the same context of multilingual Arab students' weekly seminar sessions. For analytical purposes, data were divided into ten data sets where each set is derived from a single videotaped session. Each session was secured on an external drive. Each data set comprises a video and a transcript of codeswitching instances captured from it.

Below, I provide a brief summary of each data set. The review of each data set specifies its topic, duration, length of transcribed codeswitching episodes, and the total number of codeswitching instances in it. In every data set, all codeswitching occurrences are located, captured, and included for analysis in their original context. Each data set listed below in Table 4 includes a video recording of a class session in Arabic and a transcription of the recording. These are then followed by Table 5 which summarizes the information from all data sets (see Table 5).

Table 4

*Details of Data Sets*

|                   |                                    |   |
|-------------------|------------------------------------|---|
| <b>Data set 1</b> | <i>Topics Discussed</i>            | Main beliefs in Islam, social and religious behaviors, parent/children relationships                          |
|                   | <i>Duration of Video</i>           | 54 minutes  |
|                   | <i>Length of Transcription</i>     | 5 pages   |
|                   | <i>Codeswitching Instances (#)</i> | 87  |
| <b>Data set 2</b> | <i>Topics Discussed</i>            | The creator, maintaining cleanliness and purity throughout the day, learning about water purity               |
|                   | <i>Duration of Video</i>           | 47 minutes  |
|                   | <i>Length of Transcription</i>     | 5 pages   |
|                   | <i>Codeswitching Instances (#)</i> | 46  |
| <b>Data set 3</b> | <i>Topics Discussed</i>            | Learning about the pillars of faith in Islam, learning about what affects water purity                        |
|                   | <i>Duration of Video</i>           | 47 minutes  |
|                   | <i>Length of Transcription</i>     | 5 pages   |
|                   | <i>Codeswitching Instances (#)</i> | 45  |
| <b>Data set 4</b> | <i>Topics Discussed</i>            | Ways of worshipping the creator, ways of knowing if a place is clean  |
|                   | <i>Duration of Video</i>           | 46 minutes  |
|                   | <i>Length of Transcription</i>     | 5 pages   |
|                   | <i>Codeswitching Instances (#)</i> | 56  |
| <b>Data set 5</b> | <i>Topics Discussed</i>            | Meditating in Islam, maintaining cleanliness and purity while spending time outdoors, keeping nature clean    |
|                   | <i>Duration of Video</i>           | 44 minutes  |
|                   | <i>Length of Transcription</i>     | 5 pages   |
|                   | <i>Codeswitching Instances (#)</i> | 52  |
| <b>Data set 6</b> | <i>Topics Discussed</i>            | Using water for body cleaning wisely, staying clean in the absence of water, and washing one's face and hands |
|                   | <i>Duration of Video</i>           | 55 minutes  |
|                   | <i>Length of Transcription</i>     | 5 pages   |
|                   | <i>Codeswitching Instances (#)</i> | 57  |
| <b>Data set 7</b> | <i>Topics Discussed</i>            | The Abrahamic belief, washing hands and face repeatedly   |
|                   | <i>Duration of Video</i>           | 47 minutes  |
|                   | <i>Length of Transcription</i>     | 5 pages   |
|                   | <i>Codeswitching Instances (#)</i> | 52  |

|                    |                                    |  |
|--------------------|------------------------------------|--|
| <b>Data set 8</b>  | <i>Topics Discussed</i>            | Washing and preparing one's body for prayer, do's and don'ts when spending time outdoors |
|                    | <i>Duration of Video</i>           | 50 minutes   |
|                    | <i>Length of Transcription</i>     | 6 pages  |
|                    | <i>Codeswitching Instances (#)</i> | 58   |
| <b>Data set 9</b>  | <i>Topics Discussed</i>            | The Abrahamic beliefs, occasions requiring body cleaning                                 |
|                    | <i>Duration of Video</i>           | 50 minutes   |
|                    | <i>Length of Transcription</i>     | 6 pages  |
|                    | <i>Codeswitching Instances (#)</i> | 56   |
| <b>Data set 10</b> | <i>Topics Discussed</i>            | Cleaning one's body with one's clothes, shoes, and socks on                              |
|                    | <i>Duration of Video</i>           | 45 minutes   |
|                    | <i>Length of Transcription</i>     | 6 pages  |
|                    | <i>Codeswitching Instances (#)</i> | 63   |

Table 5

*Summary of Data Sets*

| <b>Data Sets</b> | <b>Session Date</b> | <b>Topics Discussed</b>                                       | <b>Duration of Videos</b> | <b>Questions (#)</b> | <b>Responses (#)</b> | <b>Codeswitching Episodes (#)</b> |
|------------------|---------------------|---|---------------------------|----------------------|----------------------|-----------------------------------|
| <b>1</b>         | 12/10/2017          | Parent/children relationships                                 | 54min                     | 40                   | 93                   | 87                                |
| <b>2</b>         | 12/17/2016          | Hygiene practices;<br>Water purity                            | 45min                     | 29                   | 51                   | 46                                |
| <b>3</b>         | 7/1/2017            | Islamic beliefs   | 46min                     | 36                   | 67                   | 43                                |
| <b>4</b>         | 14/1/2017           | Meditation and worship  | 46min                     | 52                   | 74                   | 56                                |
| <b>5</b>         | 21/1/2017           | Meditation;<br>Staying clean;<br>Staying clean outdoors       | 44min                     | 46                   | 72                   | 52                                |
| <b>6</b>         | 28/1/2017           | Staying clean with or without water;<br>Daily cleaning habits | 55min                     | 53                   | 71                   | 49                                |

|    |           |  |       |    |    |    |
|----|-----------|--|-------|----|----|----|
| 7  | 4/2/2017  | Monotheistic beliefs;<br>Ablution rituals;<br>Conditions for ablutions | 47min | 43 | 65 | 48 |
| 8  | 11/2/1017 | Ablutions sequence;<br>Do's and don'ts outdoors                        | 50min | 52 | 73 | 53 |
| 9  | 18/2/2017 | Ritual of Tawheed;<br>Ablution breakers                                | 50min | 54 | 68 | 62 |
| 10 | 24/2/2017 | Cleaning one's body with one's clothes, socks, shoes on                | 42min | 47 | 66 | 63 |

To perform a rich data analysis, I reviewed the data sets multiple times by adding, removing, or adjusting my interpretations as prompted by the context of the videotaped conversation excerpts. In that, I considered the latter's linguistic, sociolinguistic, and discourse features, as well as prosodic, facial and other contextual clues.

### **Validity of the Study**

In addition to selecting adequate data collection and analysis methods for the study, ensuring research validity throughout this process is critical for obtaining meaningful outcomes. Thus, validity is a prominent component in the study of codeswitching. Obtaining factual data that consist of the recorded naturally occurring talk interactions conforms to the very concept of validity. More specifically, this type of data obtained through line-by-line transcriptions of recorded codeswitching episodes serves as a source of concrete evidence for the interpretations resulting from the quantitative and qualitative analyses. Unlike obtaining data from interviews with participants who may provide perceived information, obtaining data through the recording

of talk-in-interactions occurring in natural settings offers the possibility of obtaining quantifiable facts. Also, capturing multilingual students' codeswitching practices in their natural context constitutes acquiring authentic data, thus enhancing the validity of both quantitative and qualitative analyses (Onwuegbuzie & Johnson, 2006).

Furthermore, this study claims validity based on its choice of mixed-method research approach for its data collection and analyses. Thus, it complies with well-known claims that validity is one of the established benefits of using mixed-method approaches where combining two or more methods of qualitative and quantitative approaches supports scientific practices in research and increases the validity of such studies (Johnson et al, 2007). Furthermore, validity is ensured as one method explicates the data and findings of the other and as each method sensors the other method's procedures and findings in a two-way process. In addition, this study also supports the types of validity proposed in the literature on qualitative, quantitative, and mixed-method approaches by offering a detailed depiction of the study's settings and context, and by doing extensive recorded observation of the participants (Johnson et al, 2007). As evident from this and the previous two chapters, I have sought to explain in detail the context, participants, and setting of the study as well as provide records of the target research components with well-documented video recordings and exact transcripts of those recordings.

### **Ethical Considerations**

Similar to other forms of research, conducting research in linguistics requires following ethical considerations determined by the overall concept of the research design, specifically by the type of data being collected and by the participants' role in that process throughout the study. As this study collected data from activities and language produced by human participants, I made sure the process of recording was conducted following a clear and straightforward understanding

and agreement between the researcher and the participants (Eckert, 2013) and in compliance with the IRB permission I obtained from my university to conduct this study (see Appendix A). Specifically, it requires obtaining consents from the participating adults (see Appendix D) and assents from the participating minors (see Appendix E) before recording the sessions. All my participants were familiarized with the study's nature, purpose, and the process and conditions of their participation. The adults' consents and the minors' assents were voluntary.

Another major element of ethical consideration is guaranteeing confidentiality for my participants. All videotaped recordings were secured on my private university drive. In order to grant anonymity for my participants, none of their personal information, including their names, were revealed at any stage during or after the study. Also, as an insider and a volunteer in the community, I had the opportunity to build trust and develop close relationships with my participants so that they could feel more comfortable asking questions or expressing concerns during or after the recordings. Further, the on-site camcorder was located so that it was visible without disturbing or interfering with the participants' class activities.

Overall, ethical considerations regarding this study are addressed through the process of obtaining IRB permission from my university (see Appendix A) and through following its provisions as required throughout the implementation of all aspects of the study's research design.

### **Chapter Summary**

This chapter presents and rationalizes the research design and procedures in studying the codeswitching practices of multilingual Arab students attending weekly seminar sessions in Arabic and Islamic cultural studies. It begins by justifying the choice of a mixed-method approach in conducting the study. It further specifies how the quantitative and qualitative

components of this method were applied in a way that achieves the study's purposes and fills an identifiable gap in the current research on this topic. It also provides a detailed account of the study's separate components. It offers a close description of the study's research design and settings. It does so by offering an overview of the study's research questions and the types of information and analyses needed for answering each question, as well as a description of the study's site and participants. It further explicates the data collection, the data sample, and the methods of transcribing the recorded video sessions. Also, data sets are presented separately and in a summary table. Based on the discrete presentation of the study's contextual factors, it explains how an in-depth analysis using linguistic (i.e., MLF and 4-M models), sociolinguistic, and conversation analysis approaches reveal the language structures as well as their social meanings as demonstrated in the participants' codeswitching episodes. Finally, it addresses the study's validity and ethical considerations. Overall, Chapter Three suggests that the choice of a mixed-method approach for data collection and analysis facilitates the triangulation of the data analysis and findings leading to a deeper understanding of the issue, thus contributing to the study's claims for validity and significance of its potential contributions to the study of codeswitching.

## CHAPTER FOUR

### DATA ANALYSIS

#### **Introduction**

After contextualizing the study by reviewing the literature in Chapter Two and presenting its methodology in Chapter Three, Chapter Four analyzes its collected data which are codeswitching instances captured through videotaping and transcription of multilingual Arab students' Arabic weekly cultural seminar sessions at their local US community. The data analysis addresses ten one-hour videotapes of ten consecutive seminar sessions focusing on the practice of Arabic for educational purposes. To understand the process and results of this study's data analysis, it is important to know how codeswitching instances were selected and analyzed for this study's purposes.

The analyzed data itself consists of 523 codeswitching instances extracted from the above-mentioned ten hours of videotaped seminar sessions. They were subjected to linguistic, conversation, sociolinguistic, and education-focused discourse analyses. In each of these analyses, many of the codeswitching instances were used more than once depending on the purpose for their analysis. For example, in the linguistic analysis, all 523 codeswitching instances were analyzed once at the whole-language level, a second time, at the sentence-level, and, a third time when 275 of these were subjected to morpheme-level analysis. In the conversation analysis, 103 of the 523 codeswitching instances were analyzed as story-telling strategies (47), speech overlap techniques (29), topic management tools (23), and a few miscellaneous strategies (4). In the sociolinguistic analysis, 61 of the 523 codeswitching instances were analyzed as personal identity indicators (35) and as group identity markers (26). Finally, in the discourse analysis of the use of codeswitching for educational purposes, 231 of the



523 collected codeswitching instances were analyzed as examples of translation (61), elaboration (54), confirmation (37), and commenting (31). The results from these data analyses present the researcher with rich and multi-layered material for answering the study's research questions.

More specifically, the study's data analysis presented here, in Chapter Four, employs linguistic analysis to explore the structural implications of the codeswitching instances extracted from the data to seek answers to Research Question 1, which states, "What structural patterns do multilingual Arab students use when engaging in Arabic/English codeswitching?" Additionally, it implements conversation analysis to find answers for Research Question 2, which states, "In the context of Conversation Analysis, what conversation strategies do multilingual Arab students utilize when engaging in Arabic/English codeswitching? Furthermore, it also employs sociolinguistic analysis to find answers to Research Question 3, which states, "In the context of sociolinguistics, what personal and group identities do multilingual Arab students exhibit when engaging in Arabic/English codeswitching? Finally, it employs education-focused discourse analysis to find answers to Research Question 4, which states, " What educational purposes do multilingual Arab students pursue when engaging in Arabic/English codeswitching?"

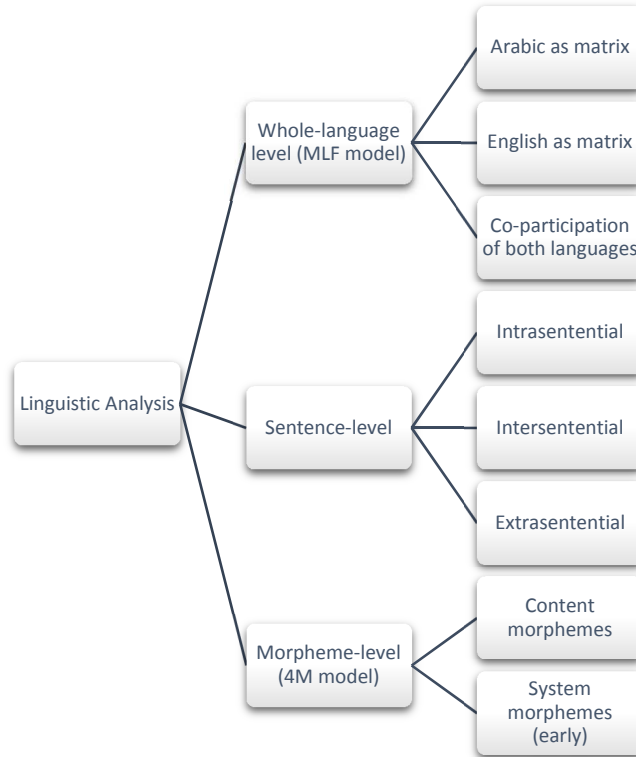
In order to explore the structural features of the codeswitching instances captured in this study's data, this chapter employs linguistic analysis to examine and distinguish among major types of codeswitching (e.g., inter-sentential, intra-sentential, and extra-sentential) in terms of their composition and frequency. Furthermore, it employs conversation analysis to explore specific conversation strategies, such as overlaps, storytelling, and topic management occurring in the study's data. Additionally, it employs sociolinguistic analysis to examine the ways in which the participants exhibit their personal and group identities through codeswitching. It also employs discourse analysis to study the ways in which participants use different pedagogical

strategies to access and make sense of their curriculum through codeswitching. These conceptual frameworks are used to reveal the structure, function, and meaning of the participants' codeswitching practices. Therefore, it aims to clarify a major question: How do multilingual Arab students accomplish meanings and goals through codeswitching, that is what does code-switching constitute in terms of language structure, social meanings, discourse patterns, and pedagogical strategies as these serve meeting personal communicative goals?

Here, as part of this study's data analysis, I subject these codeswitching instances to the above four analyses to reveal the linguistic nature, discourse significance, social meanings, and pedagogical implications of multilingual Arab students' codeswitching behaviors. To reach a comprehensive and layered understanding of the nature of their codeswitching practices, I employ linguistic, conversational, sociolinguistic, and discourse analyses.

### **Codeswitching. Linguistic Analysis**

The linguistic analysis examined the grammar of the multilingual Arab speakers' codeswitching between Arabic and English during their weekly cultural seminar sessions in their local community in the United States. More specifically, it studied the linguistic patterns and structure of their codeswitching instances. It traced the way in which the participants' different linguistic repertoires were combined in the same speech event across different text levels. Therefore, based on the relevant linguistic theories reviewed in this study, and on the prevalent structural patterns identified in the selected data, the following conceptual model examines the study's data in these contexts: whole-language, sentence-level, and word-level (see Figure 6).



*Figure 6.* Linguistic Analysis. Whole-language, sentence-level, and morpheme-level analyses

The linguistic analysis of the codeswitching instances contributes to the current knowledge about language use among multilingual Arab students. Moreover, it further informs the beliefs about language structure and language use in multilingual communities. More specifically, it could inform teachers and educators about multilingual Arab students’ use of their varied linguistic resources to achieve formal academic and personal communicative goals.

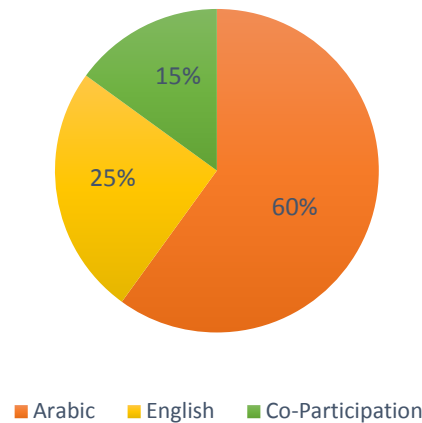
Below, I subject the collected 1,321 codeswitching instances to whole-language, sentence-level, and morpheme-level analyses (see Figure 7). Within the whole-language-level analysis, I discuss the instances of Arabic as the matrix or dominant language, the instances of English as the matrix language, and the instances of the co-participation of both languages. Next, I perform a sentence-level analysis of the inter-sentential codeswitching instances, the intra-sentential codeswitching occurrences, and the extra-sentential codeswitches. Finally, I focus on

the morpheme-level analysis of the content and system morpheme codeswitches (the early system morphemes in particular). The data shows that codeswitching instances of multilingual Arab students are significant in all types of codeswitching.

### **Whole-Language Level Analysis**

On the whole-language level, the MLF model focuses on the hierarchy of the languages, i.e., Arabic and English, used simultaneously during the same speech event (Myers-Scotton & Jake, 2000). It suggests that such participation is asymmetrical when codeswitching is intra-sentential. That means that in such cases, one language is generally chosen as a base, while the other is embedded and supplies the matrix language only with lexical elements without affecting its grammatical structure. Here, first, quantitatively, then, qualitatively, I analyze where, how, and to what degree Arabic and English participated, structurally and semantically, in codeswitching instances on the whole-language level. For this study, the assumption is that Arabic is intended to be used as the target language for curriculum and instruction, and, therefore, is the matrix language. Yet, when reviewing the codeswitching instances in this study, this assumption was not consistent with the findings from the data analysis.

In this study, although most of the codeswitching instances showed Arabic as the matrix language, they also occurred with English as the matrix language, and in other instances, they occurred with the equal participation or co-participation of both languages. Of all codeswitching instances, 316 (60%) have Arabic as the matrix language, 129 (25%) have English as the matrix language, and in 78 (15%) instances, Arabic and English co-participate (see Figure 7).



*Figure 7.* Whole-language level analysis. Distribution of matrix language frequencies

**Arabic as the matrix language.** In codeswitching, Arabic is the matrix language when it provides the grammatical structure and rules in a text. For the purposes of this research, based on the MLF model's provisions, I extracted and analyzed examples where Arabic serves as the matrix language. In most codeswitching instances, multilingual Arab students used Arabic as the matrix or base language and English as the embedded or supplementary one. These occurred in 316 or (60%) of the 523 codeswitching instances subjected to whole-language level analysis. In these codeswitching instances, the students maintained Arabic as the base language when they participated in discussions. The data shows that they codeswitched only morphemes that align with the Arabic language structure and syntactic frame. Also, it appears that students used this type of codeswitching to avoid hesitation, or, to remember Arabic words they could not recall instantly. Thus, the Arabic-to-English codeswitching was used to facilitate language comprehension, fluency, and precision.

Such codeswitching appeared frequently in the data, especially when students were eagerly participating in discussions or challenging a point proposed by the teacher or other classmates as in the following example (see Example 1). In it, the teacher explains a commonly

held belief claiming that all humans know right from wrong by birth. Immediately, S1 proposes a scenario that challenges this belief.

*Example 1:*

- 01 T: كل إنسان يولد على الفطرة و بدون تأثير من برا يعرف ربه (*We are all born innocent. That*  
02 *means we know our creator by birth, without external influence or interference.*)  
03 S6: وبدون أي **island** طيب إذا كنت لحالك على (*What if you were stranded alone on an*  
04 *(where external) forces ما يجي الشيطان ويخرب عليك (might influence your beliefs?*  
05 *Could Satan manipulate your beliefs there?)*)

In Example 1 above, S6 responds to the teacher without hesitation or repair. The codeswitch happens in line 03 and 04 from Arabic to English (e.g., "island" and "forces"). Here, Arabic is the matrix language as it provides the syntactic and morphological structure and controls the speech flow. This excerpt shows that S6 uses two English key nouns as content morphemes. Yet, English is the embedded language since it only provides lexical morphemes, without changing the sentence's syntactic structure or word order.

Similarly, the following example (see Example 2) also shows how Arabic functions as the matrix language while English supplies only content morphemes. As the topic is about the etiquette of using restrooms, the discussion shifts to the way restrooms may look different in different places. After the teacher asks whether they have seen the traditional ones back home in Saudi Arabia, S1 enthusiastically responds with a humorous description his classmates find hysterical. As S1 draws a comic picture of the restrooms back home, he stands up and demonstrates their design and functions using gestures. He also speaks without pauses and doesn't leave time for interruptions or comments. His speech starts in Arabic and follows Arabic syntax and structure all along (see Example 2).

Example 2:

- 01 T: شفتوا الحمامات القديمة؟ (Have you seen the traditional restrooms back home?)
- 02 S1: فيه ال (yes, there are) **two choices** فيه ال (there is the) **fun kind and**
- 03 **there is the boring kind, the boring kind** هو انك تجلس على واحد عادي
- 04 (you just sit on a regular toilet) و ال (and with the) **fun kind** فيه وفيه مكان كذا و فيه (you
- 05 must squat over a space that has a) **hole** فيه مكان على عليك على مكان فيه (and you
- 06 put your feet on a place that has a) **grip** عشان ما يصير (to avoid) **slipping**
- 07 و (and) **fire** ، و (then you) **aim** ، بعدين تسوي

The codeswitch begins in line 02. S3 starts responding in the language used in the question, that is Arabic. Then, he codeswitches to English and continues to codeswitch back and forth between the two languages. In both Example 1 and 2, when codeswitching, students tend to use Arabic as the matrix language for longer descriptions and stories as they continue with the same topic and language. In line 02 above (see Example 2), the English noun phrase starts with the Arabic definite article "ال" or "el" used before the noun phrase "fun kind." Then, the English phrase is followed by an English simple sentence. But then, in lines 03 through 07, S3 continues speaking in Arabic with a few codeswitched English nouns and verbs such as "hole," "grip," "slipping," "aim," and "fire." Furthermore, when codeswitches occur in long stretches of speech in a single turn, the number of codeswitched content morphemes and phrases increases, as this example demonstrates. Also, it is noticeable that codeswitches to English decrease in size as speech continues and picks up more fluency. Overall, there is an obvious asymmetry between the use of Arabic and English here. In this instance, the conversation excerpt starts in Arabic which imposes its structural patterns, whereas English appears in the form of inserted phrases and morphemes, which supply content details.

**English as the matrix language.** While Arabic is more frequently used as the matrix language in most of the codeswitching instances in the data, there is a significant number of instances where participants engage in mostly English speech with Arabic as the embedded language. English as the matrix language constitutes 129 (25%) of this study's 523 codeswitching instances subjected to whole-language level analysis. Here, the linguistic analysis focused on the use of English as the matrix language in the context of Arab students' cultural seminar sessions. Noticeably, the data shows that the codeswitching instances with English as the matrix language occurred when discussions among students intensified and when responding to the teacher's questions. Also, English was the matrix language when discussions of certain topics were initiated in English. In such cases, Arabic was used as the embedded language where it provided only content morphemes (Scotton & Jake, 2016). Example 3 below demonstrates this. The topic is the relation between faith and Islamic practices. The teacher gives an example of the door key as a metaphor for Islamic beliefs and explains that the other parts of the key, that is its teeth, could symbolize the Islamic practices and rituals.

*Example 3:*

- 01 T: You cannot use the key without its teeth, but what if you only have the teeth of the  
02 key?
- 03 S5: ↑It doesn't make sense, how can you *تصلي, تصوم, تحج,*  
04 *وما تؤمن* (*pray, fast, and do the pilgrimage if you don't believe*).

In line 01 in the above example, the teacher elaborates further on his “key=beliefs” metaphor in English. S5 replies with a rising pitch using the same language he hears but codeswitches to a number of Arabic verbs. In line 03, the codeswitch happens with inflected Arabic verbs that contain pronouns as prefixes, suffixes, or both, as in the verbs “تصلي” and



“تصوم”. Preceding these simple present verbs, "pray" and "fast," is the equivalent to the English pronoun "you," that is the Arabic second person singular masculine pronoun. Here, it is a bound morpheme appearing before the English verbs. Referring to the subject, such Arabic bound morphemes are similar in meaning to the English pronoun “you” but have different structural functions. In fact, S5's codeswitches to this form of Arabic verb is clever, as it boosts the expressiveness of his speech by allowing him to convey more using fewer morphemes. In addition, these Arabic verbs are culturally specific to the participants, and perhaps are often used in Arabic at their homes and communities.

In addition to providing single verbs as content morphemes, as an embedded language, Arabic also provided short phrases. In Example 4 below, the topic is some commonly used Arabic expressions that have been passed down via ancient myths and superstitions. The teacher asks the students whether they have heard one of the phrases they are about to discuss. S2 responds and codeswitches between Arabic and English.

*Example 4:*

- 01 T: أحيانا الناس يقولون كلام و ما يعرفون معناه مثلاً قد سمعتوا "خير يا طير  
 02 use phrases passed down to them despite not knowing their origin. Have  
 03 you heard of “o bird, what should I do”)  
 04 S2: إيلاً (Yes), I heard it once في (in) The Amazing World of Gumball  
 05 [a television show] It means وش تبغى (what do you want)

As Example 4 shows, the codeswitching to Arabic occurs in line 04 when S2 responds to the teacher's yes/no question with "إيلاً" meaning "yes." In line 04, S2 responds with yes to the question, but in line 05, he expands his answer to suggest what he thinks this phrase means as used in the television show (which was dubbed in Arabic). While this student uses the first

morpheme of his response in the same language he hears, that is in Arabic, he codeswitches to English and uses the latter as the matrix. In S2's response, English dominates Arabic structurally by the number of morphemes it provides. In line 04, S2 uses only two Arabic morphemes, "نعم" meaning "yes" and the preposition "في" meaning "in." Similar to Example 4, in many other instances in which Arabic was the embedded language, the codeswitched elements were mostly single morphemes, such as verbs, prepositions, and adverbial/prepositional phrases. Furthermore, in most cases, the structural framework and word order of the matrix language was not grammatically affected by the embedded language, whether it was English or Arabic. Similarly, the embedded morphemes did not violate their own structural patterns in either language.

**Co-participation of Arabic and English.** A co-participation of languages in codeswitching occurs when the two languages are equal in providing language morphemes and neither one dominates the other. Here, I discuss and illustrate co-participation in codeswitching as represented in this study's data. While the general assumption is that the participating languages in codeswitching are asymmetrical, where one dominates the other structurally, this study's data analysis shows that many codeswitching instances occurred as co-participation of English and Arabic. This symmetrical codeswitching of languages occurred in 78 (15%) of this study's 523 codeswitching instances subject to whole-language level analysis. The morphemic elements of the two languages were nearly equal and neither language structurally controlled the other (Myers-Scotton & Jake, 2000). In this study, most co-participation instances occurred in short phrases, often with each language providing a morpheme. As mentioned above in the discussion of Arabic as the embedded language, participants seemed to practice this type of codeswitching for convenience. Example 5 below demonstrates this. After discussing the concept of humans being born innocent, S2 asks a question and redirects the discussion by

refocusing on his personal view and experience of the world. Then, S2 receives responses from other classmates. Frequently, students discuss issues outside the box, through questions or scenarios that get their peers' attention and bring humor to their class sessions.

*Example 5:*

01 S2: طرزان مولود في ال، عندي سؤال، (I have a question, was Tarzan born in the) **jungle?**

02 S4: هذي (This is a) [**fairytale**

03 S5: [**O my god!**

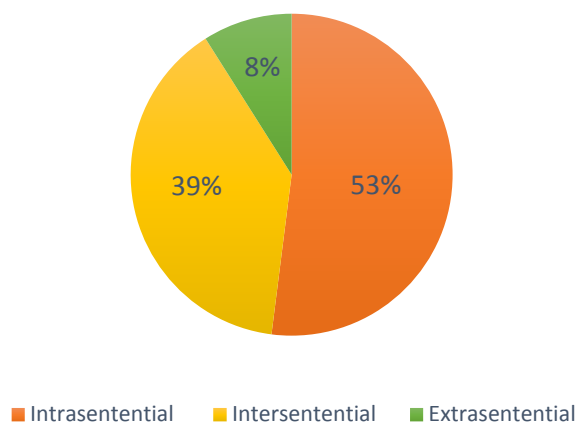
Here, in line 01, by using the noun “jungle,” S2 codeswitches to English as an embedded language. In line 03, however, the codeswitch by S4 is a co-participation of the two languages. This codeswitch also motivates S5 in line 04 to continue the codeswitch as he reacts to this question/answer interaction between S2 and S4. Back to line 03, where the co-participation of the two languages occurs, S4 uses the Arabic demonstrative “هذي” as the equivalent to “this” in English. Unlike English, in Arabic, demonstratives are inflected morphemes and must agree with the subject in number and gender. Here, in Example 5, it agrees with the preceding English noun subject "fairytale" in that it treats the word as a singular feminine noun, just like its Arabic counterpart.

Moreover, in Arabic, this is considered a noun or a nominal phrase, which consists of two nouns or what replaces them. The rule of these nominal phrases is that the pronoun introduces the statement and the noun provides information or "news" about the first. Hence, “هذي” or "this" is the pronoun and "fairytale" is the second item in the noun phrase that informs the first. Also, Arabic has no verb for “to be,” so the phrase which is considered a declarative noun phrase in Arabic is complete structurally and semantically in both languages. Notice that the

codeswitching instances in both lines 01 and 02 are intra-sentential switches. However, they differ drastically in the way each language participated in each codeswitch. Therefore, line 03 in Example 5 above shows how Arabic and English participate equally in an intra-sentential codeswitch where each language provides an equal number of morphemes.

### **Sentence-Level Analysis**

After analyzing codeswitching at the whole-language level, that is in terms of the switches between the matrix and embedded language as a whole, here, I focus on the sentence-level analyses of codeswitching, or on the way codeswitching occurs within and between sentences. For that, I focus on three types of codeswitching instances, inter-sentential, intra-sentential, and extra-sentential, more specifically on their frequency and forms. As mentioned earlier, of the 523 codeswitching instances subjected to this study's sentence-level analysis, 204 (39%) were inter-sentential, 275 (53%) were intra-sentential, while 44 (8%) were extra-sentential codeswitches, all occurring at the sentence level (see Figure 8).



*Figure 8.* Linguistic Analysis. Distribution of intra-, inter-, and extra-sentential codeswitching instances

**Inter-sentential codeswitching.** Inter-sentential codeswitching occurs when the same speaker switches languages between sentences in a single turn or by multiple speakers in multiple turns in the same conversation. There were 204 (39%) inter-sentential codeswitching instances within this study's 523 sentence-level codeswitches. Mostly, this type occurred in this study's data when participants asked follow-up questions and commented in class discussions. Declarative sentences and dependent conditional clauses appeared most often as inter-sentential codeswitching. During their ongoing discussions, students repeatedly asked their teacher and classmates topic-related questions. For instance, when the teacher answered a student question from a previous class session, a student would codeswitch to English to ask another question based on his teacher's answer. In Example 6 below, the topic is staying focused and avoiding distractions during prayer.

*Example 6:*

- 01 T: تكلّمنا عن التّفنّت في الصلاة بحثت و صار مكروه (*you asked me about getting*  
 02 *distracted during prayer and I researched it, and it is disapproved*)  
 03 S5: أيوه أمي قالت مكروه (*yeah, my mom told me this*) , **you shouldn't do it**  
 04 S3: **So is it OK to do this** ((acting: turning his head sideways))

In the above example, in lines 03 and 04, S5's statement ("you shouldn't do it") and S3's follow-up question "So it is OK to do this" are inter-sentential codeswitches. In many instances, inter-sentential codeswitching is motivated by previous codeswitches where participants aim to highlight statements or questions. Also, participants use inter-sentential codeswitching when they hear another classmate speak assertively while codeswitching to English, or back and forth. Moreover, the following example is a continuation to the same conversation as the one in

Example 6 above, where S6 asks whether it is acceptable to turn one's head sideways, if needed, during prayer.

*Example 6:*

- 01 S6: إذا غلّطت في الصلاة وبتأكد من الإمام (If I make an error during prayer, can I turn my  
02 head sideways to look at the prayer's leader to make sure I'm following  
03 correctly, so can) **I turn my head?**

In Example 6, the inter-sentential codeswitch appears in line 02 to mark a question. Here, S6 uses inter-sentential codeswitching for an English dependent noun clause which precedes the Arabic conditional clause shown in line 01. Without translation this complex sentence consists of two dependent clauses, the first one in Arabic and the second one in English. However, S6 is delivering it in a rising question-asking intonation. In line 03, although the English clause is grammatically complete (as it includes a subject, verb, and object) semantically, it is incomplete. Such use of dependent clauses in inter-sentential codeswitching occurred frequently in this study's data, appearing in 93 out of 204 instances. These codeswitching instances occurred as requests, questions, and statements.

Additionally, this study's data shows that inter-sentential codeswitching also occurred after conjunctions such as "and" and "or" within compound sentences. The following example demonstrates this. The discussion topic is prioritizing tasks and managing time. Thus, S5 gives an example about a person playing videogames constantly without managing other tasks in a timely manner.

*Example 7:*

- 01 S5: والشمس تطلع و تروح (For example, if someone is playing) videogames، مثلا واحد يلعب  
02 (and the sun rises and sets) **and he is still playing.**

In Example 7, the inter-sentential codeswitching occurs in line 02, as S5 starts it with the coordinating conjunction "and." Here, although the inter-sentential codeswitching is at the sentence boundary, the meaning is not completed with only the codeswitched clause to English in line 02. Also, this inter-sentential codeswitching occurred more often in longer stretches of turns by a single speaker. Furthermore, the two codeswitching examples above, and many others in this study's data, occurred in the second clause, mainly for emphasis. Notice how in Example 7, S5 repeated "playing" in the codeswitched clause in line 02 for emphasis and not for lack of vocabulary. Hence, many inter-sentential codeswitching instances in this study used linguistic resources, such as repetition for emphasis, as an advantage to achieve own communicative goals (Li & Milroy, 1995).

**Extra-sentential codeswitching.** Extra-sentential codeswitching occurs from one language to another when transitioning between sentences without semantically altering them, i.e., "by the way" or "you know." In this study, the data shows that extra-sentential codeswitching occurred in 44 (8%) of all codeswitching instances that occurred at clause or sentence boundaries. Participants used extra-sentential codeswitching to transition thoughts, maintain turns, introduce statements, or utter common language-specific phrases. For example, the morpheme "like" is frequently used among millennials, but not for the purpose of describing similar characteristics; rather, it is used to indicate pauses, or to redirect a description of a scene or situation (Plat, 1995). Also, some linguists describe such use of "like" as a replacement of "said," aiming for "casualism" (Larocque, 2017). Example 8 below demonstrates extra-sentential codeswitching in speech. The topic is being peaceful and avoiding hurting others physically or verbally. S2 asks a question to push the boundaries and engage his classmates in the discussion. He asks whether it is normal to play aggressively with peers the way football players do.

Example 8:

- 01 S2: يدفون بعض أثناء اللعبة **football players** عندي سؤال (*I have a question*), ال  
02 (*push each other aggressively when playing*) **so the other team doesn't move**  
03 **forward**  
04 إذا ندف بعض كذا نلعب (*if we tackle like them*) **like** (0.2) عادي (*is it okay to do that*)

Example 8 shows, in line 04, that S2 uses "like" here between two Arabic dependent clauses. It is an extra-sentential codeswitch, as it occurs at the sentence boundary and stands by itself. The use of "like" here sounds like a pause, allowing the speaker time to form his phrase in Arabic. It gives a sense of transitioning as the speaker overcomes his hesitation. Furthermore, the filler "like" here occurs between a conditional clause and a question.

In another example, the extra-sentential codeswitch to "like" had a different function. In Example 9 below, another student uses "like" to mean "said," but unlike in the previous example, she uses it assertively in a class discussion about the moral issue of respecting nature and avoiding cutting trees. Students discuss whether their concern has different implications in different situations.

Example 9:

- 01 S4: ايه في ال (*yeah, what if I was in the*) **woods**.  
02 T: إذا كان الشجر كثير ممكن (*It's ok if there are plenty of trees*)  
03 S7: فيه (*there are*), **like:: a million in one inch**

Example 9 shows that the extra-sentential codeswitch happens in line 03. S7 codeswitches to English with the word "like" to mean "say" or "there are about." This codeswitch seems to facilitate the transition from Arabic to English as S7 completes her statement with an English noun phrase. The use of "like" at sentence boundary was the most



commonly occurring extra-sentential codeswitch in this study. Other extra-sentential codeswitching instances occurred in phrases such as "in general," "well," and "so" for the purpose of transitioning. Besides these examples, some culture-specific phrases such as "الحمد لله", meaning "Praises to Allah," were also commonly used by being uttered spontaneously many times in interactions (Bhatia, 2004).

**Intra-sentential codeswitching.** Intra-sentential codeswitching occurs when the same speaker uses two languages or more in the same clause or sentence. It is a codeswitching within or inside sentences also referred to as codemixing (Appel & Muysken, 2005). Compared to inter-sentential and extra-sentential codeswitching, it was the most frequently occurring type of codeswitching in the database with 275 (53%) instances within this study's overall number of 523 codeswitches (see Figure 8). In this study's data, intra-sentential codeswitching mostly occurred when participants codeswitched morphemes and phrases to achieve fluency and spontaneity in their attempts at self-expression (Poplack, 1980). Further, intra-sentential codeswitching is considered difficult and risky as it requires advanced knowledge of and experience with the use of both languages in order to attain acceptable structural convergence. Therefore, intra-sentential codeswitching is also considered a reliable indicator of a speaker's fluency in one or both languages (Poplack, 1980; Lipski, 1985). Being the most prevailing codeswitching structural pattern, it also exhibits notable discourse and pragmatic variation as it becomes clear later in this study's data's analysis. During their class sessions, students used intra-sentential codeswitching to join in the conversation. In the following Example 10, the topic is lying and honesty. Joining in the conversation, S6 remembers the story about Yusuf's brothers who threw Yusuf in a well, then stained Yusuf's shirt with blood and showed it to their father as "evidence" of Yusuf's having been eaten by wolves.

Example 10:

- 01 S6: إخوان يوسف يبون يعطون أبوهم (*Yusuf's brothers wanted to give their father*)  
**evidence** فحطوا
- 02 دم كذب على (*so they put fake blood on*) **Yusuf's shirt**
- 03 فيه ناس مسافرين مروا بعدين لما لقوه في البئر طلعهو بعدين هم (*then, after they threw him in*  
*the water*)
- 04 *well, some travelers passed by and picked him up, but then they* **enslaved him.**

In example 10 above, the session's broader discussion is on the topic of the value of honesty and the consequences of dishonesty. To provide an example of dishonesty or lying, S6 contributes part of a story he learned from books. The intra-sentential codeswitching occurs in lines 01, 02, and 04. As this example shows, the codeswitching occurs inside sentences. The three codeswitched utterances here participate in providing key content to the story. As the transcription in the example suggests, there are no pauses or repairs that indicate hesitation or language shortage. Rather, S6 codeswitches “evidence,” “Yusuf’s shirt,” and “enslaved him” from Arabic to English to achieve higher fluency and maximum effect on his audience. The choice of this story may also be prompted by its well-known notoriety, yet another reason for impressing his classmates by breaking the boredom associated with high moralizing.

### **Morpheme-Level Analysis**

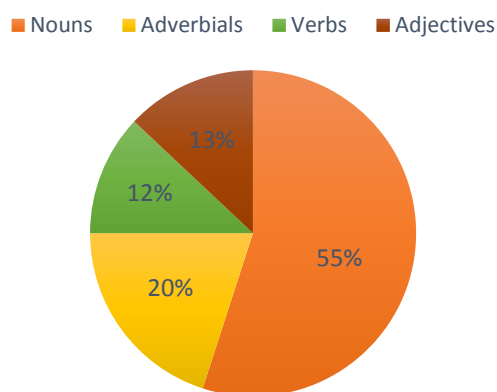
In addition to analyzing codeswitching instances at the whole-language and sentence level, here, I also analyze the 275 codeswitches at the morpheme level. They constituted 20% of the 1,321 codeswitching instances subject to this study’s linguistic analysis. For that, I used the 4-M (four-morpheme) model (see Figure 2, Chapter Two), as well as the linguistic approach to the analysis of morphemes’ forms and functions. In studying the phenomenon of codeswitching,

the 4-M model is used in conjunction with the MLF model (Myers-Scotton & Jake, 2000). Based on the morphemes' semantic and structural functions, this model focuses narrowly on classifying them into two basic groups, that is, content morphemes and system morphemes (see Figure 3, Chapter Two). On their part, system morphemes branch into one early system morpheme and two late system morphemes, i.e., the bridge and the outsider. Content morphemes provide semantic meanings (e.g., nouns). Early system morphemes modify meanings such as the plural 's' in English. On the other hand, both of the late system morphemes, the bridge (e.g., the possessive 's') and the outsider (e.g., third person singular 's'), are defined based on their proximity to content morphemes but do not alter their semantic meanings in the clauses they appear (for more details, see Chapter 2). Therefore, the significance of the 4-M model is that it examines the lexical categories of the codeswitched morphemes as well as their functions in terms of structure and meaning. Hence, it aims to help inform conclusions on the significance and meanings of codeswitching.

In addition to using the 4-M model to analyze codeswitched morphemes, I compared the findings from this study's data analysis of codeswitched morphemes to previous findings in the literature reviewed in Chapter Two. More specifically, I compared this study's findings on codeswitched morphemes to those found in published corpora of data on multilingual codeswitching (Myerson-Scotton & Jake, 2009). The significance of this model lies in revealing the way codeswitched morphemes convey the speakers' intended meanings. Applying the 4-M model to the morpheme-level analysis of this study's data shows that participants mostly codeswitched content morphemes in intra-sentential codeswitching which constitute 275 or (53%) of all codeswitching instances.

**Content morphemes.** Content morphemes provide the main semantic meaning in utterances. They constitute 203 instances or 74% of the 275 codeswitched morphemes subject to morpheme-level analysis. Here, I analyze the types of content morphemes that were codeswitched, as well as the frequency of each type in the database. The data analysis shows that nouns were predominant in multilingual Arab students' codeswitched morphemes. They comprise 112 (55%) of all codeswitched content morphemes. After nouns, the most numerous codeswitched content morphemes are: adverbial phrases with 39 instances (20%), followed by verbs - 24 instances (12%), and adjectives - 28 instances (13%).

Below, the linguistic analysis of content morphemes addressed codeswitched nouns (e.g., noun subjects and noun objects), verbs, adverbials, and adjectives.



*Figure 9: Content morphemes. Distribution of frequently occurring types*

***Nouns as switched content morphemes.*** I begin with the discussion of codeswitched noun content morphemes as objects and as subjects in the sentences they appear. In this study's data, codeswitched noun content morphemes as objects are 72 (64%) and as subjects 40 (36%) of all codeswitched nouns (see Figure 9). As mentioned earlier, participants in this study codeswitched nouns as content morphemes in most intra-sentential codeswitches. As research findings predict, these content morphemes are mostly switched from the embedded language

(Myerson-Scotton & Jake, 2009). In most of these instances, nouns are codeswitched to English as the embedded language in Arabic texts mostly as common nouns and never as proper nouns (e.g., names of people or places). Data from the recorded videos show that when participants codeswitched nouns, there were no hesitations or repairs. Also, codeswitched nouns as content morphemes did not violate the structural rules of either language. Although they represent English as an embedded language, they fit in the Arabic syntactic word order which, in such cases, is similar to the corresponding English word order.

Below, the linguistic analysis focuses on the codeswitched noun objects as content morphemes. As mentioned earlier, in terms of frequency, codeswitched nouns as objects occurred almost twice as often as codeswitched nouns as subjects. Example 11 below demonstrates an occurrence of codeswitched English nouns as objects. The discussion is about the forbidden foods in the Islamic teachings. S4 seeks confirmation of whether it is prohibited to consume pork byproducts. Another participant, S1, replies to S4's yes/no question with further elaboration using the same language but codeswitches to English.

*Example 11:*

- 01 S4: هل صحيح ما يصلح تأكل خنزير؟ (*Is it true that it's prohibited to eat pork*)
- 02 S1: نعم، وأي حيوان له **claws or fangs** [meaning carnivores and similar]

In the above example, S1 codeswitches to English in an Arabic nominal clause. The codeswitch happens in line 02 with an English object noun phrase consisting of two nouns connected with a conjunction. Although the Arabic "له" means "he has," in Arabic grammar, it doesn't translate as a subject and a verb but as a prepositional phrase. Still, it combines smoothly with the English object. Also, despite the codeswitch, the Arabic structure remains

grammatically correct due to the flexibility of Arabic word order. The literal meaning for "له" is "for it" and the nouns following this prepositional phrase are considered additives to such a phrase in the Arabic language.

Besides occurring as objects, nouns as content morphemes also occurred as subjects in 40 instances, or in (36%) of all codeswitched nouns. Below, I analyze a noun content morpheme as a subject. Most codeswitched nouns of this kind occurred as the key content words that provided the semantic information in responses. Example 12 below demonstrates this. In Arabic, the teacher asks the students to think of an example of water that might not be appropriate for washing one's arms and legs in preparation for prayer. The teacher discusses sources of water that are considered clean but can become impure.

*Example 12:*

- 01 T: طيب مثال لماء نظيف صار نجس (*Give an example of something clean becoming dirty*).
- 02 S6: **A pond** فيه حيوان ميت (*harboring a dead animal*).

In example 12, the codeswitch occurs in line 02 with the subject "a pond" appearing in the beginning of a response. The noun "pond" here conveys the main message S6 intends to deliver. Although S6's response clause begins with an English noun, the matrix language here is Arabic because it provides most content morphemes. Furthermore, Arabic here dominates the syntactic frame and word order although it does not differ from English. Here, the adverbial complement follows and refers to the subject, "pond," which is a grammatical structure used in both languages.

***Verbs as switched content morphemes.*** In addition to nouns, the second most codeswitched content morphemes in this study were verbs. The total number of codeswitched verbs as content morphemes from the embedded language is 24 (12%). Most of the codeswitched

verbs were in Arabic and English phrases and sentences. Arabic verbs are always inflected; they have subject markers that indicate gender and number, as well as first, second, or third person. Such density of information in one word is perhaps the reason why participants codeswitch to Arabic verbs and English nouns more frequently. The following example (see Example 13) illustrates the occurrence of a verb codeswitched to Arabic. In it, the topic is the requirements of washing before praying in the Islamic tradition. In Arabic, the teacher asks about these requirements and waits for the students to answer.

*Example 13:*

- 01 T: مين يعرف شروط الوضوء (*Who can list some of the pre-prayer washing requirements*)  
02 S3: One is that you use clean water.  
03 S5: Also, تشيل (*you must remove*) anything covering your skin.

In Example 13 above, the codeswitch occurs in line 03 as S5 adds to S3's answer by adding another requirement when cleaning for prayer. In line 03, the codeswitch occurs with a single Arabic verb in an English clause. Clauses in Arabic can begin with a noun and be labelled nominal, or, begin with a verb and be labelled verbal. In the above example, in line 03, S5 uses the Arabic verb to function as an object for the clause. Semantically, the Arabic verb "تشيل" has its own subject, that is the pronoun "you" as its prefix or bound morpheme. The Arabic verb here is a content morpheme as it carries the main content in this utterance. Also, like in the previously presented instances, the codeswitched morpheme does not disrupt the structure of the English clause. It also aligns with the position of the Arabic syntactic structure and word order.

***Adverbials as switched content morphemes.*** Adverbials were another type of codeswitched content morphemes in this study (see Figure 9). Codeswitched adverbials occurred in 39 instances or in 20% of all switched content morphemes. In this study's data, codeswitched

adverbials occurred as content morphemes, or as prepositional phrases or adverbs. Adverbial codeswitching is illustrated in Example 14. In it, teacher and students discuss some ancient superstitious meanings and practices among Arabs. S6 explains a practice Arabs use to indicate that making traveling decisions could be affected by the way birds fly.

*Example 14:*

- 01 T: أحيانا الناس يقولون كلام و ما يعرفون معناه مثلاً قد سمعتوا "خير يا طير  
 02 use phrases passed down to them, despite not knowing their origin, have  
 03 you heard of "o bird, what should I do")
- 04 S2: إلاً (Yes), I heard this once في (in) The Amazing World of Gumball  
 05 [a television show] It means وش تبغى ("what do you want")
- 06 S6: الآن كذا بس هذي كلمة قديمة (It may mean this now, but) **back then**  
 07 كانوا يطيرون الطير بعدين يشوفون يروح يمين ولا يسار، خير ولا لا  
 08 (they used to release birds and make decisions based on the birds' actions, they did  
 09 this to see whether or not) **to travel or stay home.**

In the above example, the codeswitch to English adverbials occurs in line 06. This codeswitching occurs when S6 tells a story to clarify the meaning of the phrase under discussion as he interrupts the story with the use of the English adverbial "back then" instead of an Arabic adverbial. The English adverbial "back then" is a content morpheme that provides important semantic meaning and temporal information to the story. Also, S6 codeswitches another adverbial clause to English, which starts with a preposition and also provides core semantic meaning to the story. Structurally, adverbials can occur in different positions in texts; therefore, the grammatical structure of the matrix language is not affected when codeswitched. Yet, the adverbials contribute major content in sentences and texts.



Codeswitched adverbials from this study's database also include 19 English nouns that were codeswitched to Arabic adverbial phrases, where a preposition and an article appeared as part of the nouns as their bound morphemes. Some Arabic prepositions are bound prefix morphemes that are permanent noun components. The following example demonstrates this. The topic here is the Islamic etiquette of entering a house with the right foot and exiting with the left foot. As a joke, the students chose to talk about it in a different context, as in how to enter an open space, such as a place in the desert or in the woods. In Example 15, S2 attempts to demonstrate to his classmates how it may be possible to apply this rule by drawing imaginary lines (in lieu of walls) as one enters an open area.

*Example 15:*

- 01 S2: صح إذا هذا المكان و هنا (*It is possible. Let's say this is the open space and*  
 02 *this is the* **line** *،ال تدخل (you enter with the) right* **بال** *تتطلع ،بعدين تتطلع (foot, then you*  
 03 *exit with the) بال left* **left** *(foot).*

In Example 15, the codeswitches occur in lines 02 and 03. The three codeswitched English noun morphemes appear with the Arabic definite article "ال". The two nouns "left" and "right" in lines 03 and 04 are used with the Arabic preposition "ب", followed by the Arabic definite article "ال" as bound morphemes. The use of this pattern slightly modifies the sound and appearance of the English noun morphemes. Thus, S4 uses Arabic as the matrix language and English as the embedded language, providing only content morphemes. Hence, Arabic determines the grammatical structural outcome.

*Adjectives as switched content morphemes.* After nouns and adverbials, the data shows that adjectives were frequently codeswitched as content morphemes. In this study, participants codeswitched adjectives as content morphemes 28 times or 13% of all 203 content-morpheme

switches. 21 of the codeswitched adjectives are English in Arabic clauses. They appeared in two forms, one, as subject complements, and, two, as parts of noun phrases. As subject complements, adjectives were codeswitched to English and Arabic. However, codeswitches to English exceeded in number codeswitches to Arabic since Arabic was mostly the matrix language. Below, two examples illustrate the occurrence of adjectives codeswitched as content morphemes. In Example 16 below, students are discussing the etiquette of eating, specifically the issue of washing one's hands before handling food. Some students explain that some of their peers don't commit to this as they tend to forget. S3 then replies providing another explanation for this.

*Example 16:*

01 S5: أحيانا يقولون نسينا نغسل (*Well, sometimes some say they forgot to wash their hands*)

02 S3: لأنهم (*because they are*) **lazy**

In the above example, the adjective "lazy" is codeswitched to English which is an embedded language occurring in an Arabic dependent clause. The dependent clause beginning with "because" is in Arabic, but, as a bound morpheme, it is part of the subject pronoun "they." Thus, the adjective "lazy" here can be replaced with an Arabic adjective in the same position. The grammatical structure of the Arabic clause is not affected by the codeswitched English adjective. Also, the English adjective here is used as a subject complement in what would be similar English word order. Hence, the use of the English adjective "lazy" seems a synonym or an alternate to its Arabic counterpart.

Similarly, in the following example (see Example 17), an Arabic codeswitched adjective appears in an English clause. The topic is about going to a place of worship and the etiquette of entering such places. S1 comments on the discussion in order to receive confirmation. Here,

similar to the previous example, the codeswitched morpheme is an Arabic adjective integrated into the English clause without violating structural rules.

*Example 17:*

01 T: تدخل برجلك اليمين و تلقي تحية المسجد (You enter with your right foot and greet the place)

02 S1: Before you do this you have to be متوضئ (cleaned/washed), right?

Additionally, participants in this study codeswitched English adjectives as content morphemes within Arabic noun phrases. In all codeswitching instances of this type, adjectival structural positioning is aligned with English grammar rules where adjectives are prenominal. Arabic adjectives, on the other hand, are post-nominal or occur after nouns. In these codeswitching instances, while Arabic is the matrix language, it doesn't set structural restrictions on the codeswitched adjectives. Rather, as it is in English, codeswitched English adjectives precede nouns rather than follow them. Example 18 below illustrates this codeswitching pattern. In a discussion on an Islamic moral ritual that dictates one must go unseen when using the toilet, S3 attempts to negotiate the possibility of him needing to use a school urinal or when using public facilities.

*Example 18:*

01 T: إذا تقدر تستخدم العادي أفضل (Make sure to use a regular one).

02 S5: و المسكر مليون ناس عادي أدخل المفتوح **big line** (what if there is a **big line** لا، إذا فيه

03 (and the restrooms with doors are occupied, can I use one without a door?)

In the intra-sentential codeswitch in Example 18, S5 only codeswitches two English morphemes that form a noun phrase. Consistently, here, and elsewhere, S5 uses the English adjective "big" with the noun "line" in his Arabic clauses. Thus, the English adjective here is not affected by the matrix Arabic grammatical structure.

**System morphemes.** As mentioned earlier, most codeswitched morphemes in this study were content morphemes. System morphemes are three types: one - early, and the other two - late. The two late system morphemes are further subdivided into late bridge morphemes and late outsider morphemes. As mentioned earlier in this dissertation (see Chapter Two), these two types of system morphemes, that is early and late, are determined based on their proximity to the content morphemes. On morphemic level, only 72 or 26% of codeswitched morphemes in this study are system morphemes, all of which are early system morphemes. None of the codeswitched morphemes occur as late outsider, or late bridge morphemes. The codeswitched early system morphemes occurred as definite articles in English (e.g., "the") and Arabic (e.g., "ال" or "el/al"). Both occurred when English/Arabic was the matrix language in utterances and longer texts. To illustrate, the following example (see Example 19) shows that the definite article derives from either the language that sets the grammatical structure or the one that provides the most morphemes.

*Example 19:*

- 01 S7: **I have a funny story**, رامي الصغير كان يتعلم دعاء دخول البيت و مره قبل ما يدخل البيت  
 02 قال لأمه "ماما نسيت *(Rami, the younger brother, was learning to say a prayer before*  
 03 *entering a house, so before he entered, he paused and tried to remember, and said*  
 04 *to his mom: mom I forgot the)* [الpassword"]  
 05 Ss: ((laugh))  
 06 S4: نسى أي؟ *(he forgot what?)* [Password ال? *(The password?)*]

In Example 19 above, in line 06, S4 codeswitches the noun "password" in her Arabic story and uses the English noun "password" with the Arabic definite article "ال" ("the"). Here, English is the embedded language where "ال" is an early system morpheme which complements

and specifies the meaning of the noun "password." Similarly, in the next example (see Example 20), the same pattern occurs when the codeswitched noun is in Arabic. The topic is about prioritizing religious tasks and obligations.

*Example 20:*

- 01 S5: If you ignore تراويح (Ramadan optional prayers), it is fine, because it is optional,  
02 actually, but the صلاة (mandatory prayer), you have to do it.

In the above example, in line 01, the first codeswitched Arabic noun "تراويح" appears with the Arabic definite article "ال". However, in line 02, the Arabic noun "صلاة" appears with the English definite article "the" as an early system morpheme. This is a codeswitch on morpheme level. Instead of using the Arabic bound morpheme definite article, "ال", S5 uses the English article "the" from English as the matrix language. Still, the occurrences of both definite articles in lines 01 and 02 do not cause any alteration in the grammatical structure in the matrix language. They appear here as synonyms. Both definite articles are early system morphemes since their definiteness carries salient information, as they contribute to "the realization of the semantic and pragmatic intentions of an utterance." (Myers-Scotton, 2017, p. 5)

The same is clear from single-word utterances where multilingual Arab students responded to questions, made comments, or participated in brainstorming activities. In these instances, the Arabic definitive article "ال" is a bound morpheme that appears with English nouns. Example 21 below demonstrates this codeswitch. The topic is washing one's arms and legs in preparation for prayers. S6 intends to help S2 by pointing out how far up the water should reach when washing one's legs. Here, S6 uses the English noun "ankle" with the Arabic article "ال" as an equivalent to "the." Both of these Arabic and English determiners are early system morphemes which specify the speaker's intended meaning (Myers-Scotton, 2017).

*Example 21:*

- 01 T: ما هو رقم أربعة (*what is step number four?*)  
02 S2: تغسل رجلك إلى الساق (*you wash your foot to the leg*)  
03 S6: ال إلى **ankle** (*up to the ankle*).

In addition to nouns, verbs, adjectives, and adverbials, that is to content morphemes, conjunctions are examples of codeswitched system or early system morphemes in this study. In this study's data, conjunctions were codeswitched 29 times or in 41% of all early system morpheme codeswitches. Mostly, codeswitched conjunctions occurred in longer turns by a single speaker delivering a description or a story. As early system morphemes, conjunctions do not assign nor receive thematic role in texts. Almost all of the codeswitched conjunctions were Arabic used with English as the matrix language or with Arabic and English as co-participant languages. The most often used conjunctions were "بعدين" (e.g., an equivalent to the English "then"), "أو" (e.g., an equivalent to the English "or"), and "و" (e.g., an equivalent to the English "and"). The following Examples 22 and 23 illustrate each of these switched conjunctions.

*Example 22:*

- 01 S7: So, I just use my wet hands to wipe my socks without taking them off  
02 S4: What if you are wearing layers and a coat بعدين (*then*), you need تتوضأ (*to wash*  
03 *your arms*).

In Example 22 above, the conversation is about an alternate way to wash for prayers if wearing socks or a medical cast. Here, S4 suggests another situation when it is hard to wash one's arms as part of this ritual. S4 continues the conversation in English and codeswitches to the Arabic conjunction "بعدين" (e.g., "then" in English). This is an example of intra-sentential codeswitching which includes a conjunction. It is characterized by S4 using two Arabic

morphemes in an English text. In Example 23, the topic is the etiquette of praying. In line 02, S3 suggests that he might need to look sideways if he sees a spider nearby. In line 02, S3 codeswitches to the Arabic conjunctions "لكن" (e.g., "but") and "و" (e.g., "and") in his English sentence. It is noticeable that in both examples, 22 and 23, the codeswitches occurred with Arabic conjunctions.

*Example 23:*

01 T: حاولوا ما تتلفتون في الصلاة (*try not to look sideways during prayers*)

02 S3: لكن (but) what if a spider is there و (and) I need to look there ((points sideways))

Codeswitching rarely occurred by using English conjunctions in Arabic utterances. Perhaps this is because these class sessions targeted the use of Arabic, thus, using Arabic conjunctions signals to others that, as expected, the speakers are codeswitching back to Arabic. Codeswitching to Arabic was more common in phrases in which conjunctions were used.

### **Codeswitching. Conversation Analysis**

In order to achieve a comprehensive view of Arabic and English codeswitching among Arab students, in addition to the formal linguistic analysis of this study's database, here, I include a further interpretive kind of analysis, that is conversation analysis of the 103 codeswitching instances from this study's collected data. Conversation analysis is a methodological approach that focuses on analyzing and interpreting oral communication between interlocutors (Have, 2007). It investigates interactions between speakers from an emic or insider's perspective for the purposes of revealing how interlocutors carry the conversation in a social context, that is to find out "why that now?" (Schegloff & Sacks, 1973, as cited in Wong & Waring, 2010, p. 6). In other words, conversation analysis serves to interpret the meanings of codeswitching instances from the standpoint of the participants, based on what they intend to

accomplish when they codeswitch. Thus, unlike linguistic analysis, it discourages interpretations with obtained hypotheses. Rather, conversation analysis demands an open mind to any possibilities of meaning within codeswitching occurrences in conversations.

In this study, I conducted conversation analysis of the 103 codeswitching instances that occurred in talk-in interactions in the transcribed data. In the context of multilingual Arab students living and studying in the US, weekly seminars were designed to provide a time and atmosphere to learn common Arabic curriculum they are required to have learned upon their return to their home country. The conversation analysis of the 103 codeswitching instances that occurred in classroom interactions revealed the following main conversation strategies: story-telling 47 (46%), speech overlap 29 (28%), topic management 23 (22%), and miscellaneous 4 (4%) (see Figure 10), which were further classified into subcategories depending on their specific thematic orientation: 1) story-telling, i.e., launching, telling, and responding to stories ; 2) overlaps, i.e., recognitional, progressional, and transitional; 3) Topic management, i.e., conversation openings, shifts, closings; and, 4) Miscellaneous, i.e. repairs and interruptions. These subcategories were further subdivided as appropriate for logical presentation (see Figure 11).

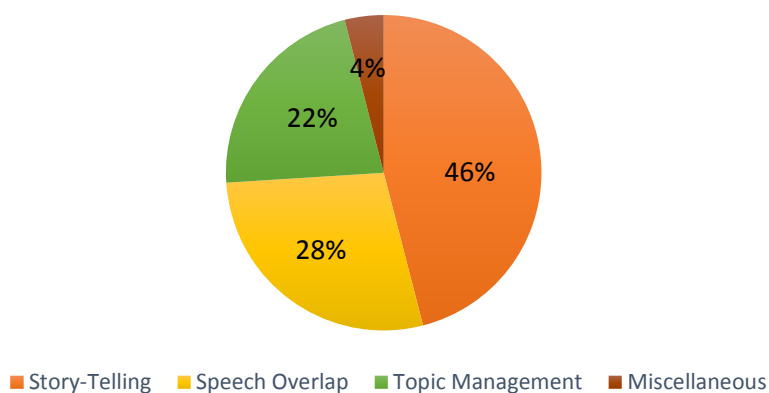


Figure 10. Conversation Analysis. Distribution of main conversation strategies



## Story Telling

Telling stories or creating scenarios occurred in most discussed topics during the multilingual Arab students' seminar sessions. Of all codeswitching instances subject to conversation analysis, 47 (46%) occurred in story-telling events. In this study, participants used story-telling to delve into the topics under discussion, to create scenarios for their arguments or questions, or to relate to new content. During storytelling events, multilingual Arab students codeswitched when launching a story, telling stories, and responding to stories. Below, using conversation analysis annotations (Schegloff, 2007) and methods (Wong & Waring, 2010), I analyze where and why codeswitching occurred in the three storytelling contexts mentioned above.

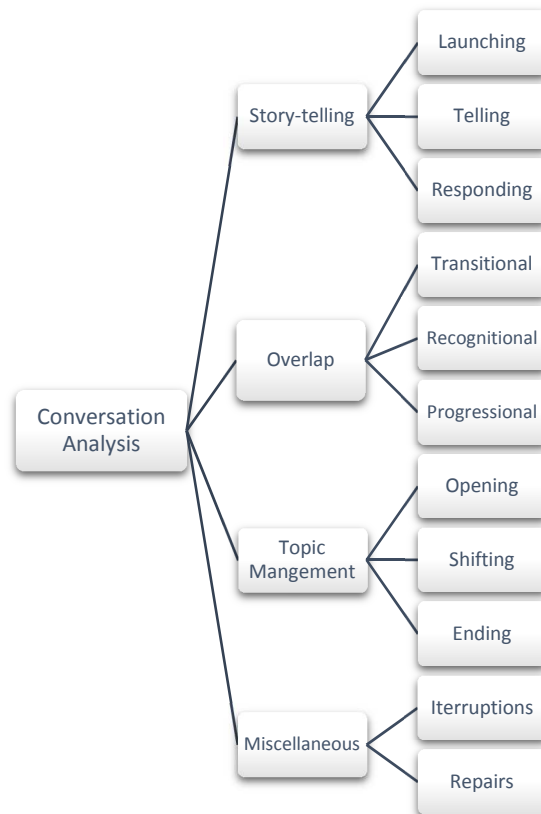


Figure 11. Conversation Analysis. Distinctive thematic foci of major conversation strategies

**Story launching in a single turn.** Most frequently, stories were launched in a single turn and often inspired by previous turns or interactions (Wong & Waring, 2010). Codeswitching appeared in story launching in 7 instances or in 15% of all storytelling instances. Multilingual Arab students employed codeswitching when launching stories as a way to engage their interlocutors and to ensure a turn once they remember relevant stories. Mostly, in this study, participants were motivated to launch a story in a single turn by a preceding turn or a question on a related topic (Wong & Waring, 2010). In a discussion on the ethics of going to war, S1 asks about the morality of starting a war. Such questioning motivates another student to feel passionately about telling a personal narrative, not necessarily intending to answer the proposed question. Rather, with S1's question, S5 felt the urge to share a personal experience that was significant to her, while still remaining on-topic.

*Example 24:*

- 01 S1: حرام تهاجم؟ (*Is it forbidden to attack a place?*)
- 02 T: دائماً حرام، لكن إذا أحد هاجمك لازم تدافع (*it is always forbidden, but if you are attacked*  
by  
03 *someone else, you must defend yourself*).
- 04 S4: ↑**I remember one day, th: they sent::,**
- 05 فيه صاروخ جاء وشوي نسمع الباب البيت يدق لكنه طلع صاروخ
- 06 (*they sent a missile and after a short period of time we heard a banging*  
*on our door, it was vibrating so hard. Soon we learnt that it was a missile*  
07 *attack*)

In example 24 above, the codeswitch occurs in line 04 at the launching of the story. S4 opens the story “as a topically coherent next utterance” (Wong & Waring, 2010, p. 128). In this

codeswitch, S4 uses an English disjunctive marker “I remember” after hearing Arabic by two previous interlocutors. Although she tells the story in Arabic, she opens it with a codeswitch to English using this attention-catching phrase. Her rising pitch at story launching shows her enthusiasm to secure a turn to speak at this moment, especially given that another classmate initiated the topic by asking a question. After launching the story, she codeswitches back to Arabic as she speaks, using the language of the context in which it occurs. Furthermore, having lived near a war zone during a home visit, she is motivated to share an experience her classmates have perhaps never had – how it feels to witness a missile attack. After launching the story, she hesitantly begins with the English subject “they” followed by the verb “sent” to introduce the first part of the story, but quickly shifts the focus on who sent the “missile” by codeswitching back to Arabic. When she codeswitches to Arabic, she eliminates the subject and begins with an Arabic prepositional phrase “فيه صاروخ” as a common Arabic story launcher equivalent to “there was.” Therefore, rather than focusing on the attacker, she focuses on what it feels like to live near a conflict zone and to feel the effects of bombing. By securing a turn to tell a story of this kind, she shares her perspective on this topic without having to engage in a discussion of such a complicated and, perhaps, sensitive topic for her age group.

Besides launching stories with an English phrase, in another instance, codeswitching at story-launching occurred with an Arabic disjunctive marker, while the story was almost all in English (see Example 25). During a discussion of the benefits of avoiding anger, one student shares a personal story trying to justify how sometimes it’s hard to hold back anger.

*Example 25:*

- 01 S2: ↑ مرّه (Once) at the soccer field I scored a goal بعدين واحد (then a  
 02 boy) got mad at me, بعدين دقني (so he pushed me),

03      بعدين (then)• I wanted to beat him up, لكن صديقي (*but my friend*)

04      pushed him out of the way (0.2) like:: he just came and pushed me.

In example 25 above, in line 01, S2 codeswitches the story opener to Arabic and continues most of his story in English. S2 opens the story using a common Arabic opener “مره” (e.g., “once” in English). The codeswitch here seems spontaneous, when engulfed in raging emotion, S2 revisits the incident raising his pitch. Since the discussion preceding his turn is in Arabic, he chooses to continue that at his story-launching for the sake of continuity and smooth transition of turns. This technique of using codeswitching helps S2 to win listeners’ attention and to maintain the discussion of the current topic. Furthermore, the choice of the adverbial “once” reinforces his intent to justify his angry emotions occurring in exceptional incidents. Besides story-launching, codeswitching between English and Arabic occurred in the telling of stories. Hence, the codeswitching occurred back and forth between Arabic and English, though more frequently with longer stretches of English language between phrases and sentences. Interestingly, in both example 24 and 25 above, as the story tellers revisit incidents that happened to them, they tended to use the language of where the incidents happened as the matrix but launch it with phrases from the embedded language.

**Storytelling in a single turn.** In addition to launching stories, codeswitching in this study frequently occurred within storytelling. Storytelling in a single turn occurred when one participant told the entire story including its background, launching, and climax (Wong & Waring, 2010). This occurred in 28 or in 60% of all story-telling instances. Thus, it is the most frequent story-telling strategy. In Example 25 above, the speaker codeswitched in mid-story using the Arabic temporal adverb “بعدين” (e.g., “then” in English) to mark a new stage in the story’s sequence. He codeswitched in an emphatic tone intending to engage his audience. Thus,

his dramatic use of voice at the codeswitch signaled a request for an uninterrupted turn. In addition to codeswitching at mid-story as in line 01, in line 02, S2 codeswitched to refer to his attacker, "a boy," as well as to the attack itself, "he pushed me." Although occurring at the highlights and important parts of the story, such codeswitching may be spontaneous and unintentional, as it helps to maintain the listeners' engagement with the story.

**Responding to story-telling.** Story recipients play an important role in the story telling process by showing comprehension of the story and appreciation of its meaning, or by expanding its topic's scope (Wong & Waring, 2010). As story recipients, multilingual Arab students codeswitched when responding to storytelling during their class sessions. Codeswitching instances as responses to storytelling constitute 12 or 25% of all storytelling codeswitching instances. This study's data shows that, as participants codeswitched when responding to stories, they encouraged and sustained continuity (Wong & Waring, 2010), and highlighted the climaxes of events. In Example 26 below, the topic is the consequences of lying, even if the lie is told as a joke. S5 responds to her teacher's introduction to a story by codeswitching to English. The teacher follows S3's question by telling a story in which a boy pretends to be drowning in the ocean waves and asks for help.

*Example 26:*

- 01 T: تخيلوا مثلا واحد يمتل انه يغرق في البحر (for example, imagine someone is  
 02 drowning [in the sea])  
 03 S3: ↑[Drowning?]  
 04 T: و فيه واحد من بالضبط (exactly), **he is drowning in an ocean or pool**  
 05 (and there was one of the) ال **life guards** يقول له (On duty, so he shouts) **help me**  
 06 (when people discover this person is) ثم يعرف أنه يكذب، هل سيساعده إذا فعلا احتاج مره ثانية؟

07        *lying, do you think they will take him seriously when he really needs help?)*

08 S6: صدق (**It's really**) risky.

In the above example, the first codeswitch occurs in the first response to the story in line 03. With a rising pitch, S3 codeswitches to English to show her interest in the main event of the story. Her response encourages the teacher to provide further emphasis on the outcome of the story. Also, as S3 self-selects herself in the next turn, her response delivered as a question causes a brief pause from the storyteller, here, the teacher. Hence, in line 04, the teacher restates the first climax of the story repeating the student's words in her response. Also, S3's codeswitch to English motivates the teacher to elaborate on the story further by using a complete sentence in English in which she replaces "sea" with "ocean" and "pool." With this modification, the teacher intends to draw the students closer to her story by using images and language they could relate to.

Furthermore, codeswitching in responding to storytelling occurs to request repetition of some of the details in the story. Example 27 illustrates this. In it, the topic is the Islamic etiquette of entering a house. When the teacher mentions that a verbal prayer is recommended before entering a house, S7 is reminded of a humorous story about this situation. S4 responds to the story by asking S7 to repeat part of the story to make sure he got it right.

*Example 27:*

01 S7: **I have a funny story**, رامي الصغير كان يتعلم دعاء دخول البيت و مره قبل ما يدخل البيت

02        قال لأمه " ماما نسيت (*Rami, the younger brother, was learning to say a prayer before*

03        *entering a house, so before he entered he paused and tried to remember and said to*

04        *his mom: mom I forgot the*) [password"]

05 Ss: ((laugh))

06 S4: **He forgot what?** (0.7) [لpassword? ((laughs))

In the above example, S4 codeswitches to English in her response to the story. As S7 tells the story in Arabic but codeswitches to “password” in English in order to quote the boy’s original words, all her classmates laugh. On hearing everyone laugh, S4 instantly responds to the story in English, by requesting a confirmation of such a ridiculous story ending and by showing her consternation at the boy’s use of “password” instead of prayer. The codeswitch facilitates her engagement with the story as she laughs, agreeing with others and finding humor in the story.

Interestingly, in this study, codeswitching between English and Arabic occurred in all story-telling instances. When students engaged in long stretches of speech, codeswitching between English and Arabic seemed to be inevitable and spontaneous. Moreover, subjecting storytelling instances to conversation analysis showed that using codeswitching when responding to stories indicates the natural unintended process of language selection.

### **Speech Overlaps**

Like storytelling, codeswitching occurred frequently in conversation overlaps. Conversation overlaps are part of turn-taking behaviors, where interlocutors are aware of the turns’ sequence (Wong & Waring, 2010). Codeswitching in conversation overlaps occurred 29 times, thus constituting 28% of all codeswitching instances subjected to conversation analysis. Based on the study's data, three types of speech overlap behaviors are addressed: transitional, recognitional, and progressional (Jefferson, 1983, as cited in Wong & Waring, 2010). In this study, multilingual Arab students tended to codeswitch while overlapping or interrupting speech during classroom discussions and when responding to prompted questions and scenarios. The data shows that they used all three types of speech overlaps, including interruptions.

Recognitional overlaps were most common since the conversations selected for this study are educational events.

**Recognitional overlaps.** Recognitional overlaps were the most frequent type of speech overlaps in this study's interactions, including interruptions. They are 15 or 52% of all speech overlap codeswitching instances. Recognitional overlaps occurred when an interlocutor recognized the thrust of the previous talk (Wong & Waring, 2010). In all recognitional overlaps in this study, participants started their turns prior to the previous speakers completing their turns. In this study, students resorted to overlaps to share their thoughts on the discussed topics and to signal their engagement with their interlocutors' talk. Additionally, recognitional overlaps were often used to obtain needed information. In Example 28 below, the conversation is about the different beliefs about the creation and the meaning of life.

*Example 28:*

01 S1: **الatheists** لا إله و بس (Atheists say there is no god).

02 T: صحيح، الملحدین قالوا ما فيه إله (yes, atheists say there is no god)

03 (2.5)

04 S3: :: كيف (How) (0.5) **how are [they made?**

05 S2: ↑[**Big bang** (0.3) **big bang** ((flips his hand to show that he

06 is surprised that S3 is not familiar with this idea))

In line 04 of example 28, S3's question is overlapped by S2's answer. Thus, S2's overlapped turn occurs in an inter-sentential codeswitch to English. This is a recognitional overlap that occurs at the end of the question to provide an immediate answer to inform, direct, and continue the conversation. Notice S3's codeswitch to English after 2.5 seconds of silence by the teacher and stares from other students. Before S3 finishes his question in line 04, S2 overlaps



his question and continues the codeswitch with an overlapping answer. This indicates that S2's recognitional overlap is motivated by S3's previous codeswitch in her provocative question.

**Progressional overlaps.** Progressional overlaps were the second most frequent type of overlaps in this study. They are 8 or 27% of all codeswitching instances of speech overlaps. As the label suggests, progressional overlaps occur when a speaker intervenes into the current speaker's talk to secure the talk's progress and direction by seeking further input. Mostly, in this study, it occurred when an interlocutor was experiencing a lapse due to lack of words and the previous speaker did not supply the needed information. In example 29 below, the teacher asks the students to give an example on some behaviors that are disapproved according to the Islamic teachings.

*Example 29:*

- 01 T: اعطوني مثال على المكروه؟ (*give me an example of loathsome acts?*)
- 02 S4: التأنفت في الصلاة (*not paying attention during prayers*)
- 03 S5: أنت قلت أمس. مكروه؟! (*is it a disapproved behavior?*). (*You said this*
- 04 *yesterday*) **but I don't think so it is:: [is:: (0.5)**
- 05 S2: **[Umm um:**
- 06 **I think** تسوي حركات و أنت تصلي (*if you move or fidget a lot during prayer*)

In Example 29, the codeswitch occurs in line 04. As S5 seems short of the exact wording and continues in line 05, S2 takes the turn from S5 to complete S5's talk. S5 codeswitches to English to declare his opposing position but as S5 takes too long to explain his position, S2 takes S5's turn as an overlap in line 05. In line 05, S2's overlap comes as he senses the need to complete S5's utterance and provide the needed wording in the same language, that is English. Notice how S2 tries to save S5's face by saying "I think," directing attention to herself and away

from S5 to avoid embarrassing S5. Hence, the progressional overlap exemplified here succeeds in continuing the meaning-making goal through the interaction between S5 who initiates the codeswitch in English and by S2 who continues S5's thoughts by using a progressional overlap.

**Transitional overlaps.** Besides the recognitional and progressional speech overlaps, transitional speech overlaps constitute 6 (21%) of all codeswitched speech overlaps. A transitional overlap occurs when a speaker starts speaking near a possible completion of prior talk for the purpose of accomplishing syntactic completion (Wong & Waring, 2010). Example 30 below demonstrates this. The topic is the Islamic teachings of the two ways in which one should clean oneself, that is when there is water and when there isn't water. In line 01, the teacher intends to remind the students of what was discussed before the class session. He summarizes the second option, which is the case of water scarcity or absence.

*Example 30:*

01 T: أي شيء نظيف (*anything clean*) **other** [than (0.3)

02 S6: ↑[**water, that's what you usually use**

In example 30 above, the codeswitch starts at the end of the teacher's talk and extends to S6's overlapped response. The codeswitch in line 01 starts in the teacher's speech and feeds into the student's response in line 02. Through this codeswitch, the teacher concludes his point by summarizing the last information he presented to his students. The teacher frequently used this method, where he repeats a previously made point in a summarized and simplified manner to ensure student comprehension. This example is interesting in that the teacher codeswitched to get the students' attention. As S6 overlaps the teacher's talk, he completes the teacher's sentence confidently, raising his pitch with the last word "water." S6's rising pitch and assertive answer shows that he is eager to show his teacher that he is knowledgeable in this matter. S6's

transitional codeswitch continues beyond the overlap and goes on to elaborate his thoughts.

### **Topic Management**

Communicating effectively through verbal talk mandates the skills of topic initiating, changing, and terminating (Wong & Waring, 2010). Of all codeswitched instances in the conversation analysis, topic management codeswitches constitute 23 instances (23%). Going through the moves of managing topics is declared at times and implied at other times. In this study, situated in an educational setting, topic management was mostly handled by the teacher, as he has the greatest control over classroom interactions. Hence, the teacher mostly started topics and shifted them based on what he deemed suitable in terms of the timeframe allotted to each topic and the students' learning pace. For instance, most topic openings were performed in Arabic by the teacher in order to maximize the Arabic language input. However, sometimes students attempted to take over their teacher's control by interrupting and raising questions. Thus, codeswitching instances in this category were fewer compared to codeswitching in storytelling and in speech overlaps.

**Topic openings.** Within topic management, topic openings are the practice of starting a new topic at the beginning or closing of discussions or conversations (Wong & Waring, 2010). Within topic management, topic openings occur in 5 codeswitches, or 22% of all topic management instances. As mentioned earlier, the teacher mostly handled topic openings by trying to use Arabic but sometimes codeswitched to English when he sensed the need to check for students' comprehension and/or to get their attention. Codeswitching occurred in topic openings when the teacher reminded students of previously discussed topics or used brainstorming questions to evaluate students' knowledge. In the following example (see Example 31), in his opening, the teacher codeswitches from Arabic to English by reminding the students

of a previous discussion related to the current topic. For instance, in Example 31 below, the teacher opens a new topic, which is an Islamic belief.

*Example 31:*

- 01 T: تكلمنا عن (we have also talked about) **the importance of** توحيد  
02 (learning about the oneness of Allah), **what did we learn?**↑  
03 S3: بال **card** (We learned about the story of the card)

In Example 31 above, the codeswitch occurs in line 01. The teacher begins his talk with the Arabic phrase for “we talked about” to remind the students that it is not a brand-new topic to them and he expects them to have background knowledge on this matter. The teacher then codeswitches to English to introduce the topic via an English noun phrase followed by a question in line 02. His rising pitch towards the end indicates that he expects the students to participate in this topic’s discussion. In response, S3, in line 03, uses a codeswitched morpheme, that is an English noun with an Arabic preposition and article.

**Topic shifts.** Besides topic openings, another 12 (52%) of codeswitched instances within topic management, or, topic shifts, referred to moving to a new topic or a new focus within the current topic (Wong & Waring, 2010). In this study, codeswitching instances of topic management appeared as students tended to shift topics more often than they initiated topics. Participants were prompted to think of related topics in discussions between the students and their teacher. Their codeswitching increased when shifting topics. Sometimes the shift was declared and sometimes it was prompted. For instance, in Example 32 below, a student feels that the topic they are discussing is taking up a lot of their session's time, so she explicitly requests everyone to move on to a new topic.

*Example 32:*

- 01 S4: خلاص نحتاج (okay, enough of this, now we need) **to move on from this topic**
- 02 عشان استخدمنا (because we consumed the) ال **thirty minutes** {for this topic}.
- 03 S6: **Let's talk about** الصوم (fasting).

In the above example, the codeswitch occurs in line 01 as S4 attempts to shift the topic. She starts with a very common Arabic word “خلاص” (e.g., “enough for now”) to announce that they need to move on to a new topic since they are using more than the allotted time. In line 03, S6 supports S4’s attempt at topic shift with another codeswitch to suggest a specific new topic. In addition to codeswitching that demands a topic change, sometimes, students overlapped or interrupted the current speaker, thus causing topic shifts, especially when the talk reminded them of another topic. For instance, in Example 33 below, the topic is about the freedom of belief granted by birth.

*Example 33:*

- 01 T: كل إنسان يولد على الفطرة و بدون تأثير من برا [يعرف ربه (We are all born innocent. That
- 02 means we know our creator by birth, [without external influence or interference.)
- 03 S4: **[Wait: yeah how’s Santa real**
- 04 S5: مو صدقي، أهلهم يجيبون لهم هدايا (he is not, their parents bring them presents)

In the above example, the codeswitch occurs in line 03 where S4 attempts to shift the topic. In line 01 and 02, the teacher repeats the quote they discussed in the beginning of the session in order to wrap up the discussion. By the end of the teacher’s talk, S4 overlaps the last two words with a codeswitch to English as he says "wait." At the mention of "influence," S4 starts talking about another topic of interest and relevance to her peers and herself. Her

codeswitch to English using “wait” signals the topic shift and helps in attracting attention to this topic.

**Topic closings.** Finally, topic closings, or the 6 (26%) of all topic management codeswitches, are utterances that signal an attempt to end the conversation on a topic (Wong & Waring, 2010). Similar to topic shifting, multilingual Arab students preferred ending topics to opening them. The collected data shows that students looked forward to their teacher's topic launching but often felt tempted to shift it to a topic of their interest, thus, request or initiate a topic closing. Example 34 below demonstrates codeswitching in a topic closing.

*Example 34:*

01 S6: **It is 3:15, I don't think we have time** ((pointing to the clock))

02 T: بمدينا (*we have enough time*)

03 S1: **We don't have time if you are talking**

In line 01 above, S6 codeswitches to English to request the topic's closing by declaring that time for this session is almost up. So, he requests the class to close the discussion by pointing to the clock. Noticeably, in this codeswitching instance and in some others, the use of “I think” makes it easier to express what the students want, as opposed to saying it in Arabic. In English, “I think” is often used to prefix both unimportant and important matters. In spoken Arabic, however, it is often used to indicate a serious claim or other serious matters. Moreover, it appears, from the teacher's response, that the student's concern is not justified. Perhaps, S6 suggests terminating the topic. S6's suggestion is confirmed by S1 in another codeswitch to English. Thus, topic closing, especially when initiated by the students in contrast to their teacher's position, seems much more convenient when done in English rather than Arabic.

## Miscellaneous

In addition to story-telling, speech overlaps, and topic management codeswitches, a miscellaneous group of codeswitches, such as interruptions and repairs occurred in 4 instances or in 4% of all data subjected to conversation analysis. In this study, there is only one example of a codeswitched interruption and 3 examples of codeswitched repair practices subjected to conversation analysis.

**Repair practices.** Repair practices were used in dealing with errors in speaking or listening (Wong & Waring, 2010). In codeswitching, they occur as other-initiated self-repairs, where repairs are notified by others as insertion sequences, and, then, by oneself (Wong & Waring, 2010). In Example 35 below, participants discuss the characteristics of socks and shoes that can be kept on during the washing ritual preceding prayer.

*Example 35:*

- 01 T: الشرط الثاني أن يستر الرجلين مع الكعبين (*the second condition of*  
*cleaning your feet without removing your socks is that they should cover your feet*  
02 *as far as the ankles*)  
03 S6: إيش هو الكعبين؟ (*what are the ankles?*)  
04 →S5: يمكن (*I think they are*) **the elbows** ((pointing to his ankles))  
05 →S3: ↑**Ankles**  
06 →S5: قصدي (*I mean the*) **el ankle**, ((laughs)) **elbow** ((laughs while pointing at them))

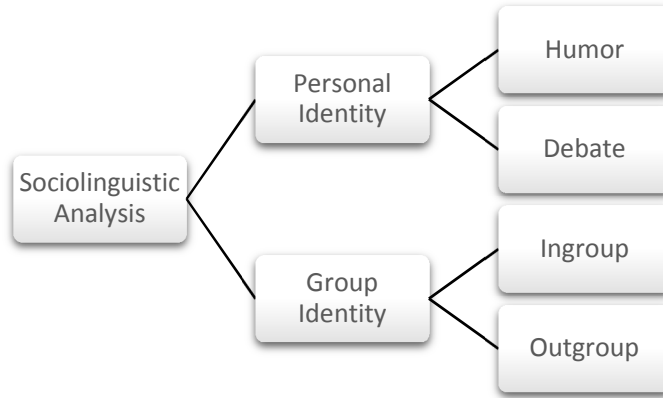
In the above example, the codeswitch in the repair occurs in line 06 as S3 initiates it for S5 in line 05. This codeswitch comes after the first codeswitch where the error occurs in line 04. This codeswitch in a repair initiated by others extends the codeswitch to line 06, where S5

repairs the error himself. It seems that codeswitching facilitates the repair here with less confusion, as the participants appear unsure of which word refers to which body part in Arabic.

### **Codeswitching. Sociolinguistic Analysis**

After providing linguistic and conversation analyses, the sociolinguistic analysis of codeswitching investigates the pragmatic aspects of codeswitching, such as speech reporting, topic-related discussions, and performing certain social roles (Heller, 1988). This analysis examined codeswitching practices as they occurred in a certain multilingual community of Arab students living and studying in the US where they attended weekly Arabic cultural sessions. In light of this approach, the analysis of multilingual Arab students' codeswitching instances signaled meanings on two levels: exhibiting personal identity and exhibiting group identity (see Figure 12). The codeswitching instances subject to sociolinguistic analysis are 61 or 12% of all codeswitching instances gathered from the study's data. Such instances occurred in both inter-sentential and intra-sentential codeswitching. Subjecting such data to sociolinguistic analysis showed that multilingual Arab students codeswitch to exhibit both their personal and/or group identities for different purposes that are discussed in detail below. Furthermore, the sociolinguistic analysis showed how these students managed to bring in their experiences and understandings of the two different cultures and places through the codeswitched use of Arabic and English. During some codeswitching instances, their language choices showed that each language activates different cultural meanings and values. The sociolinguistic analysis showed that, in most instances, these students exhibit their different personal and group identities during discussion sessions (see Figure 12).

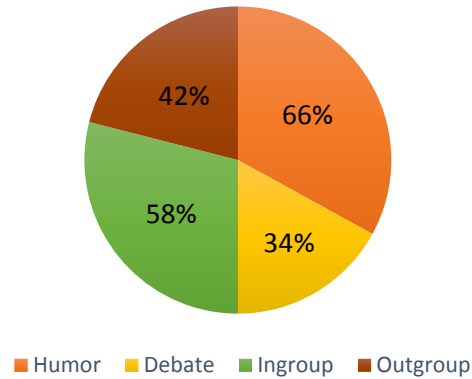




*Figure 12.* Sociolinguistic Analysis. Distinctive foci of sociolinguistic practices in codeswitching

### **Personal Identity Exhibition**

Multilingual Arab students codeswitched between Arabic and English when turning to each other and seeking approval through two modes: humor and debate (Heller, 1988). Of the 61 codeswitching instances subjected to sociolinguistic analysis, 35 or 57%, exhibited personal identity. The students accomplished this by taking advantage of extended discussions whenever the session topic and/or time allowed. In all class sessions from the obtained data, participants practiced codeswitching in order to exhibit their personal identities; therefore, codeswitching varied in frequency from one session to another. As such, multilingual participants made codeswitching choices after considering the possible positive and negative outcomes of their linguistic choices in terms of achieving personal goals in the social sphere (Myrsen-Scotton, 1998). They codeswitched to achieve such goals by invoking humor and encouraging debate. Exhibiting personal identity through such practices was one of the social factors of codeswitching which revealed the nature of the relationships between speakers and the discourse elements of their settings and topics (Ritchie and Bhatia, 2004).



*Figure 13.* Sociolinguistic Analysis. Exhibiting personal and group identity

**Exhibiting personal identity through humor.** Codeswitching in comments and questions intended to invoke humor was the most frequent practice multilingual Arab students engaged in to exhibit personal identity (see Figure 13). It occurred in 23 (66%) personal identity exhibition instances. Participants appeared to take advantage of topics and conversations to generate laughter. Their goal was to gain their peers' approval and friendship. They did so by relating what they learned during sessions to their multilingual, multicultural world outside their classroom setting. When they joked or teased each other, multilingual participants codeswitched to English, which constitutes 84% of their side comments. Linguistically, their codeswitching to English to exhibit personal identity through humor indicated a substantial level of comfort with this language among their group, since humor requires closeness and familiarity (MacConvel, 1988). Furthermore, this type of codeswitching helped to restore in-group solidarity and harmony (Valids-Fallis, 1987). Codeswitching to invoke humor appeared more often when participants sensed a more relaxed discussion on a topic they found interesting. Below, I provide examples that demonstrate this.

*Example 35:*

- 01 T: و بالقول؟ (How do you verbally show kindness?)  
02 S4: تبسم (by smiling) ((S5 faces S1))  
03 S1: **Hey mate** ((smiles and shows thumbs up))  
04 S5: **Hey mate** ((does the same))

In Example 35 above, the talk is about verbal acts of kindness. In line 03, S1 uses an intra-sentential codeswitch to English in order to bring a smile on S5's face. After hearing S4's response (e.g., "by smiling"), S1 turns to his classmate with a body gesture. In line 04, S5 reiterates the codeswitch with the same phrase accompanied by the same gesture, which they both seem to know as members of the same age group, and which allows them to share their similar background experience and cultural knowledge. Hence, the meaning of this codeswitching instance extends beyond invoking laughter to strengthening in-group cohesion, which, in turn, makes students feel more comfortable with one another during class sessions. Furthermore, the following example shows another dimension to such humor-provoking codeswitches. The topic is how to prepare for pre-prayer cleaning.

*Example 36:*

- 01 T: ما هي شروط الوضوء؟ (How should you prepare for your washing  
02 before prayer?)  
03 S7: بالنية و يكون الماء طاهر (you must have the intention of doing it and you must use  
04 clean water)  
05 T: صحيح، ممتاز (that's right, good)  
06 S6: **I got two out of three, that's a new record**  
07 S2: **So, you have to take your shirt off** ((laughs))

In Example 36 above, the codeswitch to English occurs in line 06. S6 codeswitches to English to boast of his personal record in pre-prayer cleaning as though this were a multiple-choice test. In a playful self-deprecatory tone, S6 turns to other classmates, telling them that he is “breaking” a personal record. S6 aims to invoke fun by using humor at his expense, thus endearing himself to his classmates. S6’s codeswitched statement in line 06 is met with S2’s approval. As S2 partakes in the playful banter started by S6, they both achieve their personal identity exhibition goals. Besides confirming his understanding of S6’s metaphorical expression, S2 builds on it with a practical common-sense suggestion, also in English, which is yet another way of achieving personal identity exhibition through codeswitching.

**Exhibiting personal identity through debate.** In addition to using humor to exhibit their individual identity, multilingual Arab participants also codeswitched to encourage debate in the form of friendly banter (see Figure 13). Sometimes, the debates they engaged in were conducted in a joking tone. Codeswitching instances that reveal attempts at exhibiting personal identity through debate are 12 or 34% of the codeswitching instances subjected to sociolinguistic analysis. In this case, codeswitching is practiced through the use of a sociolinguistic device that indexes personal and group communication (McConvell, 1988). Through such codeswitching, multilingual participants make space for their regular social group interactions that usually occur outside formal settings, such as classrooms. Thus, such codeswitching practices seemed to make their class sessions more interesting and relevant to them as individuals and members of a group. Examples 37 and 38 demonstrate this type of codeswitching.

*Example 37:*

01 S5: **See, I’m the MVP now**

02 S2: **No, أنت (you), you spoke بدون (without) raising your hand**

- 03 S7: تعني (*Do you mean*) **the most valuable player?**
- 04 **PLAYER?** ما فيه (*there is no*) **player** هنا (*here, maybe*) **most [valuable::**
- 05 S1: **[Parachute**
- 06 T: **Pupil** ((indicating the pun "player=pupil"))
- 07 S2: **My pupil is brown** ((builds on the pun "pupil=student" vs. "the pupils of my
- 08 eyes"))

In Example 37 above, in line 01, S5 codeswitches to English to claim being the MVP, an acronym commonly used for "most valuable player" but, here, used to imply "the student of the day." As S5 states this with a codeswitch to English, he is questioned by other classmates. S5's joking tone in his English codeswitch encourages other classmates to argue whether to accept his claim or not, and, thus, build upon his codeswitch. Hence, the codeswitch itself seems to encourage other classmates to engage with S5's claim, to continue the debate with puns of their own, and to expand the line of alliterative joking and punning (e.g., "player," "parachute," "pupil=player," "pupils of my eyes") that S6 started.

Additionally, in Example 38 below, students engaged in a side argument that seemed relevant to a previous argument among some of the participants. The topic is the appropriate dress code when performing prayers. The argument among students, however, shifts to what pieces of clothing must be worn all the time, especially by their age group. Here, multilingual participants codeswitch to English to express their standpoints freely and break through social barriers. They use codeswitching as a conversational strategy to argue and express their individuality (Heller, 1988). While they mostly used humor to practice their individuality, they also mixed argument with humor to smooth what they intend to convey to one another.

Example 38:

- 01 T: من شروط الصلاة أنك تلبس لباس ساتر (*When praying, you should wear long and loose-*  
02 *fitting clothes that cover your body*)
- 03 S1: نعم، لازم تلبس **underwear** (*yeah, you must wear underwear*) [looks at one of  
04 his classmates, S2]
- 05 S2: **Whatever**, مو مريح (*It is not comfortable*)
- 06 S5: **And pants**
- 07 S1: لازم تلبس دائماً **underwear** ↑ (*always*) [looks at  
08 S2 again] (0.1) **and pants, this way, if your pants fall down, you have**  
09 **a backup.**

In example 38 above, the codeswitch occurs in line 03. Although S1 seems to respond to the teacher's statement, he codeswitches to express his standpoint on this matter to his classmates. As the teacher introduces the topic in line 01, S1 is reminded of a previous disagreement with S2 about the appropriate dressing code. S1 argues with S2 about which clothing items should be worn daily. Thus, S1 takes advantage of the current topic to prove his point to his classmates, especially to S2 who disagrees with him. Towards the end, he switches from a serious to a humorous tone in order to smooth the tension, as well as to gain approval from other classmates. Thus, S1 gains acceptance by exhibiting his individual identity. While exhibiting individual identity as he argues, S1 also connects with his peers by codeswitching to English certain words and phrases.

### **Group Identity Exhibition**

In addition to using codeswitching as a way of exhibiting individual identity, this study's datasets revealed patterns of identity exhibition in relation to in-group and out-group references,

also referred to as the 'we' and 'they' codes (see Figure 13). Such codeswitches constitute 26 instances or 43% of all codeswitches subject to sociolinguistic analysis. In some codeswitching instances, such dichotomy indicates multilingual participants group identities and memberships (Nguyen, 2015). While most of the time multilingual participants appeared to exhibit co-membership of both languages, the out-group and in-group codeswitching occurred in their class discussions when pointing out shared values and cultural differences. The use of codeswitching to refer to in-group and out-group meanings was used to refer to different domains (Heller, 1988). Thus, I used the in-group/out-group dichotomy to examine the way codeswitching relates to and determines identity expression. As part of the sociolinguistic analysis, the data shows that multilingual Arab students codeswitched in order to express in-group and out-group social meanings (Valids-Fallis, 1987). In this study, the data shows that multilingual participants frequently codeswitched from Arabic to English sometimes, to claim in-group membership about shared values, and, at other times, to create distance from unacceptable cultural beliefs and traditions of the out-group (Cashman, 2005). Hence, multilingual participants' "expression of social identity or standpoint through codeswitching results from the disposition by the speaker of elements in the discourse in different positions in the social arenas configuration." (McConvell, 1988, p.101)

**Exhibiting outgroup group identity.** Among group identity exhibition types, outgroup orientation is typically associated with the community's majority language and culture (Nguyen, 2015). In this study's sociolinguistic analysis of codeswitches related to group identity exhibition, there are 11(42%) instances of outgroup-related codeswitches (see Figure 13). These codeswitches to the mainstream language occurred to reference the outgroup identity or to disaffiliate with outgroup culture (Rampton, 1999; Cashman, 2005). Thus, outgroup

codeswitching instances occurred when participants attempted to make comparisons or create cultural distance from some of the outgroup traditions and cultural values. Hence, they often practiced such codeswitching from Arabic to English in order to highlight social and political distance (Stell & Yakpo, 2015). At other times, however, they codeswitched to reference matters associated with the outgroup world. The following examples illustrate this.

In Example 39 below, the topic is frequently used Arabic phrases that have been passed down from ancient stories. After learning that some are based on fairytales, the conversation takes an unexpected turn. In line 01, S7 reports a conversation she had with another girl on the school bus.

*Example 39:*

- 01 S7: بنت في الباص قالت بي *(a girl on the bus said yay)* **Santa**, بيجي *(will come)*
- 02 قلت لها تعرفي إن *(I said to her do you know that)* **Santa** مو *(is not)* **real**.
- 03 قالت *(she said)* **Santa [controls animals**
- 04 S5: **[Wait, he's not real!?** ((Sarcasm))
- 05 S6: **Like the fairy [tooth::**
- 06 S1: **[↑Tooth fairy** ((laughs))
- 07 S6: **[Tooth fairy fairy [tooth** ((laughs))

In the above example, the codeswitch occurs in line 01. It refers to an outgroup culture-specific figure and appears again at reporting her classmate's speech in line 02. Here, the codeswitch begins with “Santa” and continues in English as other classmates participate to signal outgroup subjectivity. In line 04, S5 continues the conversation while keeping it in English. Their language choice in this instance reveals that their codeswitching practice exhibits their identities and the extent to which they declare their disaffiliation with some outgroup traditions



and characters (e.g., “Santa”), while still maintaining in-group membership through shared beliefs and perspectives (Heller, 1988).

Similarly, in another example (see Example 40), one student’s codeswitching of a noun motivates another student to codeswitch and connect with peers by way of unexpected humor-invoking punning (Chiaro, 2006). At the same time, this codeswitch distances a figure of the outgroup society. The topic is the Islamic perspective on scaring others knowingly. In a storytelling mode, S6 tells about an incident where he scared a friend, unaware of the Islamic teaching that warns against it.

*Example 40:*

- 01 S6: مره خوفت صديقي، كنت قريب منه بس تخبيت ورا (*I remember once when I scared my*  
02 *friend. He was very close, and I came from behind*) a **bush**  
03 S3: **Bush? You know Bush?** ((laughs and puns, referring to G.W. Bush))  
04 S6: **Bush** ((laughs)) ((looking at S3))

In Example 39 above, the first codeswitch occurs in line 02 as part of S6's setting of the story. S6’s codeswitching to the English word "bush" in line 02 prompts S3 to associate “bush” with a familiar politician’s name, and, thus, to get his classmates’ attention, acceptance, and admiration. As S3 hears “bush,” in mock-surprise, he repeats it, referring to the politician's name that perhaps all of them know. The continuation of the codeswitch to English is motivated by wordplay and punning that students often find entertaining rather than mocking. This type of punning is considered clever and humorous since it violates expectations by generating surprise connections between references (Chiaro, 2006). Frequently in this study, multilingual participants codeswitched between Arabic and English to practice punning in order to achieve goals beyond communicating straightforward thoughts (Lippman & Dunn, 2000).

**Exhibiting ingroup group identity.** While multilingual participants codeswitched to English to signal outgroup differences, they also did it to explore ingroup shared background and experiences in 15 (58%) instances of all group-oriented codeswitches (see Figure 13). Moreover, ingroup codeswitching occurred when multilingual participants addressed topics of shared domains. In the context of codeswitching, "domain" encompasses topics, situations, and people within a shared situation and refers to "clusters of social situations typically constrained by a common set of behavior rules" (Fishman, 1965, p. 89, as cited in Nuygen, 2015). Thus, domains determined language choice in certain activities. (Nguyen, 2015). Among this study's group of participants, multilingual Arab students codeswitched when their interactions involve shared domains, such as school, family, and familiar places. In this study, the educational domain seemed to dominate their codeswitching more frequently than other domains. In it, for instance, certain topics and discussions motivated students to prefer one language over the other to express their thoughts and beliefs. Each codeswitching instance was caused by the difference in what each language denotes to the participants in this study. In such instances, codeswitching was not necessarily a matter of either language's status, but rather a matter of multilinguals' conveying their intended messages to their listeners (Auer, 1998). To illustrate this finding, I analyze a number of codeswitching instances exemplifying the in-group-oriented codeswitching from a sociolinguistic perspective.

The following excerpts show that some acquired concepts and knowledge motivate the use of one language over the other. Each language is not merely an abstract system of structures, but a social construct that conveys familiar cultural values and references to its users, thus, revealing parts of who they are (Richards, 1998). Hence, in-group-oriented codeswitching among this study's participants reinforced their in-group bonding (Stell & Yakpo, 2015). For instance,

in Example 41 below, in a discussion of some prohibited foods in the Islamic tradition, a student asks whether it is permissible to eat elephant meat. The teacher discusses the characteristics of the meats permissible for consumption and includes a condition according to which such animals cannot have claws, nor saber-teeth, meaning carnivores.

*Example 41:*

- 01 S3: عادي ناكل لحم فيل؟ (*Is it okay to consume elephant meat?*)
- 02 S4: هو ما عنده، لكنّه (*It doesn't have claws or fangs, but it's*) **endangered**
- 03 T: هل هو من آكلات اللحوم؟ (*Is it a carnivore?*)
- 04 S6: يأكل نبات (*It eats [plants]*)
- 05 S4: [لكنّ هو] (*But it's*) **endangered**

In Example 41 above, the codeswitch occurs in line 02. In it, S4 joins the discussion by offering a fresh perspective on what has already been said. With her codeswitched comment (e.g., “endangered”), S4 expands the discussion as she feels passionately about this topic and attempts to reinforce the values she assumes her classmates share. S4 codeswitches to suggest that besides Arabic traditions, the animal's ecological status is critical, too. Having received most of her education in American schools, S4 has learned this concept and acquired its value in English, so, too, the spontaneous and assertive tone that goes with it. Again, in line 05, S4 repeats her statement with the same codeswitch in English to remind her classmates of their newly acquired in-group shared knowledge and values. Such codeswitching intends to distance the curriculum and insert in-group shared perspectives and values. This is especially true as her input is met with the group's approval.

Moreover, in another example (see Example 42) below, the topic is ensuring water purity when washing one's arms and legs in preparation for prayer. In this context, S2 remembers a

story about water filtering at his school. This example shows repetitive codeswitching occurring as the student shares a school experience that is relevant to other classmates.

*Example 42:*

- 01 T: أو مثل الفلتر الآن ماء المدن يجي نظيف (*Today we have, for example, water filters for the*  
02 *sewer water so that the water always comes out clean*)  
03 S2: **We did that, in fifth grade**, يوم من الأيام (*one day*) **we**  
04 **had water**, وش اسمه (*that*) **was pond water**, ثم كْنَا نَحط (*and we had*) **like sand, and gravel, and rocks,**  
05 (*and we had*) **like sand, and gravel, and rocks,**  
06 ثم نَحطه على بعض (*then we put them on top of each other and we poured*  
07 *water on them*), بعدين (*then*) **it purified.**

In Example 42 above, codeswitching to English occurs in almost all of S2's story lines (e.g., lines 03 to 07). The codeswitching pattern S2 uses here engages his classmates with what he describes as an in-group shared experience. At the same time, for S2, codeswitching between Arabic and English seems to stimulate his memory of the elements used in the process as he relates it to his peers. Therefore, language items associated with life experiences or cultural knowledge invoke codeswitching due to the uniqueness of culturally-coded phrasal units in each language. It also allows for a fluent and precise transmission of intended messages. Instantly translating words and phrases learnt in one language into another language in real-life interactions can be difficult, especially when the settings don't compel monolingual use (Clyne, 1967).

### **Codeswitching. Education-Focused Discourse Analysis**

In addition to subjecting this study's data to sequential microanalysis (e.g., linguistic analysis and conversation analysis) and to macro analysis (e.g., sociolinguistic analysis), I

conclude by conducting education-focused discourse analysis. Since the collected data comes from the weekly seminar sessions of multilingual Arab students, education-focused uses of codeswitching were inevitable. While such uses are motivated by educational goals, they also intersect with sociolinguistic functions (Liebscher & O’Cain, 2005). This study's data shows that 231 codeswitching instances occurred for educational purposes. Such instances occurred in both inter-sentential and intra-sentential codeswitches. The main educational use for participants’ codeswitching was to increase access to curriculum content. Hence, participants used a number of methods to accomplish this target goal.

### **Increase Curriculum Accessibility**

An examination of this study’s data from an educational perspective reveals that the participants codeswitched to ease their access and understanding of the educational content (see Figure 14 and Figure 15). To acquire curriculum content, participants in this study codeswitched to establish the meaning of academic concepts through translation, clarification, and confirmation in 146 (63%) codeswitching instances, and to expand their knowledge of course material through elaboration and commenting in 85 (37%) codeswitching instances. Of the 231 instances subject to educational analysis, 61 (or 26%) were translation, 54 (23%) were elaboration, 48 (21%) were clarification, 37 (16%) were confirmation, and 31 or (14%) were commenting strategies (see Figure 14).

Translation Elaboration Clarification Confirmation Commenting

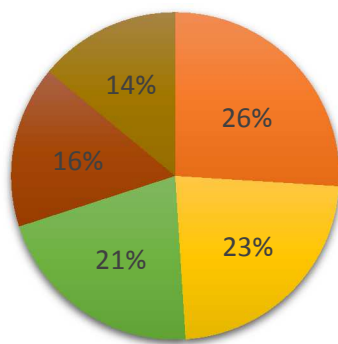


Figure 14. Education-focused discourse analysis. Distribution of codeswitching use to increase curriculum accessibility

Collectively, codeswitching between Arabic and English through the use of multiple strategies, both the teacher and his students aimed to achieve important educational goals. As part of it, their codeswitching to English seemed to efficiently smooth the educational process (Qian, Tian, & Wang, 2009). Also, it seemed to close the age and cultural gaps between the students and their teacher.

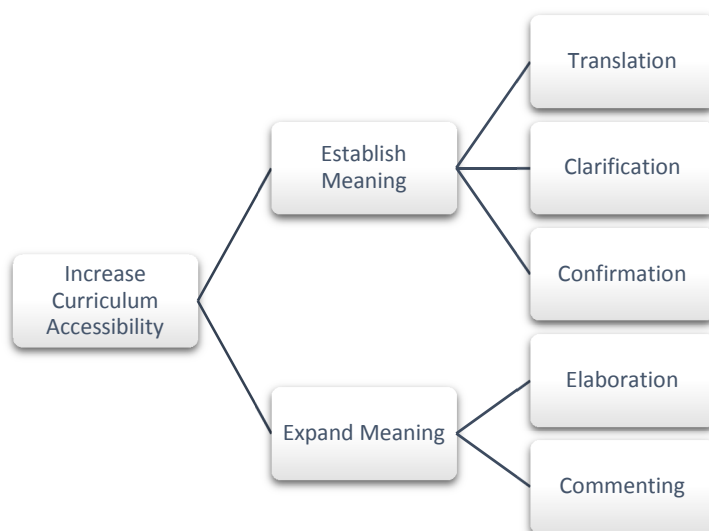


Figure 15. Education-focused discourse analysis. Using codeswitching strategies for curriculum accessibility

**Increase content accessibility through translation.** Both teacher and students codeswitched to English to translate unfamiliar phrases and terms. Improving content accessibility through translation occurred in 61 (26%) of all analyzed examples (see Figure 14 and Figure 15). Sometimes, students codeswitched with a translation of words in the form of a question to ensure that they learned academic concepts and their definitions correctly, especially when encountering special discipline-related terms. Hence, codeswitching was a tool for decoding and unpacking the target educational content. For instance, in the following example (see Example 43), the teacher explains the correct way to do before-prayer cleaning, that is by washing one's hands, mouth, nose, face, arms, and feet. He introduces a specific Arabic concept meaning "sequence" and checks whether the students are familiar with the term "التَّرتيب". While teacher and students use other ways to increase content accessibility, translation into English seems an effective strategy for introducing new knowledge and for checking old one.

*Example 43:*

- 01 T: من شروط الوضوء التَّرتيب، ما معنى التَّرتيب؟ (*one of the pre-prayer*  
 02 *conditions requires that you wash in a specific order, what does this mean?*)  
 03 S3: يعني (*it means*) **neatness**  
 04 T: ما [معناه] (*what does it [mean?]*)  
 05 S3: **[Organization]**

In Example 43 above, the codeswitch occurs in lines 03 and 05, both of which are S3's responses. In lines 01 and 02, the teacher clarifies a special religious term that means washing one's arms and legs before prayer in the prescribed sequence. When he asks whether the students know that term, in line 02, S3 codeswitches to English to provide a translation that explains her understanding of this term. When the teacher repeats the question, the same student, S3,

codeswitches to English again, offering a different response in a second attempt to decode the Arabic term and guess its precise meaning. It seems that, as the participants explored the meanings of terms across English and Arabic, sometimes such terms became synonymous in their vocabulary. This happened again in another example (see Example 44) where S6 uses the same strategy when the teacher tests the students' understanding of a definition of an Islamic belief.

*Example 44:*

- 01 T: ما هو توحيد الأسماء والصفات؟ (*what does it mean to believe in Allah's*  
02 *names and attributes?*)  
03 S7: أن تعرف (*you learn about*) **his names and attributes**

In Example 44 above, the codeswitch occurs in line 03 and comes as a response to the teacher's request for a definition of a term. In line 03, S7 codeswitches to English by providing the definition in translation. It seems that the students codeswitched to English to explain Arabic terms and phrases to ease concept processing, and to help remember new concepts. Furthermore, codeswitching to English gave them an extended choice of linguistic resources, so they could expand their understanding of newly learned topics.

**Increase content accessibility through elaboration.** In addition to translation, students frequently codeswitched to English when asking questions to seek further elaboration from the teacher or from other classmates (see Figure 14 and Figure 15). They did this in 54 (23%) instances. Frequently, students asked follow-up questions to broaden their comprehension of concepts and issues, or to propose a possible scenario for new content they sought to learn. For instance, Example 45 below demonstrates this. The discussion is about what revokes or cancels out the washing done in preparation for prayers.



*Example 45:*

- 01 T: الصلاة ينقض الوضوء، فلازم تتوضأ قبل الصلاة (*do you*  
02 *know that eating camels' meat cancels out your wash, so you must clean again*  
03 *before going to prayers*)  
04 S6: **What about drinking their milk?!**

In the above example, an inter-sentential codeswitch occurs in line 04. S6 reacts surprised to the information the teacher is sharing. Therefore, in line 04, S6 promptly asks a question while codeswitching to English, requesting that the teacher elaborates further on this topic. It appears that codeswitching to English encourages the student participants in this study to engage in class discussions without reservations. Hence, a codeswitch from one student appears to encourage more questions from others. It also motivates them to think through and beyond what they learn from their teacher. Moreover, as in many other instances, students codeswitched to English to initiate questions, or to create scenarios for the topic being discussed, or to draw in relevant information on a given topic. Example 46 below elaborates on this further. The topic is the order of the steps one must follow when washing before prayers.

*Example 46:*

- 01 S3: **What if he forgets** يغسل يده و راح يصلي، عادي ولا لازم يرجع يعيده (*to wash his hands and*  
02 *goes on to pray, is this fine or does he need to clean again?*)  
03 T: متى تدكّر هذا؟ (*when does this person realize this?*)

In line 01 in Example 46, S3 codeswitches to English to seek further elaboration about a possible circumstance that might complicate matters. S3 asks her question in a form of a scenario. S3 wants to know what happens if someone misses one of the steps one is required to take before washing for prayer. Interestingly, the codeswitched phrase "what if" appeared in

many instances by many of the participants. It seems that codeswitching to English with a question or a scenario opening ensured students a conversation turn in the discussion and gave them time to carefully articulate their thoughts.

**Increase content accessibility through clarification.** Clarifying classroom content is another goal participants achieved through codeswitching. They did so in 48 (21%) of all codeswitched phrases in pursuit of educational purposes (see Figure 14 and Figure 15). Mostly, the teacher explains a concept in Arabic and repeats the explanation in English if he sees that his students do not seem to understand it. The act of clarification through codeswitching occurred with the use of academic or formal language. Codeswitched clarifications appeared to make content explanations easier for student comprehension. Example 47 below illustrates this. Initiated by the students, the topic is dealing with pets. S2 asks a question about playing with dogs. Specifically, he wants to know why, compared to other pets, dogs are not preferred in their local community.

*Example 47:*

- 01 S2: عادي ألم الكلب و أحبه؟ (*is it okay if I snuggle with a dog*)
- 02 T: إيه عادي بس لعابه:: لا يجي عليك (*yes, it's fine, but you*
- 03 *should avoid its saliva because it's unsanitary*) **just wash its**
- 04 **[sall:i:va**
- 05 S4: **[Yeah**

In the above example (see Example 47), the teacher responds first, with an explanation in Arabic, and, then, clarifies it in English after getting silence and blank stares from the students. The codeswitches occur in lines 02 and 03 as the teacher attempts to clarify a key word he uses in his explanation. In line 05, S4 responds to the teacher's codeswitched explanation with a

confirmation in the same language, English (e.g., “yeah”), to signal comprehension. The codeswitch clarifies the teacher's answer, thus extending to the succeeding turn in which the student expresses her comprehension and agreement.

Furthermore, as a form of clarification, codeswitching was also used in paraphrasing or explaining new information to the students. Example 48 below illustrates this. Discussing the pre-prayer washing of one’s arms and legs, the teacher emphasizes that, following the prophet’s example and teachings, students should make sure they use water wisely. In this explanation, the students are puzzled by the archaic name for an ancient water container occurring in the literature. Requesting a clarification, S2 asks, “What is this container like?”

*Example 48:*

- 01 T: كان الرسول يستخدم ماء بمقدار مدّ (Do you know that the prophet used to  
02 wash with the water from a canister that was smaller than a small bucket)  
03 S7: وش المدّ؟ (What is a canister?)  
04 T: علبه صغيرة مثل كذا {draws on the board} المدّ كبير كذا (a canister is this big)  
05 ((demonstrates with his hands)). **How much is this?**  
06 **Like a small bucket or a water bottle.**

In lines 05 and 06 in the above example (see Example 48), the teacher codeswitches from Arabic to English to further clarify his explanation by using a synonym (e.g., “canister”). In response to S7's question, the teacher uses language and gestures to depict an object that is not in use anymore. He codeswitches again to clarify what seems to be an unfamiliar synonym by comparing the water canister to water containers his students are familiar with. Thus, the teacher’s codeswitched clarification manages to render his definition of an obscure keyword in language that his students can understand.

**Increase content accessibility through confirmation.** While participants used codeswitching to seek further elaborations on new subject matter, they also codeswitched to receive confirmation (see Figure 14 and Figure 15). In 37 (16%) instances, the students in this study codeswitched to double-check with their teacher and to confirm their comprehension of the new content. Below, in Example 49, S2 responds to the teacher's explanation about what to do if they do not know Makkah's (located today in western Saudi Arabia) direction so that they could turn in that direction when praying. To make sure S2 understands correctly the teacher's explanation, S2 codeswitches the Arabic word for "building" to English in a questioning intonation, thus requesting confirmation.

*Example. 49:*

- 01 S3: **What if** إذا ما عرفت القبلة؟ (*I'm in a new place and don't know the direction*  
02 *for prayer?*)  
03 T: داخل المبنى حاول تقدر مو مشكلة (*If you are inside a building and*  
04 *cannot tell directions, try to do your best to find out and it's okay if you can't*)  
05 S4: تقصد المبنى (*do you mean building as*), **building**?

Example 50 offers further evidence of codeswitching as a form of seeking confirmation. The discussion is about what people could do during prayer when they realize that they forgot to wash before prayers. The conversation starts with S4 raising a question through an imagined scenario for this situation.

*Example 50:*

- 01 S5: إذا أنت الإمام و تذكرت في الصلاة إنك ما توضيت، وش تسوي؟ (*if you are*  
02 *leading prayer and during prayer you realize that you forgot to wash before it,*  
03 *what should you do?*)

04 T: ترجع وراء و تطلب من واحد يتقدم مكانك. ويمكن تمسك أنفك كأنه نزل منه دم ليعرف الناس ان فيه شيء

05 (you can leave so another person may replace you. You can also hold

06 your nose to indicate that something is wrong.)

07 S5: **Can you fake this?**

08 T: **Yes, you can pretend**

In example 50 above, the codeswitch appears in line 07. Here, S5 seeks the teacher's confirmation about his interpretation of the teacher's explanation. Although the teacher explains it in Arabic, S5 chooses to codeswitch to English to ask his question. In line 08, the teacher responds to the student's question, reiterating the English codeswitch but paraphrasing S5's words as a form of confirmation of S5's interpretation.

**Increase content accessibility through commenting.** In addition to increasing content accessibility through translation, elaboration, clarification, and confirmation, commenting was yet another pedagogical strategy used to enhance learning during the Arab students' weekly class sessions. In 31 (14%) instances, students codeswitched to English to share their thoughts and experiences (see Figure 14 and Figure 15). While their comments were topic- and academic-related, they also reflect their personal perspectives and experience. In Example 51 below, for instance, the topic is about properly cleaning one's hands and feet before prayer. The teacher specifies that while washing, students should make sure they clean thoroughly the area between their fingers and toes by allowing water to run between them.

*Example 51:*

01 T: ولا بد تخلل بين أصابعك أثناء الوضوء (when washing, you need

02 to make sure you clean the area between your fingers and toes with water

03 S2: **So, you won't get fungus like I did** ((talking to his classmates))

In example 51, an inter-sentential codeswitch occurs in line 03. S2 codeswitches to English to comment and advise his classmates on a medical problem he developed by not washing properly. In his comment, S2 relates the teacher's washing instructions to his personal experience he retells as a warning to his classmates. This example shows S2's codeswitching to English to explain why he thinks the teacher's instructions are important, supporting that with a comment of personal significance.

Furthermore, other instances show that codeswitching occurs through commenting when the participants share their knowledge and experiences, or why they are familiar or less familiar with some terms or content. In example 52 below, the topic is the difference between terms used in the Islamic tradition to characterize different practices as permissible or prohibited. In example 51 below, the teacher asks questions about the meaning of "permissible" and "approved."

*Example 52:*

- 01 T: ما معنى المباح؟ (*what does permissible mean in this context?*)
- 02 S6: أعرف هذا (Permissible mea::ns)(2s) يعني (I remember this) (6s)
- 03 T: طيب مين يعرف الحلال؟ (*who knows, what does halal "approved" mean in this*
- 04 *context?*) ((repetition of the initial question))
- 05 S3: أي شيء مثل الحلال (*anything that is halal "approved"]*)
- 06 S7: **Oh, I'm used to saying حلال (approved) instead of مباح(permissible),**
- 07 **that's why.**

Above, in example 52, an intra-sentential codeswitch occurs in lines 06 and 07. There, S7 codeswitches to English to comment on the different meanings and use of two synonyms. In his comment, he wonders about the difference between the Arab usages of "permissible" and

“approved,” if any. S7 codeswitches to English to gain attention and to emphasize his understanding of the two terms. S7’s comment is about the general use of the two synonyms, but also about his personal preference of the Arabic counterpart of “approved” over that of “permissible.”

CHAPTER FIVE  
DISCUSSION AND CONCLUSION

**Introduction**

In Chapter Five, I draw information from the previous chapters, that is from the literature review in Chapter Two, the research methodology in Chapter Three, and the analysis of the data selected for this study in Chapter Four. Based on them, and particularly on the latter, here, I discuss this study's findings and related conclusions. This study targeted a teacher's and his students' codeswitching between Arabic and English occurring in weekly Arabic sessions conducted with Arab students studying and living in the United States. To accomplish the study's goals, the researcher conducted linguistic, conversation, sociolinguistic, and education-focused content analyses of the data selected from ten videotaped class sessions conducted in Arabic to improve the students' proficiency in Arabic.

**Summary Data Analysis**

To gain an in-depth understanding of the structural peculiarities of codeswitching between Arabic and English in language contact situations, it was necessary to conduct several types of linguistic analyses, that is at the whole-language level, at the sentence level, and at the morpheme level. It was important to do this to find out about the nature of codeswitching as a naturally occurring linguistic phenomenon and communication resource, thus, disprove common Saudi and other perceptions of it as a form of language corruption and careless linguistic behavior. The linguistic analysis yielded 1,321 analyses of individual codeswitching instances, that is all 523 codeswitches collected for this study were analyzed 253%, nearly two and a half times (see Table 6). To find out which language is base/matrix or embedded during codeswitching, the whole-language level analysis focused on Arabic as a matrix language, on



English as a matrix language, and on the co-participation of the two during codeswitching. To gain an understanding of the linguistic structures that are codeswitched within and between sentences, the sentence-level analysis emphasized inter-sentential (e.g., between sentences), extra-sentential (e.g., outside sentences), and intra-sentential (within sentences) codeswitches. Furthermore, for a closer examination of intra-sentential codeswitching of the different parts of the sentence, content morphemes (e.g., nouns, adverbials, verbs, and adjectives), and system morphemes (e.g., early system morphemes) were examined in codeswitches from Arabic to English and vice versa.

Table 6

*Summary Data Analysis. Individual Categories' Representation in the Study's Data Corpus*

| <b>Summary Data Analysis</b>                |                          |     |      |       |      |
|---|--------------------------|-----|------|-------|------|
| <i>Type of Analysis</i>                     | <i>Level of Analysis</i> | #   | %    | #     | %    |
| <b>Linguistic Analysis</b>                  | Whole-Language           | 523 | 100% | 1,321 | 253% |
|   | Sentence-Level           | 523 | 100% |       |      |
|   | Morpheme-Level           | 275 | 53%  |       |      |
| <b>Conversation Analysis</b>                | Story Telling            | 47  | 9%   | 103   | 20%  |
|   | Speech Overlap           | 29  | 6%   |       |      |
|   | Topic Management         | 23  | 4%   |       |      |
| <b>Sociolinguistic Analysis</b>             | Personal Identity        | 35  | 7%   | 61    | 12%  |
|   | Group Identity           | 26  | 5%   |       |      |
| <b>Education-Focused Discourse Analysis</b> | Establish Meaning        | 146 | 28%  | 231   | 44%  |
|   | Expand Meaning           | 85  | 16%  |       |      |

Besides learning about the linguistic nature of codeswitching, it was important to understand the role codeswitching played in these conversation classes through conducting

conversation analysis that identifies the pragmatic meanings of the 103 codeswitching instances constituting 20% of the 523 codeswitching instances collected for this study (see Table 6). The conversation analysis revealed that codeswitching occurred in storytelling to launch, tell, and respond to stories. Besides during storytelling, codeswitching occurred during speech overlaps (e.g., transitional, recognitional, and progressional), topic management (e.g., topic openings, shifts, and closings), as well as in a few miscellaneous instances (e.g., interruptions and repairs). Basically, it offered an insight into the speech acts performed in real-life communication as a result of codeswitching. It answered the question, “What do the participants do when they codeswitch?”

While the linguistic analysis emphasized the structural changes occurring in codeswitching the two contact languages, Arabic and English, and the conversation analysis explored the broader discourse functions of codeswitching, the sociolinguistic analysis was needed to cast further light on the socio-cultural implications of codeswitching as they relate to personal identity issues. With this particular group of participants, 61 codeswitching instances constituting 12% of the 523-strong database revealed a preference for personal identity exhibition through using humor and engaging in debate, on the one hand, and, a group identity exhibition through ingroup and outgroup orientation, on the other (see Table 6). Basically, it highlighted the personal and relational side of codeswitching. It informed questions like this one, “How do the participants express themselves as individuals in relation to different social groups when they codeswitch?”

As these codeswitches occurred in an educational setting, besides their structural, discourse, and socio-cultural manifestations, it was also important to understand their education-focused discourse applications, especially given the fact that common perceptions of

codeswitching in Saudi Arabia tend to be predominantly negative and mostly uninformed. Thus, the database was mined for meanings of codeswitching as an educational tool. A total of 231, or 44% of the whole database of 523 codeswitching instances were analyzed (see Table 6). They all appeared to pursue one educational goal, that is increasing curriculum accessibility through establishing the meaning of academic concepts through translation, clarification, and confirmation, and, through expanding the understanding of course content through elaboration and commenting. Basically, the educational analyses sought to answer questions like this one, “How do the participants use codeswitching as an educational tool?”

Below, I discuss the findings of this study’s linguistic, conversation, sociolinguistic, and educational analyses as they inform the answers to this study’s research questions.

### **Research Question 1**

1. In the context of linguistics, what structural patterns do multilingual Arab students use when engaging in Arabic/English codeswitching?
  - a. What structural patterns do they use at the whole-language level when codeswitching?
  - b. What structural patterns do they use at the sentence level when codeswitching?
  - c. What structural patterns do they use at the morpheme level when codeswitching?

#### **Research Question 1a**

**What structural patterns do they use at the whole-language level when codeswitching?** The linguistic analysis of the 523 codeswitching instances collected for this study revealed significant language contact developments at all three analyzed levels, that is

whole-language level, sentence level, and morpheme level. The whole-language level analysis focused on the roles Arabic and English play as either the matrix language, the embedded language, or as co-participants with equal morphemic representation (see Table 7). Given the goal of the weekly seminar sessions to consolidate the use of Arabic, especially in academic contexts, it is only natural that the results of this analysis show that Arabic was the Matrix language in 316 (60%) out of all 523 codeswitching instances, significantly outnumbering English as a matrix language

Table 7

*Codeswitching. Linguistic Analysis. Data Occurrences. Numbers and Percentages*

| <b>Linguistic Analysis</b>                       |                   |                        |          |          |          |          |          |          |
|--|-------------------|------------------------|----------|----------|----------|----------|----------|----------|
| <i>Analyses: Levels</i>                          | <i>Sublevels</i>  | <i>Subtypes</i>        | <i>#</i> | <i>%</i> | <i>#</i> | <i>%</i> | <i>#</i> | <i>%</i> |
| <b>Whole-Language Level Analyses (MLF Model)</b> | Arabic/Matrix     |                        |          |          | 316      | 60%      | 523      | 40%      |
|  | English/Matrix    |                        |          |          | 129      | 25%      |          |          |
|  | Co-Participation  |                        |          |          | 78       | 15%      |          |          |
| <b>Sentence-Level Analyses</b>                   | Inter-sentential  |                        |          |          | 204      | 39%      | 523      | 40%      |
|  | Extra-sentential  |                        |          |          | 44       | 8%       |          |          |
|  | Intra-sentential  |                        |          |          | 275      | 53%      |          |          |
| <b>Morpheme-Level Analyses (4M Model)</b>        | Content Morphemes | Nouns                  | 112      | 55%      | 203      | 74%      | 275      | 20%      |
|  |                   | Adverbials             | 39       | 20%      |          |          |          |          |
|  |                   | Verbs                  | 24       | 12%      |          |          |          |          |
|  |                   | Adjectives             | 28       | 13%      |          |          |          |          |
|  | System Morphemes  | Early System Morphemes |          |          | 72       | 26%      |          |          |

and the co-participation of Arabic and English as matrix languages. When used as the matrix language, Arabic provided the morphological and syntactic structures whereas English supplied individual morphemes, or words and phrases. The latter tended to represent notions that were acquired in English and were unfamiliar in Arabic, or, were more readily articulated and defined in English as typically western or English concepts.

English as a matrix language, however, occurred in fewer cases, that is in 129 (25%) of the 523 codeswitching instances subjected to linguistic analysis (see Table 7). That means that for every codeswitch to Arabic with English as the matrix language, there were almost 2.5 switches to English with Arabic as the matrix language. English appeared to be used as the matrix language in responses to the teachers' questions, when discussions intensify, or when discussions on certain topics are initiated in English. In such cases, as the embedded language, Arabic provided content morphemes (e.g., bound morphemes, verbs, prepositions, adverbials), culturally specific morphemes, as well as short phrases. When English was the matrix language, it dominated Arabic structurally by the number of morphemes it provided.

Even though, by design, the lessons videotaped for this study targeted the enhancement of Arabic language and culture, besides the smaller but significant number of codeswitches with English as the matrix language, there was an even smaller number of codeswitches, that is 78 or 15% of all 523 codeswitching instances constituting this study's database, which indicated the symmetrical co-participation of Arabic and English, mostly in short phrases where each language provides a morpheme and neither language controls the other structurally. Most of these codeswitches occurred within the sentence.

### **Research Question 1b**

**What structural patterns do they use at the sentence level when codeswitching?**

The sentence-level analysis revealed codeswitching as it occurred between, outside, or within sentences, that is it focuses on inter-sentential, extra-sentential, and intra-sentential analysis of all 523 codeswitched instances in the database (see Table 7). Thus, there were 204 (e.g., 39% of the data) instances of inter-sentential codeswitches. Inter-sentential codeswitching occurred when participants asked follow-up questions and commented in class discussions. The types of sentences that were most often codeswitched included declarative sentences, dependent conditional clauses that semantically completed the main clause they specified. The latter was the most frequently occurring type of codeswitching with 93 of all 204 inter-sentential code switches in this category. Other inter-sentential codeswitches occurred after the conjunctions “and” and “or” within compound sentences.

Extra-sentential codeswitching, represented by 44 instances or 8% of the overall number of 523 switches examined in this study, occurred at sentence boundaries without altering the sentences they preceded or succeeded either structurally or semantically. Examples include “by the way,” “like,” and “you know.” These were used to transition thoughts, maintain turns, utter language-specific phrases, or indicate pauses. “Like” was often used as a replacement of “said” aiming for casualism but also for self-assertion.

The most numerous and frequent use of codeswitching, that is intra-sentential codeswitching occurring in 275 (53%) of all 523 codeswitches, mostly targeted fluent, spontaneous, and more effective self-expression. The high number of intra-sentential codeswitches testifies to the participants’ comfort with using both languages as it requires speakers to switch from the syntactic rules of one language to the other in mid-sentence. In this study, participants used intra-sentential codeswitching to join in an ongoing conversation. The codeswitched morphemes provided key semantic content as well as hybrid grammar structures.

Depending on which the matrix language was, whether Arabic or English, in this study, the matrix language contributed most lexical items as well as determined the morphosyntactic rules in codeswitched texts. More detailed findings will be part of the following morpheme-level analysis.

### **Research Question 1c**

#### **What structural patterns do they use at the morpheme level when codeswitching?**

As mentioned above, intra-sentential codeswitching is subject to morpheme-level analysis. In this study, it is represented by content (e.g., 203 instances or 75% of the 275 codeswitched morphemes) and system morphemes (e.g., 72 instances or 25% of the 275 codeswitched morphemes) (see Table 5). In this study, the switched content morphemes were nouns (55%), adverbials (22%), adjectives (13%) and verbs (12%).

Following research predictions (Myerson-Scotton & Jake, 2009), this study's morpheme-level analysis found that nouns are mostly codeswitched to English as the embedded language in Arabic texts, that is as common nouns and never as proper nouns. As such, they did not violate the structural rules of either the matrix or the embedded language. Rather, they fit in the Arabic word order. Nouns were switched as objects (72 or 64% of all nouns) and as subjects (40 or 36% of all nouns) (see Table 5). Thus, codeswitched nouns as objects occurred almost twice as often as codeswitched nouns as subjects. That might be because objects usually carry new or unknown information, and, thus, at object boundaries, speakers may have problems finding the most effective way of presenting this information, or, as the study's findings show, may find that using an English noun best expresses their thoughts. When the main message, usually a familiar or known topic in a sentence is best conveyed in English, nouns were used as subjects, especially in cases where concepts acquired in English were concerned.

The second most codeswitched content morphemes, verbs (24 or 12% of all switched content morphemes) (see Table 7) were mostly switched to Arabic. By doing so, the participants achieved conciseness as Arabic verbs are highly inflected, and, thus, carry additional information in the form of morphological markers for gender, number, and person. Further, as Arabic clauses and sentences can begin with a verb, without any disruption of the Arabic syntactic structure, participants can begin their phrases with a verb and skip the required noun at the beginning of English sentences as the carrier of the main message. Close to verbs, adverbials were codeswitched in 39 instances or in 20% of all switched content morphemes, but unlike verbs, they were mostly switched to English as prepositional phrases or adverbs in cases where English provides a more concise or precise phrase clarifying the context of their intended message.

Nouns codeswitched as adjectives (28 or 13% of all codeswitched content morphemes) (see Table 5), were codeswitched to both English and Arabic. In this study's database, 21 English nouns were codeswitched to Arabic clauses. As such, they appeared as either subject complements, or as parts of noun phrases without affecting the syntactic structure of the Arabic matrix language. Even though adjectives are pre-nominal in English and post-nominal in Arabic, adjectives were switched in pre-nominal positions in both languages without syntactic disruption of Arabic which does not impose structural restrictions on switched English morphemes.

Besides switched content morphemes (e.g., nouns, verbs, adverbials, and adjectives), a small number of system morphemes, or early system morphemes, that is definite articles and conjunctions (72 or 26% of all codeswitched morphemes) (see Table 7) occurred as definite articles in both Arabic and English texts when Arabic or English was the matrix language without causing syntactic alterations to either language. Rather, "the" and its Arabic counterpart were used synonymously. As a bound morpheme, the Arabic definite article appeared before



English nouns, and vice versa and the English “the” appeared before Arabic nouns and noun phrases. Codeswitched conjunctions occurred in longer turns by a single speaker without contributing or receiving thematic content.

Overall, the linguistic analysis of the 523 codeswitching occurrences revealed the structural complexity and variety of codeswitching as a linguistic resource available to multilinguals fluent in Arabic and English.

### **Research Question 2**

2. In the context of Conversation Analysis, what conversation strategies do multilingual Arab students utilize when engaging in Arabic/English codeswitching?
  - a. What conversation story-telling strategies do they utilize when codeswitching?
  - b. What conversation speech-overlap strategies do they utilize when codeswitching?
  - c. What conversation topic-management strategies do they utilize when codeswitching?

The conversation analysis (CA) of 103 codeswitching instances complements the study’s linguistic analysis in that it discloses the discourse implications of the codeswitched structures. It provides the pragmatic meanings of the codeswitched linguistic forms. Thus, in addition to the form-focused question, “What do multilinguals do as they codeswitch?”, CA answers a series of equally important use-focused questions, such as “Why do multilinguals codeswitch?” Below, I offer answers to the questions that address the discourse and pragmatic implications of this study’s codeswitched texts.

#### **Research Question 2a**

**What conversation story-telling strategies do they utilize when codeswitching?** In the context of their weekly Arabic class sessions, participants codeswitched 47 (46%) of the 103

instances subject to conversation analysis when storytelling. As part of storytelling, they codeswitched when launching a story in a single turn (7 times, 15%), when telling a story in a single turn (28 times, 60%), and when responding to storytelling (12 times, 25%) (see Table 8).

When launching a story, participants codeswitched to engage their audience or to secure a turn,

Table 8

*Codeswitching. Conversation Analysis. Data Occurrences. Numbers and Percentages*

| <b>Conversation Analysis</b> |                              |    |     |    |     |
|------------------------------|------------------------------|----|-----|----|-----|
| <b>Global Strategies</b>     | <i>Specific Applications</i> | #  | %   | #  | %   |
| <b>Story Telling</b>         | Launching                    | 7  | 15% | 47 | 46% |
|                              | Telling                      | 28 | 60% |    |     |
|                              | Responding                   | 12 | 25% |    |     |
| <b>Speech Overlap</b>        | Transitional                 | 6  | 21% | 29 | 28% |
|                              | Recognitional                | 15 | 52% |    |     |
|                              | Progressional                | 8  | 27% |    |     |
| <b>Topic Management</b>      | Opening                      | 5  | 22% | 23 | 22% |
|                              | Shifting                     | 12 | 52% |    |     |
|                              | Closing                      | 6  | 26% |    |     |
| <b>Miscellaneous</b>         | Interruptions                | 1  | 25% | 4  | 4%  |
|                              | Repairs                      | 3  | 75% |    |     |

mostly in response to a preceding turn or to a question on a related topic using either English or Arabic. When launching a story, codeswitches to English served as attention catching strategies. The latter constituted “topically coherent next utterance” (Wong & Waring, 2010, p. 128) often accompanied by a rising pitch and intonation for a greater effect. Codeswitching at story-launching served to secure the turn but not to complete the story. It was followed by the story itself in Arabic, in the language and context in which it occurs. Besides English switches, Arabic

switches at story-launching involved the use of disjunctive markers, that is the Arabic counterpart of “once,” which is a common Arabic story opener.

Besides launching a story, most frequently, storytelling was also used to tell a whole story in a single turn (28 times, 69%) (see Table 8). It occurred at mid-story to mark a new stage in the story’s development and to ensure or refocus the audience’s attention as well as to secure an uninterrupted turn. Besides in storytelling, multilingual Arab students codeswitched to respond to the stories they heard (12, or 25% of all storytelling codeswitching instances) (see Table 8). They did so to encourage and sustain the story’s continuity and to highlight its climax. Here, too, a rising pitch and intonation accompanied switches that showed the audience’s approval, agreement, or request for confirmation, for further clarifications, or for repetition of details. Occurring in both English and Arabic, in general, codeswitches in response to storytelling signaled the audience’s emotional as well as rational reaction to the story, its teller, or both.

### **Research Question 2b**

#### **What conversation speech-overlap strategies do they utilize when codeswitching?**

Besides in storytelling, codeswitching also occurred in the 47 (28%) speech overlaps in the form of transitional (6 or 21%), recognitional (15 or 52%), and progressional (8 or 27%) overlaps (see Table 8). In this study, multilingual Arab speakers used speech overlaps to interrupt or respond to question prompts during class discussions. As seen from above, recognitional overlaps were the most frequent ones constituting about half of all speech overlaps. Students resorted to recognitional overlaps to acknowledge the speaker, share thoughts, comment, or request additional information, that is to inform, continue, or direct the conversation. Depending on the stage of the story where intervening codeswitches occurred, progressional overlaps secured the

continuation of the story by seeking further input. Mostly, this happened when the speaker paused in search of a word or phrase, or when the information provided seemed incomplete. Thus, it served as a meaning-making strategy. Last but not least, a small number of transitional overlaps interrupted the current speaker to complete the story content-wise or syntactically. They started as interruptions but soon developed into storytelling strategies.

### **Research Question 2c**

**What conversation topic-management strategies do they utilize when codeswitching?** As the videotaped Arabic class sessions were mostly discussions between teacher and students, naturally, topic management techniques were employed in 23 codeswitching instances or in 22% of the 103 codeswitches subject to conversation analysis. These included topic openings (5, 22%), topic shifts (12, 52%), and topic closings (6, 26%) (see Table 8). In this study's educational setting, topic management, either declared or implied, was mostly controlled by the teacher who started and shifted topics as needed. Given this, the teacher initiated most topic openings in Arabic to remind students of a previous discussion or to brainstorm students' knowledge. While topics were mostly initiated by the teacher, his students were quite active shifting topics whether overtly or covertly. They often codeswitched to English to argue for and initiate a shift to topics that seemed more relevant or interesting to them. Frequently, in refutation of their teacher's position and plan, students opted for a topic closing claiming lack of time, but, most likely, indicating lack of interest in the topic under discussion. They codeswitched to English (e.g., "I think") to initiate topic closings. Thus, it seems they codeswitched to English to oppose their teacher's power by shifting and closing the topics he initiated.

### Research Question 3

3. In the context of sociolinguistics, what personal and group identities do multilingual Arab students exhibit when engaging in Arabic/English codeswitching?
  - a. What personal identities do they exhibit when codeswitching?
  - b. What group identities do they exhibit when codeswitching?

In addition to providing structural (e.g., linguistic analysis) and discourse perspectives (e.g., conversation analysis) on the nature of this study’s codeswitching instances, the sociolinguistic analysis offers an important socio-cultural interpretation of multilingual Arabs’

Table 9

*Codeswitching. Sociolinguistic Analysis. Data Occurrences. Numbers and Percentages*

| <b>Sociolinguistic Analysis</b>  |                 |          |          |          |          |
|----------------------------------|-----------------|----------|----------|----------|----------|
| <i>Identity Exhibition Types</i> | <i>Subtypes</i> | <i>#</i> | <i>%</i> | <i>#</i> | <i>%</i> |
| <b>Personal Identity</b>         | Humor           | 23       | 66%      | 35       | 57%      |
|                                  | Debate          | 12       | 34%      |          |          |
| <b>Group Identity</b>            | Ingroup         | 15       | 58%      | 26       | 43%      |
|                                  | Outgroup        | 11       | 42%      |          |          |

codeswitching to Arab and English. Thus, it adds an important personal dimension to codeswitching behaviors by investigating the participants’ personal and group identities manifested in their codeswitching. Below, I address the participants’ identity manifestations in the light of this study’s findings (see Table 9).

#### Research Question 3a

**What personal identities do they exhibit when codeswitching?** Of the 61 codeswitching instances subject to sociolinguistic analysis, 35 or 57%, exhibited personal

identity features (see Table 9). In this study, multilingual Arab students, knowingly, or unknowingly, chose what and when to codeswitch depending on the potential positive or negative outcomes affecting their social status and their target social goals. In this study, they did this by using humor (23, 66%) and debate (12, 34%). By using humor, students tried to gain their peers' approval and friendship. Interestingly, when they used humor, they codeswitched to English to indicate closeness and familiarity with them and to consolidate in-group solidarity and harmony. They did so in discussions that seemed relaxed and on topics they found interesting. Their use of humor sometimes developed into punning and friendly banter, or debating, again in English. In friendly debates, they codeswitched to express their individuality, declare their group alignment, break social barriers, and lighten arguments with humor. On a more serious level, they codeswitched to make a standpoint, often refuting the teacher's or a classmate's position.

Besides using codeswitching to express their personal identities, students also resorted to codeswitching to show their ingroup and outgroup orientation in 26 instances or 43% of all codeswitches subject to sociolinguistic analysis, where ingroup orientation is revealed in 15 instances or 58%, and outgroup orientation is evident in 11 instances or 42% (see Table 9). Ingroup and outgroup codeswitching occurred in discussions where students emphasized their shared values and cultural differences to express social meanings. They codeswitched to English to indicate in-group membership about shared beliefs and values or to distance themselves from some unacceptable values of the outgroup. Thus, outgroup orientation occurred when the participants engaged in comparing and contrasting the native and target language cultures, frequently to indicate social and cultural distance, or disaffiliation with outgroup customs and traditions.

Ingroup orientation characterized codeswitches intended to explore topics of shared domains, such as school, family, and familiar places. When discussing such topics, codeswitching depended on the dominant language related to the corresponding discussion topic, whether English, or Arabic. In such cases, codeswitching was determined not so much by either language's status, but by the participants' pursuing effective self-expression in a language which is not just a system of structures but, primarily, a social construct of socio-cultural references revealing who they are. Thus, in-group orientation among this study's participants reinforced their ingroup bonding. This study's findings about the social aspects of codeswitching are further specified in the discourse analysis of using codeswitching in the educational context of this study's talk-in interactions.

#### **Research Question 4**

4. What educational purposes do multilingual Arab students pursue when engaging in Arabic/English codeswitching?
  - a. What meaning establishment strategies do they use when codeswitching?
  - b. What meaning expansion strategies do they use when codeswitching?

The education-focused discourse analysis of this study's codeswitching data already subjected to microanalyses (e.g., linguistic and conversation) and macro analysis (e.g., sociolinguistic) concludes this study's findings with an examination of the educational implications of the above-mentioned analyses and findings. Thus, it answers a fundamental question, "How does multilingual Arabs' codeswitching relate to the educational goals in their weekly Arabic sessions?" Along with the findings from the previous analyses, the education-focused discourse analysis helps shape the answers that inform students, teachers, parents, educational authorities and society at large about the nature, applications, and implications of

Arabic/English codeswitching. More specifically, below, I address the 231 codeswitching instances as they increase curriculum accessibility by providing effective tools for establishing and expanding the meaning of course concepts (see Table 10).

**Research Question 4a**

**What meaning establishment strategies do they use when codeswitching?**

Codeswitching, especially to English, seems to be an important strategy of establishing the meaning of unfamiliar concepts in 146 instances (63%). As such, it relied on translation (61, 26%), clarification (48, 21%), and confirmation (37, 16%) (see Table 10). Codeswitching by providing the translation of an unfamiliar concept occurred in questions and answers about discipline-related issues. Thus, it served to unpack educational content. Translation into English,

Table 10

*Codeswitching. Education-Focused Discourse Analysis. Data Occurrences. Numbers and Percentages*

| <b>Education-Focused Discourse Analysis</b> |                           |                 |          |          |          |          |
|---|---------------------------|-----------------|----------|----------|----------|----------|
| <i>General Goal</i>                         | <i>Specific Objective</i> | <i>Strategy</i> | <i>#</i> | <i>%</i> | <i>#</i> | <i>%</i> |
| <b>Increase Curriculum Accessibility</b>    | Establish Meaning         | Translation     | 61       | 26%      | 146      | 63%      |
|   |                           | Clarification   | 48       | 21%      |          |          |
|   |                           | Confirmation    | 37       | 16%      |          |          |
|   | Expand Meaning            | Elaboration     | 54       | 23%      | 85       | 37%      |
|   |                           | Commenting      | 31       | 14%      |          |          |

for example, was used to introduce new concepts and review old ones. Frequently, students codeswitched to offer alternative translations of a single concept for better clarity and precision. Along with providing translations, participants also codeswitched to offer clarifications on a subject under discussion. Frequently, the teacher offered explanations in Arabic, then, clarified



these in English, especially in the case of academic or formal language. Codeswitched clarifications were also initiated by the students to seek further or alternative explanations. Such clarifications occurred as codeswitched paraphrases presenting new information. Beyond translations and clarifications, students also codeswitched to seek confirmation of their understanding of certain concepts. They double-checked with their teacher to make sure that they were on the right track.

Clearly, in this study, codeswitching was a major means of establishing the meaning of new concepts. Related to that was another educational application of codeswitching, that is, expanding meaning (e.g., in 85 instances or in 37% of all codeswitches subjected to educational analysis) through elaboration (54, 23%) and commenting (31, 14%) (see Table 10). Students codeswitched to seek further explanations, definitions, and examples by asking follow-up questions to broaden their comprehension of concepts, or to propose a scenario for a new content they tried to understand. Again, it appears that for this purpose, they tended to switch to English as they felt more comfortable using English to ask their teacher for further explanations. Furthermore, students used codeswitched comments to enhance learning and share thoughts and experiences on personal and academic matters. Thus, in this study, codeswitching to English appeared to be an important educational resource for acquiring new material and for consolidating old one.

### **Conclusion**

The current exploration of multilingual Arabs' codeswitching practices in their weekly Arabic sessions focuses on the linguistic, conversation, sociolinguistic, and education-focused discourse analyses of the 523 codeswitching instances occurring in the ten one-hour videotaped Arabic lessons. The findings from these analyses confirm the following about the structural

patterns, conversation strategies, identity exhibitions, and educational applications of their codeswitched texts.

- *The whole-language level linguistic analysis* shows that both Arabic and English were used as matrix and embedded languages. Arabic was the matrix language in 60% of codeswitches and English - in 25% of codeswitches. A comparatively smaller number (15%) of codeswitches show the equal co-participation of both languages. When used as the matrix language Arabic provided the morphological and syntactic structures, whereas English supplied individual morphemes, or words and phrases. Used as an embedded language, English provided individual morphemes about western concepts or those acquired in the students' American schooling experiences;
- *The sentence-level linguistic analysis* discloses a complex process of 204 inter-sentential, 44 extra-sentential, and 275 intra-sentential codeswitches. Inter-sentential codeswitches involved declarative sentences and dependent conditional clauses that complete semantically the clause they clarify. Extra-sentential codeswitches occurred at sentence boundaries without altering either sentence's syntactic or semantic structure. Often standing for codeswitching in general, intra-sentential codeswitches were the most common and the most complex structurally, thus available only to advanced speakers of both languages. In this study, their frequent use testifies to the participants' fluency in both languages. Codeswitched morphemes provided key semantic content and hybrid grammar structures whereas the matrix language contributed most lexical items as well as the morphosyntactic rules in codeswitched texts;
- *The morpheme-level linguistic analysis* reveals the use of 275 content morphemes (e.g., nouns – 112, adverbials – 39, verbs – 24, and adjectives – 28) and a smaller number of

system morphemes (72). It shows that nouns were the most frequently switched morphemes (112), with adverbials (39), verbs (24), and adjectives (28) also appearing in significant numbers. Nouns were largely codeswitched as objects or as the carriers of new unknown information and less so as subjects or bearers of familiar or known information. Furthermore, nouns were also codeswitched as subjects when the subject had been acquired in English and was better expressed this way. Verbs were mostly codeswitched to Arabic for conciseness. Adverbials were mostly switched to English as prepositional phrases or adverbs again for conciseness. Nouns were also switched as adjectives as subject complements in Arabic clauses. System morphemes, that is definite articles, were switched to both languages;

- *The conversation analysis of storytelling* codeswitches reveals the use of storytelling strategies in 47 or 46% of all data subjected to conversation analysis. Of these, codeswitching was used to launch a story (7 instances or 15%), to tell a story (28 instances or 60%), and to respond to storytelling (12 instances or 25%). At story launching, codeswitching was an attention-grabbing strategy that secured a turn in either English or Arabic. Telling a story in a single turn was used at mid-story to mark new events in the speaker's narrative and to redirect the audience's attention from the speaker to the responder. When responding to storytelling, codeswitching was used to sustain the story, and show approval, agreement, or confirmation;
- *The conversation analysis of speech overlaps* addresses codeswitching in 29 instances or 28% of the data subjected CA in the form of transitional (6, 21%), recognitional (15, 52%), and progressional (8, 27%) codeswitches. The participants used transitional speech overlaps to interrupt or respond to questions. They used recognitional overlaps to

acknowledge the speaker, share thoughts and comments to inform, continue, or direct the discussion. Progressional overlaps sought further information to secure the continuation of the story, mostly to help the speaker overcome a memory or language lapse;

- *The conversation analysis of topic management* addresses codeswitches covering 22 instances and 23% of the examined data reveals codeswitching for topic openings (5, 22%), shifts (12, 52%), and closings (6, 26%). Topic opening in this study's educational setting was largely controlled by the teacher who asked the majority of questions and determined discussion foci in Arabic. However, students initiated some of the topic shifts and closings to refute some of their teacher's positions and planned activities. English seemed to be the students' preferred language of opposing their teacher's power and of self-assertion;
- *The sociolinguistic analysis of codeswitching* targeting personal and group identity exhibition examines the 61 codeswitching instances in the study's data. To show their personal identity (35 instances or 75%), Arab students codeswitched using humor and debate to gain their peers' approval and friendship. When they used humor, they switched to English to indicate closeness and familiarity and to sustain ingroup solidarity and harmony. In debates, or friendly banter, again, they used English to express their individuality, declare their group alignment, break social barriers, and lighten arguments with humor. To express group identity in 26 instances or 43% of the reviewed data, they codeswitched to mark both ingroup (15 instances or 58%) and outgroup (11 instances or 42%) alignment. They codeswitched to English or Arabic to signal ingroup membership but also to distance themselves from a culturally different, or unacceptable outgroup values. Ingroup orientation invited codeswitches on topics of shared domain (e.g.,

education, family, familiar places). Ingroup-oriented codeswitches reinforced group bonding. Outgroup orientation occurred when juxtaposing Saudi Arabian and American customs and values, often to demonstrate disaffiliation from the outgroup;

- *The education-focused discourse analysis* of the 235 codeswitches that pursue increasing curriculum accessibility reveals that they are used to establish the meaning of unfamiliar concepts through translation (61 instances or 26%), clarification (48 instances or 21%), and confirmation (37 instances or 16%). Translations into English were used to explain Arabic concepts. Codeswitched clarifications sought further or alternative explanations. Additionally, students also requested confirmations of their comprehension of unfamiliar or complex concepts. Related to using codeswitching for establishing conceptual meanings, students also codeswitched as a way of expanding the discussed academic concepts (85 instances or 37%). They did so by codeswitching for elaboration (54 instances or 23%) and commenting (31 instances or 14%). They switched to English to seek further explanations, examples, to ask follow-up questions to broaden their comprehension of concepts, or to propose a scenario for a new content they were trying to understand.

### **Significance of the Study's Findings**

This study's findings are based on authentic videotaped lessons where codeswitching occurs spontaneously. Therefore, they add to the scholarship on the nature of multilingual codeswitching, thus, providing a data-based refutation of many uninformed perceptions of codeswitching.

- Capturing authentic spontaneous codeswitching in itself is a significant find.  
Occurring spontaneously and rather unpredictably in multilingual interactions, it is

- impossible to generate with academic or research prompts. It is even more difficult to videotape such occurrences. Consequently, the significant body of 10 hours of videotaped classroom interactions with 523 codeswitching instances could be used by this and other researchers for different purposes;
- The findings from this study's linguistic analysis reveal multilingual codeswitching as a complex naturally-occurring linguistic process with its own internal structure and rules, a linguistic hybrid rather than a mechanical mixture of the two. Specifically, in relation to the matrix vs. embedded language, it shows the morphosyntactic changes resulting from such codeswitches. It details the linguistic developments accompanying codeswitching on a broad whole-language level, and on specific sentence and morpheme levels. The findings from the linguistic analysis refute common beliefs that codeswitching is a personal choice, a deficiency in, and a corruption of the native Arabic language, and, as such, should be avoided and even chastised;
  - The findings from the conversation analysis of the study's recorded classroom discussions detail the roles of teacher and students in discussion management, that is in using storytelling, speech overlap, and topic management strategies to accomplish lesson, personal, and interactional goals. From a critical discourse perspective, they could also be viewed as indicating a variety of student-student and teacher-student power and socio-cultural relations. They point to the students' frequent use of English as the preferred language for self-expression, self-assertion, and self-positioning in the dynamics of classroom interactions. As such, they define both English and Arabic as important communication tools;

- The findings from the sociolinguistic analysis further detail the social aspects of students' self-expression strategies in terms of personal and group identity formation and manifestation. Personally, the data shows students using humor and friendly debate to attract attention, gain recognitions, raise their social status, and make friends. They seem to shape their personal identity much more in relation to their peers than to their teacher. They indicate significant ingroup alignments to strengthen ingroup bonding and outgroup disalignment to distance themselves from unfamiliar and unacceptable cultural values. These findings could have an impact on the way classroom discussions are set to encourage preferred alignments or disalignments and to help students achieve personal social goals.
- The education-focused discourse analysis reveals the use of codeswitching to English for educational purposes, that is for establishing and expanding student understanding of unfamiliar concepts. For that, students resort to requesting or offering translations, clarifications, confirmations, elaborations, and various other comments. These appear to be important and varied learning resources which help these Arabic class sessions achieve their main goal, the reinforcement of Arabic language and culture where knowledge is originally acquired in English. Thus, an understanding of the educational applications of multilingual codeswitching could inform ESL teachers in Saudi Arabia about the use of both English and Arabic for explaining new material. It could also encourage a more focused and flexible approach to the role of English in the Saudi ESL classroom instead of the either-or approach where English is either banned from the classroom or, otherwise, established as the only means of communication.

### **Directions for Future Research**

This study focuses on codeswitching instances that occur in multilingual Arab students' weekly seminar sessions in their local community in the United State. Researching the nature of Arabic/English codeswitching practices of multilingual Arabs in this and other contexts could enrich the findings and conclusions of similar studies regarding codeswitched structural patterns through linguistic analysis, of interactional strategies through conversation analysis, of exhibition of multilinguals' identities through sociolinguistic analysis, and of curriculum accessibility strategies through education-focused discourse analysis. Incorporating such analyses could establish and extend needed contributions to the rather limited research on Arabic/English codeswitching in general, and on language use among 'unbalanced' or mobile multilingual groups in particular, especially in educational contexts other than language learning classrooms.

Moreover, this study's rich data, obtained from ten consecutive video recordings and observations, allows for its layered analyses through linguistic, conversation, sociolinguistic, and educational approaches, which may inspire further exploration of this type of authentic data gathered in natural settings. The linguistic analysis of this study's codeswitching instances could motivate further studies on language use of multilingual Arab students' returnees in their increasingly multilingual schools and communities in their home countries. This could significantly contribute to establishing more effective educational materials and processes to help students learn ways of accessing their linguistic resources to accomplish personal and communal goals.

The conversation analysis of the interactional strategies employed during codeswitching could motivate further examinations of the function and meaning of codeswitching in specific educational and other contexts as well as cast light on the conversation strategies affecting



language choices. The sociolinguistic analysis of the participants' identity exhibitions through codeswitching could spur much-needed research on the language choices of multilingual speakers in other social settings. They could also reveal important information about their identities, shedding light on a growing number of multilingual Arab speakers who attend school back and forth between the United States and in their home countries. Moreover, the analysis of codeswitching instances employed in accomplishing significant educational purposes could arouse interest in reviewing current perceptions on codeswitching, hence the design of educational curricula and materials that incorporate rather diverse linguistic cultural resources available through codeswitching.

Besides replicating the approaches and methods of this study, its unique rich data could be used to examine codeswitching from other lenses. Other research methods could also be employed to enrich and expand codeswitching databases. For example, incorporating surveys, interviews, or reflections by multilingual speakers on their codeswitching practices could reveal their level of awareness of codeswitching and of common perceptions of codeswitching that influence their linguistic choices. Another direction for future related studies could focus on the codeswitching of multilingual Arab students in two different locations with similar contexts, by examining one in a foreign site (in a host English speaking country), and in a local site (in an Arab speaking country). This could be conducted also with different groups of similar age, linguistic, cultural background, and experience. By tracing codeswitching in different populations, codeswitching frequencies, patterns, and functions could be compared in and among various groups.

Another possibility for related future studies includes expanding the data sample in terms of size and kind, which might lead to capturing more and different codeswitching instances.

Also, an expanded codeswitching data sample by multilingual Arabic/English speaking participants in other contexts, such as online communities, may yield additional or different patterns of language choices on structural and social levels. These contexts could be social media networks where many multilingual Arab speakers publish personal spoken content voluntarily. Studying codeswitching use in such contexts could use authentic video and audio data to further research on the nature and inevitability of codeswitching among multilinguals. This could boost the growing changes in public attitudes toward Arab codeswitching behaviors.

Ultimately, by recording and exploring multilingual Arabs' codeswitching in a real-life educational setting, this study provides valuable evidence for codeswitching as a naturally occurring linguistic and socio-cultural phenomenon and a unique communication tool for multilingual language use among Arab speakers of English, and by analogy, among any other multilinguals. Thus, it contributes to, as well as encourages the promotion of an informed understanding of multilingual language use over the misguided pursuit of monolingual language purity in language-contact environments.

## References

- Alam, T. N., & Kahwaji, A. (2015). Code-switching among the Arab EFL undergraduate students in terms of motivation and identity. *In Proceedings of the 5th Malaysia International Conference on Foreign Languages, 2015, Kuala Lumpur, Malaysia.*
- Alenezi, A. A. (2010). Students' language attitude towards using code-switching as a medium of instruction in the college of health sciences: An exploratory study. *Annual Review of Education, Communication & Language Sciences, 71-22.*
- Al-Enazi, M. H. (2002). The syntactic form and social functions of Saudi Arabic-English code-switching among bilingual Saudis in the United States (Order No. 3045740). Available from ProQuest Dissertations & Theses Global. (305516213). Retrieved from <http://proxy-iup.klnpa.org/login?url=https://search-proquest-com.proxy-iup.klnpa.org/docview/305516213?accountid=11652>
- Alfonzetti, G. (1992b). Neutrality conditions in Italian-dialect code switching. In G. Alfonzetti (Ed.), *Code-switching summer school, European Science Foundation, 93-109.*
- Al Masaeed, K. (2013). Functions of Arabic-English Code-Switching: Sociolinguistic insights from a study-abroad program (Doctoral dissertation). Retrieved from the University Libraries, University of Arizona.
- ALMohajer, M. (2014). *استخدام أَلْفَاظ اللُّغَة الْإِنْجَلِيزِيَّة لِلْحَاجَة [Using English language with Arabic when needed]* [Video File]. Retrieved from: <https://www.youtube.com/watch?v=qEoa-35Ntgg>
- Almunajid, M. (2008). *إدخال كلمات أجنبية في الكلام العربي أثناء الحديث [Inserting foreign words when speaking Arabic]*. Retrieved from: <https://islamqa.info/ar/120220>.
- Allen, S. E. M., Genesee, F. H., Fish, S. A., & Crago, M. B. (2002). Patterns of code mixing in English-Inuktitut bilinguals. In *Proceedings of the 37th annual meeting of the Chicago Linguistic Society* (Vol. 2, pp. 171-188). Chicago, IL: Chicago Linguistic Society.
- Appel, R. & Muysken, P. (2005). *Language contact and bilingualism*. Amsterdam: Amsterdam University Press.
- Aronin, L., & Hufeisen, B. (Eds.). (2009). *The exploration of multilingualism: Development of research on L3, multilingualism, and multiple language acquisition* (Vol. 6). John Benjamins Publishing Company.
- Aronin, L., & Singleton, D. (2012). *Multilingualism*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Aronoff, M., & Rees-Miller, J. (2003). *The handbook of linguistics*. Oxford: Blackwell.

- Auer, P. (1984). *Bilingual conversation*. Amsterdam/Philadelphia: John Benjamins Publishing.
- Auer, P. (1988). A conversation analytic approach to code-switching and transfer. In Heller, M. (Ed.), *Codeswitching: Anthropological and sociolinguistic perspectives* (187-213). Berlin: Mouton de Gruyter.
- Auer, P. (1999). From codeswitching via language mixing to fused lects toward a dynamic typology of bilingual speech. *International Journal of Bilingualism*, 3(4), 309-32, [http://dx.doi.org/3\(4\):309-32](http://dx.doi.org/3(4):309-32)
- Auer, P. i. (Ed.). (2013). *Code-switching in conversation: Language, interaction and identity*. London, England: Routledge.
- Ayeomoni, M. O. (2006). Code-switching and code-mixing: Style of language use in childhood in Yoruba speech community. *Nordic Journal of African Studies*, 15(1), 90-99.
- Bayley, R. (2002). The Quantitative Paradigm. In J.K. Chambers, P. Trudgill, N. Schilling-Estes (Eds.), *The handbook of language variation and change*, (pp.117-141). Malden, MA: Blackwell.
- Backus, A. (2001). The role of semantic specificity in insertional codeswitching: Evidence from Dutch-Turkish. *Jacobson, Rodolfo (Hg): Codeswitching Worldwide*. Bd, 2, 125-154.
- Belazi, H. M., Rubin, E. J., & Toribio, A. J. (1994). Code switching and X-bar theory: The functional head constraint. *Linguistic inquiry*, 25(2), 221-237.
- Bentahila, A., & Davies, E. E. (1983). The syntax of Arabic-French code-switching. *Lingua: International Review of General Linguistics*, 59(4), 301-330.
- Bernardini, P., & Schlyter, S. (2004). Growing syntactic structure and code-mixing in the weaker language: The ivy hypothesis. *Bilingualism: Language and Cognition*, 7(1), 49-69.
- Blom, J., & John, J. J. Gumperz, (1972). Social meaning in linguistic structures: Code switching in Norway. In J. Gumperz & D. Hymes (eds), *Directions in sociolinguistics: The ethnography of communication* (pp.407-34). New York: Holt, Rinehart and Winston.
- Bokamba, E. G. (1989). Are there syntactic constraints on code-mixing?. *World Englishes*, 8(3), 277-292.
- Boztepe, E. (2005). Issues in code-switching: Competing theories and models. *Teachers College, Columbia University Working Papers in TESOL & Applied Linguistics*, 3(2).
- Braun, E. L. (1937). Some relationships of the flora of the Cumberland Plateau and Cumberland Mountains in Kentucky. *Rhodora*, 39(462), 193-208.

- Brayfield, A (2014). LA schools: California 'English learner' tests incorrectly label bilingual kids [89.3KPCC]. Retrieved from:  
<http://www.scp.org/blogs/education/2014/07/16/16981/california-english-learner-tests-incorrectly-label/>
- Bullock, B. E., & Toribio, A. J. E. (2009). *The Cambridge handbook of linguistic code-switching*. New York, NY: Cambridge University Press.
- Cashman, H. R. (2005). Identities at play: language preference and group membership in bilingual talk in interaction. *Journal of Pragmatics*, 37(3), 301-315.
- Cenoz, J., & Genesee, F. (Eds.). (2001). *Trends in bilingual acquisition* (Vol. 1). Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Cenzo, J. (2013). Defining multilingualism. *Annual Review of Applied Linguistics*, 3(18), <http://dx.doi.org/10.1017/S026719051300007X>
- Chan, H. S. (2009). English in Hong Kong Cantopop: language choice, code-switching and genre (Refereed).
- Chiaro, D. (2006). *The language of jokes: Analyzing verbal play*. New York, NY: Routledge.
- Creese, A., & Blackledge, A. (2010). Translanguaging in the bilingual classroom: A pedagogy for learning and teaching? *Modern Language Journal*, 94(1), 103-115, <http://dx.doi.org/10.1111/j.1540-4781.2009.00986.x>
- Creswell, J. W., & Clark, V. P. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA, US: Sage Publications, Inc.
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed). Thousand Oaks, CA, US: Sage publications.
- Cromdal, J. (2001). Overlap in bilingual play: Some implications of code-switching for overlap resolution. *Research on Language and Social Interaction*, 34(4), 421-451, [http://dx.doi.org/10.1207/S15327973RLSI3404\\_02](http://dx.doi.org/10.1207/S15327973RLSI3404_02)
- Cromdal, J. (2005). Bilingual order in collaborative word processing: On creating an English text in Swedish. *Journal of Pragmatics*, 37(3), 329-353.  
doi:10.1016/j.pragma.2004.10.006
- Clyne, M. G. (1967). Transference and triggering: : *Observations on the language assimilation of postwar German-speaking migrants in Australia*. Leiden, Belgium: Martinus Nijhoff.
- Cummins, J. (2005). A proposal for action: Strategies for recognizing heritage language competence as a learning resource within the mainstream classroom. *Modern Language*

- Journal*, 89(4), 585-592.
- Davidson, C. (2009). Transcription: Imperatives for qualitative research. *International Journal of Qualitative Methods*, 8(2), 35-52.
- De Angelis, G., & Dewaele, J.-M. (2011). *New trends in crosslinguistic influence and multilingualism research*. Bristol: Multilingual Matters.
- De Houwer, A. (1995). *Bilingual first language acquisition*. Bristol: Multilingual Matters.
- Di Sciullo, A. M., & Williams, E. (1987). *On the definition of word* (Vol. 14). Cambridge, MA: MIT press.
- Eckert, P. (2014). Ethics in linguistic research. In Podesva, R. J., & Sharma, D. (Eds.), *Research methods in linguistics* (pp.11-26). New York: Cambridge University Press.
- Edwards, J. R. (1994). *Multilingualism*. London/New York: Routledge.
- Ferguson, G. (2003). Classroom code-switching in post-colonial contexts: Functions, attitudes and policies. *AILA Review*, 16(1), 38-51. Doi:10.1075/aila.1605fer
- Fishman, J. A. (1972). Domains and the relationships between micro. and macro. sociolinguistics. In J. J. Gumperz & D. Hymes (Eds.), *Directions in sociolinguistics: The ethnography of communication* (pp. 435-453). New York: Basil Blackwell.
- Gafaranga, J. (2009). The conversational analytic model of codeswitching. In B. E. Bullock & A. J. Toribio (Eds.), *The Cambridge handbook of linguistic code switching* (pp. 114-126). New York, NY, US: Cambridge University Press.
- Gardner-Chloros, P. (2008). Bilingual speech data: Criteria for classification. In L. Wei, M. G. Moyer (Ed.), *The Blackwell guide to research methods in bilingualism and multilingualism*, (pp. 53-72). Malden: Blackwell Publishing.
- Gilbertson, A. (2014, August 22). Internal emails show LA school officials started iPad talks with software supplier a year before bids [89.3KPCC]. Retrieved from: <https://www.scpr.org/blogs/education/2014/08/22/17193/internal-emails-show-la-school-officials-started-i/>
- Giles, H., Maluc, A., Bradac, J., & Johnson, P. (1987). Speech accommodation theory: The first decade and beyond. *Annals of the International Communication Association*, 1013-48.
- Gumperz, J. J. (1982). *Discourse strategies*. Cambridge, UK: Cambridge University Press.
- Gumperz, J. J., & Hymes, D. H. (1972). *Directions in sociolinguistics: The ethnography of communication*. New York: Holt, Rinehart and Winston.

- Gumperz, J. J., & Berenz, N. (1993). Transcribing conversational exchanges. In J.A. Edwards, M. D. Lampert (Ed.), *Talking data: Transcription and coding in discourse research* (pp.91-121). Hillsdale, NJ, US: Lawrence Erlbaum Associates, Inc.
- Halmari, H. (1997). *Government and codeswitching: explaining American Finnish* (Vol. 12). Amsterdam, Netherlands: John Benjamins Publishing.
- Hasselmo, N. (1972). Code-switching as ordered selection. In E. S. Firchow, K. Grimstad, N. Hasselmo, W. A. O'Neil (Eds.), *Studies for Einar Haugen Presented by Friends and Colleagues* (pp.261-280). The Hague: Mouton.
- Haugen, E. I. (1956). *Bilingualism in the Americas: A bibliography and research guide* (Vol. 26). [Gainesville, Fla.] American Dialect Society; obtainable from the University of Alabama Press.
- Have, P. T. (2007). *Doing conversation analysis* (2nd ed.). Thousand Oaks, CA: Sage Publications Ltd.
- Heller, M. (1988). *Codeswitching: Anthropological and sociolinguistic perspectives*. Berlin: Mouton de Gruyter.
- Hinkel, E., & Fotos, S. (Eds.). (2001). *New perspectives on grammar teaching in second language classrooms*. New York/ London: Routledge.
- Isurin, L., Winford, D., & De Bot, K. (2009). *Multidisciplinary approaches to code switching* (Vol. 41). Amsterdam/Philadelphia: John Benjamins Publishing.
- Jacobson, R. (Ed.). (1990). *Codeswitching as a worldwide phenomenon*. New York: Peter Lang Pub Incorporated.
- MacSwan, J. (2005). Codeswitching and generative grammar: A critique of the MLF model and some remarks on "modified minimalism". *Bilingualism: Language and Cognition*, 8(1), 1-22.
- Johnson, K., & Johnson, H. (1999). *Encyclopedic dictionary of applied linguistics: A handbook for language teaching*. Oxford, UK: John Wiley and Sons, Inc.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.  
doi:10.3102/0013189X03307014
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2), 112-133.
- Joshi, A. K. (1987). An introduction to tree adjoining grammars. In A. Manaster-Ramer (Ed.), *Mathematics of Language* (pp. 87-114). Amsterdam: Benjamins.

- Kachru, B. B. (1990). *The alchemy of English: The spread, functions, and models of non-native Englishes*. Urbana: University of Illinois Press.
- Kemp, C. (2007). Strategic processing in grammar learning: Do multilinguals use more strategies? *International Journal of Multilingualism*, 4(4), 241-261.  
doi:10.2167/ijm099.0
- Kertész, A., & Rákosi, C. (2012). *Data and evidence in linguistics: A plausible argumentation model*. Cambridge, England: Cambridge University Press.
- King, J. R., & Chetty, R. (2014). Codeswitching: Linguistic and literacy understanding of teaching dilemmas in multilingual classrooms. *Linguistics and Education*, 2540-50,  
<http://dx.doi.org/0898-5898>
- Lahlou, M. (1992). A morpho-syntactic study of code-switching between Moroccan Arabic and French (order No.9200661). Available from ProQuest Dissertations & Theses Global. (303948035). Retrieved from <http://proxy-iup.klnpa.org/login?url=https://search-proquest-com.proxy-iup.klnpa.org/docview/303948035?accountid=11652>
- Larocque, P. p. (2017). "Like", as if you needed to know the difference. *Quill*, 105(2), 22.
- Li, Wei. (1998). The 'why' and 'how' questions in the analysis of conversational codeswitching. In P. Auer (Ed.). *Codeswitching in conversation: Language, interaction and identity* (pp.156.176). New York: Routledge.
- Li, Wei. (2005) "How can you tell?" Towards a common sense explanation of conversational codeswitching. *Journal of Pragmatics*, 37, 375.389.
- Li, W., & Milroy, L. (1995). Conversational code-switching in a Chinese community in Britain: A sequential analysis. *Journal of Pragmatics*, 23, 281-299.
- Li, Wei. (2011). Moment analysis and translanguaging space: Discursive construction of identities by multilingual Chinese youth in Britain. *Journal of Pragmatics*, 43(5), 1222.1235.
- Liebscher, G., & DAILEY-O'CAIN, J. E. N. N. I. F. E. R. (2005). Learner code-switching in the content-based foreign language classroom. *The Modern Language Journal*, 89(2), 234-247.
- Lippman, L. G., & Dunn, M. L. (2000). Contextual connections within puns: Effects on perceived humor and memory. *The Journal of General Psychology*, 127(2), 185-197.



- Lipski, J. M. (1985). *Linguistic aspects of Spanish-English language switching* (Vol. 25). Arizona State Univ Center for Latin.
- Litosseliti, L. (Ed.). (2010). *Research methods in linguistics*. New York, NY: Continuum International Publishing Group.
- Matthews, P. H. (2007). *The concise oxford dictionary of linguistics*. Oxford, UK: Oxford University Press.
- Martin-Jones, M., Blackledge, A., & Creese, A. (2012). *The Routledge handbook of multilingualism*. London, UK: Routledge.
- McConvell, P. (1988). Mix-im-up: Aboriginal code-switching, old and new. In M. Heller (Ed.), *Codeswitching: Anthropological and sociolinguistic perspectives* (pp. 97-149). Berlin: Mouton de Gruyter.
- Milroy, L., & Muysken, P. (Eds.). (1995). *One speaker, two languages: Cross-disciplinary perspectives on code-switching*. Cambridge, England: Cambridge University Press.
- Ministry of education. (2015). Center of educational statistics: Annual statistics of higher education. Retrieved from: <http://www.moe.gov.sa/ar/Ministry/Deputy-Ministry-for-Planning-and-Information-affairs/HESC/Ehsaat/Pages/default.aspx>
- Mohamed, B. (2014). *Code-switching: A case study of Kurdish-German pre-school bilingual children*. Frankfurt: Peter Lang GmbH, Internationaler Verlag der Wissenschaften.
- Mohammadi, M. (2014). Code switching as a robust catalyst; a useful way to become a more strategic language user. *International Journal of Language and Linguistics*. <http://dx.doi.org/10.11648/j.ijll.s.2014020501.17>
- Molle, D. (2015). *Multilingual learners and academic literacies: Sociocultural contexts of literacy development in adolescents*. New York: Routledge.
- Muysken, P. (1995). Codeswitching and grammatical theory. In L. Milroy and P. Muysken (Eds.), *One speaker, two languages: Cross-disciplinary perspectives on code-switching* (pp. 177.198). New York, NY: Cambridge University Press.
- Muysken, P. (2000). *Bilingual speech: A typology of codemixing*. Cambridge: Cambridge University Press.
- Muysken, P. (2004). Two linguistic systems in contact: Grammar, phonology and lexicon. In T. K. Bhatia and W. C. Ritchie (Eds.), *The handbook of bilingualism* (pp. 147.168). Maiden, MA: Blackwell.
- Myers-Scotton, C. (1995). *Social motivations for codeswitching: Evidence from Africa*. Oxford, UK: Clarendon Press.

- Myers-Scotton, C. (1993). *Social motivations for codeswitching*. New York: Oxford University Press.
- Myers-Scotton, C. (1998). A theoretical introduction to the markedness model. In C. Myers-Scotton (Ed.). *Codes and consequences: Choosing linguistic varieties* (pp. 18-38). New York: Oxford University Press.
- Myers-Scotton, C., & Jake, J. (2000). Four types of morpheme: Evidence from aphasia, code switching, and second-language acquisition. *Linguistics: An Interdisciplinary Journal of The Language Sciences*, 38(6), 1053-1100. doi:10.1515/ling.2000.021
- Myers-Scotton, C., & Jake, J. (2009). A universal model of code-switching and bilingual language processing and production. In B. E. Bullock & A. J. Toribio (Eds.), *Cambridge handbooks in linguistics. The Cambridge handbook of linguistic code-switching* (pp. 336-357). New York, NY, US: Cambridge University Press.
- Myers-Scotton, C. M., & Jake, J. L. (2017). Revisiting the 4-M model: Codeswitching and morpheme election at the abstract level. *International Journal of Bilingualism*, 21(3), 340-366.
- Naseh, L. (1997). Codeswitching between Persian and Swedish. In L. Díaz & C. Pérez (Eds.), *Views on the acquisition and use of a second language* (pp. 201-212). *European Second Language Association (EUROSLA '7) Proceedings-European Organisation for Second Language Research*. Barcelona: Universitat Pompeu Fabra.
- National School Public Relations Association, & K12 Insights. (2015). *Communications survey: Results and analysis* [PDF]. Retrieved from: [www.nspr.org/2011capsurvey](http://www.nspr.org/2011capsurvey)
- Nilep, C. (2006). 'Code switching' in sociocultural linguistics. *Colorado Research in Linguistics*. Retrieved from: <http://philpapers.org/rec/NILCS>.
- Nguyen, T. (2014). *Code Switching: A sociolinguistic perspective*. Hamburg: Anchor Academic Publishing.
- Onwuegbuzie, A. J., & Johnson, R. B. (2006). The validity issue in mixed research. *Research in the Schools*, 13(1), 48-63.
- Paradis, J., Nicoladis, E., & Genesee, F. (2000). Early emergence of structural constraints on code-mixing: Evidence from French-English bilingual children. *Bilingualism: Language and Cognition*, 3(3), 245-261. doi:10.1017/S1366728900000365
- Poplack, S. (1980). Sometimes I'll start a sentence in English y termino en espanol: Toward a typology of codeswitching. *Linguistics*, 18, 581-618.

- Poplack, S. (1988). Contrasting Patterns of Code-Switching in Two Communities. In M. Heller (Ed.), *Codeswitching: Anthropological and sociolinguistic perspective* (pp. 215-244). New York: Mouton de Gruyter.
- Plat, J. L. (1995). "Word watching": " Like. *Et Cetera*; Concord, CA. Vol. 52(1), 66.
- Qian, X., Tian, G., & Wang, Q. (2009). Codeswitching in the primary EFL classroom in China—Two case studies. *System*, 37(4), 719-730. doi:10.1016/j.system.2009.09.015
- Rampton, B. (1999). Deutsch in inner London and the animation of an instructed foreign language. *Journal of Sociolinguistics*, 3(4), 480-504.
- Redinger, D. (2010). Language attitudes and code-switching behaviour in a multilingual educational context: The case of luxembourg (Doctoral dissertation). (Order No. U563414). Available from ProQuest Dissertations & Theses Global. (1314573417). Retrieved from <http://proxy-iup.klnpa.org/login?url=https://search-proquest-com.proxy-iup.klnpa.org/docview/1314573417?accountid=11652>
- Bhatia, T. K., & Ritchie, W. C. (Eds.). (2008). *The handbook of bilingualism*. Malden, MA: John Wiley & Sons.
- Reima, A. J. (2016). Arab preference for foreign words over Arabic equivalents. *Alatoo Academic Studies*, (1), 158-162.
- Romaine, S. (1995). *Bilingualism*. Hobkon, NJ: Wiley-Blackwell.
- Romaine, S. (2000). *Language in society: An introduction to sociolinguistics* (2nd ed.). New York, NY: Oxford University Press.
- Rouchdy (Ed.). *The Arabic language in America* (72.80). Detroit, Michigan: Wayne State University Press.
- Richards, J. C. (1998). *Beyond training: Perspectives on language teacher education*. Cambridge, UK: Cambridge University Press.
- Sacks, H., Schegloff, E., & Jefferson, G. (1978). A simplest systematics for the organization of turn-taking in conversation. *Language*, 50, 696-735.
- Safi, S. (1992). Functions of codeswitching: Saudi Arabic in the United States. In A. Rouchy (Ed.), *The Arabic language in America* (pp.72-80). Detroit, Michigan: Wayne State University Press.
- Sal, F. (2012). مقابلة مع الراپر قصي خضر واللغة الإنجليزية [For a Few Minutes Only: An Interview with the Rapper Qusai on Codeswitching to English] [Video File]. Retrieved from: <https://www.youtube.com/watch?v=KsqfpvFRyek&t=287s>

- Schegloff, E. A. (2007). *Sequence organization in interaction: A primer in conversation analysis* (Vol. 1). New York, NY, US: Cambridge University Press.
- Sebba, M. & Wootton, T. (1998). We, they and identity: Sequential versus identity related explanation in codeswitching. In P. Auer (Ed.), *Codeswitching in conversation: Language, interaction and identity* (pp. 262-286). New York, NY: Routledge.
- Snyder, T. D., & Dillow, S. A. (2012). Digest of education statistics, 2011. NCES 2012-001. *National Center for Education Statistics*. Retrieved from: <https://files.eric.ed.gov/fulltext/ED544580.pdf>
- Spolsky, B. (2009). *Language management*. New York: Cambridge University Press.
- Sridhar, S. N., & Sridhar, K. K. (1980). The syntax and psycholinguistics of bilingual code mixing. *Canadian Journal of Psychology/Revue canadienne de psychologie*, 34(4), 407.
- Stell, G., & Yakpo, K. (Eds.). (2015). *Code-switching between structural and sociolinguistic Perspectives* (Vol. 43). Berlin: Walter de Gruyter GmbH & Co KG.
- Talhok, S. (2012). Suzanne Talhok: Don't kill your language. TED. Retrieved from: [https://www.ted.com/talks/suzanne\\_talhok\\_don\\_t\\_kill\\_your\\_language](https://www.ted.com/talks/suzanne_talhok_don_t_kill_your_language)
- Timm, N. H. (1975). Multivariate analysis with applications in education and psychology. *Educational & Psychological Measurement*, 36237-240.
- Üstünel, E., & Seedhouse, P. (2005). Why that, in that language, right now? Code-switching and pedagogical focus. *International Journal of Applied Linguistics*, 15(3), 302-325.
- Valdés-Fallis, G. (1978). *Language in education: Theory and practice*. Arlington, Virginia: Center for Applied Linguistics.
- Weinreich, U. (1979). *Languages in contact: Findings and problems*. New York: Mouton Publishers, The Hague.
- Woolard, K. A. (2004). Codeswitching. In A. Duranti (Ed.), *A companion to linguistic anthropology* (pp. 73-94). Oxford, England: Blackwell.
- Wong, J., & Waring, H. Z. (2010). *Conversation analysis and second language pedagogy: A guide for ESL/EFL teachers*. New York, NY: Routledge.
- Zentella, A. C. (1990). Integrating qualitative and quantitative methods in the study of bilingual code switching. In E. H. Bendix (Ed.), *The uses of linguistics* (pp. 75-92). New York, New York Academy of Sciences.

## Appendix A

### IRB Approval Letter



Indiana University of Pennsylvania  
[www.iup.edu](http://www.iup.edu)

Institutional Review Board for the  
Protection of Human Subjects  
School of Graduate Studies and Research  
Stright Hall, Room 113  
210 South Tenth Street  
Indiana, Pennsylvania 15705-1048

P 724-357-7730  
F 724-357-2715  
[irb-research@iup.edu](mailto:irb-research@iup.edu)  
[www.iup.edu/irb](http://www.iup.edu/irb)

November 9, 2016

Alaa Alhamdan  
291 Oak Street  
Indiana, PA 15701

Dear Ms. Alhamdan:

Your proposed research project, "Multilingual Arab Children's Code Switching Between English and Arabic," (Log No. 16-244) has been reviewed by the IRB and is approved as an expedited review for the period of November 8, 2016 to November 8, 2017. This approval does not supersede or obviate compliance with any other University requirements, including, but not limited to, enrollment, degree completion deadlines, topic approval, and conduct of university-affiliated activities.

You should read all of this letter, as it contains important information about conducting your study.

Now that your project has been approved by the IRB, there are elements of the Federal Regulations to which you must attend. IUP adheres to these regulations strictly:

1. You must conduct your study exactly as it was approved by the IRB.
2. Any additions or changes in procedures must be approved by the IRB before they are implemented.
3. You must notify the IRB promptly of any events that affect the safety or well-being of subjects.
4. You must notify the IRB promptly of any modifications of your study or other responses that are necessitated by any events reported in items 2 or 3.

Should you need to continue your research beyond November 8, 2017 you will need to file additional information for continuing review. Please contact the IRB office at [irb-research@iup.edu](mailto:irb-research@iup.edu) or 724-357-7730 for further information.

The IRB may review or audit your project at random or for cause. In accordance with IUP Policy and Federal Regulation (45CFR46.113), the Board may suspend or terminate your project if your project has not been conducted as approved or if other difficulties are detected.

Although your human subjects review process is complete, the School of

IRB to Alaa Alhamdan, November 9, 2016

Graduate Studies and Research requires submission and approval of a Research Topic Approval Form (RTAF) before you can begin your research. If you have not yet submitted your RTAF, the form can be found at <http://www.iup.edu/page.aspx?id=91683> .

While not under the purview of the IRB, researchers are responsible for adhering to US copyright law when using existing scales, survey items, or other works in the conduct of research. Information regarding copyright law and compliance at IUP, including links to sample permission request letters, can be found at <http://www.iup.edu/page.aspx?id=165526>.

I wish you success as you pursue this important endeavor.

Sincerely,

Jennifer Roberts, Ph.D.  
Chairperson, Institutional Review Board for the Protection of Human Subjects  
Professor of Criminology

JLR:jeb

Cc: Dr. Lilia Savova, Dissertation Advisor  
Dr. Sharon Deckert, Graduate Coordinator  
Ms. Brenda Boal, Secretary

Appendix B

Permission Letter for The Study's Site

# IUP

**Saudi Students Association at Indiana University of Pennsylvania** October 16, 2016 Dear IRB Committee,

The following is our approval letter for Ms. Alaa Alhamdan to conduct research at Ajial Academy supervised by us, the Saudi Student Association.

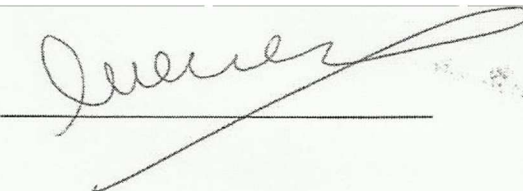
It is to my understanding that Alaa Alhamdan will be conducting a research study on "Multilingual Arab Children's Codeswitching Between English and Arabic" at one of the Ajial Academy's classes held on IUP campus. Ms. Alhamdan has informed me of the purpose, procedure, benefits and risks of the study as well as how she is going to protect the participants throughout the study.

Here we give approval to Ms. Alhamdan to recruit and distribute hard copies of consent forms to the students attending the targeted classroom. Then we will allow her to collect data of the class sessions her study requires. If you have any questions, please do not hesitate to contact me at 724-541-5392 or [yyms@iup.edu](mailto:yymys@iup.edu)

Sincerely,

Asmaa Alshehri,

PhD candidate in the English department at IUP. Vice President of Saudi Student Association at IUP

Signature: 

## Appendix C

### Teacher Informed Consent Document



Indiana University of Pennsylvania

[www.iup.edu](http://www.iup.edu)

Graduate Studies in Composition and TESOL

Humanities and Social Sciences Building

981 Grant Street

Indiana, PA 15705

[www.iup.edu/english](http://www.iup.edu/english)

P 724-357-2263

F 724-357-3056

[grad-eng@iup.edu](mailto:grad-eng@iup.edu)

Dear Teacher,

My name is Alaa Alhamdan. I am a PhD candidate in the Composition & TESOL program at the English department. I am currently working to collect data for my dissertation on multilingual Arab children use of English and Arabic during class sessions. The data collection for this study is based on recording of interactional moments of the target population. Here, I invite you to participate in this study by giving your permission to allow me to collect data from your class sessions. I would need you to explain to your students the nature of my study and why the recording is needed. You will explain to them how they will participate in this study in which they permit me to record 10 of their class sessions.

Your name and any other identity information will be confidential that it will not be disclosed at any time during the study or after the completion of the study.

*Your participation:* I am requesting that you permit me as a researcher to observe and record 10 of your class sessions with your students between January 2017-January 2018. The study goal is to capture responses and interaction of the students in order to examine their use of English and Arabic alternately. I will not require any extra service or time from you beyond your regular teaching practice. Your participation is voluntary. Should you not want to participate or change your mind after you started participating, you can request to withdraw from the study. If you decide not to participate or withdraw from the study, you have the right to do so without penalty or any other negative consequences.

*Possible risks:* The scope of my study does not include focus on your teaching nor your identity. You will not be exposed by any means to more than the minimal risk of your daily activities and teaching routine. Any information relevant to you will not be shared with anyone and your identity will be confidential.

*Benefits:* At the completion stage of the study, I will offer you a chance to read the results if you show interest in this. Being a member and an active volunteer and teacher of the targeted community, the results of this study will help you understand the nature of the Arab children use of multiple languages and how such serve some aspects and functions of their social and



linguistic levels. So what you will learn about this may be helpful for you to facilitate more ways of communication and knowing between you and your students.

Confidentiality: All information about you and your class will be kept confidential and archival. Also, the recordings will be securely saved in IUP derive. Only the lead researcher will have access to such data. The information and results of the data may be published in journal or presented in academic conferences without disclosing identity information.

If you agree to participate, please sign below and return to Alaa Alhamdan in the envelop provided. You may keep the extra copy of this form with you.

Thank you for your help, if you have any questions or concerns don't hesitate to contact the project lead researcher, Alaa Alhamdan.

Alaa Alhamdan,  
PhD Candidate  
Email: [dkqt@iup.edu](mailto:dkqt@iup.edu) Phone: (530-566-4444)  
The English, IUP  
Indiana, PA, 15701

Faculty Sponsor: Dr. Lilia Savova,  
Professor of English  
**Office:** 506EE Humanities and Social Sciences Building  
**Phone:** 724-357-3958  
**E-mail:** [lsavova@iup.edu](mailto:lsavova@iup.edu)

Name (PLEASE PRINT): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Your contact (email or/and phone number): \_\_\_\_\_

## Appendix D

### Legal Guardian Informed Assent Document



Indiana University of Pennsylvania  
[www.iup.edu](http://www.iup.edu)

Graduate Studies in Composition and TESOL  
Humanities and Social Sciences Building  
981 Grant Street  
Indiana, PA 15705  
[www.iup.edu/english](http://www.iup.edu/english)

P 724-357-2263  
F 724-357-3056  
[grad-eng@iup.edu](mailto:grad-eng@iup.edu)

Dear Parent/Guardian,

My name is Alaa Alhamdan. I am a doctoral student in the English Department at Indiana University of Pennsylvania. I am currently working on my dissertation project as a partial fulfillment of my doctoral degree in philosophy. I'm interested to examine the multilingual Arab children use of English and Arabic during their attendance in the Arabic seminar sessions held by the SSA. I invite your child to participate in this study. In the following, I will provide information related to your child participation in the study for you to make an informed decision of whether you agree to participate. Your participation is voluntary. Should you not want to participate or change your mind after you started participating, you can request to withdraw from the study. If you decide not to participate or withdraw from the study, you have the right to do so without penalty.

*Your participation:* The purpose of this study is to examine and describe how multilingual Arab children use both English and Arabic at their learning sessions. I intend to videotape the class sessions your child attend. So being part of this class, I request that you give me permission to videotape 10 class sessions as they normally held. Your child participation is voluntarily and will not affect his class attending status in any way.

*Risks:* Your child will not be exposed by any means to more than the natural minimal risk of their daily activities and regular attendance to the class. Your child's name will be kept confidential. The participants' real identity will not be disclosed to anyone during and after the study is completed.

*Benefits:* At the completion stage of the study, I will offer you a chance to read the results if you show interest in this. Being a member and a guardian of the study population, the results of this study can help you understand the nature of the Arab children use of multiple languages and how such serve aspects of their social and linguistic levels. Further, it can contribute to how you facilitate ways for your child's linguistic and social growth.

*Confidentiality:* All information about your child will be kept confidential and archival.

The recordings will be securely saved in IUP derive. Only the lead researcher will have access to such data. The information and results of the data may be published in journal or presented in academic conferences without disclosing identity information.

If you agree to participate, please sign below and return to Alaa Alhamdan in the envelop provided. You may keep the extra copy of this form with you.

Thank you so much for your help, if you have any questions or concerns don't hesitate to contact the project lead researcher, Alaa Alhamdan.

Alaa Alhamdan,  
PhD Candidate  
Email: [dkqt@iup.edu](mailto:dkqt@iup.edu) Phone: (530-566-4444  
The English, IUP  
Indiana, PA, 15701

Faculty Sponsor: Dr. Lilia Savova,  
Professor of English  
**Office:** 506EE Humanities and Social Sciences Building  
**Phone:** 724-357-3958  
**E-mail:** [lsavova@iup.edu](mailto:lsavova@iup.edu)

Child's name (PLEASE PRINT) \_\_\_\_\_

Parent/ Guardian's Name (PLEASE PRINT) \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Your contact (email or/and phone number) \_\_\_\_\_

---

THIS PROJECT HAS BEEN APPROVED BY THE INDIANA UNIVERSITY OF  
PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF  
HUMAN SUBJECTS (PHONE 724.357.7730).

## Appendix E

### Child Voluntary Assent Document



Indiana University of Pennsylvania

[www.iup.edu](http://www.iup.edu)

Graduate Studies in Composition and TESOL  
Humanities and Social Sciences Building  
981 Grant Street  
Indiana, PA 15705  
[www.iup.edu/english](http://www.iup.edu/english)

P 724-357-2263  
F 724-357-3056  
[grad-eng@iup.edu](mailto:grad-eng@iup.edu)

Hi, my name is Alaa Alhamdan. I am a graduate student in the English department here at IUP and a volunteer at the SSA. I am currently working on my major research project as a required research study. I would like you to participate in the data collection process of this study. I am going to explain you about what I am doing in this study and all information related to your participation. After learning about it, you are going to decide if you want to help me or not help me with this study. You can ask any questions you want and express concerns. My telephone number and e-mail address is listed at the bottom of this page so you can reach me. Or you can also email my advisor, Dr. Lilia Savova.

For this study, I am looking to examine how multilingual Arab Children use both English and Arabic in their interactions in the same situation. I am interested to capture such moments from you and your friends during your class sessions at the Ajial Academy every Saturday. I will not record you separately, but as a group of students. All of you must agree to be recorded before I start recording. I will need to video record only 10 of these sessions which last for 45 minutes each. I promise that such recording will not affect your attendance, participation, or status in the class by any means. When you choose to participate, no one will know who you were. Your personal information will be kept confidential or a secret.

The benefit of this study is that it would allow people involved in your life such as your teachers, and other members in your communities to understand how you use the multiple languages you know. It will help them understand your communicative needs in your learning moments and your life in general. Also, it can contribute in how others in your community facilitate ways for your linguistic and social growth.

Your legal guardian knows about this and agreed that it is okay for you to help me if you want to. You can choose not to participate or stop participating at any time. When you request to stop participating and you don't want to be part of this study anymore, I will destroy all data involved you. You or your parent/guardian can tell me that by calling,

emailing, or writing to me.

When I finish my research study, I might talk about what I learned with other people, or write it down so other people can read it, but I will always talk about the group of children who participated, never mentioning your name. I would like you please to consider to participate in this study.

---

Alaa Alhamdan,  
PhD Candidate  
Email: [dkqt@iup.edu](mailto:dkqt@iup.edu) Phone: (530-566-4444  
The English, IUP  
Indiana, PA, 15701

Faculty Sponsor: Dr. Lilia Savova,  
Professor of English  
**Office:** 506EE Humanities and Social Sciences Building  
**Phone:** 724-357-3958  
**E-mail:** [lsavova@iup.edu](mailto:lsavova@iup.edu)

If you would like to help me in my study, please print and sign your name below and keep the second copy for your record. If you do not want to participate do not sign.

Your name (PLEASE PRINT) \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

---

THIS PROJECT HAS BEEN APPROVED BY THE INDIANA UNIVERSITY OF  
PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF  
HUMAN SUBJECTS (PHONE 724.357.7730).

## Appendix F

### Sample Data Transcription

T: إذا شخص جلس كذا {teacher acting moments of falling asleep while setting)

S6: is that sleeping?

S3: or يوم الجمعة, well, that happens

S5: yeah, that's what some people do back home

T: ايوه. فيه ناس ينامون

S3: because they are bored

S2: Ok, what if you do this {lies down}

S2: عشان يمكن you fart

-----

T: رقم أربعة، أكل لحم الإبل، إذا أكلت لحم الإبل ينقض الوضوء

S1: what about لحم الدجاج

S5: what about و يصير عليه طبقة و تأكل لحم الابل fried إذا تسويه

T: أي شيء فيه لحم الجمل ينقض الوضوء

S2: what about if you eat its eyeball

-----

T: عند الوضوء و أنت تغسل يديك وش لازم تتأكد منه؟

S6: لازم تنتبه تغسل between fingers

T: إيش كمان لازم تنتبه له

S4: تغسل من ورا الرجل where we sometimes miss

---

T: طيب واحد لما خلص الوضوء شك انه مسح شعره ولا لا

S5: he believes he did it and only doubt he did not لأنه

T: (0.5) so if he believes he didn't do and doubt whether he did it صح، بس إذا كان يشك انه مسح

يرجع يمسح

S3: Is that OK?

S1: so you ignore your doubts?

T: you are ok نقول له

S4: you make sure إذا كان فيه وقت لازم؟ ولا لا

T: هذا حتى لو فيه وقت ما يحتاج تتوضأ، ليه؟

S2: you only doubt you are not sure

T: بعض الناس ينسى إنه راح للحمام، بس هذا يصير لنا كلنا بعض المرات، مو كل يوم نقول نسينا

mu kel yuum tgoool wallah nseet enni reht lilhammam, ba'ad annas take it excuse for them.

S5: lazy لأنهم

----

T: مثال ثاني، واحد صلى الظهر بعدين راح الحمام و أذن العصر، هو متأكد انه استخدم الحمام بس قال مو متأكد اني توضأت

بعده ولا لا.

S4: الثاني يتوضأ asituation في ال

T: يعني وش الفائدة؟

S2: what you are more sure about شوف

-----

T: فيه قصة عن أهمية تجنب الغضب. فيه رجل جاء للرسول و قال له اوصني، قال لا تغضب، وأعاد السؤال ثلاث مرات،

ما حس انه نصيحة مهمة، وفي كل مره قال له الرسول لا تغضب.

S6: what does that mean?

T: Advice, he asked him to give him for a life advice

قال advice me, don't get angry

ليه أكد على الغضب

(3.0)

T: why it is prohibited to get angry?

S4: لأنه فيه ناس إذا كانوا معصيين they lose sense of their surrounding and they might hurt someone else

S7: I was going to say the same. They might get angry and even cause injury to someone. Or the least they might make a bad decision أو يقولون كلام they regret it أو أي شيء.

T: فيه أهمية ثانية لكتم الغيظ ما هو؟

(0.4s)

Through practice you learn it

S6: you don't lose control of yourself تحافظ على هدوءك و

S2: I was going to beat him بعدين, بعدين دفني, بعدين ولد in the field I shot the ball مره  
up لكن صديقي pushed him out of the way, like he just came and pushed me

S5: I would ask them not to do it, I won't fight them

S1: I will take him to court تدري شو اسوي لو مكانك

S2: I will defend myself لكن إذا يدفني

T: لكن المؤمن لازم يكون مسالم أكثر