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Arabic–English Code-Mixing by Jordanian University Students

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Arabic–English Code-Mixing by Jordanian University Students

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Declaration Statement

I hereby declare that the work in this thesis is my own work and that to the best of my knowledge it contains no material that has been previously written and/or published by another person except as acknowledged.

Dedication

This work is dedicated to

My parents, for all of the sacrifices you have made for my sake…

My brothers and sisters, your prayers are what have sustained me thus far…

And my husband, Thamer, for your support and presence when no one was there…

With love

Acknowledgement

My Lord! Grant me the power and ability that I may be grateful for Your Favors which You have bestowed on me and on my parents, and that I may do righteous good deeds that will please You, and admit me by Your Mercy among Your righteous slaves.

The Holy Quran (Chapter 27, Verse 19). (Yusuf, 1998)

I would like to express my sincere gratitude to my principal supervisor, Assoc. Professor Mustapha Taibi, who has been an invaluable mentor. I appreciate your patience, encouragement and guidance throughout the process of writing. I would also like to thank Assoc. Professor Bruno Di Biase for his suggestions and continuous help. In addition, I would like to express my gratitude to Professor Alex Yeung for his profound comments and suggestions. My gratitude is extended to Dr Marie Fellbaum Korpi, from The Graduate Research School at Western Sydney University, whose workshops aided my PhD research immensely.

I would also like to express my appreciation to my lovely parents, sisters and brothers for their profound support and encouragement. I wish to express my deepest gratitude to my husband, Thamer, who taught me so much about commitment, compromise and sacrifice.

The endeavour I undertook as a PhD candidate showed me the reality of thriving beyond the limits of myself in order to achieve my personal best. This journey involved many hardships and in turn created a sense of resilience within me. In retrospect, I can say with confidence and self-satisfaction that I completed this dissertation and strove to the very end because of the continuous support from my principal supervisor, family and friends.

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Transliteration System

The transliteration system follows Schulz et al. (2000, p. 5). The table sets out the consonants.

Arabic letters	Symbols
ء	'
ا	ā
ب	b
ت	t
ث	th
ج	j
ح	ḥ
خ	kh
د	d
ذ	dh
ر	r
ز	z
س	s
ش	sh
ص	ṣ
ض	ḍ
ط	ṭ
ظ	ẓ
ع	ᶜ
غ	gh
ف	f
ق	q
ك	k
ل	l
م	m
ن	n
ه	h
و	w, ū
ي	y

The vowels are as follows:

◌َ a, ◌ُ u , ◌ِ i

Abstract

Those who know nothing of foreign languages know nothing of their own.

Johann Wolfgang von Goethe (Goethe, n.d. cited in Stavans & Hoffmann, 2015, p. 135)

This research examines the linguistic phenomenon of code-mixing by students at three public universities in North Jordan: Al alBayt University, University of Jordan and Yarmouk University. It seeks to document the perspectives of Jordanian university students on Arabic–English code-mixing. Furthermore, the research stresses the importance of three purposes of code-mixing: (a) social: using English words to convey a social message and/or to avoid using socially unacceptable expressions in Arabic; (b) linguistic: using English expressions which Arabic language lacks and/or whose Arabic equivalents are not commonly used; and (c) realisation of field of discourse: using English when expressing scientific terms. The focus of this research is on oral communication by Jordanian university students.

This research utilizes qualitative and quantitative research methods. Applying a mixed-methods approach, the participants' use of English words in their Arabic speech is investigated via a survey questionnaire and semi-formal interviews. The participants are Bachelor, Masters and PhD students studying in various faculties: Humanities, Science, Economics, Islamic Studies, Medicine and Education.

The results show that male students tend to mix English with Arabic in their speech for linguistic reasons more often than female students, but the latter tend to use English for social reasons more often than male students. Students who live in a city tend to use English more than those living in rural areas when they use the language for linguistic or scientific purposes. Students attending a university in the capital city tend to have higher self-perceived competence in English than those in the other two cities. To investigate Jordanian students' use of English as a second language, these three factors – social, linguistic and (realisation of) field of discourse – were considered to yield the best outcomes.

Introduction

There is nothing more difficult to take in hand,
more perilous to conduct or more uncertain in its success
than to take the lead in the introduction of a new order of things.

Niccolo Machiavelli (2010, p. 21)

In this introductory chapter, a brief discussion of the linguistic phenomenon of code-mixing is given, followed by outlining the significance of the study. Then the chapter presents the aims, questions and hypotheses of the study. It also presents a brief discussion of the research ethics observed in carrying out the study. The chapter ends with a general outline of the study.

Code-mixing has been a significant research topic because of its importance in understanding the reasons that make people mix two languages or language varieties. It refers to "all cases where lexical items and grammatical features from two languages appear in one sentence" (Muysken, 2000, p. 1). This process can be marked easily in the speech of bilingual or multilingual speakers who may begin a sentence using one language and combine it consciously or unconsciously with another language in daily conversations (Mashiri, 2002).

Researchers, e.g. Bautista (2004), Mustafa and Al-Khatib (1994) and Sridhar and Sridhar (1980), have mentioned many linguistic and social reasons for code-mixing, such as conveying emphasis, role playing, technical and socio-cultural authenticity, specifying or excluding one or more addressees from a conversation, or providing the fastest, easiest and most convenient way of saying something with the least effort and resources. Code-mixing may also occur when a speaker imitates someone using a second language in a process called role playing, or when talking about cultural or religious terms that do not exist in the first language; for example, some English terms that exist in Western culture are used by many Arabic native speakers as there are no equivalents for such terms in Arabic: slow dance, baby shower, kitchen tea, cowboy, Rock 'n Roll.

This study investigates the mixing of English with Arabic in the speech of Jordanian university students. The research was conducted with undergraduate and postgraduate students in three Jordanian universities: Al alBayt University, University of Jordan and Yarmouk University. It examines the following: (a) factors that affect code-mixing, for example gender, level of study, area of study, age and place of residence; (b) the reasons for code-mixing and (c) the situations where the students code -mix.

Significance of the study

Code-mixing in Jordan has been the subject of research for many years. This linguistic phenomenon, mixing English with spoken Arabic in Jordanian contexts, has been investigated by many scholars (Al-Khatib, 2001, 2008a, 2008b; Al-Tamimi & Gorgis, 2007; Bader, 1995, 2003; Hamdan & Hatab, 2009; Hussein, 1999; Masoud, 1999; Mustafa & Al-Khatib, 1994). However, the reasons for code-mixing and specifically the factors that affect the use of English by Jordanian university students are still unclear. In addition, it seems that no study addressing the phenomenon of code-mixing in a Jordanian context using a mixed-methods approach has been conducted. Moreover, most of the earlier studies carried out in a Jordanian context targeted students on one level, graduate or postgraduate, and in one department.

The study intends to make a contribution to our knowledge of code-mixing by today's Jordanian university students for the following reasons:

1. The study examines code-mixing at three universities.
2. The participants are students at three levels: Bachelor, Masters and PhD.
3. Unlike previous studies, the current study applies a mixed-methods approach.
4. Technology has much advanced since previous studies were conducted, with greatly increased use of the Internet and mobile phones. As a result, the mixing of English with Arabic is more wide-spread in Jordan today.
5. Since it is many years since previous studies were conducted, the results are expected to be different.

Aims of the study

The primary objective of the current study is to obtain a baseline overview of Jordanian university students' mixing of English with Arabic in their speech and their attitudes toward it. The specific aims of the study are:

1. To discover whether Jordanian university students code-mix Arabic and English in their daily speech;
2. To investigate why Jordanian university students mix Arabic and English;
3. To specify the situations where Jordanian university students mix Arabic and English; and
4. To investigate the factors affecting Arabic–English code-mixing by Jordanian university students.

Research questions

The study seeks to answer the following questions:

1. To what extent do Jordanian university students code-mix Arabic and English in their daily speech?
2. How do demographic factors (age, gender, place of study, place of residence, field of study and socio-economic status) affect the use of English by Jordanian university students?
3. What are the reasons for code-mixing by Jordanian university students?
4. When do Jordanian university students mix Arabic and English more frequently, on campus or off campus?
5. What are the Jordanian university students' attitudes towards mixing English with Arabic in their speech?

Hypotheses

The present research seeks to investigate the factors that affect code-mixing, such as age, gender, place of residence, place of study and field of specialization. While code-mixing has been extensively studied recently (Al-Khatib, 2001, 2008; Al-Khatib & Sabbah, 2008; Al-Tamimi & Gorgis, 2007; Bader, 1995, 2003; Bautista, 2004; Hamdan & Hatab, 2009; Hussein, 1999; Masoud, 1999), the researcher is not aware of any attempt to examine the effects of the above demographic variables upon

this linguistic phenomenon at more than one university, level of study and/or field of specialization. The study therefore aims to find out whether or not all of the above variables affect code-mixing by Jordanian university students.

Based on the fact that people talk differently at different age stages of their lives (Holmes, 2008), it is expected that young students use English in their Arabic speech more than older ones. On the other hand, there is no doubt that women and men talk differently (Baker & Hengeveld, 2012, p. 375) for biological, psychological and/or social reasons (See chapter 6). Prior to examining these reasons, this study expects that female students code-mix more than male students do. A third expectation is that students who are studying scientific subjects use English more than those who are studying in the School of Humanities and Languages or the School of Education.

It is also expected that the students at the University of Jordan located in the capital city of Jordan, Amman, use English more frequently than students of Yarmouk University in Irbid, who presumably use English more than students of Al alBait University in Mafraq which is considered a Bedouin city, and not as cosmopolitan as Amman and Irbid. The last expectation that the researcher wants to investigate, through the use of a survey questionnaire, is that students living in the cities use English more than the students living in villages.

Research ethics

Established ethical guidelines were followed throughout the conduct of the current study. The questionnaire participants were provided with a Participant Information Sheet and a Consent Form, according to the stipulations of the Human Research Ethics Committee at University of Western Sydney, Australia (see Appendix 5 and Appendix 6). The researcher was obliged to introduce herself and explain the general purpose of the study before collecting information from the sample participants. Participants then had to indicate that their participation was voluntary. They were clearly informed that the information they provided would be kept strictly confidential. Furthermore, privacy during the interview process was safeguarded and respondents' identity was not linked to the study at any time or any stage of the study.

McMillan (2012, pp. 18-19) mentioned that the American Educational Research Association and the American Psychological Association list basic ethical issues of concern:

1. "Participation must be voluntary" (McMillan, 2012, p. 19);
2. "The investigator should be as open and honest as possible" (McMillan, 2012, p. 18);
3. Participants should be informed of all aspects that might be of influence on their participation;
4. Participants must be protected from any kind of discomfort, harm or danger, physical and/or mental;
5. Participant consent forms must be signed by the participants prior to gathering data;
6. Participants have the right to withdraw without any consequences, penalty or risk;
7. The ethical standards to which the study adheres are the responsibility of the primary investigator;
8. Gathered data is anonymous and/or confidential unless otherwise agreed to;
9. When conducting research through an institution, the investigator must have approval prior to gathering data (McMillan, 2012).

All the above procedures were followed prior and during the process of data collection. Regarding item (2), the researcher did not reveal the main focus of the study before conducting the initial interviews, which were conducted prior to distributing the questionnaire to ensure authenticity, genuineness and spontaneousness of participants' responses during these initial interviews. Thus, the participants were informed at this stage that their linguistic behaviour would be observed, without any further explanation since that may have led to false results, such as increasing or decreasing the English words utilized in their speech during the initial interviews.

Outline of the study

Chapter One introduces the research context with this profile, followed by a general overview of the higher education system in Jordan, supported by statistics about the

higher education system in Jordan and the population in the three cities where the study was conducted. The chapter also discusses the importance of the Arabic language and Arabic language planning, i.e. Arabicization. Lastly, the chapter presents the roles of five official agencies of language planning, including the Jordan Academy for Arabic.

Chapter Two presents definitions of some sociolinguistic terms, in order to distinguish the different use of these terms and code-mixing. The literature review itself begins with a focus on studies of code-mixing worldwide, then more specifically in the Jordanian context. The chapter also presents the reasons for code-mixing, according to previous studies, in different parts of the world and in Jordan in particular.

Chapter Three begins with a general overview of the research paradigm. It then provides detailed information on the participants, and describes the research methods and research sites. Following this, it describes the methodological approaches adopted, followed by an explanation of the theoretical background to the methodology and justification of the reasons for using quantitative and qualitative approaches. Finally, it refers to the pilot study which was conducted by the researcher prior to the collecting data of the current research.

Chapter Four reports the results of the qualitative data. It also justifies the reasons for some of the results. Similarly, Chapter Five reports the results for the quantitative data with brief explanations of the findings.

Chapter Six delineates the findings of the combined approaches and discusses the results in light of the previous studies mentioned in Chapter Two. Finally, Chapter Seven presents conclusions drawn from the findings and makes some recommendations for future directions.

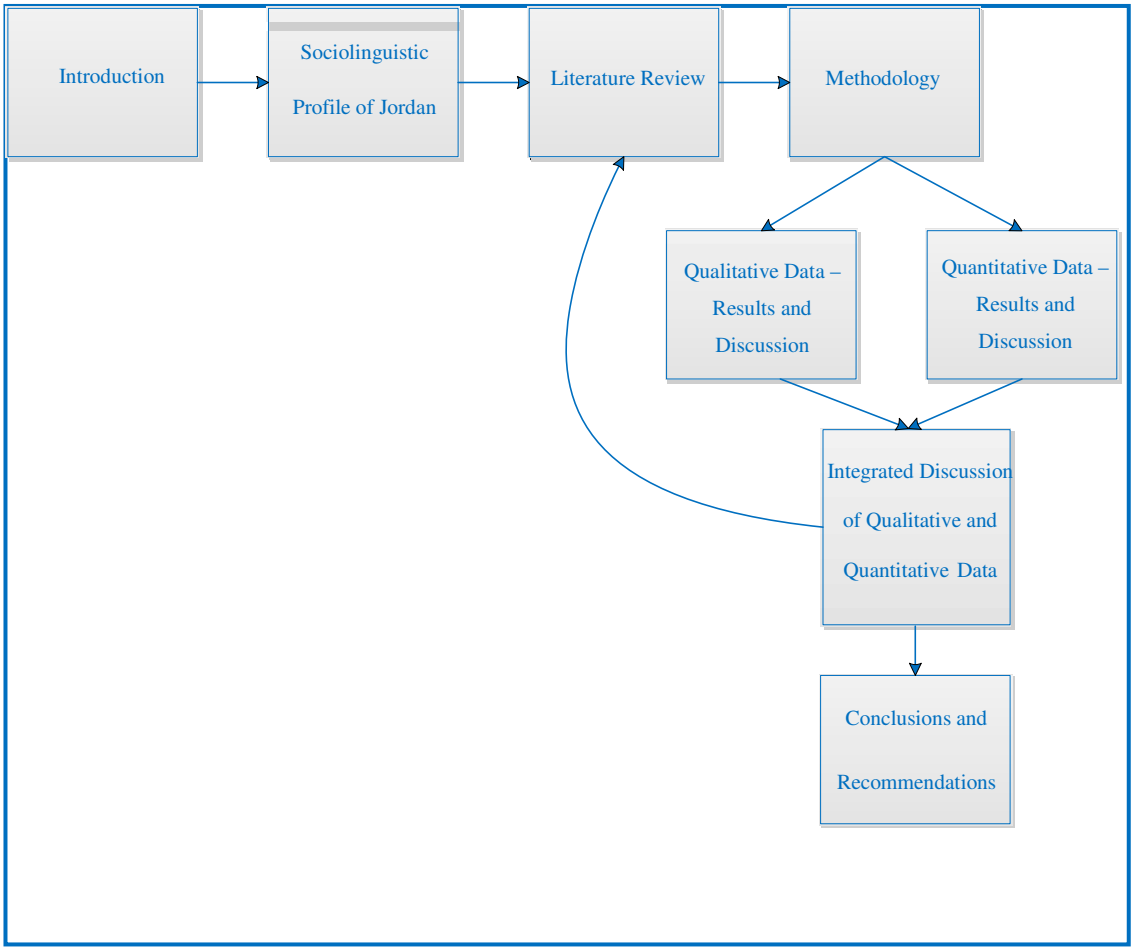

Figure 0.1: Outline of the Study

Chapter One – Sociolinguistic Profile of Jordan

Language is the road map of a culture.
It tells you where its people come from
and where they are going.

Rita Mae Brown (Brown, n.d. cited in Samovar et.al. 2013, p. 244)

In the introductory chapter, the significance of the study along with the statement of the problem, aims, questions and hypotheses of the study were presented. The current chapter gives an account of the sociolinguistic situation in Jordan, beginning with an overview of the historical background of the Hashemite Kingdom of Jordan. This is followed by the research context, and a general review of the higher education system in the Jordanian universities. Then, a report of statistics is presented, followed by a detailed description of the status of the Arabic language and of Arabic language planning. The chapter ends with a brief synopsis of the work of the academies of the Arabic language, specifically the Jordan Academy of Arabic.

1.1 Introduction

The Hashemite Kingdom of Jordan is a small Middle Eastern Arab country bordered by Saudi Arabia in the South, Iraq in the East, Syria in the North and Palestine in the West. According to the Population and Housing cencus for the year 2015, Jordan has 9.531 million inhabitants spread across an area of about 89.3 thousand square kilometres (Jordanian Department of Statistics, 2016).

Jordan was under British rule until 1946, when it first emerged as a modern state. After independence, it was known as Transjordan. In 1950, King Abdullah I renamed the country "The Hashemite Kingdom of Jordan" (Jankowski, 2006). In 1956, King Hussein arabized the Jordanian Army by replacing the British General John Bagot Glubb, who was the overall commander of the Jordanian Army (Abu Zaid, 2014; Ashton, 2008). This act of arabizing the Jordanian Army was a further step taken to consolidate the independence of the country.

Like many other Arab countries, Jordan identified the Arabic language as a symbol of independence and national as well as pan-Arab identity. As in many other Arab

countries, Standard Arabic is designated in Jordan as its official language, the medium of instruction in education, and the language of mass media, although in actual practice in daily life, a mixture of Standard and Colloquial varieties is used in education and in the media (Al-Wer, 2005).

Although Arabic is the official language in Jordan, English has been taught in Jordan's schools and universities since the independence of Transjordan as a Kingdom (Milton-Edwards & Hinchcliffe, 2001). English is still taught in Jordan and it is the language of science and technology at the university level and by educated people in their professional capacities. Medicine and many other university subjects, such as Engineering and Nursing, are also taught in English (Mubaidin, 2010). One of many organizations which encourage teaching English in Jordan and promote it is the British Council, which was established two years after Jordan's independence. Now there are many electronic Jordanian newspapers published in English, such as *Jordan Times* (JordanTimes, 2015) and *Ammon* (Ammonnews, 2015). Moreover, many Jordanian radio stations provide services in English, such as *Zain FM*, *Spin Jordan FM* (TuneIn, 2015).

Jordanians have a strong motivation to learn English for many reasons. One of these is that Jordan was occupied by an English speaking country and is now a member of many international organizations such as the World Trade Organization, the International Criminal Court, the United Nations Human Rights Council and the United Nations. A social factor which encourages Jordanians to learn English is that it is very prestigious to speak this language, especially among university students. Moreover, it is often a condition for employment in high-ranking positions in the Kingdom.

Because both languages, Arabic and English, are used in education and work environments, many Jordanians tend to mix English with Arabic, the linguistic phenomenon called code-mixing. This study specifically examines Jordanian university students' mixing of English with Arabic in their speech.

1.2 Research Context

The reason for choosing Al alBayt University, University of Jordan and Yarmouk University is that these are the oldest public universities in North Jordan and which have a number of faculties: Humanities, Science, Islamic Studies, Education and Economics.

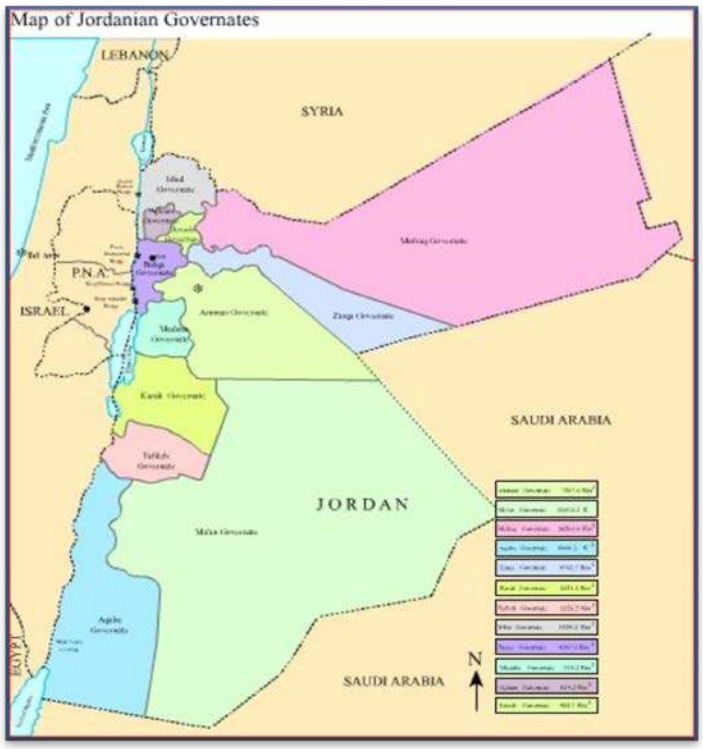

Figure 1.1: Map of Jordan (http://www.kinghussein.gov.jo/maps_2.html)

1.3 Higher Education in Jordan

Since the participants of the present study are higher education students studying for a Bachelor, Masters or PhD, a general overview of the higher education system in Jordan is in place.

The spread of English at the school level in Jordan during the second half of the last century led to a wider spread of English at the university level (Drbseh, 2013). As a result, the number of departments of English Language and Literature at universities throughout the country has constantly increased. In early 1962 there was only one

department of English in Jordan, at the University of Jordan, but by 2013 the number had reached 30.

1.3.1 Undergraduate level

Most universities in Jordan follow the English-American education systems and are associated with many American and English universities. Bachelor degrees in the Humanities, Education, Economy and Religious Studies normally take four years, Dentistry, Pharmacy and Engineering take five years, and Medicine take six years, followed by a one-year internship. Classes in these scientific and technical fields of study are normally conducted in English.

1.3.2 Postgraduate level

A Masters degree is awarded after a further one to two years' study following a Bachelor degree. It can be obtained either by coursework and a thesis (24 credit hours of courses and nine credit hours of research), or by coursework (33 credit hours) and a comprehensive examination. Finally, a PhD is awarded after three to five years of further study and the submission of an original dissertation. It requires, depending on the subject, 24 credit hours of course work and 24 credit hours of research.

1.4 Jordan in Numbers

Since this study focuses on the speech of undergraduate and postgraduate students, both female and male students, in three Jordanian universities, a general overview of some statistical information in Jordan is provided pointing out the number and/or the percentage of population living in the three governorates, Amman, Irbid and Mafraq, where the target universities are located: University of Jordan, Yarmouk University and Al alBayt University. This is followed by population statistics for urban and suburban areas of these cities; and the number of undergraduate and postgraduate students studying at these universities.

Table 1.1: Estimated Population of Amman, Irbid and Mafraq by Gender, 2011 (Jordanian Department of Statistics, 2011)

Governorate	Women (N)	Men (N)
Amman	1.175.600	1.244.000
Irbid	542.700	569.600
Mafraq	141.500	152.200

As the capital city of Jordan, Amman has the largest population of Jordanian cities, followed by Irbid, which is one of the main cities in the Kingdom. According to Sulieman (1985, p. 12), there are three embedded subdivisions of Colloquial Jordanian Arabic. The first one is the "Madani" (city/urban) variety, which is spoken by urban inhabitants, mainly in Amman. The "Fallahi" (rural) variety is spoken by rural inhabitants, mainly in the suburbs around Irbid city. The third variety is the "Bedouin" variety, which is spoken by the inhabitants of Mafraq suburbs. An example of "discrepant pronunciations" of these three varieties, compared to Standard Arabic, is the verb "/*qultu*/" (I said) which is uttered as

/*'ulit*/ in the 'Madani' or urban variety

/*kulit*/, in the 'Fallahi' or rural variety

/*gulit*/, in the 'Bedouin' variety (Suleiman 1985, p. 13)

Table 1.2 Estimated Population in Urban and Rural Areas of Jordan, 2011 (Jordanian Department of Statistics, 2011)

Governorate	Urban (N)	Rural (N)
Amman	2.274.900	144.700
Irbid	922.400	189.900
Mafraq	115.200	178.500

As is shown in Table 1.2, the majority of people in Amman live in urban areas, not in villages or suburbs like people in Mafraq, which is, so to speak, a tribal community. It is worth mentioning that Mafraq city itself is considered a small area located in the West of Mafraq governorate, which is the biggest governorate in Jordan.

Table 1.3 Number of Undergraduate Students by Gender, 2011 (Jordanian Department of Statistics, 2011)

University	Women (N)	Men (N)
University of Jordan	20.543	10.382
Yarmouk University	15.711	10.938
Al alBayt University	6.283	4.166

As shown in Table 1.3, female students studying at these universities outnumber male students. One of the reasons for this gender difference is that many young men are not interested in pursuing university studies. Some of them join the Jordanian Army after finishing high school, and many others tend to work in handicraft businesses, whereas women, who are at this stage still financially dependent, pursue university studies.

Table 1.4: Number of Postgraduate Students by Gender, 2011 (Jordanian Department of Statistics, 2011)

University	MA / MSc (N)	PhD (N)
University of Jordan	2.313	780
Yarmouk University	3.719	784
Al alBayt University	735	0

Although the University of Jordan is considered one of the best universities in the region, many students enrol at Yarmouk University for many reasons: it is close to many Jordanian cities; Irbid city's population is not as large as Amman's; and the timetables for the Masters of Arts, Masters of Science and doctorate programs at Yarmouk University are more flexible. Students at Yarmouk University are allowed to enrol in one or two classes weekly, and the duration of the classes is three hours and ninety minutes respectively, whereas the timetable of the Masters and doctorate classes at the University of Jordan is fixed from 5.00 pm to 8.00 pm during weekdays.

1.5 Arabic Language

According to Elkhafaifi (2002, pp. 254-5), Arabic is the official language of 22 countries which are current members of the Arab League: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania,

Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates and Yemen. Each of these nations is said to have a pressing need to adapt Arabic to the demands of modern scientific and technological discoveries. In his introduction of contemporary Arabic language planning Elkhafaifi also asserted that Arabic is a viable living language with a rich heritage, whose speakers use it successfully for almost every communicative purpose with the possible exception of modern scientific and technical fields. Arabic is considered the most "prominent Semitic language" (Farghaly, 2010, p. 3) due to the large number of its native speakers. According to recent statistical reports, the number of native speakers of Arabic is about 242 million (Lewis, Simons, & Fennig, 2015).

The Arabic language has three main varieties (Ennaji, 2005; Holes, 2004): Classical Arabic, Modern Standard Arabic and Dialectal Arabic. The Classical Arabic variety emerged prior to the Islamic era (Holes, 2004, pp. 10-11) in *Al Hijaz*, currently part of Saudi Arabia (Basel, 2002, p. 4). It is called *al fuṣḥa,* "that is the eloquent literary language" (Ennaji, 2005, p. 50). As the language of the Holy Quran, Classical Arabic is considered a highly prestigious variety. Moreover, it is the language of Arabic classical literature, poetry and grammar books "which reflect ancient periods of glory in the history of Arabs and Muslims" (Ennaji, 2005, p. 50). Historically, Classical Arabic was the language of nine tribes: *Aad, Thamoud, Tasam, Gadees, Umaim, Umlaiq, Ubaid, Gathem* and *Hurhum*, all of which are descendants *of Irm bin Sam bin Noah*, Irm Sam Noah (Basel, 2002, p. 4).

Modern Standard Arabic is the simplified form of Classical Arabic and is considered the *lingua franca* of the Arab World (Ennaji, 2005, p. 53). It is also "an evolving form of Arabic continually borrowing and innovating, proving that the Arabic language constantly reinvents itself to meet the changing needs of its speakers" (Farghaly, 2010, p. 4). Sulieman (1985, pp. 7-8) highlighted the importance of Standard Arabic, giving many reasons for considering Standard Arabic a highly prestigious variety:

1. It is based on Classical Arabic, which is the language of the Holy Quran;
2. Unlike the local dialects spoken in different Arab countries, it is viewed as a unifying factor; and

3. “The time and effort spent on learning the standard language lend it a prestige that is never given to a colloquial dialect” (Sulieman, 1985, p. 8).

The colloquial-dialectal variety of Arabic is utilized on a daily basis by the native speakers of Arabic (Farghaly, 2010, p. 4). Farghaly (2010, p. 7) classified the Arabic dialects into four main groups, depending upon the geographical areas of the speakers of these dialects: (1) “Gulf Arabic”, which is spoken in Bahrain, Emirates, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and Yamen; (2) “Levantine Arabic”, which is spoken in Jordan, Lebanon, Palestine and Syria; (3) “Egyptian Arabic”, which is spoken in Egypt and Sudan; (4) “Maghrebi Arabic”, which is spoken in the Western countries of the Arab World: Algeria, Libya, Morocco and Tunisia.

1.6 Arabic Language Planning: Arabicization

Lexically, the term Arabicization is formed out of the infinitive verb ‘arabicize’, which is defined as “to adapt (a language or elements of a language) to the phonetic or structural pattern of Arabic” (Merriam-Webster, 2015), and “to make or become Arabic in form” (Dictionary.com, 2015). On the other hand, the term “Arabization” is formed from the infinitive verb “arabize”, which is defined in Merriam-Webster Online dictionary as “a: to cause to acquire Arabic customs, manners, speech, or outlook”, and “b: to modify (a population) by intermarriage with Arabs”. Linguistically, the two terms can be used interchangeably when referring to “*ta’rib*” (Al-Abed Al-Haq & Al-Olimat, 2002, p. 153). In the current thesis, the term “Arabicization” will be used to refer to Arabic language planning because “it is derived morphologically from Arabic” (Al-Abed Al-Haq, 1989, p. 29).

In his article “Implication of Language Planning into Arabization in Jordan”, Al-Abed Al-Haq (1989, p. 19) declared that Arabicization has been viewed as a language planning activity. He asserted that since Arabicization requires all the processes, dimensions and programs of language planning, it demands planning, identification of problems, policy formulation, implementation and evaluation. He added that it has three requirements: modernization, standardization and cultivation.

1. Modernization: which refers to “the process of its becoming the equal of other developed languages as a medium of communication” (Ferguson, cited in Abed Al-Haq, 1989, p. 19);
2. Standardization: “a process of codifying a language”. To have a standard language, it has to be analysed and described. Moreover, an acceptable writing and spelling system for the language must be provided (Eastman, cited in Abed Al-Haq, 1989, p. 19); and
3. Cultivation: refers to “the ways language is used as an object of attention, reflection and emotion” (Eastman, 1983, p. 58). Language cultivation refers to “the manifestation of language attitudes, be they positive or negative” (Eastman, cited in Abed Al-Haq, 1989, p. 19).

Arabicization refers to “the promotion of Standard Arabic and the product of Arabicization at local, national, and international levels” (Al-Abed Al-Haq, 1998, p. 23). ElKhafaifi (2002) stated that there are fundamental differences in what this term means to language planners. In one sense, taᶜryb in the Middle East, Libya and Egypt,

> entails both corpus and status planning issues as planners incorporate foreign or borrowed terms into Arabic and endorse Arabic as the language of instruction, especially in higher education. In North Africa, among the former French colonies (Algeria, Morocco, and Tunisia), taᶜryb refers to the replacement of French and the promotion of Arabic for all official and unofficial capacities as an instrument of national and Arab identity. (p. 256)

ElKhafaifi (2002) considered the first definition of taᶜryb as Arabization and the second one as Arabicization.

In this sense, Al-Abed Al-Haq and Al-Olimat (2002) asserted that when

> Arabicization serves, or can be made to serve, as a symbol of a glorious past, or of the unique genius of people, the elites and counter-elites who manipulate this symbol can use it to maintain or acquire legitimacy in the name of originality and tradition. (p. 151)

1.6.1 Dimensions of Arabicization

Cooper (1989) stated in his book *Language Planning and Social Change* that language planning has three main dimensions: status planning, corpus planning and acquisition planning. Likewise, Arabic language planning, Arabicization, has three main dimensions (Al-Abed Al-Haq & Al-Olimat, 2002, pp. 155-156): corpus Arabicization, status Arabicization and acquisition Arabicization.

1.6.1.1 Corpus Arabicization

Al-Olimat (1998, p. 20) stated that corpus Arabicization is "an old tradition" dating back to the pre-Islamic era. It aims at "overcoming the modernization handicaps of a particular language and establishing it as an effective instrument of communication and an adequate vehicle of modern scientific thought and universal literary" (El-Mouloudi, 1986, p. 32). In their article "Language and Politics in Jordan", Al-Abed Al-Haq and Al-Olimat (2002, p. 155) mentioned samples of corpus Arabicization: "'Standardization' of terms, 'cultivation' of Arabic, 'selection' from alternative forms, 'lexical elaboration' and 'modernization', and 'codification'". Moreover, corpus Arabicization includes coining new terms, reforming spelling and adopting new scientific symbols (Al-Abed Al-Haq, 1996). Al-Abed Al-Haq (1996) mentioned that Arabic has many methods to create new words: *ishtiqaq*, *naḥt, isṭinbaṭ* and *taᶜryb.* Following is a discussion of these methods of word formation in Arabic:

1. Derivation - *ishtiqaq:* "Any series of changes in which a form or structure is altered by successive processes" (Matthews, 2007, p. 99). This definition refers to the "derivation of one word in the lexicon from another" (Matthews, 2007, p. 99). For example, many words can be derived from the root verb *kataba كَتَبَ (He wrote)*, such as *kātib كَاتِب* (A male writer); *kātibah كَاتِبَة* (A female writer); *maktabah مَكْتَبَة* (Library); *maktab مَكْتَب* (Office); and *kitāb كِتَاب* (A book). Al-Asal and Smadi (2012, p. 23) stated that this method is used to "enlarge the Arabic vocabulary and develop its new scientific terms". They added that it "could help the Arabic language encounter new technical foreign terms" (p. 23). Examples of some foreign technical terms they mentioned are "*maghnatisia*" *مَغْنَاطِيسِيَّة* (magnetism) which is derived from

"*meghnatis*"مَغْنَاطِيس (magnet); and "*yata'yun*" يَتَأْيَن (ionize) which is derived from the noun "*yun*" أيون (ion) (Al-Asl & Smadi, 2012, p. 23).

2. Compounding/coinage - *naḥt*: "A word formed from two or more units that are themselves words or forms of words: e.g. *blackboard* from *black* and *board*" (Matthews, 2007, p. 70). A similar definition is "A word-formation process where a new lexeme is created from parts of two or more other words" (El-Mouloudi, as cited in Al-Asl & Smadi, 2012, pp. 19-20). Balasi (2002) stated that *naḥt* in Arabic language has many forms:

   a. A verbal *naḥt: النحت الفعلي is* a verb derived from a sentence, such as; بَسْمَل (Balasi, 2002) (He said "By the name of Allah – God") which is derived from the sentence "By the name of Allah".
   b. A nominal *naḥt:النحت الإسمي* is a noun derived from two words, such as حباقَة, which is derived from the two words حُب and صداقة (love and friendship respectively).
   c. An adjectival *naḥt: النحت الوصفي is* an adjective derived from two words, such as; ضِبَطْر (A strong powerful man), which is derived from the two words ضبط and ضبر (Basel, 2002, p. 229).
   d. An onomastic- adjective *naḥt: النحت النسبي is* an adjectival noun which can be used as onomastics, such as; عَبْشَمِي, which is derived from the name of an Arab tribe عبد شمس (Abd Shams) (Balasi, 2002).

3. Revival of native sources/ Deduction - *iṣṭinbaṭ:* "the use of native lexical resources (i.e., the revival of archaisms and semantic extension) for scientific terms" (El-Mouloudi, cited in Al-Asal & Smadi, 2012, p. 19), such as the "old Arabic term for the medical term "malaria" is "Al-burda" (Al-Asal & Smadi, 2012, p. 25).
4. Borrowing/Arabicization - *taᶜryb*: "The assimilation of foreign terminology" (Al-Asal & Smadi, 2012, pp. 20-22). Al-Asal and Smadi (2012, pp. 20-22) refer to the term Arabicization as "the process of transliterating a foreign term according to Arabic phonological and morphological rules", such as the English term (filter), which is transliterated into Arabic as "filter" فِلْتَر.

1.6.1.2 Status Arabicization

Al-Abed Al-Haq and Al-Olimat (2002, pp. 155-156) noted that status Arabicization refers to "restoring the Arabic language as the official-national language of the Arabs". They referred to Stewart's (1968) definition of status planning as "the allocation of languages (Arabic, English, French, Italian, Spanish) or language varieties (rural, Bedouin, urban, Colloquial, and standard forms) to given function, e.g. official, provincial, wider communication, iternational, capital, group, educational school subjects, litrerary, and religiuos" (Al-Abed Al-Haq & Al-Olimat (2002, pp. 155-156). Al-Abed Al-Haq (1996) mentioned that status Arabicization is concerned with the "recognition by government, government-authorized agencies, authoritative bodies and individuals of the significance or position of Arabic or Arabicization in relation to other languages".

1.6.1.3 Acquisition Arabicization

Al-Abed Al-Haq (1996) stated that acquisition Arabicization refers to the teaching–learning process, the promotion of the Arabic language, and the adoption of Arabicization (Al-Abed Al-Haq, 1996). The first one is the important role of pedagogical institutions in promoting Arabic among both native speakers and non-native speakers of Arabic, whereas the second dimension is

> the importance of adopting Arabicization, beginning with the street (where normally most of acquisition occurs) up to higher, organized, and officially sanctioned institutions (usually schools, universities, and language centers) supported by, if they are to be successful, a politically authoritative resolution. (Al-Abed Al-Haq & Al-Olimat (2002, p.156).

1.7 Academies of the Arabic Language

Since Arabic is the official language in many countries, it must be codified. Shorrab (1984, p. 212) suggested two norms that force a language to be codified: (1) the establishment of grammatical rules and stylistic devices that govern the language, and (2) these rules and the use of the language must be administered by a certain

body of authority or agency. This ruling power can be a governmental agency, a private organisation or a public authority.

There are five official codifying agencies engaged in language planning in the Arab World:

1. *Al-Majmaᶜ al ᶜ ilmy al ᶜ araby* (The Academy of Arabic) in Damascus, founded in 1919.
2. *Majmaᶜ al lugha al ᶜ arabiyya* (The Academy of Arabic Language) in Cairo, founded in 1932.
3. *Al majmaᶜ al ᶜ ilmi alᶜ iraqy,* (The Iraq Academy of Arabic) in Baghdad, founded in 1947.
4. *Al maktab al da΄im li tansyq al taᶜ ryb fy al waṭan al ᶜ arabi* (Permanent Bureau of Coordination of Arabization in the Arab World or PBA) in Rabat, founded in 1961.
5. *Majmaᶜ al lugha al ᶜ arabiyya al ΄urduny,* (The Jordan Academy of Arabic Language) in Amman, founded in 1976 (Elkhafaifi, 2002; Shorrab, 1984).

Shorrab (1984, pp. 212-213) stated that these academies have the authority to suggest new ideas when the language is being challenged by new developments. Moreover, they have invented many lexical items to meet modern scientific developments. Furthermore, they are responsible for any new development in the Arabic language in terms of new vocabulary that is either borrowed from a foreign language or derived from the Arabic lexicon. The academies deal with any lexical and stylistic changes that the language may face. However, it is always a decision of both the various educational systems and the educated people of the Arab World to adopt these changes or not.

The following is a summary of the goals of the language planning agencies (Elkhafaifi, 2002, pp. 255-256):

1. Regenerating the Arabic language "as an effective communication medium for modern science and technology" (Elkhafaifi, 2002, p. 255);
2. Preserving the purity of the language. "All the proposals for change are carefully scrutinized to ensure compatibility with the phonological, syntactic,

and morphological structure of Arabic. The majority of Arabic planners show considerable reluctance to tamper with the fundamental linguistic and grammatical principles of the language" (Elkhafaifi, 2002, p. 256);

3. "[C]ollecting, editing, recording, and restoring manuscripts to preserve classical works, and to reprint and publish them for modern use" (Elkhafaifi, 2002, p. 256);
4. Encouraging new works by Arab scholars, including translations of foreign works into Arabic (Elkhafaifi, 2002, p. 256);
5. Producing journals and other publications to communicate their research goals and proposals for the enrichment of Arabic (Elkhafaifi, 2002, p. 256);
6. Reviving and promoting the Arab-Islamic heritage in language, literature, science and other fields (Abuhamdia, cited in Elkhafaifi, 2002, p. 256);
7. Publishing records of their works and findings, including minutes of meetings, terminology lists, decision on usage and other matters related to the Arabic language (ElKhafaifi, 2002, p. 256).

Jordan Academy of Arabic

The Jordan Committee for Arabization, Translation and Publication was established as a language planning agency in the Jordanian Ministry of Education in 1961. Fifteen years later, in 1976, the Jordan Academy of Arabic was established by Royal Decree (Ibrahim, 1979, p. 1). Al-Abed Al-Haq (1989, p. 20) explained the need for its establishment as proposed in the Annual Report of the Jordan Academy of Arabic, 1977:

1. Propagating the consciousness of the Arabic language and safeguarding the purity of Arabic as a bulwark of Arab identity.
2. Preserving the purity of the Arabic language, consolidating its status as a modern language, and contributing to the scientific development in the Arab World by promoting the use of Arabic as the national language in science and technology.

3. Assisting universities in Jordan in arabicizing their science programs. (Science, Medicine and Engineering programs are still taught in English at Jordanian universities).
4. Reducing the effort to arabicize the scientific, technical and professional terms.

The Annual Report of the Arabic Language Academy of Jordan, 1977, stated its aims as follows (Al-Abed Al-Haq, 1989, p. 20):

1. Preserving the purity of Arabic and developing the language; to keep up with worldwide developments in various fields: literature, sciences, and the arts.
2. Unifying the terminology of the scientific and literary studies with both the Jordanian Ministry of Education, and scientific cultural institutions and centres of languages inside and outside Jordan.
3. Reviving the "Arab, Islamic cultural heritage in language, literature and the arts".

The greatest efforts of language planners concentrate on "lexical elaboration and modernization; arabicizing scientific and technical terminology; diagnosing the causes of weakness in Arabic; and Arabicizing higher scientific instruction" (Al-Abed Al-Haq, 1989, p. 21). Thus, the Jordan Academy focuses on purification, lexical elaboration, and modernization (Nahir, cited in Al-Abed Al-Haq, 1989, p. 21).

Finally, as mentioned above, there are various methods to create new words in the Arabic language: derivation, compounding-coinage, revival of native sources-deduction, borrowing-Arabicization. Code-mixed words are thus not considered new words in the Arabic language, unless they are arabicized words officially considered so by one or more of the academies of the Arabic language. In other words, code-mixing is not a method of creating new words in Arabic. The present study instead aims to discover the actual status of and attitudes towards this linguistic phenomenon, which appears to unofficially increase Jordanian university students' lexicon of the Arabic language. The study is, however, not advocating or defending mixing English words with Arabic in speech.

The current chapter started with a brief historical introduction of Jordan, followed by a description of the research context and a snapshot of the higher education system in Jordan. This was followed by some population statistics of the three cities where the participants' universities are located, and the number of students in each university. The chapter then provided an overview of the Arabic language and of Arabic language planning, an account of the dimensions of Arabicization, and the role of Arabic language planning agencies in standardizing the Arabic language, focusing on the Jordan Academy of Arabic.

The next chapter starts with the definition of some terms related to language contact, including code-mixing. This is followed by an account of literature on code-mixing in worldwide studies and in Jordanian contexts. It also discusses the reasons for code-mixing, accompanied by many examples from previous studies conducted in Jordanian environments.

Chapter Two – Literature Review

The measure of greatness in a scientific idea is the extent to which it stimulates thought and opens up new lines of research.

Dirac (Dirac, n.d. cited in Leong et.al, 2016, p. 99)

This chapter starts by defining certain linguistic terms in the context of using a second language as a result of language contact. To give specific details of the linguistic phenomenon of code-mixing, this chapter presents related literature focusing on the patterns of code-mixing, occurrences and situations of code-mixing, and reasons affecting the frequency of code-mixing. It also provides an overview of the effect of demographic factors upon code-mixing: gender, age, level of study, field of study, place of study, place of residence and the socio-economic status.

2.1 Definitions

The speakers of language communities are in contact with each other; meaning that any analysis of multilingual (or bilingual) behaviour is useless without consideration of the linguistic and cultural roots of the given situation (Weinreich, 1953 cited in Nelde & Darquennes, 2002). The definitions provided in the following sections are of linguistic phenomena found in the context language contact.

2.1.1 Code-switching

Code-switching is referred to as "a universal language-contact phenomenon" and "a speech style unique to bilinguals" (Fromkin, Rodman, & Hyams, 2014, p. 310) or multilingual speakers. It is sometimes called "code-shifting or, within a language, style-shifting" (Crystal, 2008, p. 83). Specifically, code-switching is "the alternation between two different languages, dialects, or styles" (Brown & Attardo, 2006, p. 91) within the same utterance (MacSwan, 2013).

Appel and Muysken (2005, p. 118) distinguished between three types of switches:

1. Tag switches: involve an exclamation, a tag, or a parenthetical in another language than the rest of the sentence.

2. Intra-sentential switches: occur in the middle of a sentence. This type of intimate switching is often called code-mixing.
3. Inter-sentential switches: occur between sentences.

2.1.2 Borrowing

Matthews (2007, p. 43) defines "borrowing" as a "[c]onventional term for the introduction into language [a] of specific words, constructions, or morphological elements of language [b]". McArthur (2012) states that philologists differentiate between three types of borrowing, using a three-word German system:

1. A Gastwort (guest-word) which has kept its pronunciation, orthography, grammar, and meaning, but it is not used widely.
2. A Fremdwort (foreign-word) that has been adopted into the native system, with a stable spelling and pronunciation.
3. A Lehnwort (loan-word) which has become indistinguishable from the rest of the lexicon and is open to normal rules of word use and word formation.

Fromkin et al. (2014) showed that borrowing occurs when a language adds a word or a morpheme from another language to its lexicon. They divide borrowing into two types: (a) direct borrowing, where the loan word is native in the language from which it is borrowed; and (b) indirect borrowing, which includes borrowing a loanword from a language that borrowed it from another language, for example, algebra was borrowed into English from Spanish, which in turn had borrowed it from Arabic (p. 505).

Wong (2004) stated that it is difficult to distinguish between code-mixing and lexical borrowing. Similarly, McArthur (2012) claimed that it is "seldom possible… to separate the stages of assimilation so neatly". However, Myers-Scotton (2002) states that the only sense in which there is a difference between these two phenomena is in regard to their status in the mental lexicon: "Lemmas underlying [code-switching] forms are only tagged for the Embedded language, while borrowed forms have lemmas tagged for both the donor and the recipient language" (p. 153).

Appel and Muysken (2005, p. 172) proposed that with code-mixing, unlike borrowing, "the non-native items are not adapted morphologically and phonologically". Wong (2004, p. 8) states that loanwords are "usually pronounced and used grammatically as" native words. However, Appel and Muysken (2005) explain that such a difference between code-mixing and borrowing is problematic for two reasons: (a) there may be various degrees of phonological adaptation for loanwords; (b) it is not proven that non-adapted items are clearly instances of code-mixing.

2.1.3 Interference

As a term in sociolinguistics and foreign language learning (Crystal, 2008), interference refers to the influence that knowledge of a language has on the way one person speaks to another (Matthews, p. 2007). Interference occurs naturally in the speech of bi/multilinguals and affects all levels of language: accent, pronunciation, syntax, morphology, vocabulary and idiom (McArthur, 2012).

Baker and Hengeveld (2012) asserted that the direction of interference is almost always from the mother tongue to the second language in second language acquisition. However, in the case of bilinguals, such as children acquiring two languages simultaneously, interference can occur in both directions.

2.1.4 Code-mixing

Code-mixing refers to "all cases where lexical items and grammatical features from two languages appear in one sentence" (Muysken, 2000, p. 1). Such usage is often labeled with a "hybrid name" such as in the case of English and Spanish "Spanglish" (Crystal, 2008, p. 83) or Arabizi and/or Arabish in the case of mixing Arabic and English.

As a result of bilingualism, code-mixing and code-switching are used along with the first language. Grosjean (1982) stated that it is not always easy to distinguish between these two concepts; code-mixing transfers elements of all linguistic levels and units ranging from a lexical item to a sentence whereas code-switching is the alternation of two languages within a single discourse, sentence or constituent.

Although many researchers do not differentiate between these two linguistic phenomena, many others, like Sridhar and Sridhar (1980), Bokamba (1989), Tay (1989), Viswamohan (2004), Thomason (2005) and Ugot (2010) distinguished between them. There is unanimity that the former is intra-sentential, that is, it embeds various linguistic units from different languages within the same sentence, whereas code-switching is inter-sentential, that is, it mixes linguistic units from different languages across sentence boundaries within the same speech event.

Sridhar and Sridhar (1980) distinguished code-mixing from code-switching in two respects: (1) each instance of language alternation in code-mixing is not accompanied by a shift in the speech situation, and (2) the language alternations take place intra-sententially. They state that in speech situations when all the participants are bilinguals, code-mixing may be the norm rather than the exception. Mashiri (2002) added that the distinction between code-mixing and code-switching is that in the former the embedded language elements, which have their own internal structure, occur in the sentences of the matrix language, obeying the placement rules of that language. On the other hand, code-switching of both the matrix and the embedded languages maintain the morphological and phonological attributes of the respective languages.

On the other hand, Gardner-Chloros (2009) considered code-mixing a part of code-switching. He states that code-switching emerges with lexical borrowing at one end of a continuum, one of the most "minimal" manifestations of contact, and with convergence/interference/code-mixing at the other end, which can be seen as the last step of total fusion.

Bokamba (1989, pp. 278-279) defined code-switching as "the mixing of words, phrases and sentences from two distinct grammatical (sub-) systems across sentence boundaries within the same speech event. In other words, [it] is intersentential switching". He stated that code-mixing is "the embedding of various linguistic units such as affixes (bound morphemes), words (unbound morphemes), phrases and clauses from two distinct grammatical (sub-) systems within the same sentence and speech event. That is, [it] is intrasentential switching" (pp. 278-279).

Bokamba also illustrated that these two linguistic phenomena must be distinguished, because each makes different linguistic and psycholinguistic claims. For instance, code-switching does not necessitate the interaction of the grammatical rules of the language pair involved in the speech event, whereas code-mixing does. Furthermore, "the degree of the bilinguality implied in the production of [code-mixed] sentences suggests that only highly proficient bi/multilinguals can successfully engage in and sustain [code-mixed] production" (Bokamba, 1989, pp. 278-279).

Tay (1989, p. 408) drew a line between these two linguistic phenomena, stating that both code-witching and code-mixing involve mixing various linguistic units, i.e. words, phrases and sentences, from various codes within the same speech situation and speech event. However, the main difference between them is that code-switching is conducted across sentence boundaries while code-mixing is carried out within the same sentence and the same speech situation.

Viswamohan (2004, pp. 34-36) stated that code-switching is restricted to the spoken form, in which English, as a second or foreign language, is combined with a regional language. Furthermore, it "takes place to some degree everywhere that English is spoken alongside another language, and is a normal feature of bilingualism… it is unusual to see any of these varieties in writing, but some are very widely spoken" (Crystal in Viswamohan, 2004, p. 36).

Ugot (2010) pointed out that both code-switching and code-mixing are commonly expected as they express the communicative needs and adaptability of language, determined by "the bounds of limitless avenues and patterns of social interaction and the unfathomable depth of human creative reservoir" (Adekunle, cited in Ugot, 2010, p. 29). In effect, human beings are always involved in numerous efforts to make language a more effective tool of communication. Code-mixing is usually the infusion of single words or items from the donor language into the first language or mother tongue (L1) construction, whereas code-switching is "the lifting of phrasal, clausal or sentential structures". Syntactically, code-switching occurs when various sentences from different languages establish one discourse (Ugot, 2010).

Finally, in her book *Language Contact: An Introduction*, Thomason (2001) divided language contact-induced change into seven mechanisms: code-switching, which she

combined with code-mixing, code alternation, passive familiarity, negotiation, second-language acquisition strategies, bilingual first–language acquisition, deliberate decision (pp. 129-152).

Thomason (2001) differentiated between code alternation and code-switching: Unlike code-switching, in code-alternation, bilinguals use a language in one conversation and another language in a completely different set of environments. In the most basic and simplest interlocution in which code-alternation is used, the bilinguals would speak only to monolinguals whereas code-switching might be used when speaking to bilinguals. In the light of this differentiation, she stated that the context for code alternation in "the use of one language at home and another at work" (p. 137).

The third mechanism Thomason (2001) introduced is passive familiarity, through which contact-induced change occurs "when a speaker acquires a feature from a language that s/he understands (at least to some extent) but has never spoken actively at all". Thomason claimed that most of the examples she had found are in "situations where the source and receiving languages share much of their vocabulary – mainly cases where the languages are fairly closely related to each other or even dialects of the same language" (p. 139).

Regarding the fourth mechanism, negotiation, Thomason (2001, p. 142) warned that this term must not be taken literally. She stated that negotiation occurs when changing language A to what the speakers believe to be the pattern in language B. This indicates that the speakers are not fluent in language B. She added that if the speakers are familiar with language B, the change they make will result in making the structure of language A similar to that of language B. If the speakers of language A and language B engage in the negotiation process, the result will be either a new language or a change in both language A and language B.

Thomason (2001) added that cases of negotiation occur when there is no common language between the interlocutors, where "proto-typical pidgin genesis situations are the classic examples", especially when no common language is used to facilitate communication between the interlocutors (p. 142).

The fifth mechanism is second-language acquisition strategies. Thomason (2001, pp. 146-147) stated that, besides negotiation, "a gap-filling approach" is a strategy that learners follow, using words from the source or native language to fill gaps in their knowledge of the target language. This is obvious with "lexical insertion" when the speaker of a foreign language uses a word from his/her native language to "plug the holes in knowledge" of the target language.

The sixth mechanism is bilingual first-language acquisition. Thomason (2001, p. 148) stated that the "clearest examples are relatively superficial and easily borrowed syntactic features like word-order patterns and nonsalient phonological features like intonation patterns". She provided an example of bilingual children who increased "the frequency of word order patterns that, while present in both of the adult languages, were more restricted in their occurrence. This is a process of 'negotiation', but its domain is the acquisition of two first languages simultaneously" (p. 148).

The seventh mechanism is deliberate decision. Thomason (2001, pp. 149-150) stated that "deliberate decisions have been taken to be relevant only for trivial changes – mainly for the adoption of loanwords, as far as contact-induced change is concerned". She added that not only standard languages undergo deliberate contact-induced change, but also a language of a group of people who deliberately change their language to differentiate it from "those of neighboring communities" (p. 150).

Finally, regarding the collected data of the current study, any utterance of English words among the university students is considered code-mixing, except loan words, such as bus and taxi, which became part of Arabic language. Moreover, both code-mixing and code-switching are reffered to as code-mixing unless there is a need to distinguish between the two terms.

2.2 General Studies on Code-Mixing

Treffers-Daller (2009, p. 67) used Muysken's definition of code-mixing: "all cases where lexical items and grammatical features from two languages appear in one sentence". This process can be marked easily in the speech of bilingual or multilingual speakers. They may begin a sentence using one language and combine it

consciously or unconsciously with another language in daily talks (Mashiri , 2002, p. 245), where code-mixing patterns tend to develop in a certain order, or hierarchy, as shown in Figure 2.1.

Figure 2.1 Hierarchy of Code-mixing (Backus, cited in Winford, 2003, p. 169)

This order can be explained by Muysken (2000), who classifies code-mixing as an intra-sentential type of language contact which has many patterns:

- Insertion of material (lexical items or entire constituents) from one language into a structure from the other language. "It is constrained by requirements imposed by the lexical and functional categories of a matrix language. The borrowing of nouns and mixing noun phrases and determiner phrases involve insertion" (p. 221).
- Alternation between structures from language. It is constrained by surface ordering correspondence. Verbs are often incorporated through adjunction to a helping verb. The process of alternation is particularly frequent in stable bilingual communities with a tradition of language separation, but occurs in many other communities as well (Kim, 2006; Muysken, 2000).
- Congruent lexicalization of material from different lexical inventories into a shared grammatical structure. It "is akin to language variation and style shifting: switching is grammatically unconstrained and characterizable in terms of lexical insertions. Linguistic convergence feeds into congruent lexicalization, and the two processes may reinforce each other. Some cases of word-internal mixing can be viewed as congruent lexicalization" (Muysken, 2000, p. 221). According to Muysken (2000), congruent lexicalization may be particularly associated with bilingual speakers of closely related languages with roughly equal prestige.

Muysken (2000) showed the structural interpretation of these notions by drawing the following trees where A, B are language labels for non-terminal nodes and a, b are labels for terminal nodes:

Insertion

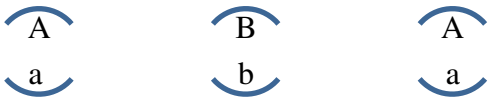

Figure 2.2: Insertion

In this situation, a single constituent *B* (with words *b* from the same language) is inserted into a structure defined by language *A*, with words *a* from that language.

Alternation

Figure 2.3: Alternation

In this situation, a constituent from language *A* (with words from the same language) is followed by a constituent from language *B* (with words from that language). The language of the constituent dominating *A* and *B* is unspecified.

Congruent lexicalization

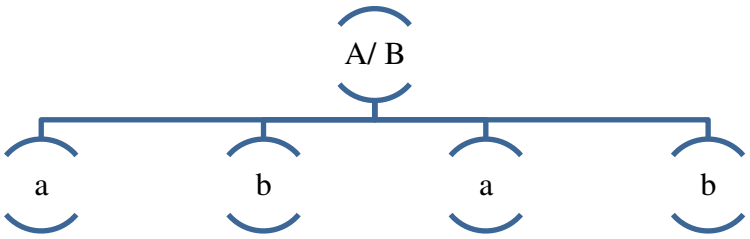

Figure 2.4: Congruent Lexicalization

Here, the constituent from both languages, *A* and *B*, and words from both languages *a* and *b* are inserted at random.

Muysken (2000, p. 222) and Myers-Scotton (2002, pp. 31-32) mentioned several situations in which code-mixing may occur:

1. Dialect/standard language relations (Muysken, 2000, p. 222), where there are a high standard language variety and a low or colloquial variety in each community. Regarding the various language varieties spoken in Jordan, Urban Arabic, considered the language variety of the elite in Amman, has a higher status among Jordanians than rural and Bedouin varieties, which are spoken in Irbid and Al Mafraq respectively.
2. Military invasion and subsequent colonization. A population in an invaded country finds itself forced to learn the language of the invaders. Latin, for example, was spread in Europe and North Africa by the Roman Empire (Myers-Scotton, 2002, p. 31). English is now being spread all over the world by the "European power" (Myers-Scotton, 2002, p. 31). Because of the British colonization of Jordan, and due to the role of English in the current globalization of economies, English acquired the status of a second language in the Hashemite Kingdom of Jordan and has been taught in schools and universities for decades.
3. Migrant communities or an ethno-linguistic enclave. Inevitably, because of the borders between countries and even between different ethnic groups, the border residents become bilinguals by learning the language of another country or ethnic group (Myers-Scotton, 2002, p. 31). An example of learning and adapting a new language is clearly shown by the immigration of Lebanese people to Australia in the last century. Most of them learnt English in order to communicate in their new environment in which English is the native and official language.
4. Spread of international languages (Myers-Scotton, 2002, p. 32). The spread of English is a clear example of an international language used by speakers from all countries in the world.
5. Education as a factor in bilingualism and bilingualism of native elites. Historically, the languages which were used by the educated people or the

elite have been studied in schools during their time of importance (Myers-Scotton, 2002, p. 32). English, as a second language in most countries today, is an example of the language of the elite or educated people in the world.

6. "Frontiers between languages or language families" (Muysken, 2000, p. 222).
7. "Clusters of multilingual tribal group", where the members of these various groups speak each other's languages (Muysken, 2000, p. 222).
8. "Minority language islands" (Muysken, 2000, p. 222).
9. "Colonial language/dominated indigenous language" (Muysken, 2000, p. 222).

Muysken (2000, pp. 247-249) also mentioned several factors involved in Accounting for the variation in mixing patterns:

1. Structural factors which help to define different options in the bilingual communities.
2. Dominance in use. In bilingual migrant communities, there is development in the language shift from one language to another across various generations.
3. Bilingual proficiency. Less fluent bilinguals differ in their "primarily alternational and small insertional pattern" compared to "more fluent bilinguals with a pattern tending towards congruent lexicalization and more complex insertion" (Muysken, 2000, p. 247).
4. Attitudes. Insertion and congruent lexicalization are considered to be characteristic of communities that allow code-mixing and have "no strong attitudinal barriers against mixing" (Muysken, 2000, p. 247).
5. Norms. "Transplanted varieties with weak links to matrix communities will show stronger patterns of adaption than those with strong links, and also than native varieties" (Muysken, 2000, p. 247).
6. "Different transfer or incorporation strategies may be conventionalized as part of a lexical rule similar to a word formulation rule. Conventionalization may well be limited to local mixing processes" (Muysken, 2000, p. 249).

Reasons and motivations

Depending on the interlocutors' aim of using more than one linguistic code in a sentence, various functions can be achieved by code-mixing. Sridhar and Sridhar

(1980) discussed that code-mixing is used to achieve a variety of communicative goals, such as conveying emphasis, verisimilitude, role playing, technical and socio-cultural authenticity. Furthermore, Mustafa and Al-Khatib (1994, p. 215) added more functions of code-mixing such as "filling a linguistic need for lexical items, specifying the addressee or excluding someone from a conversation, changing the role of the speaker or the speaker's involvement, emphasizing group identity or quoting someone, and qualifying a message or conveying emotions". Viswamohan (2004, p. 36) listed a number of other functions. She indicates that by means of code-switching, the writers and the speakers can do many things, such as "be humorous, exhibit wit, engage in irony and euphemism, make puns, translate proverbs, emphasize key points, engage in euphemism, and (very rarely) use a known word or phrase for want of something better" (Viswamohan, 2004, p. 36).

Along the same lines, Bautista (1999, 2004) suggested that a specific reason can sometimes be found for a particular switch being made. She labelled this reason "communicative efficiency", in other words, it refers to switching to another code in the least amount of time, requiring least effort and resources while conveying the communicative aim in the most convenient, fastest and easiest way. Grosjean (1982) suggests many reasons for code-mixing. For instance, many bilinguals tend to code-mix two languages when they lack knowledge of equivalent words or expressions or when there is no appropriate translation in the primary language used. Code-mixing can be used for various aims, such as quoting what someone has said, specifying the addressee, qualifying what has been said, or talking about past events. When bilinguals make their language choice depends on (a) with whom they are interacting, that is, the identity of the participants, their backgrounds and relationships; (b) what topic and content is conveyed; and (c) when and where a speech act is performed (Bhatia & Ritchie, cited in Kim, 2006).

Green and Walker, cited in Kim (2006), stated that code-switching is not meaningless or random, having a role, a function, facets and characteristics. Rather, this linguistic tool reflects the participants' awareness of different communicative conventions. That is, bilinguals switch and mix languages in order to achieve an easier and more understandable and meaningful utterance, not merely because of lacking strong command of a language. In extension of Green and Walker's work,

Kim (2006) stated that grammatical, lexical and societal factors affect code-switching and code-mixing. Situational factors are considered the most realistic and plausible reasons for code-switching because the type and frequency of code-switching are affected by the following situational factors: topic of conversation, participants, setting and affective aspects of the message (Hamers & Blanc, cited in Kim, 2006). Other social variables that affect code-mixing are social status, race and age (Kim, 2006).

Ho (2007) interviewed many students in Hong Kong to elicit their attitude toward mixing Cantonese and English. She stated that code choice does not only bear significance for the individual; it also indexes societal values and attitudes. She mentioned many factors that affect mixing languages such as good education, great prestige and high social status of the speakers. She added that mixing English is considered an act of snobbery when one uses it with those less educated than oneself, while not mixing English when talking to educated people will subject oneself to snobbery. One student whom Ho interviewed said that, "Whenever I spoke with the people I thought were highly educated, I tended to mix Cantonese with English words in a sentence. It is because I believe that will give people a sense of being educated and will not be looked down upon". For this student, self-esteem is socially constructed out of a general attitude to English in Hong Kong. Ho (2007) provided another example which shows the attitudes towards English in Hong Kong. The following example indicates the social evaluation of mixing English with Cantonese by Chinese working-class families where the parents of the students encourage them to use some English words within their Cantonese speech despite the parents' own limited knowledge of English:

> My parents have invested in a great deal into things that will possibly make me a truly bilingual person e.g. giving me money to participate the international student exchange program, applying for phone plan which includes long-distance call service for me to chat with my English-speaking friends. They are more [than] happy to hear me speak in English as they want me to claim for a higher social status, so it is necessary for me to demonstrate this ability to them because they would like to see their investment getting returns. (no p. no.)

These cases may be similar to the attitudes of Jordanian university students towards English where using English words in Arabic sentences may evoke the academic and/or social rank of the participants.

Bautista (1999, 2004) provided four pieces of evidence from the data of Tagalog-English code-mixing.

1. *Function word*
   The enclitics are a shortcut for the more circumlocuitous English phrase. It would be difficult for Filipinos to convey the meaning of *daw* "according to someone", *pala* "it turns out by, by the way" in terse English. Commonly used in oral language are the respect marker *po/ho*, as in *May I be* excused ***po****?* and the question marker *ba* as in *You came late* ***ba****?*.

2. *Content words*
   Local word for local realities such as food words, kinship terms, culture-specific lexical items.

3. *Idioms*
   Metaphorical expressions that are available in one language but not in the other.

4. *Linguistic play*
   Achieving a humorous effect by playing on the Tagalog or English word.

Finally, as clearly mentioned above in this section, the reasons and motivations for using code-mixing and code-switching are similar. Therefore, this study focuses on Arabic-English mixing and/or switching among Jordanian university students regardless of the fact that many authors do not use code-mixing and code-switching interchangeably.

2.3 Demographic Variables and Language Use

As mentioned above, there are many factors affecting the frequency of code-mixing. Such factors are the demographic information collected in part one of the questionnaire (see Appendix 3), which the participants of the current study were asked to fill out. Following is a general overview of the correlation between these variables and code-mixing.

2.3.1 Gender

The study of gender as a linguistic variable goes back to "Jespersen's (1922) work *Language, its Nature, Development and Origin*, which included a dedicated chapter called "The Woman"" (Queen, 2013, p. 369). Jespersen's work was "criticized by feminists because it is sexist, self-serving and patronizing" (Speer, 2005, p. 31). In her anthropological study of women's and men's speech in Koasati, Haas (1944) followed a more empirical approach (Sunderland & Litosseliti, 2008, p. 2). Later, the study of gender and language use was addressed with gender – as biological sex – as an independent variable (Cheshire, 1982; Labov, 1990, 1966; Milroy, 1980; Gal, cited in Sunderland & Litosseliti, 2008, p. 2).

Some of the differences in linguistic behaviour affected by biological sex (being man or woman) are the following:

From a physical perspective, Coulmas (2005, p. 36) asserted that "women and men speak differently is only natural". He claims that the physical differences in the speech apparatus have to do with the fact that women and men talk differently; as men's vocal tracts are longer and their larynx bigger, accordingly, their voices are deeper (p. 36).

From a psychological perspective, Speer (2005, p. 20) stated that men talk about sports or cars while women gossip, natter or waffle about trivialities. Unlike women who like to nag men, men like to talk about themselves. She also added that women are submissive and illogical whereas men are assertive and logical. According to Speer (2005), there are certain phrases which indicate that women and men ought to act in different ways, for example, "speak like a lady", "nice girls don't swear", "boys don't cry". She commented that women's behaviour is judged against men's norms (Speer, 2005, p. 31). Referring to women's language use, Lakoff (1975, p. 9-12), remarked that women use a wider range of colour terms, and that they discriminate more precisely between the shades of the same colour. They tend to avoid words that convey strong emotions, for example, they say "oh dear" as opposed to "shit" (Lakoff, 1975, p. 10). Moreover, the two sexes use a different set of adjectives to express their emotions or opinions. For instance, women say

"adorable", "charming" and "sweet" as opposed to neutral "great", "terrific" and "cool" respectively (Lakoff, 1975, p. 9- 12).

From a linguistic and interactional perspective, Baker & Hengeveld (2012, p. 375) pointed out three trends that can be generalized regarding gender as a social factor:

1. "in pronunciation: women often speak slightly more 'correctly' than men";
2. "in vocabulary: some words in youth language are more used by boys than girls";
3. "in conversation or speaking behaviour: in contrast to men, women seem to be cooperative rather than interruptive" (p. 375).

From a sociolinguistic perspective, Labov (2001, pp. 261-293) concluded in his chapter "The Gender Paradox" that there is a pattern of gender differentiation which is not based upon phonetic and/or physiological differences between men and women (p. 292). He listed three sociolinguistic principles that can be generalized regarding the behaviour of women:

> For stable sociolinguistic variables, women show a lower rate of stigmatized variants and a higher rate of prestige variants than men (p. 266);
> In the linguistic change from above, women adopt prestige forms at a higher rate than men (p. 274);
> In linguistic change from below, women use higher frequencies of innovative forms than men do (p. 292).

By the same token, Baker & Hengeveld (2012, p. 375) asserted that men and women do not talk differently because of their biological sex, but rather because of their different social roles and positions.

In general, gender is considered an important social variable which affects the linguistic behaviour of both men and women in all communities (see Chapter 6 for a clear distinction being drawn between the linguistic behaviours of female and male students regarding code-mixing).

2.3.2 Age

Coulmas (2005, pp. 54-62) divided age into four cohorts: infancy, adolescence, adulthood and old age. From a linguistic perspective, he declared that time means that the linguistic expressions are introduced into the language at one point and continue to be used for a variable length of time. Moreover, on the level of the speakers, time depth indicates that at any time several generations coexist who share a language but whose share of that common language is different (p. 53). He emphasized that "adult language is the norm, as it [was] the unmarked choice for all age groups". He also stated that as people get older, their speech tends to be less dialectal and converges toward the standard (p. 61).

Similarly, Holmes (2008, p. 216) remarked that differences between the verbal-oral-linguistic behaviour of old people and young people are considered as indications of linguistic changes. She added that young speakers usually use more innovative forms than the older speakers who use conservative forms (pp. 216-217). She also confirmed that unlike old speakers, young speakers rarely utilize old linguistic forms (p. 178).

On the other hand, Tagliamonte (2012, p. 43) summarized the issue of age and language use by stating that "Sometimes speakers change the way they speak at different ages. Sometimes the whole community is changing the way they speak. Sometimes both types of change happen at the same time". Moreover, she claims that people of different ages use language differently because they are at various stages of their lives. This age grading asserts that the use of certain linguistic features may differ according the age of the speaker; i.e. a certain feature may vanish or emerge as the speakers get older (p. 47).

In addition, Baker & Hengeveld (2012, pp. 374-375) stated that age differences indicate an ongoing process of language change; however, they may relate to forms of language behaviour, such as the change of some lexicons in the language. They also added that young generations add "new, fashionable words" which may gain "linguistic currency" if they are adopted by an increasing number of native speakers (pp. 374-375).

2.3.3 Place of residence

In his thesis, Hleihil (2001, p. 57) stated that participants who live or work in Amman, the Jordanian metropolitan city, tend to use English more often than those who live or work in Zarqa or Irbid, other main cities in Jordan, while discussing work matters. He acknowledged that such a difference in the use of English between the participants living or working in different cities in Jordan is due to their level of education.

2.3.4 Socio-economic status

Tagliamonte (2012) stated that research on language variation and change is considered to "model the sociolinguistic hierarchy of a community". In other words, certain linguistic variables are used more often by high status classes and less frequently by the low status classes (p. 25). Tagliamonte also claimed that, "Where social class is a relevant social category, linguistic variables will correlate with it. The patterns of the linguistic variable will reflect the social structure" (Tagliamonte, 2012, p. 26).

Holmes (2008) noted that less conscious linguistic changes are spread by low-class speakers, who often adopt speech forms from local workers not to express status and/or prestige, but rather solidarity. It is interesting that middle-class native speakers of a language, not the low-class speakers, have a tendency to produce such innovation (p. 220). According to Holmes (2008, p. 220), upper working-class speakers are exposed to alternative linguistic forms because of their open network. She also added that, "women tend to be associated with changes towards both prestige and vernacular norms, whereas men more often introduce vernacular changes" (p. 221).

2.4 Code-Mixing in Jordan

There are many studies that have examined the use of English in Jordan from many perspectives: code-mixing, code-switching, using English in electronic communication (texting, emails), in teaching science and so on. Riyad Hussein's study (1999) was conducted as a preliminary step towards the identification of attitudes toward code-switching and code-mixing between Arabic and English at Yarmouk University as perceived by 352 participants, representing five majors:

Arabic, English, Islamic Studies, Law and Computer Science. It was aimed at finding out when and why students code-switch and/or code-mix and what are the most frequent terms or expressions they use in their Arabic speech.

The following were found to be the most frequent reasons for code-switching and code-mixing by students. Most of the students said that they code-switch and/or code-mix because of the presence of English terms and expressions which have no Arabic equivalents. Many of them find it easier to express scientific concepts in English and they code-switch and/or code-mix because of the familiarity and frequency of English formulaic expressions. Some of them stated they code-switch and/or code-mix spontaneously and unconsciously and that they do so to support their viewpoints and to create a warm, friendly atmosphere among interlocutors (Hussein, 1999). This means that code-switching and code-mixing have become a habit for them. It might also suggest that they use code-mixing as a solidarity strategy.

Hussein stated that according to the questionnaire data, 2.5% of the participants indicated that they always code-switch and/or code-mix, 3.4% indicated they often do, 33.2% indicated they did sometimes, 28.9% indicated they rarely did, 15.7% indicated they never did and 17% gave no answer. Hussein (1999) claimed that this is the reason why many lecturers use English on a par with Arabic as the language of instruction at university; it is surprising that 54.6% of the students code-switch and/or code-mix with English in discussing academic subjects with their fellow students. The majority of the students (75.2%) indicated that code-switching and code-mixing are not restricted to university premises. Many students (26.1%) stated that they use English in their Arabic speech at home, 19% do so in restaurants or cafés, 9.4% in hospitals or clinics, 7.9% in clubs, and 7.3% in tourist sites or places (p. 286). Surprisingly, Hussein (1999) found that, next to the university campus, code-switching and code-mixing with English is most extensively used at home. He explained that the reason is the popularity of English among youths. Also, access to English-speaking satellite channels has contributed to promoting code-switching and code-mixing at home.

According to Hussein's study (1999), the most common terms and expressions that the students use in their Arabic speech are given below, in order of frequency:

Ok, (I'm) sorry, Yes/No, Thanks (a lot); Thank you, (Good) bye; Bye bye, Very good, See you (later), Please, How are you?, First, Second, Don't worry, (All) right, Take it easy, Excuse me, Good (Hard) luck, No problem, Final, Of course, Maybe, (That's) impossible, (I'm) sure; I'm not sure, Hello, Good morning, I see, It's up to you, Never mind, I don't know, Hi, Exam, Listen to me, Not bad, Wait a minute, As you know, Oh, my God, Perfect, Let's go, No way, Relax.

Similarly, Bader (1995, p. 14) concluded that there is frequent use of English words and expressions in Jordanian Arabic (the colloquial dialect spoken in Jordan). Some of these expressions are: Is that right?, What do you mean?, I don't think so, not at all, nothing new under the sun, so on and so forth, it doesn't matter. One of the examples of code-switching that he mentioned is the following conversation between a male student (A) and a female student (B):

A: *marḥabā* (hello), *I* [B's first name initial]
B: hi. *Keifak?* (How are you?)
A: *māshy. sh*w ᶜ*indik?* (Ok. What are you up to?)
B: ᶜ*indy registration elywm* (I have registration today)

To avoid confusion, the transliteration system used in these examples is the system adopted in this thesis, not the one Bader uses.

Commenting on a variety of excerpts from conversations with code mixing, Bader (1995, p. 16) indicated that women tend to code-switch more than men for the sake of prestige.

Considering the effect of place of residence upon the use of English by Jordanians, Bader found that city residents use English more than village residents. He distinguishes between two sub-categories of city residents, those coming from rich areas and those coming from less privileged areas. The results of his study show that the first group use English more than the second one. He explained that the use of English among the first group is more frequent than among the second group because "better economic and social conditions lead to higher education" (p. 17). However,

this is not the case anymore in Jordan; more and more people from average and low socio-economic backgrounds have access to education nowadays and show more interest in social mobility than the wealthy. Bader (1995) stated that conversations marked by the variables city resident, well educated, young and female are likely to code-mix English with Arabic than those marked by the variables villager, illiterate, old and male. Hussein (1999, p. 285) concurred with Bader's finding that code-mixing was more likely in the speech of educated persons and those who are learning and/or had learned English.

Another researcher interested in the use of English in Jordan is Mahmoud Al-Khatib (2001, 2008). Mustafa and Al-Khatib (1994) discussed code-mixing at the University of Jordan of Science and Technology. The corpus of their study is based on lectures given on topics in Engineering, Medicine, Pharmacy, Biology, Chemistry and Agriculture. Mustafa and Al-Khatib (1994) found that the norm in the recorded lectures was mixing Arabic and English more often than using totally Arabic or totally English sentences. The lecturers say that the language they use in lecturing is basically English, with Arabic expressions.

Examining the nature and structural features of e-mails sent by Jordanian university students, Al-Khatib (2008) found that a considerable number of e-mail messages contain a large number of instances of code-switching to romanized Arabic, for example:

1. X and Y r kissing u and all the time they r laughing just the children make troubles but as u know them *bejaneno* [*i.e.* they are so sweet].
2. how do u do in your life there? we miss you *kteer* [*i.e.* too much] *ya 7ilwa* [i.e. you beautiful] and wish 2 c u soon *7abibti* [*i.e.* love] (p.6).

Al-Khatib stated that data analysis reveals that this process appears to be structured and functional. The corpus of his study shows that approximately 10% of participants use mainly Romanized Arabic script in their messages, 55% use Arabic and English, and 35% use only English. Questioning them about the reason for switching between English – as a matrix language – and Arabic, 95% reported that they do this so as to serve certain communicative and technical functions. One of their answers was "to introduce a new concept into the text as they have no purely English equivalent to

that particular item". Another response was "to emphasize or express a particular message of politeness" (i.e. expressing their feelings), and a third response was "to serve the purpose of speeding up typing" (Al-Khatib, 2008b, p. 9). Such results indicate the awareness of the participants of the importance of switching between Arabic and English, and at what points to code-switch in their text messages as well.

In their article "Language Choice in Mobile Text Messages among Jordanian University Students", Al-Khatib and Sabbah (2008) examined the linguistic structure and sociolinguistic functions of Arabic–English code-switching in mobile text messages as used by a group of Jordanian university students. They found that more than 95% of the text messages that were written in both languages use Roman script instead of Arabic script. It has also been observed that the respondents tended to use Arabic/English texts more often than totally English and totally Arabic texts, and totally English texts more often than totally Arabic texts. The participants reported that it is easier for them to express themselves in the two languages than in one of them. They are aware of this practice. Al-Khatib and Sabbah (2008) observed that Arabic script is used more frequently in contrast to the convention of Roman scripts. Another important result of their study is that women tend to code-switch more often than men, who tend to use Arabic totally rather than English totally or code-mix English and Arabic.

Another important study about code-mixing and code-switching in Jordan was conducted by Hleihil (2001). His study examined the use of English terms by American fast-food restaurant employees and customers in Jordan. He divided the code-switched items used by the participants of his study into many categories: food (*MC Chicken Royal*); administration items (*shift change*); service items (*free delivery service*); flavour items (*spicy*); drinking items (*with ice, cups*); cleanliness items (*lobby, back sink*); financial items (*weekly inventory*); and functional items (*welcome, please*). Hleihil (2001, p. 43) also remarks that the employees are eager to use English more often than clients while discussing business matters at work. Comparing employees' response to the clients', Hleihil states that the mean use of code-mixing by employees was 3.57 compared to that of the clients' 2.9. This finding indicates that code-switching is more frequently utilized by professional people. He also examines the effect of many independent variables like gender,

education, employment and place of work. He concludes that participants "who live or work in Amman (the capital city of Jordan) tend to use English more often than those who live or work in Zarqa or Irbid (main cities in Jordan) while discussing work matters. This may be due to the high level of education of the people who work or deal with such restaurants, or may be due to the factor of prestige" (p. 57).

A more recent study was conducted by Al-Tamimi and Gorgis (2007), who found that the majority of students in Jordan code-switch between Arabic and English when writing e-mails and text messages. The following are examples of code-mixing and code-switching from their study, which is based on 1098 emails sent by 257 undergraduate students and on 1400 chat turns exchanged between nick-named senders, as well as in an eight-page conversation run by seven participants, all of whom have a workable knowledge of English:

- Hi, kefik, sho 3amleh? Kef kano emt7anatik elfirst? Enshalla 2bda3te fehom o kano mna7 metel ma bdik!!!! Ana mne7a o emt7anati mashe 7alhom… yalla enshalla betawfe2 dayman o alla ykon m3ik… and take care of urself…& have a good luck, bye.. (Hi! How are you? What's up? How did you do at your first-term exam? Hopefully great just as expected1 I'm fine, and my exams are OK. Thank God. If God will, you'll always succeed. May Him be with you. Take care and good luck my heart. Bye).
- Hi mone h r u, I miss**********u so much bs z3lana mnk coz u ignor emails bs ra7 akon mne7a w a3tebrek ma 3melte chk 3la emailk. Honey I wonna 2 4get kol elmshakel el madia plz try 2 help me, I no u try 2 help me.W thanx again 4 ur nice heart. I lov u soooooooooooooooooooooooo much. (Hi Mona! How are you? I miss you so much but I'm angry at you because you ignored my email. However, it's alright; for I'll take it that you've not checked you email box. Honey! I want to forget all material problems, so please help me. I know you try to help me. And thanks again for your kindness. I love you so much).
- Eshta3'alna kteer 3ala research el socio. (We worked hard on the sociolinguistic research).
- W smi3it enne got engaged. (I heard1 got engaged).
- Elek 3nde a7'bar nice kter. (I have good news for you).

Research has shown that code-mixing is also common in the speech of non-native speakers of Arabic living in Jordan. It is believed that the reasons for their code-mixing are similar to those of Arabic native speakers (see below). Bader (2003), for example, did not investigate code-mixing only by native speakers of Arabic in Jordan, but also by foreign non-native speakers of Arabic in Jordan. In his article "Some Characteristics of Code-switching to Arabic Among non-English Foreign Nationals in Jordan", Bader (2003) stated that French, Russian and Italian native speakers living in Jordan use Arabic words and expressions in their speech on the following occasions:

1. Greetings

Arabic is well-known for the large number of expressions in the domain of greeting and health inquiries, such as *marḥabā* (hello), *marḥabtein* (two hellos), *assalāmu ᶜalaykum* (peace be upon you), *w ᶜalaykum alsalām* (and peace be upon you),; *ṣabāḥ elkheir* (good morning); *masā elkheir* (good evening); *keif ḥālak?* (how are you), *kuwayyis* (fine), *ilḥamduliAllāh* (Praise be to Allah –God-) (Bader, 2003; Bader & Mahadin, 1996).

2. Religious occasions

A remarkable field where code-switching is considered to be the norm rather than the exception is that of exchanging wishes during religious feasts such as *ᶜyd alfiṭr* (Muslim feast after Ramadan – month of fasting), *ᶜyd alaḍḥā* (Muslim feast at the end of pilgrimage in Mecca – Feast of the Sacrifice), Christmas, Easter and New Year's Day. Many words and expressions used on these occasions, such as *kul sanah w enta sāalim* and *kul ᶜām w enta b kheir* (two expressions of general good wishes meaning "I hope you will be safe/well every year"); *winta sāalim* and *winta b kheir* (normal answers to the preceding expressions meaning "and you will be safe/well, i.e. "you too"); happy *ᶜyd* (happy feast) (Bader, 2003; Bader & Mahadin, 1996).

Bader and Mahadin (1996) provided an excerpt from a conversation between two female English native speakers, where A is a Christian and B a Muslim on the occasion of *ᶜyd alfiṭr*:

A: Hello, kul ᶜām w enti b kheir.

B: w enti b kheir.

A: How was the ᶜyd?

B: Oh, it was fine. ilḥamduliAllāh.

A: Did you make any ḥilweyyāt (sweets)?

B: Yes, I made some maᶜmwl (cookies stuffed with nuts or dates).

Bader (2003) stated that heavy code-switching occurs when the occasion is a Muslim holiday, for Islam is associated with Arabic and the majority of Arabs are Muslims. The following excerpt is a conversation between the above-mentioned interlocutors on the occasion of Christmas:

B: Hi! Merry Christmas

A: Thank you

B: Was it a happy ᶜ*yd?*

A: Oh, yes, it was wonderful. Thanks.

B: I have to go now.

3. Social occasions and cultural terms

Another fertile area of code-switching is formulaic expressions used for social occasions, for example, births, birthdays, engagements, weddings, recovery from illness, surviving an accident or surgery, return from a long trip, graduation, winning a prize, purchasing a new car, apartment or house, as well as funerals (Bader, 2003; Bader & Mahadin, 1996).

Expressions commonly used in code-switching include *(alf) mabruwk* ((a thousand) congratulations); *Allah ybārik fyk* (response to the preceding utterance, meaning "may Allah bless you"); *mubārak elkhuṭbe/elzawāj* (congratulations on your engagement/wedding), *inshaAllah myt sanah* ("Allah willing you will live a hundred years", said on birthdays); *ilḥamduliAllah ᶜalā alsalāmah* ("praise be to Allah for your safety", used on many occasions such as recovery from illness, surviving an accident or surgery, and a safe return from a journey or pilgrimage); *Allah ysalmak* ("may Allah keep you safe", a response to the preceding utterance).

It is also common for foreign nationals living in Jordan to use Jordanian Arabic words and/or expressions in their non-Arabic speech. The words and expressions are used normally and frequently occur in conversations among Jordanians (Bader, 2003). They include expressions such as *ismAllah ᶜaleik* (Allah's name on you); Allah (both expressions are used to invoke Allah's protection in case of expected danger or risk); *r ā'iᶜ* (marvellous); *istanna shway* (wait a minute), *shu ismu?* ("What is its name?", used as a kind of gap filler); *ᶜan jad* (are you serious?); *aywā* (yes).

4. Quoting somebody

Non-native speakers of Arabic living in Jordan code-switch to Arabic when quoting something a native Jordanian said in Arabic or when quoting themselves saying something in Arabic to someone. The following is a conversation between a French woman (A) and an Italian man (B):

A: I was talking to a student and he said: "*anti jamyla*" (you are beautiful).
B: And what did you say?
A: All I said was "*shukran*" (Thanks). I didn't mind it.

Reasons and motivations for code-mixing by Jordanians

Al-Khatib and Sabbah (2008) stated that code-switching, i.e. switching from one language to another, can serve many communicative functions in bilingual interaction. The following are three functions of switching from English into Arabic in mobile text messages by Jordanian university students (Al-Khatib and Sabbah, 2008). These functions can also be applied to mixing English with Arabic in speech, i.e. to code-mixing, when talking about Western cultural events and habits, such as Christmas, New Year's Eve celebration, slow dance.

1. Socio-cultural and religious functions

The participants tend to use Arabic when using culturally relevant words and phrases. For example, they are found to employ in their texts a large number of culture-specific formulaic expressions such as *insha Allah* "God willing", *ya rab* "God willing", Allah *yes3idek/yes3idak* "May God bless you", *ma bitqaser/ma*

bitqasri "you are always there to provide help", *5alas* "ok then", *betmoon/betmooni* "I am at your service", *7amdila 3asalameh* "Thanks be to God for your safety". Another area where the participants code-switch to Arabic is upon exchanging wishes on many religious occasions such as Ramadan (the holy month of fasting), *Eid Al Fitr* (Muslim festival after the end of Ramadan), *Eid Al Adha* (Muslim festival upon the end of the pilgrimage season to Mecca, Saudi Arabia), and on other social occasions as well such as recovery from illness, returning from a long journey, engagements, weddings, graduation from school and so on.

2. Greeting

Greetings in Jordan are a social norm governed by the situation in which the greeter says what is expected by the one being greeted. The participants in Al-Khatib and Sabbah's (2008) research tended to code-switch to Arabic when greeting each other. Among many expressions that were used in the mobile texts messages are: *Asalaamu aleikum* "Peace be upon you", *ahlan* "you are welcomed", *keefak/keefek* "how are you?", *shou 3amel/3amleh* "how are you doing?". One reason for code-switching to Arabic upon greeting, as one participant states, is to convert the feeling of coldness into that of warmth; maybe because the speakers are more emotionally expressive than their English counterparts.

3. Quoting someone

Some patterns of code-switching to Arabic are used to quote a proverb or well-known saying in Arabic. In most cases the base language is English and the quotations were in Arabic or Latinized Arabic. One example of quoting is the following extract from a text message mentioned in Al-Khatib and Sabbah (2008, p. 53):

A: *الأخت الفاضلة ... الرجاء إحضار كتاب صقر معك غداً*

[Literally: Virtuous sister, please bring Saqir's book with you tomorrow]

B: ☺this z the 1st time someone calls me "AL2O5T ALFADELAH"… ☺lol. Anyway, don't worry, I won't 4get 2 bring the book 2mr. Take care.

Student B switched to Arabic to quote what student (A) said to her "AL2O5T ALFADELAH" الأخت الفاضلة!

Al-Khatib and Sabbah (2008) also added more functions of code-mixing to English. These functions are discussed under three headings: prestige, use of academic and technical terms, and euphemism.

1. Prestige

University students claim that in certain settings it can be highly valued by the interlocutors if they adopt prestigious forms in their speech. In Jordan, English is considered the language of the highly educated elite who occupy a high social stratum (Al-Khatib & Farghal, cited in Al-Khatib & Sabbah, 2008). The students' self-report in the above study is compatible with the findings of the previously mentioned studies by Bader (1995) and Hussein (1999) whose findings pointed out the factors contributing to the use of English by Jordanian university students. One of these factors is a high level of education.

Contending that using English in text messages enhances their prestige, the participants in Al-Khatib and Sabbah's (2008) study tend to use a set of English expressions. The following expressions, which relate to greeting, thanking and apologizing, are some of the most frequently used, easiest and shortest expressions used by the text writers: *Hi, sorry, nighty 'good night', miss you, ok, take care sweetie, please, thanks, thank you, bye, good luck, see you.*

2. Academic and technical terms

Adendorff, cited in Al-Khatib and Sabbah (2008), considered code-switching a communicative resource that enables both teachers and students to achieve a variety of social and educational objectives. One common set of English words/phrases found by Al-Khatib and Sabbah (2008) is that used by students of the departments of Science and Technology or those pertaining to academic matters. The following technical terms were among the most frequently used lexical items by the students: *modem*, *hardware*, *software*, *report*, *questions*, *papers*, *makeup exams*, *chapter*, *sheet*, and the names of courses such as *physics*, *pharmacy*, *advanced electronics*, *dentistry*, *herbal medicine*. The fact that

scientific lectures at Jordanian universities are delivered predominantly in English puts pressure on students to use English whenever referring to academic matters.

3. Euphemism

An analysis of text messages, composed by the participants of Al-Khatib and Sabbah's (2008) study, reflects the fact that English is used for euphemistic purposes, or to avoid unpleasant subjects. Switching to English may permit Jordanian students to confidently discuss taboos and/or offensive topics without embarrassment. The following list of English words includes euphemistic expressions used by the writers of text messages: *toilet*, *boyfriend*, *underwear*, *cancer* and *period*. Given this, one may conclude that Jordanian students opt to substitute Arabic with English euphemistic expressions to avoid embarrassment.

Masoud (1999) assessed the linguistic, psychological and sociolinguistic implications of code-switching by Computer Science students in many Jordanian universities. She distributed a questionnaire to the students asking them about their reasons for preferring English terms. The participants' answers were almost all the same: English is the language of instruction at university level; most of the references are in English; lecturers use English terms in class; and most of the students do not know the Arabic terms. Masoud (1999) also examined a possible relationship between the gender of the Computer Science students and language use. She found that male participants tended to use English computer terms more often than their female counterparts. This reflects the greater male interest in Computer Science.

Al-Azzam (2010) reported many functions of code-mixing by Yarmouk University students, such as emphasizing a specific idea, seeking accuracy in quotation, showing prestige, avoiding embarrassment, clarifying uncommon words, creating a comic effect, and filling lexical gaps.

Bader (1995) argued that there are two factors which play a role in motivating students to code-switch to English: need and prestige. Need is rarely a factor because Jordanian Arabic has words and expressions that match most of the code-switched English words and expressions. However, Bader (1995) speaks of need in its broad sense as the inability of the speaker to provide the Arabic word or expression spontaneously. Social value and prestige are strong factors motivating code-

switching to English. As a part of the questionnaire that Bader distributed to the students in his study, 94.5% of the participants said that prestige was the only reason that motivates Jordanian speakers to code-switch English and Arabic.

Finally, the demographic factors, which have been analysed in the current study, are significant aspects in mixing English with Arabic speech among Jordanian university students (See Chapters 5 and 6). Moreover, these demographic factors affect the attitudes of the participants and the frequency of Arabic and English code-mixing in their speech (See Chapter 4).

Chapter Three – Methodology

Theories without data are like daydreams.
Jonathan Rottenberg (2014)

In the current chapter, the methodology adopted for this research is described, focusing on the research paradigm, the participants and the data collection procedures. This is followed by setting out the reasons for using qualitative and quantitative approaches in the research, i.e. a mixed-methods approach, and describing the research sites.

3.1 Research Paradigm

As mentioned in the Introduction, the major objective of the study is to obtain a baseline of Jordanian university students' use of English within their Arabic speech and their attitudes toward it. More specifically, the study aims to assess whether Jordanian university students code-mix Arabic and English in their daily speech; determine the reasons for students' use of one language rather than another; and specify the situations where they mix Arabic and English. To achieve these aims, the study followed a mixed method approach, using both qualitative and quantitative methods, and adapting two models of data collection, the Explanatory and Exploratory Sequential Mixed Method (Creswell, 2014, p. 220), discussed in Section 3.6.

As stated above, the study employs a mixed-methods approach, which collects both quantitative and qualitative data, joins the two forms of data and uses distinct designs that may involve particular philosophical assumptions and theoretical frameworks (Creswell, 2014). Qualitative data tends to be open-ended, whereas quantitative data usually includes closed-ended responses (Creswell, 2014, p. 14). Mixed-methods approaches are relatively new, first having been introduced in the middle to late 1980s (Creswell, 2014, p. 14). They consist of first collecting quantitative then qualitative data to elaborate on the quantitative findings (Creswell, 2012). Applying

these two approaches in the present study provides more complete and accurate results than using either method alone.

3.2 Research Sites

As mentioned above, the research was conducted in the three oldest public universities in North Jordan: Al alBayt University in Al Mafraq, University of Jordan in Amman and Yarmouk University in Irbid. They all include departments of Science, Humanities, Islamic Studies, Education, Engineering and Economy. A wide variety of these different areas of specialization provides a scope for comparing and contrasting the findings of the data analysis. Furthermore, the large sample size of the study (N=1166) reduces the margin of errors in the statistical calculations of the results.

3.3 Participants

The participants of the study are 1166 undergraduates, graduates and postgraduates from various faculties (see Tables 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, and 3.12) at Al alBayt University, University of Jordan and Yarmouk University. All the participants answered the questionnaire; however, not all of them took part in the qualitative method which included 17 focus group interviews. The number of the participants in each of the 17 focus group interviews varies from two to six students. The distribution of the participants by gender is shown in Table 3.1.

Table 3.1: Distribution of Participants by Gender

Gender	N	%	Valid %
Men	434	37.2	37.3
Women	730	62.6	62.7
Missing	2	0.2	
Total	1166	100.0	100.0

As shown in Table 3.1, the number of female participants is greater than that of males. This is consistent with the actual gender distribution of the student population at Jordanian universities. According to the Jordanian Department of Statistics (2011), there are many more women studying at universities than men.

Table 3.2: Distribution of Participants in the Focus Group Interviews

University	Women (N)	Men (N)
Al alBayt University	9	3
University of Jordan	1	16
Yarmouk University	9	20

Table 3.2 shows the number of the participants in the focus group interviews at each university. The highest number of the interviewees is that of Yarmouk University (N=29), followed by that of University of Jordan (N=17) and Al alBayt University (N=12). The total number of the participants who were interviewed in both initial and post-questionnaire focus group interviews is 58.

Table 3.3: Number of Students at Universities by Gender in 2011

University	Women (N)	Men (N)
Al alBayt University	6.283	4.166
University of Jordan	20.543	10.382
Yarmouk University	15.711	10.938

Table 3.4 shows the number of the participants at each university. The highest number of the participants is that of Yarmouk University. One reason which played a role in collecting data at Yarmouk University is that it is where the researcher studied Bachelor of Arts and Master of Arts. So, all of the procedures and the university-buildings are well known to the researcher.

Table 3.4: Distribution of Participants by University

	N	%	Valid %	Cumulative %
Al alBayt University	351	30.1	30.1	30.1
University of Jordan	349	29.9	29.9	60.0
Yarmouk University	466	40.0	40.0	100.0
Total	1166	100.0	100.0	

Table 3.5 shows the distribution of participants by faculty at all three universities.

Table 3.5: Distribution of Participants by Faculty

Faculty	N	%
Art	361	30.96
Science	251	21.53
Education	199	17.07
Medicine	59	5.06
Engineering	119	10.21
Others:		
Religious Studies	51	4.37
Economics	83	7.12
Law	2	1.7
Missing answers	41	3.52
Total	1166	100.00

As shown in Table 3.5, the largest number of participants is in the Arts Faculty. As shown in Table 3.6, the Arts and Humanities faculties have the largest numbers of departments, which corresponds with the number of the participants studying in the faculties.

Table 3.6: Distribution of Participants by Department in Faculties of Arts and Humanities at Three Universities

University	Department in Faculty of Arts and Humanities
Al alBayt University	Department of Arabic Language and Literature Department of English Language and Literature Department of History Department of Modern Languages
University of Jordan	Department of Arabic Language Department of Philosophy Department of History Department of Geography Department of Psychology Department of Social Work
Yarmouk University	Department of Arabic Language and Literature Department of English Language and Literature Department of History Department of Modern Languages Department of Political Science Department of Sociology and Social Service Department of Semitic and Oriental Languages Department of Geography Department of Translation

Table 3.7 shows that the Faculties of Science at Al alBayt University, University of Jordan and Yarmouk University have four departments in common: Mathematics, Physics, Biological Sciences and Chemistry. It also shows that some of the

participants in these faculties are studying in other departments, such as Biology, Agriculture, Geology and Statistics.

Table 3.7: Distribution of Participants by Department in Faculties of Science at Three Universities

University	Department in Faculty of Science
Al alBayt University	Department of Mathematics Department of Physics Department of Chemistry Department of Biological Sciences
University of Jordan	Departments of Science Department of Mathematics Department of Physics Department of Chemistry Department of Biological Sciences Department of Geology Department of Agriculture
Yarmouk University	Department of Chemistry Department of Physics Department of Statistics Department of Mathematics Department of Biological Science

Table 3.8 shows that the Faculties of Education at the three universities have three departments in common, but under different titles: Educational Psychology, Educational Administration, and Curriculum and Instruction. Some of the participants in the Faculty of Education study in different departments, such as Counselling, Library and Information, and Elementary Education.

Table 3.8: Distribution of Participants by Department in Faculty of Education at Three Universities

University	Department in Faculty of Education
Al alBayt University	Department of Psychological Sciences and Special Education Department of Educational Administration Department of Curricula and Instruction
University of Jordan	Department of Educational Psychology Department of Educational Administration and Foundation Department of Counselling and Special Education Department of Library and Information Department of Curriculum and Instruction
Yarmouk University	Department of Curriculum and Instruction Department of Counselling and Educational Psychology Department of Educational Administration and Foundations of Education Department of Elementary Education

Table 3.9 shows that the University of Jordan has several health faculties, collectively making it the university with the largest number of quasi-medical students. Its Faculty of Medicine, where most of the participants are studying (N=45), was established in 1971. Al alBayt University and Yarmouk University do not offer a program in Medicine. However, Princess Salma Faculty of Nursing at Al alBayt University and Faculty of Pharmacy at Yarmouk University, both of which are quite new, offer a Nursing program and a Pharmacy program at undergraduate level respectively. The Princess Salma Faculty of Nursing and the Faculty of Pharmacy were established in 2001 (Al-Khatib & Sabbah, 2008) and 2013 (Al-Khatib, 2008) respectively. Nine participants were studying at Princess Salma Faculty of Nursing, and five at the Faculty of Pharmacy at Yarmouk University. For statistical reasons, the researcher combined these three programs under one term, Medicine.

Table 3.9: Distribution of Participants by Department in Medicine-oriented Faculties at Three Universities

University	Faculty
Al alBayt University	Princess Salma Faculty of Nursing
University of Jordan	Faculty of Medicine Faculty of Nursing Faculty of Pharmacy Faculty of Dentistry
Yarmouk University	Faculty of Pharmacy

Table 3.10 shows the distribution of participants by Departments of Engineering.

Table 3.10: Distribution of Participants by Department in Faculty of Engineering at Three Universities

University	Department in Faculty of Engineering
Al alBayt University	Department of Architecture Engineering Department of Civil Engineering Department of Renewable and Sustainable Energy Engineering
University of Jordan	Department of Civil Engineering Department of Architecture Engineering Department of Electrical Engineering Department of Mechanical Engineering Department of Computer Engineering Department of Mechatronics Engineering
Yarmouk University	Hijjawi Faculty of Engineering Technology: Department of Power Engineering Department of Electronic Engineering Department of Telecommunications engineering Department of Computer Engineering Department of Civil Engineering

Table 3.11 shows the faculties which are not listed in the Field of Study under the variable "Demographic Information" in the questionnaire. The researcher tried to be consistent in collecting data from departments available at the three target university sites, so the variable "Other Faculty" includes three main departments under different names: Law, Islamic Studies or "Sharia", and Economics.

Table 3.11: Distribution of Participants in Other Faculties at Three Universities

University	Other Faculty
Al alBayt University	Faculty of Law Faculty of Studies / Sharia Faculty of Finance and Business Administration
University of Jordan	Faculty of Law Faculty of Business Faculty of Shari'a (Islamic Studies)
Yarmouk University	Faculty of Law Faculty of AL-Sharee'a and Islamic Studies Faculty of Economics and Administrative Sciences

Table 3.12 shows that the proportion of participants living in urban areas is not even half that of those who live in rural areas in Jordan. This is inconsistent with Table 1.2, which shows that the number of urban people in Amman and Irbid is greater than the number of those who live in rural areas.

Table 3.12: Distribution of Participants in Urban and Rural Areas

Area	N	%	Valid %	Cumulative %
City	384	32.9	36.5	36.5
Village	668	57.3	63.5	100.0
Total	1052	90.2	100.0	
Missing Answers	114	9.8		
Total	1166	100.0		

3.4 Data Collection

The data collection was conducted between 1 November 2012 and 30 December 2012 at three public universities in North Jordan: Al alBayt University, University of Jordan and Yarmouk University. Permission to collect data at the beginning of the tutorials was granted by the tutors and the Deans of the Faculties where the data were collected. The tutors introduced the researcher to the students, then asked them to voluntarily take part in the study. The students were informed by the researcher that the research is on a linguistic topic. After that, the participants who volunteered to take part in the focus group interviews were informed that they would be interviewed twice. The specific topic of the research was not revealed at this stage, to give the students space to talk freely without any restrictions on their language use. By doing so, the results of the data were expected to be more reliable. After informing the participants that the researcher was researching a linguistic phenomenon, 17 focus

group interviews were held at the three universities. In the initial interviews the researcher asked the participants to talk about two general topics which were thought to be of interest to them: their university life and their field of study. Then, in the second focus group interview, referred to as "post-questionnaire interview", the participants were asked about their attitudes towards and experience of code-mixing.

The data collection procedures involved the administration of a survey questionnaire, the conduct of 17 focus group interviews and systematic observation by the researcher.

3.4.1 Questionnaire

The foremost aim of the questionnaire was to compile a picture of the participants from the demographic information provided and a baseline of the influence of the demographic factors upon mixing English with Arabic in speech. The questionnaire also aimed to establish the factors affecting code-mixing, referred to as the purposes of or reasons for code-mixing: social factor, (realisation of) field of discourse factor and/or linguistic factor. After having obtained the approval of the Human Research Ethics Committee (see Appendices 1 and 2), an Arabic-language version of the written questionnaire (see Appendix 4) was distributed to all participants after conducting the initial interviews. The questionnaire had been translated into Arabic by the researcher with assistance from her principal supervisor (see original English version of the questionnaire and the Arabic version in Appendices 3 and 4 respectively). It was translated into the participants' native language, Arabic, in order to guarantee their full comprehension of all the questionnaire items. A second reason for distributing an Arabic version of the questionnaire was that not all university students in Jordan speak English fluently and/or understand it.

Part One of the questionnaire seeks to elicit information about nine personal and demographic variables: gender, age, field of study, level of study, place of study and place of residence, socio-economic status, pocket money per week and email address. Part Two seeks to elicit information about the social and academic background of the students: whether they have English speaking parents, relatives and/or friends. Part Two also investigates whether the participants have learned English since kindergarten, and whether they plan to travel to an English speaking

country. Part Three included items related to the factors that affect the use of English in Arabic speech: social, linguistic and field of discourse factors. Part Four seeks to elicit the frequency of using English in a number of different contexts determined by the relationship between speaker and interlocutor, whereas Part Five seeks to elicit the actual use of English in many social situations where the students chose the most suitable word they usually use in that context. Part Five mentions several social situations, each with four options. The participants have to choose the word or phrase they use most often.

The questionnaire was designed to answer the research questions stated in the Introduction. This whole study was carried out to answer Research Question One: "To what extent do Jordanian university students code-mix Arabic and English in their daily speech?" Parts One and Two of the questionnaire were designed to answer Research Question Two: "What are the factors that affect the code-mixing of English with Arabic in the speech of Jordanian university students?" These parts of the questionnaire sought to elicit demographic information and social and academic background information about the participants respectively. To answer Research Question Three: "What are the reasons for code-mixing by Jordanian university students?" – Part Three of the questionnaire was designed to elicit the three main reasons for code-mixing: social, linguistic and (realisation of) field of discourse. To answer Research Question Four and Research Question Five: "When do Jordanian university students mix Arabic with English?" and "Where do Jordanian university students mix Arabic with English?" – Parts Four and Five of the questionnaire were designed to elicit the social settings of code-mixing by the participants.

3.4.2 Focus group interviews

The main aim of the focus group interviews was to investigate the students' mixing of English with Arabic in their speech. The focus group interviews also aimed at gathering the participants' attitudes towards code-mixing. In fact, as mentioned in the Participant Consent Form (see Appendix 5), the focus group interviews aimed at identifying: (a) factors that affect code-mixing, i.e. gender, age, level of study, field of study and/or place of residence; (b) reasons for code-mixing by university students; (c) situations where students code-mix English with Arabic in speech.

To address Research Question One – "To what extent do Jordanian university students code-mix Arabic and English in their daily speech?" – the initial interviews were conducted and the questionnaire administered. To address Research Question Five – "What are the Jordanian university students' attitudes towards mixing English with Arabic in their speech?" – post-questionnaire interviews were conducted.

Two sessions of 17 focus group interviews (initial interview and post-questionnaire interview) were held with 58 volunteers, 19 women and 39 men, out of a total of 1,166 participants. Twelve of the interviewees were studying at Al alBayt University, 17 at the University of Jordan and 29 at Yarmouk University. Only six interviewees were postgraduate students, specifically PhD students.

The interviews were recorded and transcribed. Following the "steps in the interview process" suggested by O'Leary (2010, pp. 199-203), note-taking and audio-recording were the methods used to record them. A strategy of highly structured note-taking (p. 203) during the initial interviews was adopted. This form includes devising a table of several columns: university, number of the interviewees, fields of specialization, level of study, general feedback from interviewees and their attitudes (see Section 3.4.3). During the post-questionnaire interviews, the audio-recording strategy was utilized along with a note-taking strategy.

Prior to distributing the questionnaire, the researcher talked face-to-face with the interviewees in a room at the university for 5 to 10 minutes. In the initial interviews they were asked to talk about their university life and fields of specialization. The researcher asked them the following questions, using the Jordanian Arabic vernacular:

1. *iḥkwly ᶜn ḥayātkun eljāmiᶜeyyeh*
   [Tell me about your university life]
2. *iḥkwly ᶜn takhaṣuṣkun ay shy*
   [Tell me something about your field of specialization]

After returning the questionnaire, the interviewees were asked to discuss the phenomenon of Arabic–English code-mixing by Jordanian university students and to

express their attitudes towards this linguistic phenomenon. Specifically, the interviewees were asked the following questions in the post-questionnaire interviews:

1. *shu aktar fi'ah mawjwde bi elistibāneh bit'aththirᶜ estikhdāmnā l elinglyzy?*

   [Which factor, mentioned in the questionnaire, is the most affecting upon our use of English?]

2. *Leih binistakhdim elinglyzy b ḥakynā?*

   [Why do we use English within our [Arabic] speech?]

3. *Mata aktar shy binistakhdim elinglyzy?*

   [When do we use English most often?]

4. *iḥkwly ra'iykun bzāhiret mazj ellugha elingyzyyeh b elᶜarabeyyeh.*

   [Tell me your opinion of the phenomenon of mixing English with Arabic?]

5. *Bitḥibbw t ḍyfw ay shy?*

   [Would you like to add anything (regarding the mixing of English with Arabic)?]

To make the interviewees feel comfortable and to provide a friendly environment, the researcher used the first pronoun *we* while asking her questions, particularly in questions two and three. In addition, to make the interviewees feel free to express themselves, the researcher asked them to choose the place to conduct the interview. Each focus group interview undertaken at the three universities was conducted in the university library, the university cafeteria or in a classroom, depending upon the interviewees' preference.

3.4.3 Systematic observation

While conducting the focus group interviews, the linguistic behaviour of the participants was observed and notes of their attitudes were taken. A table of five columns was drawn to classify the notes taken while collecting data. These columns comprised an academic theme, a linguistic theme, a psychological theme and a social theme, along with general notes and information. The academic theme included their major and minor areas of specialization. The linguistic theme included their mixing of English words with Arabic in their speech. The psychological theme included the participants' attitudes and motivations, and their emotional states. Many interviewees

did not participate as much as, or were not as enthusiastic as, the rest of the interviewees, showing negative attitudes towards the English language. The social theme included interviewees' general social background and status in the Jordanian community. In Jordan, the higher and more prestigious one's social status, the greater the chance of exposure to the English language. The general notes included the interviewees' place of residence, place of study, gender and their points of view regarding the use of English within Arabic speech at Jordanian universities.

The foremost reason for choosing systematic observation as a research method is to have a general overview of the university students' code-mixing. Creswell (2014, p. 191) mentioned some advantages of this data collection type. First, the researcher has "a firsthand experience with the participants" and can record the authentic information where "unusual aspects can be noticed during [the] observation". A third advantage of observing the participants is that it is considered "useful in topics that may be uncomfortable for the participants to discuss" (Creswell, 2014, p. 191).

3.5 Data Analysis

Both quantitative and qualitative data were collected as part of using a mixed-method research design. The procedures followed in the quantitative and qualitative data analyses are described below.

3.5.1 Qualitative data analysis

After collecting data, the recorded focus group interviews, which were conducted in Jordanian Arabic, were reviewed for accuracy and consistency. They were then transcribed to "make the data accessible and facilitate analysis" (Mclndoo, 2012). After transcribing the focus group interviews, they were transliterated using the Transliteration System followed by Schulz, Krahl, and Reuschel (2000, p. 5) (see Transliteration System, p. xi). While recording the focus group interviews, the researcher took notes of the participants' responses, their attitudes and points of view. After this, the taken notes along with the recorded data were rearranged and categorized into four themes based on the participants' responses: academic theme, linguistic theme, psychological theme and social theme (see Chapter Five).

3.5.2 Quantitative data analysis

The questionnaire comprised two types of item, i.e. a close-ended type, comprising Part One (Demographic Information), Part Two (Social and Academic Background) and Part Five (Social Situations), and a rating-scale type, comprising Part Three (Why I use English) and Part Four (When I Use English) (see Appendix 3). The responses of each item of the close-ended type were analysed in terms of number (frequency) of responses, which were further converted into percentages. For the rating-scale type items, factor analysis was carried out to verify the psychometric properties of the scales (Parts Three and Four). Based on Research Question 3 – "What are the reasons for code-mixing by Jordanian university students?" – items in Part Three were categorized into four categories: (realisation of) field of discourse, and linguistic, personal and social purposes. Items related to the personal category were not counted in the analysis for having low alpha score. More specifically, to explore what factors or latent constructs propelled the students to use English in their daily life beside Arabic, Exploratory Factor Analysis was carried out. Finally, to answer the research questions as well as to test the research hypotheses, both descriptive and inferential statistics were also utilized.

The following statistical procedures were used:

1. Numbers and percentages of the participants in terms of their demographic information: age, gender, level of study, field of study, place of study, place of residence and socio-economic status. Age is categorized into four groups: less than 20 years of age, 20-25 years of age, 26-35 years of age and more than 35 years of age. Gender is categorized into two groups: women and men. Level of study is categorized into three groups: Bachelor, Masters and PhD (doctorate). Field of study is categorized into five main groups: Arts, Sciences, Education, Medicine, Engineering and Other Fields of study, comprising Religious Studies, Economics and Law. Place of study is categorized into three universities: Al alBayt University, University of Jordan and Yarmouk University. Place of residence is categorized into two groups: city and village. Finally, socio-economic status is categorised into five groups: excellent, good, average, not too bad and poor (see Chapter Six and Appendix 3).

2. *T*-test, ANOVA (analysis of variance) and MANOVA (multivariate analysis of variance) were applied to compare the participants' code-mixing in terms of the above demographic information (see Chapter Six).

3.6 Mixed-Methods Approach

The present study takes a mixed-methods approach in which both qualitative and quantitative methods were applied to collect the data. In the first edition of their work, Creswell and Plano Clark (2011, p. 5) defined mixed-methods research as a research design with both (a) philosophical assumptions which direct the process of collecting and analysing data and mixing qualitative and quantitative approaches, and (b) methods which focus on collecting and analysing data and mixing qualitative and quantitative approaches.

The foremost reason for choosing a mixed-methods approach in the current study is that choosing only a qualitative or a quantitative approach may be insufficient. That is, by applying a mixed-methods approach, the results of the study are explained, the findings are generalized, one method enhances the other and the theoretical stance is employed (Creswell & Plano Clark, 2011, p. 8).

By the same token, the current research combines two methods: "Explanatory Sequential Mixed Methods" and "Exploratory Sequential Mixed Methods" (Creswell, 2014, p. 220). Thus, the procedures for collecting data began with interviewing a random sample of the participants by way of focus group sessions or meetings, here referred to as interviews, requiring them to talk about their university life and fields of specialization, and observing their linguistic behaviour. Seventeen focus group interviews were conducted, with two to six students in each group. Then the researcher personally distributed a five-page questionnaire to 1166 participants from various schools and departments at Al alBayt University, University of Jordan and Yarmouk University. After that, the researcher reinterviewed the participants of the focus groups. The interviewees were asked in the post-questionnaire interviews to talk about their attitudes toward mixing English with Arabic in their speech, their feelings while mixing the two languages and their reasons for such a verbal act.

The qualitative data were transcribed and analysed according to the above themes of the interviews, whereas the quantitative data were managed, calculated and analysed by utilizing the IBM SPSS software package.

3.7 Methodological Approaches

The current research is a case study conducted in a particular setting, which is the Jordanian university environment in the North of Jordan. This led the researcher to adapt certain methods that are applicable to such a case study, i.e. to answer the research questions of the study. The researcher found that the best methodological approach to answer the research questions was a combination of phenomenology and ethnomethodology (O'Leary, 2004, 2010).

Phenomenology (O'Leary, 2004, pp. 122-125; 2010, pp. 119-123) is the "study of phenomena as they present themselves in individuals' direct awareness and experience". It can also be defined as "the relationship between the individual and the object" (O'Leary, 2004, pp. 122-125; 2010, pp. 119-123). A phenomenological study focuses on a phenomenon as it is experienced by the individuals. Its goal is producing descriptions via interviewing the people who have experienced the phenomenon. Thus, the interviewer aims at gaining rich descriptions by asking the participants what it "feels like, what it reminds them of, and how they would describe it". The interviewer, therefore, has to read beyond the words and know the participants' attitudes and feelings toward the phenomenon. The main strength of the phenomenological approach is that it explores phenomena. This, understanding and exploring the phenomena, is considered essential in social studies.

O'Leary (2004, 2010) stated that unlike phenomenology which has a phenomenological description as its final product, the "report" is the final product of most methodological approaches used in the social sciences, which have three elements of the data collection methods: the participants, the methods and the modes of analysis. O'Leary (2010, pp. 121-122) provided a perfect example of a phenomenological study which was conducted by Sinfield in 1995: women experiencing AIDS. She stated (2010, pp. 121-122) that using a phenomenological approach, Sinfield had eight in-depth conversations with registered nurses in a hospital located in NSW, Australia. Each one of these conversations focused on five

themes “identifying a learning gap; focusing; normalizing; bracketing; and work within the system”.

Applying phenomenology to the current case study, the researcher focused on the phenomenon of mixing English with Arabic in speech by Jordanian students at three public universities in the North of Jordan. The participants of the post-questionnaire interviews were asked to talk about their attitudes towards Arabic–English code-mixing, how they feel when they code-mix, and when and where they tend to code-mix.

Ethnomethodology, on the other hand, is the study of methods which are used in accomplishing individuals’ daily actions. It focuses on revealing the rules which control ordinary life. Moreover, ethnomethodology “ignores the question of ‘what’ altogether and concentrates on ‘how’ interactions are performed” (O’Leary 2004, pp. 125-128; 2010, pp. 123-126).

Ethnomethodology can also be defined as the study of daily interactions. It explores how the individual makes sense of and in their social world (O’Leary, 2004, pp. 125-128; 2010, pp. 123-126). O’Leary (2010, pp. 125-126) evaluated the strengths of the ethnomethodological approach: it recognizes that individuals are not passive in establishing social order, and that interaction is worth being investigated. Moreover, this approach is considered as a way to “study culture” (p. 126). O’Leary (2004, 2010) argued that ethnomethodology explores the way individuals in a particular culture make meaning. By employing ethnomethodology in a study, the nature of communication and social structure within a culture can be clearly understood. Valuable examples of ethnomethodology are how a jury deliberates and reaches a verdict, and how a doctor delivers bad news in a way that minimizes negative reactions.

To study how Jordanian university students mix English with Arabic in speech – happily, proudly, unconsciously, spontaneously, willingly and/or intentionally – the researcher employed the ethnomethodological research approach. Employing ethno-methodology, the researcher’s focus was not only on the participants’ way of thinking about and their attitudes towards the linguistic phenomenon of code-mixing, but also on their way of making meanings of their ideas: by mixing English with

Arabic in their speech, using only English, using only Arabic and the particular variety used while making meanings, i.e. Standard or Colloquial Arabic. Moreover, by employing the ethnomethodological approach, the researcher took advantage of her understanding of Jordanian social structures and communications. This influenced the quality of the notes taken as the qualitative data: the researcher focused on the important academic, linguistic, psychological and social information of the participants (see Chapter Five) and ignored unnecessary and uninformative aspects such as the participants' way of dressing and their background, e.g. being Jordanian citizens from either Jordanian or Palestinian background. Another reason for using the ethnomethodological approach is that its requirements meet with those of case study research where the questions of the study "require an extensive and 'in-depth' description of some social phenomenon" (Yin, 2014, p. 4).

3.8 Qualitative Data Collection Procedures

The 17 focus group interviews were tape-recorded and notes of the participants' academic, linguistic, psychological and social behaviour were taken. The focus group interviews were transcribed and reviewed. The qualitative data were standardized in such a way that each interview was interpreted according to some social aspect of the interviewees, including their major specializations. In other words, each focus group interview was analysed according to demographic aspects of the participants. Moreover, some informant background data that might affect the use of English were considered as well. For example, some participants studied at private international schools that use English more than Arabic as a means of instruction and communication between teachers and students.

Some of the participants who volunteered to take part in the semi-formal initial interviews were first asked to talk about their university life and their field of specialization. Then, after completing the questionnaire, they had another semi-formal focus group interview with the researcher talking about their points of view and attitudes towards the phenomenon of mixing English with Arabic in speech on campus and between tutors and students. Some of the students mentioned many situations they experienced on campus where one or more colleagues mixed English words with Arabic in their speech.

These initial and post-questionnaire interviews were semi-formal. Although the language variety used was the Jordanian vernacular, most of the words used and topic discussed were academic. To this should be added the social distance between the researcher and the participants. Last but not least, the researcher controlled the directions of the interviews. In the initial interviews, the participants were asked to talk about their university life and their fields of specialization. In the post-questionnaire interviews they were asked to talk about their attitudes and points of view regarding code-mixing in the contexts mentioned above.

Justification for Using Qualitative Data

Interviews are referred to as the "standard tool for fieldwork in sociolinguistics" (Holmes & Hazen, 2014, p. 33). They were used in this study to strengthen, rebut, prove and/or disprove the findings of the analysis of the quantitative data obtained through questionnaires. Another reason for using qualitative data in the current study is that "much self-report by bilinguals is contradicted by observation of actual behaviour" (Milroy, 1987, p. 187) because bilinguals do not usually remember which language was used in a particular linguistic situation. Moreover, the participants may not have a clear awareness of the aspects of interest to the researcher (p. 187).

Creswell (2007, pp. 40-41) mentioned many reasons for conducting qualitative research, which coincide with the reasons for choosing interviews as a means of data collection for the current study:

1. To study population by identifying variables that can be measured.
2. To have a complex understanding of the study that can be formulated by talking directly with the participants.
3. To encourage the participants to share their stories. This minimizes the distance between the researcher and the interviewees.
4. To clearly understand the context in which participants in a study address a problem.
5. To follow up quantitative research.

Creswell (2007) also declared that qualitative data are used because "quantitative measures and the statistical analysis simply do not *fit* [italics in orig.] the problem"

(p. 40). He elaborates that interactions are difficult to capture with existing measures which may not be sensitive to issues like gender and race (p. 40).

Interviews as sources of evidence in research have many strengths and weaknesses. Yin (2014, p. 106) pointed out many pros and cons of this method. The strength of using interviews as a source of evidence in a study is that interviews are targeted. They focus directly on case study topics, and they are insightful. They provide both explanations and personal points of view, such as attitudes and meanings. Creswell (2014, p. 191) asserted that they allow the researcher control over the line of questioning. However, interviews may be biased due to poorly articulated questions. Furthermore, they may be inaccurate because of poor recall. A third weakness of this method is the fact that the data collected may be reflexive in the sense that many interviewees give the interviewers what they want to hear (Yin, 2014, p. 106). Finally, Creswell (2014, p. 191) mentioned that there are many types of interviews: face-to-face, telephone interviews and internet interviews. Each one of these types has its own pros and cons.

3.9 Quantitative Approach

The use of the quantitative approach

Quantitative methods are defined as "the techniques associated with the gathering, analysis, interpretation, and presentation of numerical information" (Teddlie & Tashakkori, 2009, p. 5). Therefore, it is expected that quantitative, statistical data analysis is "the analysis of numerical data using techniques that include (1) simply describing the phenomenon of interest or (2) looking for significant differences between groups or among variables" (Teddlie & Tashakkori, 2009, p. 5). Bryman (2012, p. 160) rightly asserted that quantifying numbers is not the only difference between quantitative research and qualitative research. Indeed, quantitative research has "a distinctive epistemological and ontological position" (Bryman, 2012, p. 160).

Rasinger (2008, p. 10) argued that the main feature of the quantitative data is "that it consists of information that is, in some way or other, *quantifiable* [italics in orig.]" which means that quantitative data can be put into "numbers, figures and graphs" and can be processed using "statistical (i.e., a particular type of mathematical) procedures". Contrasting these two approaches, Rasinger (2010, p. 52) pointed out

that a qualitative study is "*inductive* [italics in orig.]: theory is derived from the results" whereas a quantitative study is "*deductive* [italics in orig.]: based on already known theory", hypotheses are developed and then "proved" or "disproved". He also described a good hypothesis as one that "must be proven right or wrong, and hence, it is important for it to be well defined". In addition to what has already been defined, Rasinger argued that a good hypothesis "must have the potential of being wrong" and be "*falsifiable* and not *tautological* [italics in orig.]" (Rasinger, 2010, pp. 52-53).

The simplest form of quantitative analysis according to Rasinger (2008, p. 10) is quantifying the occurrences of a particular characteristic or feature. He explains in depth that a "typical quantitative variable (i.e., a variable that can be put into numbers) in linguistic research is the occurrence of a particular phonological or syntactic feature in a person's speech". In this study this method was used in counting the number of English words occurring in the participants' speech during the focus group interviews.

The main tools of quantitative research as Bryman (1988, p. 12) affirmed are surveys, experiments, analysis of collected data and structured observation. To answer the questions of this study, all of these tools were utilized. Tracing the methods of quantitative research, Bryman (1988, p. 18) stated that a quantitative research has the following logical structure: Theories determine the problems which can be formed as hypotheses that are derived from general theories. In fact, the hypotheses are expectations of the connections of the study elements (p. 18). Bryman (1988, p. 18) also described the procedures of collecting quantitative data: (a) collecting the survey or the experimental data; (b) analysing the quantitative data in order to test the hypotheses; and after the process of analysis, the hypotheses can be verified or rejected; (c) postulating a theory.

3.10 Pilot Study

A pilot study, i.e. a small version of a full-scale study and certain pre-testing of a research instrument (Van Teijlingen & Hundley, 2001), is a crucial element of a study. It can be based on both qualitative and quantitative research methods (p.1). Furthermore, the pilot study enables the researcher to test the practicability of the

research instruments utilized in the main study (Al-Naqeeb, 2012, p. 115). Van Teijlingen and Hundley (2002) listed many advantages of conducting a pilot study:

1. To test the adequacy of the research instruments;
2. To design a research protocol and assess its workability;
3. To collect preliminary data; and
4. To develop research questions. (p. 34)

In the current study, piloting of the initial interviews and the questionnaire aimed at assessing the reliability of the study design, testing the adequacy of the interviews and the questionnaire, assessing the workability of the research design and developing research questions. One more aim of piloting the focus group interviews was to familiarise the researcher with the questioning technique; as Berry (1999, p. 4) stated, "it is important for the researchers to familiarize themselves with questioning techniques before conducting interviews".

3.10.1 Focus group meetings or interviews

A pilot study was conducted with 15 male and female students randomly chosen from an Arabic class (Arabic AIB351) in the summer of 2012, at Western Sydney University (previously University of Western Sydney), Australia. They were asked to talk about their university life, after which they completed a first draft of the questionnaire. The students showed their interest in the topic of using two languages simultaneously. The participants were places in three groups, with five participants in each interview group. These focus group interviews were recorded and notes on the participants' linguistic behaviour were taken.

After piloting the focus group interviews, the researcher decided to ask the participants to talk about their fields of specialization, along with their talk about university life; to enlarge the participants' talk and to assess whether or not their fields of specialization influenced their use of English. Moreover, the researcher decided to conduct post-questionnaire interviews with the participants, to give them an opportunity to express their attitudes towards code-mixing and to gather as much information about code-mixing by Jordanian university students as possible.

3.10.2 Questionnaire

To achieve validity, the original English version and the translated Arabic draft of the questionnaire were reviewed and modified by a supervisory panel consisting of three members in the academic year 2012. Verifying the extent of the items' appropriateness, two items from Part Five were deleted for accuracy reasons (see Chapter Five):

1. Greeting my friend (same sex):
    a. Good morning/ evening
    b. ṣabāḥ / masā' al kheir
    c. Hi/ Hiz/ Hiaat
    d. al salām ᶜlaikum

2. Greeting my friend (other sex):
    a. al salām ᶜlaikum
    b. Hi / Hiz / Hiaat
    c. Good morning / evening
    d. ṣabāḥ / masā' al kheir

The reason for deleting these two items was that the four options given for each item (a, b, c and d above) do not meet the criterion of this section which is pairing Standard Arabic, Standard English, Colloquial Arabic, Colloquial English and mixed-code of these two languages. In these two items, the options are two Standard Arabic options (b and d in item one, a and d in item two), one multi-option item (c in item one and b in item two) and one Standard English (a in item one and c in item two).

Chapter Four
Qualitative Data – Results and Discussion

Often times it isn't the quality of your candidates, it's the quality of your interview.

Mark W. Boyer (Boyer, n.d.)

This chapter reports and discusses both the reasons for using English and its actual use by the interviewees. The results of each of the 17 focus group interviews conducted in November and December 2012 at the three universities are discussed through (a) quoting from the interviewees' utterances, (b) reporting the interviewees' attitudes and (c) quoting from the researcher's notes taken during the interviews. As mentioned in Section 3.4.3, these notes pertain to academic, linguistic, psychological and social aspects of interviewees' demographics, experience of and attitudes towards code-mixing, their tertiary studies, etc. The second part of this chapter comments on the transcribed focus group interviews.

The qualitative data is comprised of recordings from 17 focus group interviews: three at Al alBayt University, nine at Yarmouk University and five at University of Jordan. Fifteen interviews were conducted with Bachelor students and two with PhD students. The focus group interviews involved between two and six students, both women and men. The duration of each interview, the initial and post-questionnaire interviews, took between five minutes and ten minutes.

4.1 Results of Initial Interviews and Post-questionnaire Interviews

4.1.1 Interview 1

- Setting: Al alBayt University
- Interviewees: six women
- Fields of specialization: Education and Islamic Studies
- Year at university: first

- General note: All interviewees live in villages.

Initial interview

The interviewees did not use any English terms in their talk about their field of specialization and their university life.

Post-questionnaire interview

The responses of all the interviewees reflected a passion to learn English as a second language. The six female interviewees expressed a strong yearning for learning and mastering the English language. However, one of many reasons that prevent them achieving this mastery includes the lack of opportunities to access English courses due to social and economic barriers. Mafraq, where Al alBayt is located, is a tribal area where tradition gives precedence to social norms which give men the privilege to freely move between Mafraq city and its various villages. In terms of economic constraints, these six interviewees revealed their insufficient access to financial support to learn English in private centres located in the city of Mafraq.

One of the interviewees commenced her study at Yarmouk University, majoring in archaeology. However, her low proficiency in English resulted in her withdrawing from this course and enrolling in an alternative course at Al alBayt University, majoring in Education, which does not require proficiency in English. The second interviewee expressed her strong desire to pair English with her Arabic speech; however, her elementary competency limits her use of both languages simultaneously. The third interviewee stated that the only function of mixing English with Arabic in her speech was to convey greetings, such as “good morning”, “Hi” and “Bye”. When the researcher asked her if she was willing to learn English, she immediately answered “Sure, who does not want to learn English!” The fourth interviewee stated that the reason for not using English in her daily conversation is due to her lack of competency. The fifth and sixth interviewees claimed that they would like to learn English gradually, with no necessity to use it in their daily speech.

From a linguistic perspective, it is worth mentioning that all six interviewees used rural Jordanian Arabic without utilizing English words at all as mentioned above.

This may be due to only having enrolled recently at university as the interview was conducted during their first semester.

From a psychological perspective, in the initial interview, the interviewees were not as relaxed as they were during the post-questionnaire interviews. This psychological state applies to all the interviewees in the current study. One reason would be that they were informed that the purpose of the study was to observe their linguistic behaviour without specifying the actual aim, which was to investigate their mixing of English with Arabic in their speech (see discussion of Research Ethics in the Introduction). Yet, all showed a strong desire to learn and become fluent in English.

From a social perspective, it is critical that these female interviewees live in rural areas surrounding Al Mafraq city. They all revealed that they are financially unable to undertake English language courses in private centres.

In general, although the interviewees were not competent in English, they showed a strong desire to learn English, despite their social and financial constraints.

4.1.2 Interview 2

- Setting: Al alBayt University
- Interviewees: three women
- Fields of specialization: Accounting and Economics
- Year at university: first- General note: One of the interviewees did not participate at all, neither in the initial interview, nor in the post-questionnaire interview. When asked about the reason, she replied in her urban Jordanian vernacular: “I do not know English well but I am learning it to comprehend my major courses”. The other two interviewees live in Amman; one has studied in a British school there while the other one has studied in a private Catholic school. Moreover, one of these two interviewees has cousins living in London while the other interviewee has two aunts working in the British Council in Amman and who use English a lot in their speech.

Initial interview

When asked to talk about their field of specialization, the interviewees used many English words.

Extract One

A: Ana badrus accounting

[I am studying Accounting.]

B: w ana badrus economics. iḥna ḥaaliyyan bnaakhud micro-economics w finance yᶜny iqtiṣād juz'y w in sha Allah ᶜ elfaṣl eljaay ḥ nazzel el macro

[And I am studying economics. Now, we are enrolled in micro-economics [translates the title of the subject in to Arabic. And If Allah (God) wills, next term we will enrol in macro (macro-economics).]

A: Ana halla' ᶜam adrus management w elusbwᶜ el jay ᶜanna plan l company. Lāzem netkhayyal innu we are managers w we should put a plan about finance, marketing and production w kul h el ashia

[And I am studying management, and next week we have a plan to a company. We have to imagine that we are managers, and we should put a plan in finance, marketing, production, and all of these things.]

B: It is a challenge for us.

[It is a challenge for us].

Extract Two

A: darsty imbareḥ ᶜala imtiḥān el micro?

[Did you study for the micro exam?]

B: Yeah, but mā la'eetu difficult as I thought el hamdu li Allah

[Yes. Thanks to God (Allah) I did not find as difficult as I thought.]

A: Ana halla' beddy your help b chapter last week

[I want your help in last week's chapter 'The chapter they studied a week before conducting the interview'.]

B: tu'mryny!

[Replied using a social expression to the meaning of "Request what you wish".]

It is clear that these two interviewees are quite competent in English. It is also clear that they used English to express certain terms of their fields of specialization, such as Accounting, Management, Micro/Macro-economics and Finance. Moreover, their

use of English varied between sentence level, such as (*we should put a plan about finance, marketing and production*) and (*It is a challenge for us*) and intra-sentential level English, such as (*Ana badrus accounting*) and (*Ana halla' ᶜam adrus management*). In addition, both kept using Arabic conjunctions and time adverbials, such as (*plan l company*) and (*beddy your help b chapter last week*). However, occasional use of Arabic social expressions where English is not suitable can be found in the response of Student B in extract two "tu'mryny", which can be translated as "ask for what you wish". The frequency of using English is calculated by counting the number of words uttered and expressing it as a percentage of the total number of words uttered: Student A's use of English accounts for 38.9% of the total number of words used by her, and Student B's for 33.3% of her total number of words.

Post-questionnaire interview

When asked about the English words they usually use, they stated that there are many English words or rather morphological units (affixes, words and/or phrases) which they morphologically blend with an Arabic word or affix and use in their Arabic speech, such as *missik, lovvik, achatchetlik* (meaning *I miss you*, *I love you*, and *I will chat with you* respectively). In these examples, they blended English verbs (miss, love and chat) with Arabic affixes (*a* as a prefix, and *ik* as a suffix). In addition to these morphologically blended, Arabic/English mixed words, the interviewees used many technical terms they have learnt in their majors, such as Accounting, Economics, Finance and Micro-economics.

Replying to the researcher's question whether they like to mix English and Arabic, they said that it is easier sometimes to use English. They added that most of the terminology they encounter in their courses is English, not Arabic. They further stated that they use English regardless of the gender of their interlocutors. From their perspective, male students are attracted to girls who use English.

From an academic perspective, the results of this interview show that the interviewees' purposes of using English concur with the general findings mentioned in Chapter Two, which is that English is used for expressing specialised and academic terms.

From a linguistic perspective, Students A and B were very competent in the English language. It was obvious that they were mixing English with their urban Jordanian vernacular spontaneously. This may be due to both their self-confidence and their competence in the language.

From a psychological perspective, these two interviewees were enthusiastic and excited when talking about their experience of mixing English with Arabic on campus and in their daily life off campus as well.

From a social perspective, it appears that Students A and B belong to a high social class, shown by their revelation that they were studying English in private schools in the capital city, Amman. Their schools were among the most expensive private schools or colleges in Jordan. Moreover, having relatives who had mastered English enabled them to practise it more often.

In general, because of their social and financial circumstances, Students A and B were able to learn and practise English more intensively in private schools and with some of their relatives. This was accompanied by high levels of self-esteem and confidence when expressing their positive attitude towards mixing English with Arabic.

4.1.3 Interview 3

- Setting: Al alBayt University
- Interviewees: three men
- Fields of specialization: Civil Engineering
- Year at university: first and second
- General note: All interviewees are villagers.

Initial interview

When asked to talk about their university life and their field of specialization, the only English word they used was a translation of their major, as shown in the following conversation. The percentages of using English in the speech of Student A is 1.6%, Student B is 0.00%, Student C is 4.4%.

A: *handaseh madaniyyeh, civil*
[Civil engineering, civil]

B: *madany*
[Civil].

C: *civil engineering*
[Civil engineering]

Post-questionnaire interview

All three interviewees stated that they rarely mix English with Arabic in their speech when talking to each other or to other male students. However, they stated that it is a habit to use English words while talking to female students. They resort to English when talking to each other, using terms such as "*program setting*" and "*civil engineering*". On the other hand, the words and phrases they use when talking to female students indicate a social setting more than an academic one, for example, "*As you like*", "*By the way*", "*She's nice* (or *cute*)", "*Thanks*", "*Too much*", "*She's a rocket*". This last phrase is widely used by Jordanian speakers to indicate that a woman is very cute and pretty. Students A, B and C claimed that at the beginning of their enrolment at university, they sought to mix English when speaking with women on campus, so that girls would not underestimate them. By the time the interview was conducted, they found it easy and normal to use words of a second language to claim a different social status for themselves. When the researcher finished talking to them, one of them said "*Good luck, miss*", another one said "*Bye bye*".

From an academic perspective, the only English term these interviewees used in the initial interview was from their area of specialization, Civil Engineering. However, from a social perspective, when the purpose of the current study was revealed, in the questionnaire and the post-questionnaire interview, they reported that they use English for social reasons: (a) to attract their female friends' attention and (b) to make claims to belonging to a higher social class, arguing that women are attracted to men who belong to a high social class and mix English with Arabic in their speech. They also stated that as they live in rural areas surrounding the city of Al Mafraq, they try to convey a higher social status to their female friends and also to

use some words associated with urban Jordanians in their own rural variety of Arabic.

From a linguistic perspective, they also reported in the post-questionnaire interviews that it is easier for them to use English when expressing engineering terms such as carrying capacity, lamination, masonry, radiation detector, twin thread screw and UCATT, which is an acronym for Union of Construction Allied Trades and Technicians.

From a psychological perspective, all of the interviewees were enthusiastic and expressed a positive attitude towards using both English and words from an urban variety of Arabic in their rural Jordanian variety. They also expressed a great willingness and readiness to learn English for academic reasons, as their area of specialization requires proficiency in English, and for the social reason of attracting members of the opposite sex.

In general, the results of this focus group interview are compatible with some of the studies mentioned in Chapter Three: the main purpose of using English for these interviewees was to show a socially prestigious status along with attracting members of the opposite sex.

4.1.4 Interview 4

- Setting: Yarmouk University
- Interviewees: three women
- Field of specialization: English
- Year at university: first
- General note: One of the interviewees lives in a village, the other two did not say where they lived. All revealed that they were not diligent students or proficient speakers of English.

Initial interview

When they were asked to talk about their university life and their field of specialization, they used very few English words, as shown in the following extracts.

Extract One

A: iḥna nestakhdim inglyzy sometimes

[We use English sometimes.]

B: ṣaḥ, ana ḥatta law batᶜallam inglyzy bekwn el pronunciation ᶜndy weak

[Right, even if I am learning English, my pronunciation is weak.]

A: w ana ḥatta law tdarrabt aḥki, I fraid speak English

[Even if I learned English, I am afraid to speak English.]

Extract Two

A: ana ma bḥeb el literature l 'in fyh kalimāt kthyr ṣaᶜba

[I do not like literature because there are many difficult words.]

C: ana mw bs ma bḥebu w kamān bakrahw. Lāzim nuktub kul shy b ilinglyzy

[I do not just dislike it. I despise it too. We must write everything in English.]

B: I like literature bs ma amtaḥin fyh

[I like literature but I do not like the literature examinations.]

All of the interviewees claimed that their university professors do not offer an environment where they can practise English in a classroom setting. This impacts their ability to freely engage in conversations where English is used dominantly. As a result, Arabic was the dominant language in the short interview although the field of specialisation of the interviewees was English Literature and English Language. They used English terms at random, without them serving any particular purpose. The percentage of using English in the speech of Student A is 7.4%, while Student B's is 1.1%, and Student C's 0.00%.

Post-questionnaire interview

When asked whether they tended to mix English with Arabic in their speech, one interviewee stated that she used English only if her interlocutor uses it. The second interviewee said that she uses English on campus sometimes. The third one expressed her wish to speak English all the time but was unable to do so because she was not good at English and because she had nobody to practise with.

The self-reports of the interviewees shows that at least for one of them the purpose of using English is social, whereas for the others the reason for *not* using English is linguistic as they lack competence in the language.

From both academic and linguistic points of view, the interviewees lacked proficiency in English, despite majoring in English as mentioned above, as they were first year students when the interview was conducted. The dominant language in the initial interview was Arabic, specifically a rural variety of Jordanian Arabic. However, they did mix a few words of English with Arabic in their speech. Two of these were English words morphologically blended with Arabic, *literature* and *pronunciation*: the prefix *el,* used in Colloquial Arabic as a definite article, was attached to the English words (el-*literature* and el-*pronunciation*). Moreover, they lacked linguistic competence and speaking skills in English. Lack of linguistic competence in English was admitted in their self-report and is shown in the ungrammaticality of Student A's utterance "*I fraid speak English*". Lacking speaking communicative competence was also admitted to in the interviewees' self-report and is proven by the small number of English words used in their initial interview.

From a psychological perspective, the interviewees were embarrassed because of their lack of competence in English. They were also neither enthusiastic about speaking English nor motivated to do so. This might be due to (a) their linguistic and communicative lack of competence, and (b) the new university environment to which they were trying to accommodate themselves at the time of the interview.

From a social perspective, although two of the interviewees did not reveal their place of residence, their rural variety of Arabic indicates that they live in a village.

In general, all of the academic, linguistic, psychological and social factors can be identified as reasons for being unable to mix English with Arabic in their speech.

4.1.5 Interview 5

- Setting: Yarmouk University
- Interviewees: three men
- Field of specialization: English
- Year at university: first, second and third

- General note: One interviewee was studying French as his minor course. All are villagers.

Initial interview

When chatting about their field of specialization, they used very few English words.

Extract One

A: Ana idha kunt wathiq, baḥky inglyzy
[If I feel confident, I speak English.]

B: wein?
[Where?]

A: bi el department!
[In the department!]

B: leih? Ma fy speaking courses
[Why? Aren't there speaking courses?]

A: el mafrwḍ, gabl fatra ḥāwalw yeᶜmalw bs ma nefeᶜ
[Supposedly, they (the officers at the Department of English Language and Literature) tried to offer speaking courses, but it did not work out.]

Extract Two

C: haẓā el term mākhid phonetics mᶜ Mahadein. Kreht el inglyzy min warāh
[This term, I enrolled in Phonetics with (Dr.) Mahadein. I hated English because of him.]

B: hu uslwbu ḥilw bs biᶜṭy as'ila ṣaᶜba bi el final w biḍrub bi el participation
[He has a good (pedagogical) method of teaching but he gives difficult questions in the final exam and he (does not give high marks) for participation.]

A: jd? Shw bidna niḥky ᶜn mawḍwᶜ jdyd ᶜlynā?!
[Really? What can we say about a new topic like this?!]

B: hu mfakkir inna methluh binḥib el phonetics!
[He assumes we enjoy Phonetics like him.]

A: hassa lāzim adrus phonetics b el Master?

[Do I have to learn phonetics at Masters level?]

C: mush bi keifak!

[Not your choice! – You cannot choose.]

The interviewees rarely mixed English with Arabic in their speech. However, the function of their limited use of English is an academic one, to express specialised terms such as *phonetics*, as the title of a course unit, and terms used in university teaching such as *final (exam)*, *Master* and *participation*. The percentages of using English in the speech of Student A is 7.1%, Student B is 13.5%, Student C is 2.4%.

Post-questionnaire interview

The three interviewees admitted that they like using English sometimes but their fear and lack of confidence limit their willingness to do so. This led the conversation to another issue, i.e. whether using one language may affect another language or not. One interviewee, Student A, said that using English may affect the Arabic language itself. He added that the case of Arabic–English mixing now is similar to that of Arabic–Ottoman Turkish during the era of Ottoman colonization of many Arab countries. One of the other two interviewees commented as shown in the Extract below.

Extract Three

C: bs ma ᶜanna wala kilma min ʻaṣl turky!

[But we do not have any word from the Turkish language!]

A: Khāshwga!

[kaşık ("spoon" in Turkish)]

B: "khallynā ngwl elduwal yly istaᶜmarat.ha faransa, mārasw el lugha el faranseyya b seyaqhum el ᶜaraby"

[Let's say that people in countries that have been under French colonization use French in their Arabic speech.]

C: hay swria lessa yudrusw ṭib b el ᶜaraby!

[Medicine is still taught in Arabic in Syria!]

A: İin el niẓām thabbat el lugha!

[Because the decision makers affirmed the language!]

As shown in Extract Three, the interviewees have a good understanding of what it means to be mixing two languages in a community. It is very common in the Jordanian community to hear Turkish words from elderly people who witnessed the Ottoman rule over Jordan in the early twentieth century. Examples of these words are: *Khāshwga* [a spoon], *dughry* [straight], *Aywah* [yes as an affirmative answer], *makwajy* [someone who irons clothes], *sufrajy* [a waiter], *Qahwajy* [a coffee shop waiter or a servant whose job it is to pour coffee to guests], *umbāshi*, *bikbāshy* and *shāwysh* [different ranks in the armed forces]. Some of the above words are still used in Jordan by both elderly people and the younger generations as they are considered borrowed words: *dughry*, *aywah*.

Student B stated that the language of the colonizer is usually considered a foreign language in the colonized country. Student C cited the example of a country once colonised by the French, i.e. Syria, where today both Arabic and English are the medium of instruction at university, yet Medicine is taught in Arabic, not in French or even in English. Student A explained that the reason for this is that Arabic was confirmed as the language of instruction by the decision makers in Syria.

From both academic and linguistic points of view, the interviewees stated in both self-report and the initial interview that they lack proficiency in English. Despite not being competent in English, they knowledgeably discussed the topic of mixing two languages in one utterance.

From a psychological perspective, all three interviewees were enthusiastic and showed much interest in the topic of the study. They stated that mixing two languages in one utterance might indicate contact between the native speakers of the languages. According to Student A, this linguistic contact may encourage one to learn about history and historical linguistics. Interestingly, one of the interviewees asked the researcher to provide him with the results of the study after publishing them and appreciatively expressed his willingness to participate in any future research related to code-mixing.

From a social perspective, the interviewees live in villages and use a rural Jordanian variety of Arabic. They stated that they are proud of being villagers and utilizing the Jordanian variety, which they consider the variety of their Jordanian ancestors. They claimed they tend not to use English to attract the attention of the opposite sex or to give a false impression of their social class.

In general, despite their lack of competence in the English language itself, the interviewees have a positive attitude towards mixing the two languages. They correctly believe that language contact is a result of earlier contact between native speakers of the two languages.

4.1.6 Interview 6

- Setting: Yarmouk University
- Interviewees: one woman and two men
- Fields of specialization: Physics
- Year at university: first and second
- General note: All interviewees are urban residents.

Initial interview

When the interviewees were asked to talk about their field of specialization, the only English words they used were Physics terms, such as *Sin, Cos*, *Tan* and *calculus.*

Extract One

A: *Shu darastu imbāriḥ?* (A is a female student.)
[What did you study yesterday?]

B: *darast ᶜ emtiḥān el calculus.*
[I studied for the *Calculus* exam.]

C: *w ana kamān. gdirt tḥil tamāryn ᶜ elsin w el cos w el tan?*
[I did too. Did you try to answer exercises on *Sin*, *Cos* and *Tan*?]

B: *ah, bs mu kthyr.*
[Yeah, but not that many exercises.]

A: *ana lessa ma darast!*
[I did not study.]

As shown in this extract, the only English words mixed with Arabic in their speech are specialised terms. Students A and B blended these terms and put them in an Arabic morphological mould, in which the article *al* in Modern Standard Arabic, and/or its Colloquial equivalent *el*, was added as a prefix to the English words *Sin*, *Cos*, *Tan* and *Calculus*.

Post-questionnaire interview

The interviewees stated that they still use the phrases they have learnt during their early stages in school. For example, "*I love you*" which many university students put in an Arabic morphological mould "*lovvak*" (when addressing a male) and "*lovvik*" (when addressing a woman), "*How are you?*", "*What are you doing?*" and "*Hi*" which many students put into an Arabic morphological mould "*Haaikum*" (used to salute a group of people). The two male students revealed that they were forced to learn English to be able to do their major and to get a chance after graduation to work in a high-ranking job in Jordan.

When asked whether they like mixing English with Arabic in their speech, the two male interviewees' response was negative, while the female interviewees remained silent. However, both male interviewees declared that they are likely to use some English while chatting to a female friend.

From academic and linguistic points of view, in this post-questionnaire interview, the function of using English was to communicate scientific jargon and social expressions. Linguistically, they stated that they were not proficient in English but they had to learn it so as to comprehend their major, Physics, which is taught in English at Jordanian universities.

From a psychological perspective, they seemed to have a negative attitude towards mixing English with Arabic in their speech. A male interviewee explained that the reason for not using English in his speech is both a lack of language competence and a readiness to learn English.

From a social perspective, all interviewees are residents in urban areas of Amman. Their Jordanian variety is urban as well. The female interviewee expressed her reason for using a few English words on campus was to attract male friends and to let

them know that she lives in the capital city, Amman, not Irbid where her university is located.

In general, the interviewees did not display a positive attitude to mixing English with Arabic in their speech nor to the English language itself. Although they are urban, they stated that they do not resort to English often, except to express technical or scientific terms and/or words that pertain to their area of specialisation, Physics.

4.1.7 Interview 7

- Setting: Yarmouk University
- Interviewees: five men
- Field of specialization: Arabic
- Year at university: first, second, third and fourth
- General note: All interviewees live in villages.

Initial interview

The interviewees did not use any English terms in their talk about their field of specialization and their university life.

Post-questionnaire interview

After completing the questionnaire, the interviewees conversed with the researcher about their actual use of English and their perspective regarding code-mixing. They stated that they use a few English words when talking to and about women such as "*Hello*", "*Good morning*", "*Oh my God*", "*nice*", and "*hot*". They stated that they tend to use these English words and phrases when talking to female friends to give them the impression that they are of a high social rank, as one of them said.

Extract One

A: Ellugha el inglyzyya terfaᶜ min mistawa el prestige.
[English language increases the prestigious rank.]

C: yᶜny ka'innu prestygw ᶜāly
[As if his status was high [the male student's social class while using English with a woman).]

The researcher: titᶜammadw tiḥkw ingyzi mᶜ el banāt?

[Do you intend to use English with girls?]

Their responses were positive: aywah, mazbwṭ, ā.

[Yeah, right, yup]

The interviewees' self-report clearly demonstrates their perception of the effect of mixing English with Arabic while addressing women. As their self-reports highlight, the functions of code-mixing by these interviewees were socio-cultural ones, for example, in a greeting. These functions are supported by the findings of Al-Khatib and Sabbah (2008), who reported three main functions of using English in the Jordanian environment: (a) socio-cultural and religious functions, (b) greeting and (c) quoting (see Chapter Three).

The interviewees were discussing the issue that arises from the influence of mixing English within Arabic speech, as shown in the following Extract.

Extract Two

B: *nᶜm, fyha tahdyd lallugha nafs.hā*

[Yes, there is a threat to the language itself "Arabic language".]

A: *bat'th.thir ᶜ allugha nafs.hā l'inhā tu'addy l tarājuᶜ mustawā ellugha elᶜarabeyya*

[It influences the language itself because it has a negative impact on the level of Arabic language.]

D: *bit'ath.thirish. ᶜaraby hw ᶜaraby w inglyzy hw inglyzy*

[It does not. Arabic is Arabic and English is English "Arabic language remain Arabic and English language remain English".]

E: *t'ath.thir ᶜ ellugha; l'innu byṣyr tadākhul bein ellugha elᶜarabeyya w ellinglyzyya*

[It influences the language, because of the blending/ mixing between the Arabic language and English.]

C: *bat'th.thir ᶜ t.haddid ṭalāqet elmutaḥaddithyn*

[It has an impact: it threatens the proficiency of the speakers.]

Three of the interviewees, whose major is Arabic Language and Literature, claimed that mixing English with Arabic in their speech may influence the Arabic language itself. Student D argued against the majority by denying any influence of Arabic–English code-mixing, whereas Student C stated that Arabic–English code-mixing threatens the proficiency of native speakers of the Arabic language.

From academic and linguistic points of view, the major area of specialization of the interviewees was Arabic; they did not use any English words in the initial interview. They did not know any specific English terms that relate to a scientific topic. Moreover, sociolinguistically speaking, their Colloquial Arabic was rural.

From a psychological and a social perspective, the interviewees thought that using English would increase their self-confidence when talking to female friends and thus would indicate a higher social class. As their self-reports show, they feel that female students underestimate male students who live in villages, and so they tried to use many English words and to speak an urban vernacular while talking to women.

In general, the interviewees had a positive attitude towards mixing English with Arabic in their speech, especially while conversing with women on campus. Their main reason for using Arabic on campus was social: to greet and attract the other sex, and to indicate a higher social class.

4.1.8 Interview 8

- Setting: Yarmouk University
- Interviewees: two women and two men
- Field of specialization: Education
- Year at university: second and third
- General note: All are urban residents.

Initial interview

The interviewees did not use any English terms in their talk about their field of specialization and their university life.

Post-questionnaire interview

The two male interviewees stated that they do not use any English words at all except when talking to women. One said that he uses some English words if one of the interlocutors uses English frequently in their speech regardless of their gender. The two women stated that they use English more often when talking to males. They said that they were using English deliberately but it eventually became a habit whenever they communicated with male friends at university.

One of the female interviewees pointed out that there are many words in Arabic that should be used in their speech instead of their English equivalents, for example, *assalāmu ᶜalaykum* (the Islamic salutation) instead of *hi*.

From academic and linguistic points of view, the interviewees were majoring in Education, which is taught in Arabic at Jordanian universities. They did not use any English words, neither for social purposes, nor to overcome terminological challenges.

From a psychological and a social perspective, they all admitted that they mix English with Arabic in their speech to attract members of the opposite sex. Despite their self-confidence, which was obvious in the initial interview, they underestimated their ability when they found out that the focus of the study was on their use of English.

In general, the interviewees had a positive attitude towards mixing English with Arabic in their speech on campus. They stated that the only purpose of their use was social: to attract members of the opposite sex.

4.1.9 Interview 9

- Setting: Yarmouk University
- Interviewees: three women
- Field of specialization: Islamic studies
- Year at university: first and second
- General note: Interviewees do not talk to male students at university. All are urban residents.

Initial interview

The interviewees did not use any English terms in their talk about their field of specialization and their university life.

Post-questionnaire interview

Talking about their university life and their field of study, the interviewees did not use English except in one sentence: "*ḥayaat eljamᶜa* ***prestige***". However, after completing the questionnaire, they revealed their secret of using many English and French words so as to indicate agreed-upon concepts (as codes to refer to something) when they wanted to exclude other interlocutors. Some words they use are "interview" or "rendezvous" to refer to a date; "YouTube" to refer to an embarrassing situation one has been through; "dangerous" to refer to a handsome man; "rocket" to refer to a pretty girl; "red person" to refer to a VIP (a very important person); "office" to refer to the bathroom and "Jordanian Pancake" to refer to a traditional dish called *msakh.khan "مسخّن"*.

The interviewees discussed, of their own free will, whether English-Arabic mixing affects the Arabic language or the proficiency of its native speakers.

B: *mumkin ellugha elᶜarabeyya*
[Perhaps Arabic language "It would influence Arabic language"]

A: elithnein
[Both]

C: ellugha, yᶜny mumkin lughatna teḍᶜaf
[The language, I mean our language may weaken.]

From an academic perspective, the major area of specialization of the three interviewees was Islamic Studies; and from a linguistic perspective they did not use any English words in the initial interview. However, they admitted in the post-questionnaire interview that they use many English words to indicate and/or refer to a certain context. Their main purpose of using English words was social: to exclude other interlocutors.

From a psychological and a social perspective, the interviewees showed a high level of self-esteem and self-confidence in both initial and post-questionnaire interviews. They were very cooperative and enthusiastic as well.

In general, they had a positive attitude towards mixing English with Arabic in their speech. However, they stated that they do not use English for any reason other than excluding some interlocutors. It is worth emphasizing that the English words they use to do this indicate new agreed-upon meanings and concepts, such as those given above, for example *dangerous* to refer to a handsome man.

4.1.10 Interview 10

- Setting: Yarmouk University
- Interviewees: three men
- Field of specialization: Engineering
- Year at university: first and second
- General note: Only one of the interviewees, Student B, is a rural resident.

Initial interview

The interviewees used some English words when they were talking about their university life and their major in engineering.

Extract One

A: faj'a el ywm b muḥaḍarit el statistics, el doctwra galat fyh quiz
[In the lecture today, the doctor suddenly said "quiz" (She gave them a sudden quiz).]

B: ana b el second akhdhit make up b mādit el Circuit
[I had a make-up exam in circuit "a university subject" in the second exam.]

C: keif ᶜmilt b your exam?
[How did you do in your exam?]

B: elmādih ṣaᶜba
[The subject is difficult.]

When the researcher asked them about their major, one of them said while laughing "*handasit power*" (Power Engineering).

Post-questionnaire interview

When asked about the English words they use on campus, the interviewees responded as shown in the following extracts.

Extract Two

A: bastakhdim kalimāt ᶜilmiyya b elinglyzy, bitkwn b ilᶜaraby mw mafhwma mithil Digital Design ma bniḥkyha taṣmym raqamy.

[I use the terminological words in English. They can be misunderstood in Arabic; for example, we do not use taṣmym raqamy to refer to Digital Design.]

B: tkhayyaly niḥky muᶜālajit ishāra raqamiyya. la' bniḥky DSP.

[Imagine we say "muᶜālajit ishāra raqamiyya". No, we use the English equivalent: DSP "Digital Signal Processor".]

A: mathalan flip - flop!

[like flip-flop]

C: bilnisbeh ly, eltarḥyb hiz

[According to me, I salute using hiz (combining the word hi and the plural suffix "s" in English as meeting the suffix (kum) in Arabic which is used to refer to second person, masculine, plural).]

B: ithā ᶜndak waqt farāgh, btḥky "break" aw ay sāᶜa breakak

[If you have free time, you say "break" or "When is your break?" (combining the word break and the singular masculine suffix "ak" in Arabic which is equivalent to second person, singular, masculine in English).]

A: ḥatta ᶜ mustawa wājib baity, bneḥky "homework". ithā ḥkeit wājib, biṣyrw yeḍḥakw ᶜaleik

[Even at the level of the word "wājib baity", we say "homework". If you say "wājib", they are going to laugh at you "Referring to the students at university".]

Their answer to the question "Do you use English words intentionally with women and/or men?" is as shown below.

Extract Three

A: m^{c} elithnein

[with both]

C: ^{c}ādy, ma bafrriq

["I use it" normally, do not differentiate (whether I am talking to a male or a female friend).]

B: ḥasab! ithā kānat ilbent muzza, ba^{c}mal lḥāly charisma

[Depends! If the girl is cute, I will act charismatic.]

When asked about their opinion about mixing English within Arabic speech, they said as shown in Extract Four.

Extract Four

C: heik illugha il^{c}arabiyya tinqariḍ

[This way the Arabic language will be extinct.]

B: linnu fyh ikhtilāf b illahja ^{c}innā bein madyna w qarya, biṣyr illinglyzi as.hal. marra waḥda ḥakat ll <u>doctor</u> 'y kabtar wṣlna

[Because there is a difference between rural and urban varieties, so English becomes easier. Once a girl asked the lecturer: Which kaptar (chapter) are we up to?]

A: hwn b iljām^{c}a bint ilqarya tshouf lahjet.hā b (g) ghalaṭ, btSyr tiḥky inglyzy. Hassā anā fyh kalimāt ma ba^{c}raf m^{c}nāhā b ^{c}araby mithil <u>Hard disk, CD, USB</u> aw <u>Flash</u> bs mā baqwlhā linhā inglyzy!

[Here at university, girls from villages consider their (rural) accent wrong, so they resort to English. There are many English words which I do not know their meaning in Arabic; such as Hard disk, CD, USB or flash but I do not use them because they are English!]

The interviewees pointed out that the rural place of residence may influence the frequency of using English by Jordanian university students. They stated that some students who live in rural areas tend to use English more often than their urban counterparts instead of moderating their heavy pronunciation of many sounds in the rural variety. For instance, Student B mentioned an example of a female student who substitutes the sound /tʃ/ with the sound /k/ in saying the word (chapter). The sound

/tʃ/, replacing the sound /k/, is widely used by speakers of the rural variety of Jordanian Arabic, which is considered the colloquial variety of uneducated and illiterate villagers.

From academic and linguistic points of view, the interviewees stated that they use English terms to express terminology in their area of specialization, Engineering, which is taught in English at Jordanian universities. Moreover, they also stated that they mix English with Arabic in their speech because the Arabic words expressing engineering terms might be misunderstood and/or confusing.

From a psychological perspective, the interviewees showed a high level of self-confidence during both the initial and the post-questionnaire interviews. They also were happy to participate in the discussion of this topic, as it has become one of the aspects of their daily life, as they reported in the post-questionnaire interview.

From a social perspective, two interviewees live in Irbid city whereas Student B lives in a village. It is worth mentioning that the place of residence did not affect the attitude of the interviewees towards using English on campus. Nor does it affect the purposes of mixing English with Arabic in their speech, which are academic and social: to express terminology and to attract members of the opposite sex. None of the interviewees stated that their use of English was to falsely indicate a higher social rank than their own.

In general, the interviewees displayed a positive attitude towards the English language itself. However, regarding code-mixing Student C stated that mixing English with Arabic in speech has a negative impact on the Arabic language. They were happy, enthusiastic and willing to be more engaged in the topic of the research. Their offer to help the researcher distribute the questionnaire was appreciated. (For ethical reasons, the researcher declined their offer; see section on Research Ethics in the Introduction).

4.1.11 Interview 11

- Setting: Yarmouk University
- Interviewees: three men
- Field of specialization: Accounting

- Year at university: first and second
- General note: All interviewees are rural residents.

Initial interview

Student B did not use any English words. He said that he finds his major in Accounting difficult because most of the course materials are in English.

Extract One

B: *darstw ᶜ mādit imbāriḥ?*
[Did you study the lesson we took yesterday?]

A: *ā, bs rakkazit ᶜ non-profit organisations payment lel supply w ta'thyrhā ᶜ el accounting equation.*
(Yeah, I focused on the topic of payment of non-profit organisations for supplies and its influence upon the accounting equation.]

B: *ṣāyr tegra!*
[You have become a diligent student!]

C: *walak udrus. wallah ishtaghalt ᶜ non-profit organisation w ḥāwlt aṭṭalliᶜ el financial position ilha. mush sahla.*
[Oi, study! I swear I studied on the topic of non-profit organisations and I tried to figure out their financial position. It is not easy.]

A: *hy sahla bs bedna neddarab ᶜalyha akthar*
[It is easy but we have to practice.]

The interlocutors used English to express Accounting terms that had been used in their lesson a day before this initial interview. This function of mixing English with Arabic in speech is supported by the findings of Al-Khatib and Sabbah (2008), which showed that mixing English with Arabic in speech by Jordanian university students is done to serve certain functions, such as expressing terminology (see Chapter Three).

Post-questionnaire interview

When asked whether they mix English with Arabic, one of the interviewees stated that he uses English only in job interviews. He considered the phenomenon of

Arabic–English mixing as blind imitation of the West. Student B stated that he does not like English at all, and he does not like using it either. Unlike Student B, Student A likes to mix English with Arabic in his speech because it is a means of showing off. Therefore, Student A admitted that he tends to use English when talking to a female friend. On the other hand, all the interviewees believed that mixing English with Arabic in speech has a negative impact upon their proficiency in Arabic. Student A asserted that the native speakers of Arabic have lost proficiency in both languages due to their mixing of English with Arabic in speech. He claimed that using English in Jordan is a two-edged sword, which native speakers of Arabic have to use carefully. Otherwise, using this foreign language in Jordan is considered a negative influence upon the proficiency of native speakers of Modern Standard Arabic in Jordan.

From academic and linguistic points of view, the interviewees used English to express terminology they had learned in their Accounting studies. This is because their area of specialization is taught in English at Jordanian universities. Linguistically speaking, they reported that their lack of competence in English is a main reason for not understanding their major field of specialization, Accounting, which, as mentioned above, is taught in English.

From a psychological perspective, in the post-questionnaire interview the interviewees were not as enthusiastic as they were in the initial interview. It is worth mentioning that Student B expressed his desire to withdraw from participating in the post-questionnaire interview if his negative attitude towards English was expected to negatively impact the current study. After being informed that his attitude would not have any negative influence upon his studies, he stated that he did not like his major, Accounting, because of his low competence in English.

From a social perspective, Students A and C reported that they tended to mix English with Arabic in their speech to attract women at university. On the other hand, although all the interviewees live in villages, they tend not to make false claims to membership of a higher social class, nor do they feel undervalued because of their place of residence like many other university students.

In general, the interviewees displayed a negative attitude towards English. This is because of (a) their lack of proficiency in English, (b) their belief that it has a negative impact upon their proficiency in Arabic. This influenced their level of comprehension of their area of specialization, Accounting, which is taught in English.

4.1.12 Interview 12

- Setting: Yarmouk University
- Interviewees: two men
- Field of specialization: Arabic language
- Year at university: First year of PhD candidature
- General note: Both interviewees are rural residents.

Initial interview

The interviewees did not use any English words when talking about their university life and their field of specialization.

Post-questionnaire interview

The two interviewees believe that mixing English with Arabic in speech has a negative influence upon the native speakers' proficiency in Standard Arabic. When asked whether they see this phenomenon negatively or positively, Student A said that it is a bad habit which is merely for showing off, whereas Student B refused to answer. Student A commented that a culture is not measured by the frequency of using English words. He mentioned the efforts of the Chinese people as an example of translating the world's literature into their language, unlike Arab scholars who are keen to use resources in English. In conclusion, it can be said that these two interviewees appeared to not advocate or make use of code-mixing in order to preserve the Arabic language.

From academic and linguistic points of view, these two interviewees did not use any English in both the initial and the post-questionnaire interview. They stated that the Arabic language is measured by the extent to which its native speakers appreciate it, and by continuous adaptation and translation of new English scientific terms.

From a psychological perspective, the interviewees did not display any negative attitudes towards the English language, but they showed a high level of appreciation of their mother tongue, Arabic. By the same token, they expressed their frustration that the Arabic language is not being appreciated by its native speakers at two levels: an official level represented by Arabic governments and language academies, and an informal level represented by its native speakers.

From a social perspective, the interviewees' place of residence did not affect their attitudes towards English. It is worth mentioning that they used Modern Standard Arabic in both the initial and the subsequent post-questionnaire interview. However, what influenced their choice of Modern Standard Arabic was their field of specialization, Arabic Language and Literature.

In general, the interviewees looked favourably on the Arabic language and displayed a positive attitude towards it. They stated that mixing Arabic with another language is not of benefit to either Arabic or its native speakers.

4.1.13 Interview 13

- Setting: University of Jordan
- Interviewees: three men and one woman
- Field of specialization: Arabic language
- Year at university: Second year of PhD candidature
- General note: The woman is from a rural community, whereas the men are from an urban community.

Initial interview

The interviewees did not use any English when talking about their university life and field of specialization. They used Standard Arabic in initial interview.

Post-questionnaire interview

When asked if they code-mix English with Arabic, Student A, a former teacher of English who had been teaching English for 30 years before deciding to study Arabic, said that he cannot get rid of one of these two languages as both are connected directly to his daily life. Similarly, Student B commented that he changed his major from Law to Arabic Language because he likes Arabic. However, he stated that he

likes using English where possible. Unlike Students A and B, Students C and E (woman) reported that their reason for not using English is that they had dedicated themselves to learn and teach the Arabic language. Not surprisingly, they used only Standard Arabic in the post-questionnaire interview.

Student A stated that mixing English with Arabic in speech is considered an act of blind imitation. He mentioned Ibn Khaldun saying in his *Muqaddimah* (Prolegomenon): "The vanquished always want to imitate the victor in his distinctive mark(s) his dress, his occupation, and all his other conditions and customs" (Sheikha, 1984). Then he said that when many Jordanians mix English words with Arabic in their speech, they unconsciously imitate the nation that they highly revere. He believes that Jordanians mixing English with Arabic in speech in general is not as threatening and serious as using various Arabic colloquial varieties. He also remarked that a language may be elevated or belittled by its speakers, and therefore if native speakers of Arabic esteem it highly, it is not going to vanish or die out.

Student B does not believe that the Arabic language is under any kind of threat because it is preserved in the Holy Quran; as mentioned in Chapter 15, Verse 9: "*We have, without doubt sent down the Message; and We will assuredly guard it (from corruption*)" (Yusuf, 1998, p. 638). Student B added that he is not afraid of using English, but rather of the blind imitation of English native speakers.

Student C believes that mixing English with Arabic in speech does not threaten the Arabic language at all. He elaborated that using Standard Arabic in daily life does not affect the status of the language. From his perspective, what guarantees the status of a language are the achievements of Arabic-speaking nations. He mentioned English as an example: it has spread all over the world due to the technical inventions of English-speaking countries. So, he thinks that if Arabic-speaking countries improve their technology and industry, the Arabic language will be preserved and highly valued all over the world.

Student D thought that mixing English with Arabic in speech is a serious threat to the Arabic language itself. She said that some native speakers of Arabic use many English words thinking that they are originally Arabic. By doing so, there will be a whole generation that cannot put a border between these two languages.

From academic and linguistic perspective, the interviewees did not use any English in their initial and post-questionnaire interviews. The Arabic variety which they used in these interviews was Modern Standard Arabic. Linguistically speaking, two male interviewees reported that they are competent in English: one had been an English language teacher and the other had enrolled in an English language course to undertake the TOEFL (Teaching of English as a Foreign Language) test. These two interviewees, Students A and B, also reported that they like Arabic more than English, and that they highly valued Modern Standard Arabic. They also stated that the major threats to the Arabic language are its colloquial varieties, not English. The third male interviewee, Student C, reported that the Arabic language would be highly valued if it were the language of new scientific discoveries and inventions. In addition, the female interviewee expressed her concern that people may not distinguish between Arabic and English if the mixing of these two languages continues to be the norm among native speakers of Arabic.

From a psychological perspective, they were happy to participate in the current study and did so enthusiastically. They showed great respect for the researcher and demonstrated a sophisticated understanding of the significance of the research.

From a social perspective, they stated that their place of residence did not affect their attitudes towards both languages. However, the main influence upon their attitude towards Arabic was their major area of specialization, Arabic Language and Literature.

In general, two interviewees displayed a positive attitude towards both Arabic and English whereas the other two did not share their positive attitude towards English.

4.1.14 Interview 14

- Setting: University of Jordan
- Interviewees: four men
- Field of specialization: Economy
- Year at university: second
- General note: All interviewees are villagers.

Initial interview

The interviewees started their conversation by talking about their field of specialization. Then the conversation turned to the attitude the father of one of the interviewees had towards English.

Extract One

A: nāwy ākhuth Introductory Economics el faṣil eljāy

[I am planning to enrol in Introductory Economics next term.]

B: ṣḥ elnawm!

[You are early (Sarcasm intended).]

A: kunt ākhuth mutaṭallabāt

[I studied prerequisite subjects "last year".]

B: he sahla bs biddak trakkiz l'in kul faṣil menha b mādeh kāmleh

[It is easy but you have to focus because each lesson (of this unit) is a complete unit on its own.]

C: akhathetha el faṣil el māḍy. ḥabeit mawḍwᶜ el elasticity of demands.

[I studied it last semester. I liked the topic of the elasticity of demands.]

D: ibn tājir!

[The son of a merchant.] All laughed.

B: walak ḥatta abowy byᶜraf "supply and demand" b il inglyzy. yugᶜud yetfalsaf ᶜ Abu Naser bi hal kilmtein.

[Oi, even my father knows the words "supply and demand" in English. He acts witty in front of Abu Naser (the father of Naser. Naser is Student D).]

D: mhw abowy mush ᶜārif aṣlan shu maᶜnāhin!

[My father does not actually know what they mean.] All laughed.

C: inta iḥky showayyet inglyzy beiṣyr Abu Naser ylḥag warāk

[Communicate using some English words and Abu Naser will cling on to you.]

D: ya zam marra begully lmma tshwfny mᶜ Si'eed ehchy showayyet inglyzi mush tṣyr laṭma.

[Oh man. He once asked me to speak English when I see him accompanying Sa'eed, and not to act dumb (by speaking Arabic only).] All laughed.

It is evident that the sole reason for resorting to English is to express economic terms. The subject matter of the conversation shifted to the positive attitude of the father of one of the interviewees who lacks proficiency in English. Yet, he endeavours to insert some English words that he knows into his Arabic speech. Furthermore, he asked his son to use English whenever Sa'eed, their neighbour, is present. Student D imitated his father's Bedouin accent when he uttered the name of the neighbour Sa'eed, where the initial letter S is followed by the short vowel /*a*/ in Urban Arabic and Standard Arabic, while in the rural and Bedouin varieties of Jordanian Arabic it is followed by the short vowel /*i*/. The function of mixing two language varieties here, quoting someone, is mentioned by Al-Khatib & Sabbah (2008), Mustafa & Al-Khatib (1994) and Viswamohan (2004). Viswamohan (2004) explained that code-switching (referred to as code-mixing in Extract One) hints at an element of irony which is probably the aim of Student D.

Post-questionnaire interview

All four interviewees admitted that they mix English with Arabic in their speech intentionally when talking to female friends. Two interviewees, Students B and C, think that Arabic–English code-mixing threatens the Arabic language, whereas the other interviewees, Students A and D, believe it is a kind of cultural habit that has no relevance to the language itself.

From academic and linguistic points of view, the four interviewees used English words to express economic terms used in their area of specialization. They all stated that it is more convenient and less confusing to use English to express academic terms. Linguistically, they stated that they are competent in academic English. Specifically, they are competent in English when talking about their major field of study, Economics, because English is used in their university classes and is the language of their textbooks. In regard to their Jordanian variety, they used the strong rural variety of Arabic.

From a psychological perspective, all the male interviewees were enthusiastic and happy to participate in such a study as it relates directly to their academic life and personal daily life as well, as noted by them. Overall, their sense of humour prevailed in their talk about the attitude of the father of one of the interviewees, who had a positive attitude towards English. In addition, they displayed a positive attitude towards both the English language itself and towards mixing English with Arabic in speech.

From a social perspective, although all of the interviewees are rural and they use a heavy rural variety of Jordanian Arabic, they did not try to urbanize their speech and reported that they belittle students, especially female ones, who moderate their rural variety to falsely claim membership of a higher social class. It is worth mentioning that all were proud of their "traditional rural accent", as they reported in the post-questionnaire interview.

In general, the interviewees were extremely engaged with the topic of the current study. They were self-confident and spontaneous. Regardless of their heavy rural accent, their choice of words revealed a considerable level of literacy and general knowledge.

4.1.15 Interview 15

- Setting: University of Jordan
- Interviewees: three men
- Field of specialization: Arabic language
- Year at university: third
- General note: Two are from a rural community.

Initial interview

The interviewees did not use any English terms in their talk about their field of specialization and their university life.

Post-questionnaire interview

Two of the interviewees claimed that they do not use English at all in their daily lives. They remarked that mixing English with Arabic in speech was the only threat to the Arabic language. The third interviewee stated that he uses code-mixes

infrequently, mainly when talking to his female friends. He believes that mixing English with Arabic in speech may have a negative impact upon the proficiency and fluency of native speakers of Arabic as shown by some words of English being widely used in Jordan.

From academic and linguistic points of view, the interviewees did not use English at all, neither in the initial interview nor in the post-questionnaire interview. This is because of the direct impact of their major, Arabic Language and Literature, upon their choice of spoken language. Linguistically, it was doubtless the case that the two rural students tried to moderate and urbanize their rural variety when talking to the researcher. The dominant language variety used by these interviewees was Urban Arabic.

From a psychological perspective, the interviewees were not as enthusiastic about the Arabic language as the researcher had expected. It is worth mentioning that unlike the interviewees in Interview 13 who did not use Colloquial Arabic at all, the Arabic majors taking part in this interview did not use Modern Standard Arabic at all.

From a social perspective, the two rural interviewees tried to make a claim to a social class to which they did not belong by urbanizing their Rural Arabic. Interestingly, one of them reported that although he lacks competence in English, he tends to mix English with Arabic while talking to female friends, especially if they live in urban areas. In general, their contribution was formal and short. They did not show any interest in the topic of code-mixing.

4.1.16 Interview 16

- Setting: University of Jordan
- Interviewees: three men
- Fields of specialization: Engineering
- Year at university: second
- General note: All live in urban communities.

Initial interview

The interviewees did not use any English terms in their talk about their field of specialization and their university life.

Post-questionnaire interview

All three interviewees admitted to code-mixing English with Arabic in their daily lives. They claimed that the most frequently used words are scientific terms specific to their field of specialization. They stated that they do this regardless of the gender of their interlocutors. One of the interviewees contends that mixing English with Arabic in speech neither exerts any direct negative influence on the Arabic language itself nor on the proficiency of native speakers of Arabic. Voicing a contrary opinion, the other two interviewees asserted that code-mixing weakens the proficiency of the native speakers of Arabic. However, while stating that code-mixing does not affect the status of Arabic, Student A believed that if Jordanians maintain frequent use of English in their daily lives, it will ultimately detrimentally affect their fluency as native speakers of Arabic. He thinks that the only time English should be used to code-mix is when there is no Arabic equivalent of an English word. He also stressed the need for a law to prevent the spread of English in the Arab World.

Although their field of specialization, Engineering, is taught in English at university, the interviewees did not use any English terms when referring to their study. Yet, in the self-report, they admitted that they frequently use English terms, especially when talking about their field of specialization. As clearly noted, there is no consistency between their personal reflections in the self-report and the initial interview which was totally in Arabic.

From academic and linguistic points of view, the interviewees, whose major is taught in English at Jordanian universities, did not use any English terms when talking about their area of specialization. Jordanian Urban Arabic was the variety used predominantly.

From a psychological perspective, they were moderately interested in the topic of the current research. Although they had different attitudes towards code-mixing, they did not display a negative attitude towards the English language itself.

From a social perspective, these urban interviewees did not show a tendency to use English in order to attract members of the opposite sex and/or to convey a false image of their social status.

4.1.17 Interview 17

- Setting: University of Jordan
- Interviewees: three men
- Field of specialization: Medicine
- Year at university: first and second
- General note: All are from rural communities.

Initial interview

The interviewees did not use any English terms in their talk about their field of specialization and their university life.

Post-questionnaire interview

All interviewees admitted mixing English with Arabic in their speech. Two said that they tend to use it in front of female friends, while the third one said he uses it regardless of the gender of the interlocutors. Discussing whether this linguistic phenomenon affects Arabic or the proficiency of native speakers of Arabic, two said that it influences the language itself, whereas the third believes that it does not have any negative impact upon Arabic. He mentioned that many of his friends mix English with Arabic in the university setting but do not do so in interactions in their social lives.

From academic and linguistic points of view, all interviewees reported that their mixing of English with Arabic was to allow them to express medical terms. Although English is the medium of instruction in Medicine, they did not mix English with Arabic at all, neither in the initial interview nor in the subsequent post-questionnaire interview. Sociolinguistically speaking, just two of the interviewees stated that they tended to code-mix when talking to female friends.

From a psychological perspective, the interviewees showed interest in the topic of the current study. In addition, their attitude towards the English language and towards mixing English with Arabic in their speech were neutral. From a social perspective, the interviewees are rural from rural communities. They stated that their reason for mixing English with Arabic was not to make a false claim to membership of a superior social class.

In general, as previously stated in the discussion of Interview 16, there appears to be an imbalance between the interviewees' self-report and the initial interviews. They admitted that they code-mix English with Arabic frequently; however, they did not resort to any English term when talking about their field of specialization, despite it being taught in English at Jordanian universities.

4.2 Discussion of Focus Group Interviews

This section discusses the qualitative data with a view to establishing whether they are consistent with the hypotheses postulated in the Introduction. These hypotheses assert various reasons and factors as responsible for code-mixing by Jordanian university students.

First, it was hypothesised that young students would mix English with Arabic in their speech more frequently than their older counterparts. This hypothesis has been confirmed by the results of the focus group interviews conducted with Bachelor level students compared to interviews conducted with PhD students, whose field of study was Arabic language (see Interviews 12 and 13). Two factors were found to be significant for the PhD interviewees: age and major. Generally, the older students felt compelled to argue in favour of preserving the Arabic language as a symbol of their national identity. They tended to speak Arabic in settings not requiring specialised terminology. The speech of the PhD students had only a limited number of English utterances, and these were of academic concepts. On the other hand, young students, specifically first and second year undergraduate students, had a higher tendency to code-mix English with Arabic in their speech for many reasons, without any particular pattern being discernable. One of the main functions of code-mixing of English and Arabic is a social objective, which is to appear attractive to the opposite gender. Other reasons why interviewees mix English and Arabic include: (a) an academic reason, expressing terminology related to their field of study, and (b) a linguistic reason, expressing scientific jargon that does not have an Arabic equivalent or whose Arabic equivalent is not commonly used in the Jordanian environment.

Secondly, it was hypothesised that female students would code-mix more frequently than their male counterparts. This hypothesis is not completely supported by the qualitative data, which showed that male students code-mix more frequently for

social purposes. Male students appear to have a strong tendency to use English when conversing with female friends. As mentioned in Chapter One, English is highly valued by Jordanian people. So, resorting to English is a sign of a prestigious social status by Jordanian university students. It is a commonly held perception by young male students in Jordanian universities that English attracts the attention of female students.

Thirdly, it was predicted that using English in scientific areas of study is due to the fact that these areas are taught in English, e.g. Medicine, Engineering and Accounting. Instances where code-mixing occurs include specific contexts to communicate scientific jargon exclusive to the students' area of study. For example, most of the interviewees' self-reports and initial interviews support the hypothesis that English is used in academic environments for the purpose of realising the field of discourse.

Fourthly, it was hypothesised that students of the University of Jordan, which is located in Amman, the capital city, would code-mix more frequently than their counterparts at Al alBayt University and Yarmouk University, which are located in less cosmopolitan cities. This hypothesis is not fully supported by the qualitative data. From the qualitative data set, it is evident that the place of study has less influence on the use of English than the place of residence.

Comparing and contrasting the findings of the analysis of the qualitative data set regarding both factors, i.e. place of study and (realisation of) field of discourse, the researcher found that there was no consistent pattern in the use of English terms and expressions by science students at the University of Jordan. While it was expected that students of Accounting, Medicine and Engineering would mix English with Arabic more frequently than students in the Arabic Department of the University of Jordan, in the initial interviews English words mixed with Arabic were only produced by the Accounting students. By contrast, the interviewees undertaking Science studies at Al alBayt University and Yarmouk University resorted to mixing English terms with Arabic more frequently than their counterparts at the University of Jordan.

Fifthly, it was hypothesised that urban students would code-mix English with Arabic in their speech more frequently than their rural counterparts. For many reasons, the findings of the analysis of the qualitative data set do not completely confirm this hypothesis, despite the interview sample including a larger number of rural residents (N = 32) than urban residents (N = 20). Regardless of their place of residence, all of the interviewees admit that they use English for two reasons, as mentioned above: to realise the field of discourse (an academic reason) and to express scientific jargon that does not have any equivalent in Arabic (a linguistic reason).

In conclusion, the qualitative data set completely confirms the hypothesis that young students use English more frequently than their older counterparts, acknowledging the fact that the field of study of the older interviewees, in their third and fourth year at university (see Interviews 7 and 15) and PhD students (see Interviews 12 and 13) is Arabic Language. However, this does not completely confirm the hypothesis that women code-mix more frequently than men. While all of the interviewees code-mix for academic and linguistic purposes, it appears that men also code-mix for social purposes. Moreover, the analysis of the qualitative data set completely proves that the study of science subjects has a stronger effect on the decision to code-mix than the study of the Humanities, Education and Islamic Studies. However, the qualitative data set does not tell us whether urban students and students at the University of Jordan code-mix more frequently than their rural counterparts and students at Al alBayt University and Yarmouk University.

Chapter Five

Quantitative Data – Results and Discussion

Statistics: The only science that enables different experts using the same figures to draw different conclusions.

Evan Esar (Esar, n.d. cited in Kumar, 2008, p. 225)

The current chapter reports on the quantitative data collected through a six-page survey questionnaire and discusses the results of the analysis of the data.

5.1 Survey Return Rate

Of the 1200 survey questionnaires administered to students, 1166 were returned to the researcher. The return rate was 97.16%. No subsequent surveys were undertaken due to time and financial constraints.

5.2 Participants' Demographic Information

This section presents descriptive statistics for the open-ended and close-ended items in Part One (Demographic Information) and Part Two (Social and Academic Background) of the questionnaire. The distribution of participants according to the demographic information obtained is summarized in Table 5.1.

Table 5.1: Participants by Gender, Age, Study (Level, Field, Place), Residence, Status and Income

Item	Variable	No.	%
Gender	Men	434	**37.2**
	Women	730	**62.6**
	No answer	2	**0.2**
	Total	**1166**	100.0
Age	<20 year	361	**31.0**
	20-25year	621	**53.3**
	26-35year	121	**10.4**
	>35year	48	**4.1**
	No answer	15	**1.3**
	Total	**1166**	100.0
Level of Study	Bachelor	924	**79.2**
	Masters	147	**12.6**
	Doctorate	76	**6.5**

Item	Variable	No.	%
	No answer	19	**1.6**
	Total	**1166**	100.0
Field of Study	Art	379	**32.5**
	Science	268	**23.0**
	Education	154	**13.2**
	Medicine	56	**4.8**
	Engineering	121	**10.4**
	Economy	116	**9.9**
	Computer Science	13	**1.1**
	Religious studies	33	**2.8**
	Law studies	2	**0.2**
	No answer	24	**2.1**
	Total	**1166**	100.0
Place of Study	Al alBayt University	338	**29.0**
	University of Jordan	330	**28.3**
	Yarmouk University	452	**38.8**
	No answer	46	**3.9**
	Total	**1166**	100.0
Place of Residence	A city	384	**32.9**
	A village	668	**57.3**
	No answer	114	**9.8**
	Total	**1166**	100.0
Socio-economic Status	Excellent	161	**13.8**
	Good	581	**49.8**
	Average	390	**33.4**
	Not too bad	8	**0.7**
	Poor	12	**1.0**
	No answer	14	**1.2**
	Total	**1166**	100.0
Pocket Money per Week	<15 JD	271	**23.2**
	15-35 JD	599	**51.4**
	36-55 JD	106	**9.1**
	>55 JD	102	**8.7**
	No answer	88	**7.5**
	Total	**1166**	100.0

As shown in Table 5.1, the total number of participants (N = 1166) reflects the demographic diversity of Jordanian university students: age, gender, field of study, level of study, place of study and place of residence. Added to this variation in the quantity of the participants' demographic factors are the findings of the qualitative data which includes the participants' various attitudes towards English language and points of views regarding code-mixing (See Chapter Four). Consequently, this

variation leads to a large scope of results to be generalized in the Jordanian universities located in North Jordan.

5.3 Participants' Social and Academic Background

Part Two of the questionnaire (Social and Academic Background) sought to identify the most significant factors affecting the frequency of code-mixing by participants. The participants' affirmative responses (number and percentage) to the 14 items in Part Two are listed in Table 5.2.

Table 5.2: Participants' Social and Academic Background (Affirmative Responses to Items 1-14)

#	Item	No.	%
1	Arabic is the ONLY language used at home	781	67.7
2	I have no non-Arabic speaking relatives	847	73.4
3	One or both of my parents are learning/have learned English	545	47.4
4	One or both of my parents teach/have taught, English	205	18.0
5	One or both of my parents is from a non-Arabic background	78	6.8
6	I want to travel outside Jordan	972	85.3
7	I want to marry a non-Arab spouse	172	15.1
8	I watch English speaking movies/series	959	83.2
9	I have lived in a city for the last ten years	739	64.3
10	I have friends from an English speaking background	486	42.3
11	The textbooks in my field of study at university are written in English	629	54.9
12	The language of instruction in my classes is English	600	52.1
13	I have studied English since kindergarten	545	47.3
14	I lived in an English speaking country	77	6.7

Note: Number and percentage exclude missing responses.

As shown in Table 5.2, items 1 to 5 represent participants' family background, revealing that 73.4% of participants have no non-Arabic speaking relatives. By contrast, only 6.8% of participants' parents are from a non-Arabic background and 67.7% of participants use Arabic only at home.

Items 11 to 13 represent participants' knowledge of English, revealing that approximately half of all participants have been learning English from kindergarten

on. Also, 85.3% and 83.2% of participants want to travel outside of Jordan and watch English movies/series respectively. As a result, this motivates as well as influences them to use English along with Arabic in their daily life. Beside these, other items presented in the table show reasons for using mixed code, such as living in an English speaking country (item 13).

Table 5.3 shows the most important factors influencing the frequency of code-mixing by the participants by presenting their detailed answers to the 14 items.

Table 5.3: Participants' Social and Academic Background (Breakdown of Responses to Items 1-14)

#	Item	Answer	No.	%
1	Arabic is the ONLY language used at home	Yes	781	67.0
		No	372	31.9
		Missing	13	1.1
		Total	1166	100.0
2	I have no non-Arabic speaking relatives; cousins, nephews	Yes	847	72.6
		No	307	26.4
		Missing	12	1.0
		Total	1166	100.0
3	One or both of my parents are learning/ have learned English	Yes	545	46.7
		No	606	52.0
		Missing	15	1.3
		Total	1166	100.0
4	One or both of my parents teach/ have taught English	Yes	205	17.6
		No	935	80.2
		Missing	26	2.2
		Total	1166	100.0
5	One or both of my parents is/are from a non-Arabic background	Yes	78	6.7
		No	1067	91.5
		Missing	21	1.8
		Total	1166	100.0
6	I want to travel outside Jordan	Yes	972	83.4
		No	167	14.3
		Missing	27	2.3
		Total	1166	100.0
7	I want to marry a non-Arab spouse	Yes	172	14.8
		No	967	82.9
		Missing	27	2.3
		Total	1166	100.0
8	I watch English speaking movies/TV series	Yes	959	82.3
		No	194	16.6
		Missing	13	1.1

#	Item	Answer	No.	%
		Total	1166	100.0
9	I have lived in a city for the last ten years	Yes	739	63.4
		No	411	35.2
		Missing	16	1.4
		Total	1166	100.0
10	I have friends from an English-speaking background	Yes	486	41.7
		No	662	56.8
		Missing	18	1.5
		Total	1166	100.0
11	The textbooks in my field of study at university are written in English	Yes	629	53.9
		No	517	44.4
		Missing	20	1.7
		Total	1166	100.0
12	The language of instruction in my classes is English	Yes	600	51.5
		No	551	47.3
		Missing	15	1.2
		Total	1166	100.0
13	I have studied English since kindergarten	Yes	545	46.7
		No	608	52.2
		Missing	13	1.1
		Total	1166	100.0
14	I lived in an English-speaking country	Yes	77	6.6
		No	1078	92.5
		Missing	11	0.9
		Total	1166	100.0

An analysis of Tables 5.1, 5.2 and 5.3 shows that the factors that most strongly influence code-mixing of English with Arabic in speech vary from social to academic, and relate directly or indirectly to the personal aspiration of travelling abroad and the choice of entertainment, i.e. watching English-language movies and TV series.

5.4 Factors Influencing Code-mixing by Jordanian University Students

In Part Three of the questionnaire (Why I use English), items are categorized into four main purposes for code-mixing. As hypothesized in Chapter One, Jordanian university students code-mix for distinct purposes: linguistic, (realisation of) field of discourse, personal and social purpose. To answer research question two, What are the factors that affect the mixing of English with Arabic in speech among Jordanian university students?, descriptive statistics was applied to show the alpha scores for items in Part Three of the questionnaire. Table 5.4 shows that linguistic reasons for

code-mixing scored the highest, with social reasons the second-highest, whereas personal reasons scored the lowest. It may therefore be concluded that Jordanian university students code-mix most frequently for linguistic and social purposes.

Table 5.4: Response Items and Alpha Reliabilities of Scales

Factor	Item	Alpha
Linguistic	- English vocabulary is simple and more direct. - I use English in my speech to clarify uncommon Arabic words. - I use English spontaneously and unconsciously. - I use English because I am good at it. - I use English because I like it.	.76
Field of discourse	- It is easier to express scientific concepts in English. - I use English to refer to scientific discoveries, e.g. computers, telephones… - It is easier to express scientific concepts in English - I use English in my speech when saying English terminological words, e.g. hard drive, anatomy, pragmatics …	.66
Social	- I use English in my speech intentionally to show off - I use English in my speech to show my social status - I use English in my speech intentionally to impress the other sex - I use English because my friends do so	.75
Personal	- It is just a habit. I just do it. - I use English in my speech when saying socially unacceptable words - I feel happy when I use English in my Arabic speech - I use English because there is information which I can't convey in Arabic - I use English to exclude others	.54

Notes: 1. Items were arranged in a random order in the survey. Students responded to the items on a 5-point Likert scale (1 = low to 5 = high). 2. Items which have low alpha scores and do not correlate with the main factors are listed as "Personal".

Code-mixing for family use and academic use

A two-factor solution was derived, where the first factor was labeled "Family Use" and the second factor "Academic Use". To check the reliability of the factors, Cronbach's Alpha (reliability measure under internal consistency or a single dimension) was calculated and a good reliability value obtained, of .828 and .804 for the first and second factor respectively. The simple factor structure of Part Four is shown in Table 5.5.

Table 5.5: Factor Loadings of Items in Part Four of Questionnaire (When I use English in my Arabic speech), Generated in EFA and Reliability Rates

Factor 1: Family Use			
Item	**Statement**	**Factor Loadings**	**Cronbach's Alpha**
1.	Talking with family	.766	
2.	Talking with relatives	.785	.828
3.	Talking with same-sex friends	.658	
4.	Talking with other-sex friends	.549	
Factor 2: Academic Use			
Item	**Statement**	**Factor Loadings**	**Cronbach's Alpha**
5.	Talking with my teachers in class	.758	
6.	Talking with my colleagues in class	.705	.804
7.	Video-audio online chatting	.453	
8.	Talking to my teachers outside the class	.732	

Table 5.6 shows that the mean ranges between 2.31 and 2.99, the highest being for "Talking with same-sex friends" and the lowest for "Talking to my teachers outside the class". The overall mean for these items is 2.62. This result shows that the participants code-mix more frequently with same-sex friends and with their teachers in class as opposed to their teachers outside class and with relatives.

Table 5.6: Mean and Standard Deviation for Items in Part Four of Questionnaire (When I use English in my Arabic speech)

1	Talking with family	2.55	1.12
2	Talking with relatives	2.42	1.03
3	Talking with same-sex friends	2.99	1.11
4	Talking with other-sex friends	2.51	1.19
5	Talking with my teachers in class	2.91	1.27
6	Talking with my colleagues in class	2.73	1.13
7	Video-audio online chatting	2.58	1.32
8	Talking to my teachers outside class	2.31	1.15

5.5 Situations in which Jordanian University Students mix Arabic with English

Language choice for 10 items in Part Four of the questionnaire (Social Situations) are shown in Table 5.7.

Table 5.7: Language Choice for Items in Part Five of Questionnaire (Social Situations), by Frequency and Percentage

#	Item	Expression	No	%*	Option
3	Examination	el exam	281	24.1	Arabic/English
		el imtiḥān	647	55.5	Colloquial Arabic
		Quiz/ Examination	179	15.4	Formal English
		Al Ikhtibār	46	3.9	Formal Arabic
4	First Exam	The first exam	312	26.8	Formal English
		el awwal	147	12.6	Colloquial Arabic
		al taḥḍyry	5	0.4	Formal Arabic
		el first	690	59.2	Arabic/English
5	Second Exam	el thāny	143	12.3	Colloquial Arabic
		The second exam	253	21.7	Formal English
		al niṣfy	8	0.7	Formal Arabic
		el second	748	64.2	Arabic/English
6	Final Exam	el akhyr	33	2.8	Colloquial Arabic
		el final	929	79.7	Arabic/English
		The final exam	110	9.4	Formal English
		al nihā'y	82	7.0	Formal Arabic
7	Agreement	Ok	813	69.7	Colloquial English
		Deal / I agree	36	3.1	Formal English
		ṭayyeb	222	19.0	Colloquial Arabic
		mwāfiq/ mwāfiqa	79	6.8	Formal Arabic
8	Seeing a good looking person	Handsome/ beautiful	93	8.0	Formal English
		elḥelw/ elḥelwa	608	52.1	Colloquial Arabic
		wasym/ jamyla	86	7.4	Formal Arabic
		Wow	342	29.3	Colloquial English
9	Thanking others	I appreciate your help	25	2.2	Formal English
		jazāka/ jazāki Allah khair	89	7.6	Formal Arabic
		Shokran	721	61.8	Colloquial Arabic
		Thankaat	307	26.3	Arabic/English
10	Scientific field	Teqaneyyet al maᶜlwmāt	194	16.6	Formal Arabic
		I.T.	815	69.9	Colloquial English
		Information technology	76	6.5	Formal English
		teknulwjia el	56	4.8	Colloquial

#	Item	Expression	No	%*	Option
		maᶜlwmāt			Arabic
11	Curriculum Vitae	Al syra al dhatiya	210	18.0	Formal Arabic
		Curriculum vitae	12	1.0	Formal English
		el syra	35	3.0	Colloquial Arabic
		C.V.	889	76.3	Colloquial English
12	Apologizing	Sorry	653	56.0	Colloquial English
		āsef/ āsfa	433	37.1	Colloquial Arabic
		I apologize	15	1.3	Formal English
		aᶜtadher	44	3.8	Formal Arabic

* This percentage was calculated considering the missing responses or values.

^ This percentage was calculated without counting the missing responses or values.

Each of the items 3 to 12 can be expressed by using one of the four listed options: Standard Arabic, Standard English, Colloquial Arabic, Colloquial English or a mix of Arabic and English.

Figures 5.7 and 5.8 show that the most frequent codes used by the participants are Arabic–English mixed code and Colloquial English. Specifically, the mixed code is frequently used by the participants to express examination situations (Examination, First Exam, Second Exam and Final Exam). In contrast, Colloquial English is frequently used to express thanks (Thanking others), Agreement, Seeing a good looking person, the scientific field (Information Technology), Curriculum Vitae and to apologize.

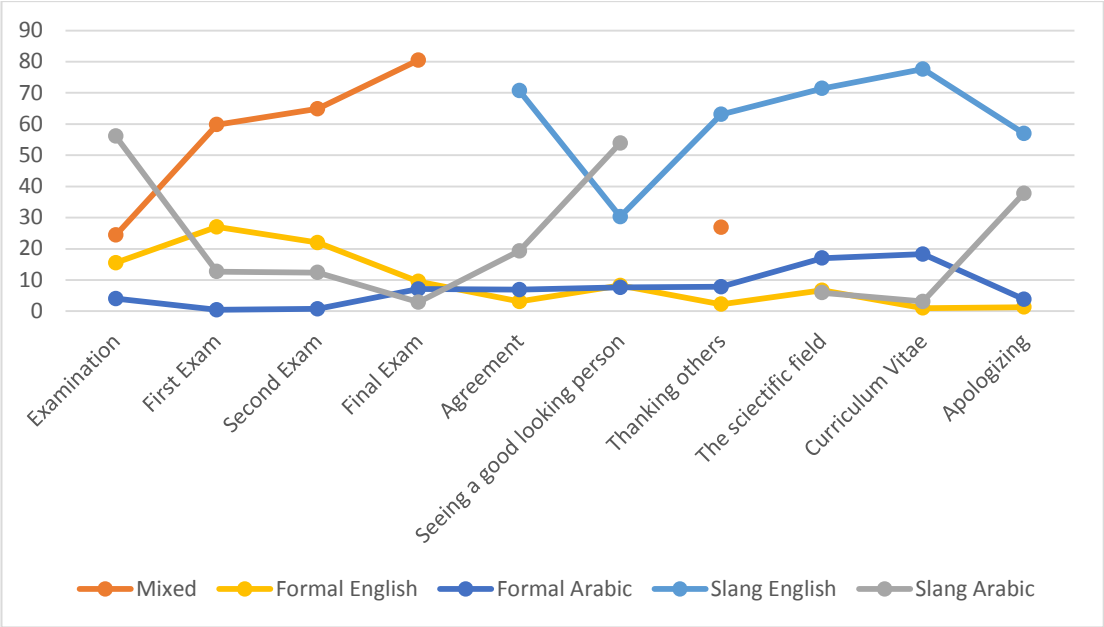

Figure 5.1: Codes (Language Variety) Used (%)

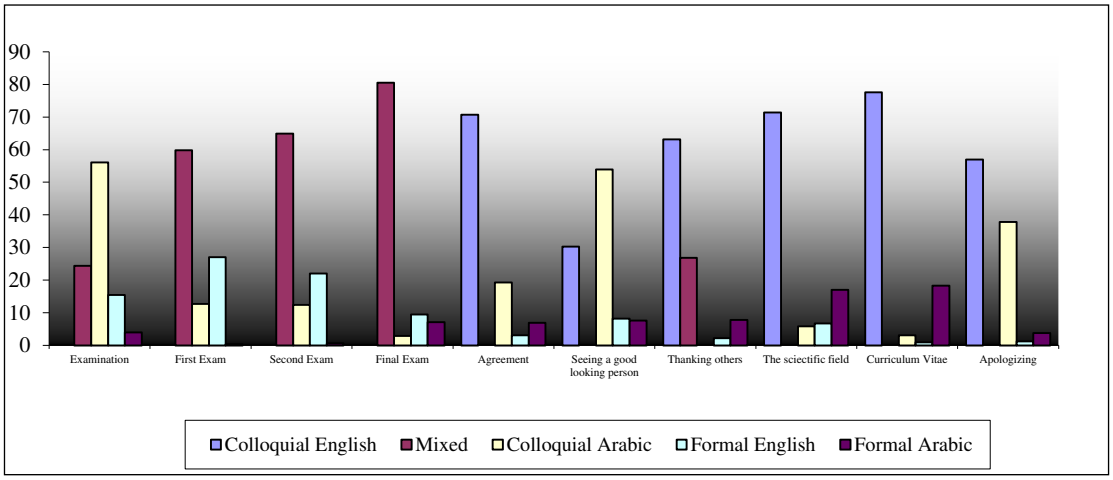

Figure 5.2: Items in Part Five of Questionnaire (%)

5.6 Factor Correlations

Principal component analysis was conducted to test the ability of the items to establish three factors: linguistic, field of study and social. Correlation analysis was conducted with the factor scores (an average of the item scores pertaining to the respective factor) to examine any associations between the three factors. Using the factor scores, a 2 (gender) x 2 (urban vs rural place of residence) x 3 (universities) multivariate analysis of variance (ANOVA) was conducted. The purpose was to

examine whether there was any significant difference between the purposes of mixing English with Arabic for any of these factors and any interactions.

Table 5.8: Factor Loadings and Correlations for Linguistic, Field of Study and Social Factors

Factor Loading	Linguistic	Field of Discourse	Social
Item 1	.60	.81	.80
Item 2	.58	.71	.81
Item 3	.59	.52	.77
Item 4	.78	.66	
Item 5	.83	-	-
Correlations			
Linguistics	-	-	-
Field of discourse	.48	-	-
Social	.28	.08	-

Table 5.9 presents the means, standard deviations and *F*-statistics of the 2 (gender) x 2 (dwelling) x 3 (universities) multivariate ANOVA. The ANOVA found that gender and place of residence were statistically significant effects for linguistic purpose, *F*s (1, 1040) = 5.38 and 8.88, respectively, $p < .05$; however, the main effect of university was not significant, *F* (2, 1040) = 2.52. An inspection of the mean scores found that for linguistic purpose female students tended to score higher than males, whereas students living in villages tended to score higher than those living in the city. There was no difference between the three universities for linguistic purpose, nor for (realisation of) field of discourse or social purpose. Hence the results supported the hypothesis that some gender differences would exist and that women would tend to mix English with Arabic for reasons related to their linguistic competence.

Regarding scientific purpose, the main effect for place of residence was statistically significant, *F*s (1, 1040) = 6.00, $p < .05$, indicating that students living in villages tended to mix English with Arabic more than those living in the city when they referred to scientific fields. The main effects of gender and university were not significant, with *F*s = 0.60 and 0.98, respectively. However, all differences for the linguistic and scientific factors were found to be small, with $\eta 2 = .01$ for statistical significant effects, and $\eta 2 = .00$ for non-significant effects.

Regarding social purpose, the main effect of gender was statistically significant, with Fs (1, 1040) = 4.68, $p < .05$, indicating that male students tended to mix English with Arabic more frequently for social purposes than female ones. Neither main effects of place of residence nor university was significant, with Fs = 0.00 and 2.35, respectively. All these effects were very small, even with $\eta 2 = .00$ for the statistically significant effect of gender. Hence the differences found for social purpose may not have any practical implication.

Table 5.9: Means, Standard Deviations and 2 (Gender) x 2 (Place of residence) x 3 (University) ANOVA Results

		Male students						Female students						Gender	Dwelling	University	*MSE*
		City			Village			City			Village			*F*(1,1040)	*F*(1,1040)	*F*(2,1040)	
		Uni1	Uni2	Uni3	Uni1	Uni2	Uni3	Uni1	Uni2	Uni3	Uni1	Uni2	Uni3				
Variable		*N*=71	*N*=68	*N*=9	*N*=64	*N*=76	*N*=92	*N*=65	*N*=142	*N*=29	*N*=127	*N*=131	*N*=178				
Linguistic	*M*	3.16	3.01	3.00	3.27	3.45	3.29	3.52	3.28	3.06	3.58	3.47	3.30	5.38*@	8.88*@	2.52	.75
	SD	0.91	0.88	0.61	0.87	0.77	1.00	0.86	0.83	0.90	0.84	0.85	0.88				
Scientific	*M*	3.81	3.86	3.78	3.87	4.12	3.96	3.74	3.80	3.78	3.96	3.92	3.89	0.60	6.00*@	0.98	.59
	SD	0.92	0.74	0.91	0.76	0.61	0.89	0.78	0.74	0.88	0.75	0.70	0.75				
Social	*M*	2.23	2.29	2.28	2.37	2.14	2.16	2.26	2.01	1.91	2.19	2.10	2.04	4.68*	0.00	2.35	.74
	SD	0.84	1.00	0.82	0.99	0.91	0.88	0.89	0.78	0.92	0.84	0.76	0.84				

Note: *N*=1,052. *p<.05. @ η2 = .01; other main effects have $\eta 2$ <.01, and all interaction effects are not significant (p>.05; $\eta 2$ = .00).

The gender x place of residence effects for linguistic, scientific, and social purposes were: Fs (1, 1040)=0.57, 0.00, and 0.41, respectively; the gender x university effects were: Fs (2, 1040)=1.66, 0.76, and 0.39, respectively; the place of residence x university effects were: Fs (2, 1040)=1.44, 0.93, and 0.10, respectively. Finally, the 3-way gender x place of residence x university effects were: Fs (2, 1040)=0.31, 0.76, 1.63, respectively. All η2 =.00.

5.7 Demographic Factors Affecting Code-mixing of English with Arabic in Speech by Jordanian University Students

This section seeks to answer the question as to whether demographic factors have an effect on the code-mixing of English with Arabic in speech by Jordanian university students. To this end the statistical measures *t*-test and ANOVA were applied, with the results displayed in Tables 5.10 to 5.15, and supported by Figures 5.3 to 5.8 graphically.

Gender

To determine whether women (*N = 730*) code-mix more than men (*N = 434*), an independent samples *t*-test was conducted. The result of the *t*-test was statistically significant, t (1162) = -2.13, p = .034, thus it is concluded that women code-mix English with Arabic for linguistic reasons more frequently than men.

Table 5.10: Descriptive Statistics of Code-mixing for Linguistic Reasons by Gender

Gender	No	M	SD
Men	434	3.20	0.94
Women	730	3.32	0.93

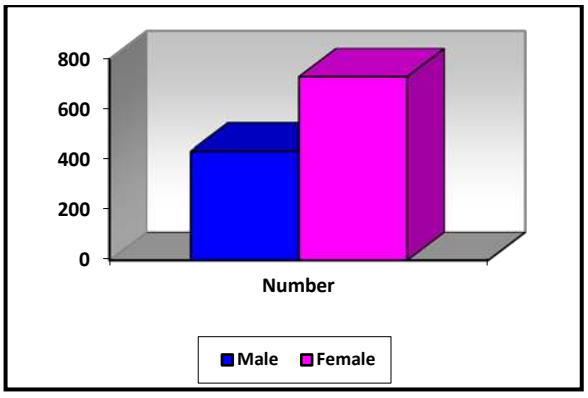

Figure 5.3: Participants by Gender

To determine whether men (*M* = 2.23, *SD* = 0.92) code-mix English with Arabic for social purposes more than women (*M* = 2.09, *SD* = 0.81), an independent samples *t*-test was conducted. The result of the *t*-test was statistically significant, t (*1162*) = 2.76, p = .006, thus it is concluded that Jordanian male students code-mix English with Arabic for social purposes more frequently than their female peers.

Table 5.11: Descriptive Statistics of Code-mixing for Social Reasons by Gender

Gender	No	M	SD
Men	434	2.23	0.92
Women	730	2.09	0.81

Age

To determine whether undergraduate students under the age of 20 (M = 2.66, SD = 0.83) use code-mixing more than students aged 20 or over (M = 2.47, SD = 0.78), an independent samples t-test was conducted. The result of the t-test was statistically significant, t (917) = 2.91, p = .004, thus it is concluded that students aged less than 20 years of age code-mix English with Arabic more frequently than students aged 20 years or above.

Table 5.12: Descriptive Statistics of Code-mixing by Age

Age (years)	N	M	SD
Less than 20	731	2.66	0.83
20 or more	188	2.47	0.78

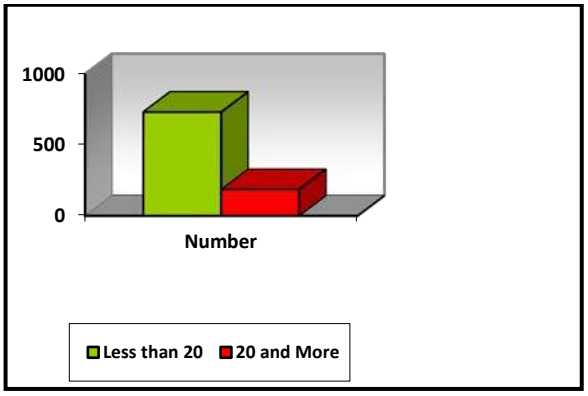

Figure 5.4: Participants by Age Group

Level of Study

To determine whether level of study (Bachelor, Masters, PhD) affects the frequency of code-mixing English with Arabic, a one-way ANOVA was conducted. Descriptive statistics for the code-mixing score for each of the levels of study are shown in Table 5.13. Levene's test for homogeneity of variances was non-significant, F(2,1144) = 1.06, p = .348. Thus the assumption of homogeneity of variances was preserved. The result of ANOVA was statistically significant, F(2, 1144) = 8.632, p <.001. The

results suggest that at least one level of study has a statistically different score for code-mixing to the others.

Table 5.13: Descriptive Statistics of Code-mixing by Level of Study (Degree)

Degree	N	M	SD
Bachelor	924	2.66	0.83
Masters	147	2.55	0.87
Doctorate	76	2.26	0.78

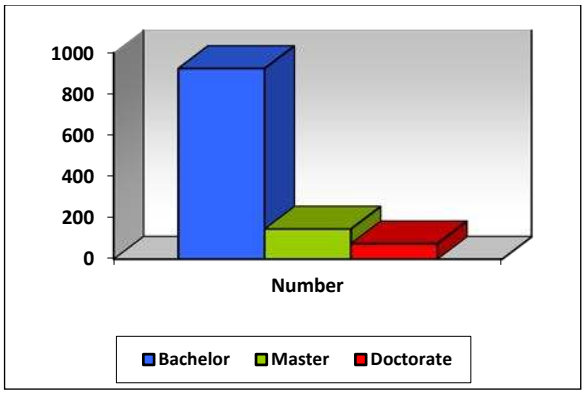

Figure 5.5: Number of Participants by Level of Study (Degree)

Figure 5.6 shows the mean scores of the three levels of study, with the Bachelor level having the highest mean score.

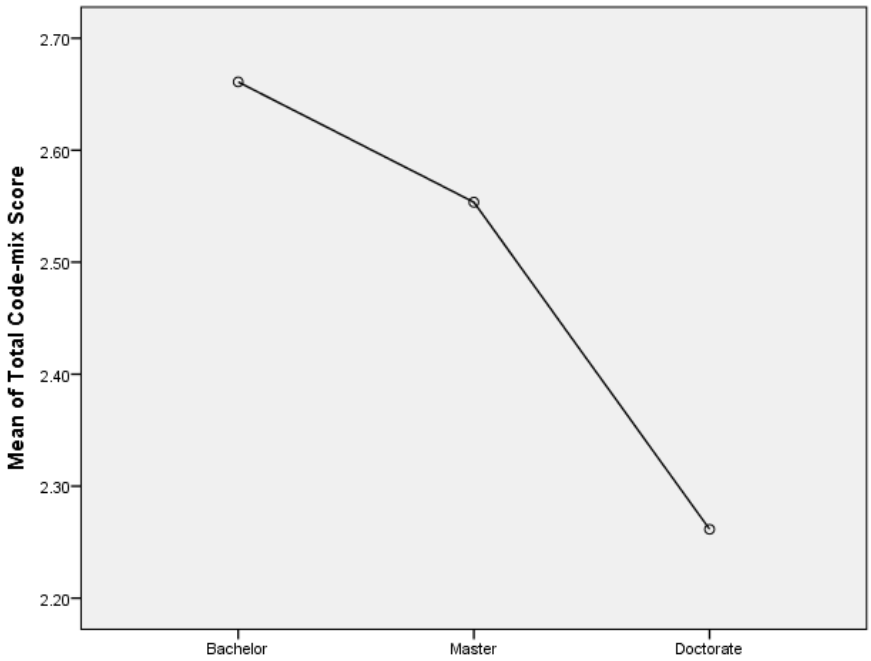

Figure 5.6: Mean of Code-mixing by Level of Study (Degree)

Field of Study

To determine whether science students (M = 2.74, SD = 0.77) use code-mixing more than non-science students (M = 2.53, SD = 0.87), an independent samples t-test was conducted. The result of the t-test was statistically significant, t (1108.69) = -4.24, p < .001, thus it is concluded that science students use code-mixing more frequently than students of non-scientific fields, such as Humanities, Education, Islamic Studies and Law.

Table 5.14: Descriptive Statistics of Code-mixing by Field of Study

Field	N	M	SD
Non-Science	651	2.53	0.87
Science	491	2.74	0.77

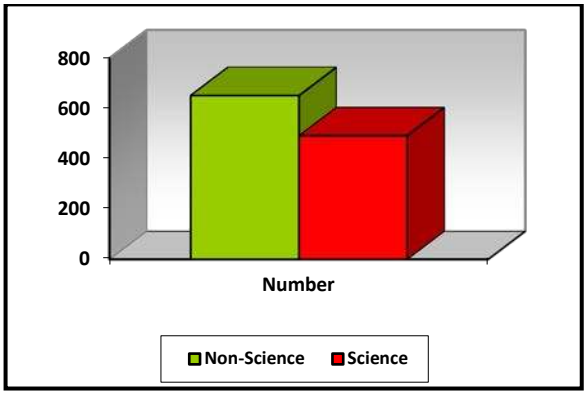

Figure 5.7: Number of Participants by Field of Study

Place of residence

To determine whether villagers (M = 3.03, SD = 0.61) use code-mixing of English and Arabic more than urban residents (M = 3.14, SD = 0.62), an independent samples t-test was conducted. The result of the t-test was statistically significant, t (1050) = -2.80, p = .005, thus it is concluded that students living in villages code-mix English with Arabic more frequently than students living in cities.

Table 5.15: Descriptive Statistics of Code-mixing by Place of Residence

Area	N	M	SD
City	384	3.03	0.61
Village	668	3.14	0.62

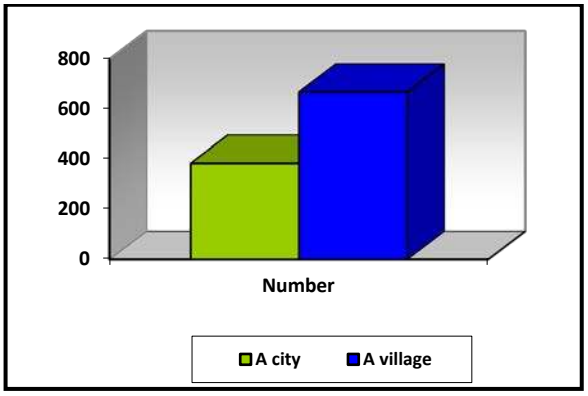

Figure 5.8: Number of Participants by Place of Residence

Socio-economic status

To determine whether socio-economic status affects the frequency of code-mixing, a one-way ANOVA was conducted. Levene's test for homogeneity of variances was significant, $F(4,1065) = 22.96$, $p < .001$. Thus the assumption of homogeneity of variances was not preserved. The result of ANOVA was statistically significant, $F(4, 1065) = 14.56$, $p < .001$.

Table 5.16: Descriptive Statistics of Code-mixing by Socio-economic Status

Score	N	M	SD
Excellent	149	63.91	116.77
Good	539	30.54	44.60
Average	362	23.26	27.87
Not too bad	8	11.38	16.10
Poor	12	23.00	21.85

Interestingly, there was not enough evidence to conclude that there are differences in the frequency of code-mixing between any of the socio-economic statuses.

This chapter reported the results of the analysis of the quantitative data obtained and provided detailed statistics for the five parts of the questionnaire. The following chapter, Chapter Seven, presents a detailed discussion of the results of the analyses of both qualitative and quantitative data.

Chapter Six
Integrated Discussion of Qualitative and Quantitative Data

The aim of argument, or of discussion,
should not be victory, but progress.

Joseph Joubert (Joubert, n.d. cited in Shilling & Fuller, 1997, p. 12)

The current chapter compares and contrasts the results of the quantitative and qualitative data presented and discussed in previous chapters. It also relates these results to previous studies mentioned in Chapter Two. Specifically, it discusses the results in regard to the hypotheses stated in Chapter One. As mentioned above, it was hypothesized that (a) young students mix English with Arabic in their speech more than older ones, (b) women code-mix more than men, (c) students studying scientific subjects code-mix more than those studying in the School of Humanities and Languages or School of Education, (d) students studying in the metropolitan city, Amman, code-mix more than those studying in Irbid and Al Mafraq, and (e) students who live in the cities code-mix more than those living in villages.

6.1 Factors that Affect Code-mixing

Although both qualitative and quantitative data of the current study are interpreted according to demographic factors, this cannot be done for these factors in isolation as each one may be affected by some other factor. For instance, a male participant's place of residence cannot be tested exclusively without the other demographic factors, such as his age, his place of study and his field of study, being taken into account since these may also affect the likelihood and purpose of code-mixing. The following sections discuss the qualitative and quantitative data in light of the demographic information about the participants.

6.1.1 Gender

Swann & Maybin (2008, p. 23) assert that gender is not seen as "an independent category, but rather as intricately embedded in other social divisions: race, class, age". However, it cannot be denied that it is often considered an important factor in the analysis and discussion of linguistic issues, and it was also found to be the case in code-mixing (Al-Khatib, 2008 and Bader, 1995). The analysis of the qualitative data

showed that male students are more likely to code-mix for social reasons, whereas both male and female students code-mix in contexts pertaining to particular fields of discourse and for linguistic reasons. On the other hand, the analysis of the quantitative data found that women are likely to mix English with Arabic for linguistic reasons. An inspection of the mean scores for mixing English with Arabic presented in Chapter Five shows that female students have a higher frequency of mixing English with Arabic for linguistic reasons than male students. Hence the results supported the hypothesis that there would be some gender differences, specificially that women tended to mix English with Arabic for reasons related to their linguistic competence, whereas men tended to do so for social reasons, such as making friends of members of the opposite sex. The literature also reported that as opposed to men, female university students in Jordan mix English with Arabic for social purposes, predominantly to enhance their prestige.

6.1.2 Age

Tagliamonte (2012, p. 43) assumed that age differences are "temporal analogues, reflecting historical stages in the progress of the change". She argued that sometimes speakers themselves change their way of speech with age. The "only way to tell is to uncover the pattern and interpret them" (p. 43). Similar to Holmes's conclusion that "as people get older their speech becomes gradually more standard" (Holmes, 2008, p. 175), the results of the current study support the hypothesis that young students mix English with Arabic in their speech more frequently than mature age students. It is worth mentioning again that students under the age of 20 years (31.0%) form the second largest group of participants. This group tend to mix English with Arabic more frequently than the older students. This result is similar to Bader's (1995) finding that young students mix English with Arabic more than older students. The results of both the qualitative and the quantitative data analyis show that participants studying for a Bachelor degree mix English with Arabic more frequently than those undertaking a Masters or PhD. The participants studying for a Bachelor degree appeared to have a strong tendency to code-mix for reasons related to social values, linguistic competence and (realisation of) field of discourse. Related to social reasons for code-mixing, participants studying for a Bachelor degree mix English with Arabic more frequently to feel engaged in a new academic environment, a university,

where English code-mixed with Arabic is more spoken as opposed to their secondary education at school.

6.1.3 Level of study

As stated above, younger participants mix English with Arabic in their speech more frequently than older participants. Similarly, the analysis of both the qualitative and the quantitative data found that undergraduate students, studying for a Bachelor degree, especially in their first and second year, are more likely to mix English with Arabic in one utterance. One reason that may affect their frequency of mixing English with Arabic is that students, regardless of their major specialization, have to study for around 27 credit hours as a university requirements, which may have at least 9 credit hour-English units for students of Humanities and Arts, Law, Islamic Studies and Education.

6.1.4 Field of study

As stated in Chapter Five, students majoring in Engineering and Medicine tend to mix English with Arabic more often than other participants, with means and standard deviations of M=3.23, SD=0.55 and M=3.01, SD=0.81 respectively. This was supported by both students' self-reports (qualitative data) and the analysis of the survey questinnaires (quantitative data). When interviewing students enrolled in Science, Chemistry, Engineering and Medicine, they were found to mix English with Arabic for the purpose of (realising field of) discourse more often than students enrolled in the Humanities, Arts, Law, Islamic Studies and Education. One reason for this is that although Arabic is used as a means of general communication or instruction in the classes, scientific units are mostly taught in English in Jordanian universities. The result corroborates Hussein's conclusion that code-mixing occurred in the speech of those who are learning or have learned English.

6.1.5 Place of study

It was hypothesised that students studying at the University of Jordan mix English with Arabic more often than those studying at Yarmouk University and Al alBayt University. It was not expected that those who study at Yarmouk University and Al alBayt University, which are located in less cosmopolitan cities, code-mix as frequently as those studying in the socially most prestigious city of Jordan, Amman.

While interviewing students from the three universities, the researcher did not notice any difference in their frequency of mixing of English with Arabic between the universities. However, it was obvious that those who are majoring in scientific subjects mix English with Arabic more frequently than those majoring in the Humanities, Arts, Law, etc., regardless of the university they attend.

6.1.6 Place of residence

Bader (1995) stated that conversations by city residents are more likely to be affected by the mixing of English with Arabic than those by village residents. He concluded that the mixing of English with Arabic is affected by "better economic and social conditions" (p. 17). It was expected that students coming from the cities and/or living for the last ten years in cities mix English with Arabic more frequently than those living in villages. Surprisingly, the current study shows that villagers tend to mix English with Arabic more often than city residents. This may be due to the negative stereotypes associated with their rural accent so mixing English with Arabic would tend to counteract this. Added to this is the influence of technology and the mass media which code-mix English with Arabic as a means of communication, advertising and/or for searching.

6.2 Reasons for Code-Mixing

The four reasons for mixing English with Arabic by Jordanian university students are linguistic, personal, social and (realising) field of discourse (see Table 5.4). During the process of analysing the data it was decided to exclude the personal reason from the analysis because it had a low reliability score. However, the other three reasons had acceptable reliabilities: alpha = .76, .66 and .75 for a linguistic reason, to realise field of discourse, and a social reason, respectively. The highest mean score (4.29) and standard deviation (0.89) were for the reason (realisation of) field of discourse: "I use English to refer to scientific discoveries, e.g. computers, telephones…", whereas the lowest mean score (2.04) and standard deviation (1.12) were for a social reason: "I use English in my speech intentionally to impress the other sex".

The finding that students majoring in scientific subjects tend to mix English with Arabic more often than students majoring in non-scientific supports the finding that the most likely reason for mixing English with Arabic in speech by Jordanian

university students is (realisation) of field of discourse. Similarly, Hussein (1999) showed that many students are likely to mix English with Arabic because it is easier to express scientific terms in English than in Arabic and due to students' familiarity with the English expressions.

Similar results were found after the analysis of the qualitative data. The majority of the students declared the reason of their use of English is to express scientific terms and some terms that are well known and frequently utilized at the university. Examples of these terms are the titles of fields of specialization, such as Management, Civil Engineering, Accounting and Medicine. Many English words that have to do with some locations at the universities and university life are used frequently by students, such as first, second and final exam, quiz, multiple choice question, homework, break, degree, level, theory, linguistic clinic, training centre, information, mark, system, and program. An example of an English word referring to a location in Yarmouk University is "Department of English Language and Literature" which in Arabic is called *al qaryah al inglyzyyah* (the English village) because of its location on the furthest corner of the university. Interestingly, the analysis of the qualitative data found that the participants use the English word, village, when referring to that building. They prefixed the English word using a vernacular Arabic prefix "el" when referring to the Department of English at Yarmouk University. So, the word utilized is a mixed form of both Arabic and English "*el village*".

Regarding the purpose of (realising) field of discourse, the analysis of the qualitative data found that all of the technical terms uttered and discussed by the science students are English ones. The majority of the participants claimed that they do not know their Arabic equivalents and that they prefer to use the English term because it is used more frequently and is well known. Some of the students stated that they are not convinced of the correctness of the Arabic translation of some of these terms, or are not satisfied with them, such as *qurṣ mudmaj* referring to a CD, *taṣmym raqmy* referring to Digital Design, *tarqym* referring to notation.

Considering the social purpose of mixing English with Arabic in speech, the analysis of the focus group interviews found that it is less prominent than the purpose of

(realising) field of discourse by the female participants. Nevertheless, it is worth mentioning that most of the male participants who claimed their mixing of English with Arabic is for social purposes are in their first or second year at university. Similar results were found, as younger participants were more likely to mix English with Arabic than older participants.

6.3 Social Situations

In a multiple-choice question in part five of the questionnaire, the students were asked to circle the word they use in certain social situations. The situations are greeting, talking about exams, agreement, meeting a handsome/beautiful person, thanking somebody for their offer, apologizing, talking about a field of specialization (IT) and about résumés. The word options were Standard Arabic, Standard English, Colloquial Arabic, Colloquial English and an Arabic–English mixed word. Each situation allowed for only four of these five options (see Section 6.3.1).

Using Vernacular Arabic words was found to be the most frequently chosen answer in these situations, followed by Vernacular English, with a minor difference in mean scores (3.6454 and 3.2853 respectively). The third most frequent option was Arabic–English mixed words.

6.3.1 Situations one and two (Greeting)

These two items were omitted because their dropdown options do not apply to the general pattern of this question.

6.3.2 Situations three, four, five and six (Talking about exams)

Talking about exams in general, students use the Arabic word, *imtiḥān*, which is use to refer "exam" in its general meaning. However, the results show that they mix English and Arabic when referring to a specific exam, e.g. first, second and/or final exam. The participants' answers in the self-reports show that they put the English word "exam" into an Arabic mould by adding the colloquial form of the definite article "al" ("the" in English). The most frequently used terms among the four options when referring to the first exam, second exam and final exam are "*el* first", "*el* second" and "*el* final" respectively. Such mixing patterns are commonly used in colleges and universities in Jordan. Many university students tend to put some

English words into an Arabic mould for ease of pronunciation, where, for instance, the pronunciation of the Colloquial Arabic definite article "*el*" is easier and faster to pronounce than its English counterpart "the" in the above examples. Another example, used by a female student, is "*achatchitak*" which is a combination of the English word "chat" and the Arabic first person prefix, attached to the verb "*a*", and the second person pronoun, the suffix "*ak*", meaning "you". The Arabic word here is translated into English as "I chat with you".

6.3.3 Situation seven (Agreement)

The most frequently used word by Jordanian university students to express agreement is the Colloquial English "OK" (*N*=813), followed by the Colloquial Arabic form "*ṭayyeb*" (*N*=222). "OK", a short "discourse marker" (Clandfield, 2004) commonly used worldwide to denote agreement and approval, is also the most commonly used word to express acceptance, whereas the verbal phrase "I agree" is rarely used by Jordanian university students to express agreement (*N*=36). This shows that one of the reasons for substituting Arabic words with their English equivalents is to take advantage of abbreviations and acronyms (Mustafa, 2011, p. 66).

An example from the qualitative data collected in the current study is that of a female students talking about her aunts who work in the British Council in Amman:

> *Khālāty biyshtighlw bi el BC w māmā dārsih inglyzi f kul eʿlylih btiḥky English.*
> [My aunties work in the BC and mum learned English. So, all the family speaks English.]

The student here used the abbreviated form of the British Council as it is short, and commonly used in her family.

Another example is of a male student studying computer engineering. He stated that computer engineering students and teaching staff in his department in Yarmouk University use not only the English form of a term or a computer process, but also the abbreviated forms of these. For instance, to refer to "Digital Signal Processor", they use the abbreviated form "DSP". He stated that they never used the Arabic translation of this concept.

6.3.4 Situation eight (Seeing a good looking person)

The most commonly used term to express one's admiration of the appearance of a good looking person are the Arabic words "ḥelw/ ḥelwa", referring to a handsome man and a beautiful woman respectively (*N*=608). Simon (2000, p. 336) justifies this by arguing that opinions are expressed in the native language because they sometimes are "difficult to render in a foreign language which, …, is somewhat devoid of the affective dimension". Moreover, Feuer (2008, p. 66) underlines this belief by saying that students "feel wholly like their true selves" in their native languages. The second most commonly used term by Jordanian university students to express admiration for a good looking person is the short, one syllable term "wow" which is used to express wonder and/or pleasure (*N*=342). As mentioned above, short and abbreviated terms are commonly used worldwide.

6.3.5 Situation nine (Thanking others)

To express appreciation of and gratefulness for what others have done, Jordanian university students commonly use the Arabic word *shokran* (thanks) (*N*=721), in line with the view mentioned above that opinions and feelings are typically expressed in the native language. A second frequently used term by the participants is the English and Arabic blend *thankaat* (many thanks) (*N*=307). The students here apply the rule governing the sound of the feminine plural form of Arabic to the English word "thank" to which they add the suffix "*aat*". The results of both the qualitative and the quantitative data analysis show that it is a common procedure followed by Jordanian university students to apply a given grammatical rule of Arabic to an English word, or to mix two terms, one from each language, to create a new word in a concept referred to as "Arabizi" or "Arabish". For example, a female student who was giving her opinion regarding the mixing of English with Arabic by Jordanian university students, in the post-questionnaire interview, said that she usually greets her friends using the term "*hiaat*" (many hi's), where she applies the Arabic rule governing the sound of the feminine plural to the English word "hi". Another commonly abbreviated word to which many students apply this rule is "CD". A newly emerged word representing such a combination is "*cdyaat*" (CDs). An example of a frequently used Arabizi word is "missik", which the analysis of the qualitative data found, is used more by women than men. The students here apply two Arabic grammatical

rules to express the English sentence "I miss you (second person feminine)". In Arabic sentence structure where a verb indicates first, second or third person, the English first person pronoun "I" is not uttered as it is implicit in the Arabic verb form "*missik*". The participants added the second person feminine pronoun "*ik*" to the English word "miss" to form a new English-Arabic code-mixed word "*missik*". Similarly, the word "*lovvik*" is used in addressing a woman and the word "*hikum*" (hi + plural you) is used in addressing a group of people, where "*kum*" is a second person plural masculine pronoun in Arabic.

6.3.6 Situation ten (The scientific field) and Eleven (Curriculum Vitae)

It has been found that abbreviated forms are used more commonly than their long original terms (Mustafa, 2011). The current research shows that referring to the scientific field "Information Technology" and "Curriculum Vitae", Jordanian university students use the abbreviated forms "IT" (*N*=815) and "CV" (*N*=889) more frequently.

6.3.7 Situation twelve (Apologizing)

It was expected that Jordanian university students would use the English word "sorry" to express apology. This was proved by the results of the quantitative data analysis where 653 students used the English word more frequently than its Arabic equivalent "*āsef/ āsefa*", "I am sorry first person masculine and feminine respectively" (*N*=433). One reason for this use may be the length of the Arabic words "*āsef/ āsefa*" compared to the one syllable English word "sorry".

To conclude, the results of the data analyses show that Vernacular Arabic words are the most frequently used words in the above situations, followed by the Vernacular English words, with a minor difference in mean scores of 3.6454 and 3.2853 respectively. The likely reasons for this result is that feelings and opinions are more commonly expressed in a speaker's native language than a foreign language. Moreover, the students tended to use short, abbreviated terms rather than long phrases.

Chapter Seven – Conclusions and Recommendations

One worthwhile task carried to a successful conclusion
is worth half-a-hundred half-finished tasks.

Malcolm S. Forbes (Forbes, n.d. cited in Facts on File, Inc. 2009, p. 16)

7.1 Summary of Aims and Hypotheses

The primary objective of the current study was to investigate Jordanian university students' code-mixing of Arabic and English in their daily speech. The secondary objective was to establish the reasons why Jordanian university students use words of English in place of Arabic words in their Arabic speech. Further, the study sought to investigate the factors affecting the mixing of English with Arabic in the speech of Jordanian university students in North Jordan and determine their relative weight. Lastly, the study aimed to specify the situations in which students mix English with Arabic in their speech.

The hypotheses postulated in the current study were as follows:

1. Young students use English in their Arabic speech more than older ones.
2. Female students code-mix more frequently than male students.
3. Students majoring in scientific fields code-mix more frequently than students specializing in fields pertaining to the Humanities, Education and Islamic Studies.
4. Students who are studying in the capital city, Amman, code-mix more frequently than students in the other two cities; Irbid and Mafraq.
5. Students who live in cities code-mix more frequently than students who live in villages.

7.2 Summary of Methods

To answer the research questions posed in the Introduction, a mixed-method approach was used to collect data, and qualitative and quantitative methods used to analyze the data. The qualitative methods consisted of systematic observation of the linguistic behavior of the study participants and conducting 17 focus group

interviews with a subset of the participants. These focus group interviews were of two kinds: initial interviews, conducted before collecting data by means of a survey questionnaire, and post-questionnaire interviews, conducted after the data had been collected.

The quantitative method used to collect the data consisted of a five-part survey questionnaire. Part One elicited personal and demographic information, whereas Part Two elicited information about the social and academic background of the participants. Part Three investigated the factors that were hypothesized to affect the mixing of English with Arabic by Jordanian university students: social, linguistic and (realisation of) field of study. Part Four elicited the frequency of mixing English with Arabic for use with family and in an academic context. Part Five elicited instances of mixed English and Arabic in any situation.

7.3 Summary of Results

University students are usually aware that in certain situations they will be more favourably valued by their interlocutors if they use more prestigious forms in their speech. English is the language that can be used only by those who are highly educated (the educated elite) and who are ranked highly on the social strata in Jordanian society. Findings from the current study showed that young Jordanian university students have a tendency to mix English with Arabic in their speech. On the other hand, older students tended to speak Arabic, as a means of preserving the language among Jordanians. Moreover, students who major in science subjects tended to mix English with Arabic more frequently than their counterparts who major in non-science subjects. Although it was hypothesized that urban students use English more frequently than their rural counterparts, the current study showed the exact opposite, that is, rural students favoured the mixing of English with Arabic more than urban students. Lastly, regarding students' socio-economic status, the study results showed that there is no significant difference in code-mixing between Jordanian university students belonging to different social classes.

7.4 Limitations of the Study

A major limitation of the study is that the survey was administered at three Jordanian universities only, which does not allow for a generalization of the findings to all

universities in Jordan. Nevertheless, the study has provided valuable information on code-mixing, the mixing of English with Arabic, by Jordanian university students.

The following limitations of the study need to be kept in mind:

1. The study is limited in terms of the population sampled and therefore the findings can only be generalized to the student populations at Al alBayt University, University of Jordan and Yarmouk University.
2. The data were collected over a period of two months. It would have been better to have observed the students' linguistic behaviour in different contexts throughout an academic year.
3. Parts of the students' self-reports contained contradictory statements about their mixing of English with Arabic in their speech. Although some participants did not resort to mixing English with Arabic in the initial interviews, they acknowledged in the post-questionnaire interviews that they did in fact code-mix.

7.5 Recommendations

While the current research has covered a number of aspects of mixing English with Arabic in speech by Jordanian university students, further research would be able to shed more light on the linguistic behaviour of Jordanians. Recommendations for future research that might be pursued are as follows:

First, as the current study is limited to a specific context within three public universities in North Jordan, future research ought to encompass several universities in order to achieve a wider range of observations to reflect the linguistic behaviour of Jordanian university students.

Secondly, as the current study did not focus on the syntactical structure of participants' code-mixed words or phrases, future studies might focus on different syntactical structures and parts of speech in the participants' linguistic output.

Thirdly, a contrastive analysis of the linguistic behaviour of university students and university staff on one hand and both their family members on the other hand might reveal other reasons for code-mixing, for example whether code-mixing is influenced

by factors only found within a university setting or whether it is subject to external societal influences.

As a final word, the researcher sincerely hopes that the current research has expanded our understanding of mixing English, the lingua franca of the modern world, with Arabic, the language of Jordan, by Jordanian university students in their speech.

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Appendices

Appendix 1: Human Research Ethics Committee Approval

Locked Bag 1797
Penrith NSW 2751 Australia
Office of Research Services

UWS Human Research Ethics Committee
10 July 2012
Dr Rosemary Suliman,
School of Humanities and Communication Arts

Dear Rosemary,
I wish to formally advise you that the Human Research Ethics Committee has approved your research proposal **H9682** *"Code-mixing between Arabic and English: Reasons and Motivations",* until 27 July 2013 with the provision of a progress report annually and a final report on completion.
Please quote the project number and title as indicated above on all correspondence related to this project.
This protocol covers the following researchers:
Rosemary Suliman, Reema Al Hayek.

Yours sincerely

Dr Anne Abraham
Chair, UWS Human Research Ethics Committee
r.suliman@uws.edu.au
17111889@student.uws.edu.au

Appendix 2: Amendment Request

Locked Bag 1797
Penrith NSW 2751 Australia
Office of Research Services

Our Reference: 12/013195

23 October 2012
Dr Rosemary Suliman
School of Humanities and Communication Arts

Ms Reema Salah Al Hayek
School of Humanities and Communication Arts

Dear Reema
H9682 - Amendment Request

I acknowledge receipt of your email dated 18 October 2012 concerning your research protocol **H9682, "Code-Mixing between Arabic and English: Reasons and Motivations. A Jordanian Case Study"**.

The Office of Research Services has reviewed your request and it has been approved as follows:

1. *Additional study component to observe participants behaviour during interviews.*
2. *Associated Participant Information Sheet and Consent Forms*

Please do not hesitate to contact me at humanethics@uws.edu.au if you require any further information.

Regards

Jillian Shute
Human Ethics Officer
Office of Research Services

Appendix 3: Questionnaire – English version

Arabic – English Code-Mixing Among Jordanian University Students

Questionnaire[1]

Dear brothers/ sisters…

This is a research that aims to investigate the Jordanian university students' use of English in their Arabic speech.

Use (X) in the blank which expresses your opinion. Information provided in this questionnaire will be used for research purposes only.

Part 1

Demographic Information:

Sex: □ Male □ Female

Age: _____

Level of Study: □ Bachelor □ Master □ Doctorate

Field of Study: □ Art □ Science □ Education □ Medicine

□ Engineering □ Other (Please specify)……..

Place of Study: □ Al alBayt University □ University of Jordan

□ Yarmouk University

Place of residence □ A city □ A village

Socio-economic status □ Excellent □ Good □ Average □ Not too bad □ Poor

Pocket money per week: JD _____

Email (optional) _____

[1] This questionnaire will be translated into Arabic.

Part 2

Social and Academic Background

No	Item	Yes	No
1	Arabic is the ONLY language used at home		
2	I have no non-Arabic speaking relatives; cousins, nephews		
3	One or both of my parents are learning/ have learned English		
4	One or both of my parents teach/ have taught, English		
5	One or both of my parents is from a non Arabic background		
6	I want to travel outside Jordan		
7	I want to marry a non Arab spouse		
8	I watch English speaking movies/ series		
9	I have lived in a city for the last ten years		
10	I have friends from an English speaking background		
11	The textbooks in my field of study at university are written in English		
12	The language of instruction in my classes is English		
13	I have studied English since kindergarten		
14	I lived in an English speaking country		

Part 3

Why I use English

No	Item	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
1	It is just a habit. I just do it.					
2	I use English in my speech when saying socially unacceptable words					
3	English vocabulary is simple and more direct					
4	I use English in my speech intentionally to show off					
5	I feel happy when I use English in my Arabic speech.					
6	I use English in my speech to clarify uncommon Arabic words					
7	I use English in my speech to show my social status					
8	I use English because there is information which I can't convey in Arabic					
9	I use English to exclude others					
10	I use English in my speech when saying English terminological words, e.g. hard drive, anatomy, pragmatics …					
11	It is easier to express scientific concepts in English					
12	I use English in my speech intentionally to impress the other sex					
13	Some English terms and expressions have no equivalents in Arabic					
14	I use English spontaneously and unconsciously					
15	I use English because I am good at it					
16	I use English because my friends do so					
17	I use English because I like it					
18	I use English to refer to scientific discoveries, e.g. computers, telephones…					

Part 4

When I Use English

I use English in my Arabic speech when

No	Item	Always	Often	Sometimes	Rarely	Never
1	Talking with family					
2	Talking with relatives					
3	Talking with same-sex friends					
4	Talking with other-sex friends					
5	Talking with my teachers in class					
6	Talking with my colleagues in class					
7	Video-audio online chatting					
8	Talking to my teachers outside the class					

Part 5

Social Situations

Circle the option which I would use (Choose ONE only)

1. Greeting my friend (same sex):
   a. Good morning/ evening
   b. ṣabāḥ / masā' el kheir
   c. Hi/ Hiz/ Hiaat
   d. al salām ᶜlaikum

2. Greeting my friend (other sex):
   a. al salām ᶜlaikum
   b. Hi/ Hiz/ Hiaat
   c. Good morning/ evening
   d. ṣabāḥ / masā' el kheir

3. Examination:
   a. el exam
   b. el imtiḥān
   c. Quiz/ Examination
   d. al Ikhtibār

4. First Exam:
   a. The first exam
   b. el awwal
   c. al taḥḍyry
   d. el first

5. Second Exam:
   a. el thāny
   b. The second exam
   c. al niṣfy
   d. el second

6. Final Exam:
   a. el akhyr
   b. el final
   c. The final exam
   d. al nihā'y

7. Agreement:
   a. Ok
   b. Deal / I agree
   c. ṭayyeb
   d. mwāfiq/ mwāfiqa

8. Seeing a good looking person:
    a. Handsome/ beautiful
    b. el ḥelw/ el ḥelwa
    c. wasym/ jamyla
    d. wow

9. Thanking others:
    a. I appreciate your help
    b. jazāka/ jazāki Allah khair
    c. shokran
    d. Thankaat

10. The scientific field:

    a. Teqaneyyet al maᶜlwmāt
    b. I.T.
    c. Information technology
    d. teknulwjia el maᶜlwmāt

11. Curriculum Vitae:

    a. Al syra al dhatiya
    b. Curriculum vitae
    c. el syra
    d. C.V.

12. Apologizing:

    a. sorry
    b. āsef/ āsefa
    c. I apologize
    d. aᶜtadher

Appendix 4: Questionnaire – Arabic version

الاستبانة

المزج اللغوي بين اللغة العربية واللغة الإنجليزية
الأسباب والدوافع
دراسة ميدانية أردنية

أخـي/ أختـي

تهدف هذه الدراسة للبحث في مزج طلاب الجامعات الأردنية بين اللغتين العربية والإنجليزية.

نرجو من حضراتكم وضع اشارة ( ) عند الفقرة التي تعبر عن رأيكم، علماً بأن هذه المعلومات تستخدم لأغراض البحث العلمي.

وتفضلوا بقبول فائق الاحترام

الباحثة: ريما صلاح الحايك

*الجـزء الأول

البيانات الشخصيـة

-الجنـس: ذكـر أنثى

- العمـر:

- المستوى التعليمي: بكالوريوس ماجستيـر دكتوراة

- الحقل التعليمي: أدبي علمي تربية
طـب هندسـة تخـصص آخـر، الرجاء ذكره

- الجامعـة: آل البيت الأردنية اليرموك

- مكان السكن: قرية مدينة

- الحـالـة الاجتماعية والاقتصادية: ممتازة جيدة متوسطـة

دون المتوسط سيئة

- المصروف الاسبوعي : ---------- دينارًا أردنيًا

- البريد الإلكتروني (اختياري) ----------

**الجزء الثاني

الرقم	البند	نعم	لا
1	اللغة العربية هي اللغة الوحيدة المستخدمة في البيت		
2	ليس لي أقارب من أصول غير عربية		
3	أحد والديّ ، أو كلاهمـا، يتعلم أو تعلم اللغة الإنجليزية		
4	أحد والديّ، او كلاهمـا، يدرّس أو درّس اللغة الإنجليزية		
5	أحد والديّ، أو كلاهمـا، من أصول غير عربية		
6	أود السفر خارج الأردن		
7	أود الزواج من شخص غير عربي		
8	أشاهد أفلامًا/مسلسلات ناطقة باللغة الإنجليزية		
9	أسكن في مدينة منذ عشر سنوات		
10	لدي أصدقاء/صديقات من أصول غير عربية		
11	تُكتب المواد الدراسية في تخصصي الدقيق باللغة الإنجليزية		
12	لغة التعليم في محاضرات مواد التخصص الدقيق هي اللغة الإنجليزية		
13	درست اللغة الإنجليزية منذ الروضة		
14	عشت في بلد ناطق باللغة الإنجليزية		

***الجزء الثالث

سبب استعمالي اللغة الإنجليزية

الرقم	البند	أوافق بشدة	أوافق	غير متأكد	لا أوافق	لا أوافق بشدة
1	إنها مجرد عادة					
2	أستخدم اللغة الإنجليزية للتعبير عن كلمات غير مقبولة اجتماعياً					
3	الكلمات الإنجليزية أكثر بساطة ومباشرة					
4	أستخدم اللغة الإنجليزية متعمداً للتباهي					
5	أشعر بالسعادة عندما أستخدم اللغة الإنجليزية في سياق حديثي باللغة العربية					
6	أستخدم اللغة الإنجليزية لتوضيح كلمات غير مفهومة باللغة العربية					
7	أستخدم اللغة الإنجليزية متعمداً لإظهار مكانتي الاجتماعية					
8	أستخدم اللغة الإنجليزية لوجود معلومات لا أستطيع التعبير عنها باللغة العربية					
9	أستخدم اللغة الإنجليزية لاستبعاد الآخرين من المحادثة					
10	أستخدم اللغة الإنجليزية عند التحدث عن مصطلحات علمية/ تقنية: هارد ديسك، أناتومي، براجماتكس					
11	من الأسهل التعبير عن مصطلحات علمية باللغة الإنجليزية					
12	أستخدم اللغة الإنجليزية متعمداً لإثارة إعجاب الجنس الآخر					
13	لا يوجد بديل باللغة العربية لبعض المصطلحات الإنجليزية					
14	أستخدم اللغة الإنجليزية بشكل تلقائي وغير متعمد					
15	أستخدم اللغة الإنجليزية لأنني جيد فيها					
16	أستخدم اللغة الانجيزية لإن أصدقائي يفعلون ذلك					

17	أستخدم اللغة الإنجليزية لإني أحبها					
18	أستخدم اللغة الإنجليزية عند الاشارة للمكتشفات العلمية العصرية مثل كمبيوتر وتليفون					

****الجزء الرابع

أستخدم اللغة الإنجليزية في سياق كلامي بالعربية عندمـا

الرقم	البند	دائماً	غالباً	أحياناً	نادراً	أبداً
1	أتحدث مع عائلتي					
2	أتحدث مع أقاربي					
3	أتحدث مع أصدقائي من الجنس نفسه					
4	أتحدث مع أصدقائي من الجنس الآخر					
5	أتحدث مع أساتذتي في أثناء التواجد داخل قاعة التدريس					
6	أتحدث مع زملائي في أثناء التواجد داخل قاعة التدريس					
7	أتحدث عبر الانترنت بالصوت والصورة					
8	أتحدث مع أساتذتي خارج قاعة التدريس					

*****الجزء الخامس

ضع دائرة حول الحرف الذي يسبق الكلمة التي تستخدمها من الخيارات الأربعة تحت كل استفسار

1.أحيي أصدقائي من الجنس_نفسه بـ .. :

أ. جود مورنينغ/إيفنينج Good morning/evening

ب. صباح/مساء الخير

ج. هايات، هايز Hi*aat*/ Hi*z*

هـ. السلام عليكم

2. أحيي أصدقائي من الجنس الآخر بـ :

أ. السلام عليكم

ب. هايات، هايز Hi*aat*/ Hi*z*

ج. جود مورنينغ/إيفنينج Good morning/evening

هـ. صباح/مساء الخير

3. للتعبير عن كلمة الامتحان:

أ. الإكزام Elexam

ب. اِمتحان

ج. كويز، اكزامينيشن Quiz/Examination

د. اِختبار

4. . للتعبير عن الامتحان الأول:

أ. ذا فيرست إكزام The first exam

ب. الأول

التحضيري ج.

د. إلفيرست Elfirst

5. . للتعبير عن الامتحان الثاني

أ. الثاني

ب. ذا سكند إكزام The second exam

ج. النصفي

د. اِلسكند Elsecond

6. للتعبير عن الامتحان النهائي:

أ. اِلأخير

ب. اِلفاينالElfinal

ج. ذا فاينال إكزام The final exam

د. النهائي

7. للتعبير عن الموافقة:

أ. أو كي OK

ب. ديل، آي أجري Deal/I agree

طيب ج.

د. موافق/ موافقة

8. عند مشاهدة شخص وسيم/ فتاة جميلة

أ. هاندسم/ بيتيفول Handsome/Beautiful

ب. حلو/ حلوة

ج. وسيم/ جميلة

د. واو Wow

9. للتعبير عن الشكر:

أ. آي أبريشييت يور هلب I appreciate your help

ب. جزاك الله خيراً

ج. شكراً

د. ثانكات Thankaat

10. للتعبير عن الحقل التعليمي:

أ. تكنولوجيا المعلومات

ب. آي تي .I.T

ج. إنفورميشن تكنولوجي Information Technology

د. تقنية المعلومات

11. للتعبير عن السيرة الذاتية:

أ. السيرة الذاتية

ب. كوريكيلم فايتا Curriculum Vita

ج. سيرة

د. سي في .C.V

12.عند الاعتذار

أ. سوري Sorry

ب. آسف/ آسفة

ج. آي أبولوجايز I apologize

د. أعتذر

Appendix 5: Participant Consent Form

Human Research Ethics Committee
Office of Research Services

Participant Consent Form

This is a project specific consent form. It restricts the use of the data collected to the named project by the named investigators.

Note: If not all of the text in the row is visible please 'click your cursor' anywhere on the page to expand the row. To view guidance on what is required in each section 'hover your cursor' over the bold text.

Project Title: Code-Mixing between Arabic and English: Reasons and Motivations. A Jordanian Case Study

I consent to participate in the research project titled Code-mixing between Arabic and English: Reasons and Motivations. A Jordanian Case Study.

I acknowledge that:

I have read the participant information sheet and have been given the opportunity to discuss the information and my involvement in the project with the researcher/s.

The procedures required for the project (my linguistic behaviour will be observed, completing a questionnaire and participating in an interview) and the time involved have been explained to me, and any questions I have about the project have been answered to my satisfaction.

The interviews will investigate the following:

1. Factors that affect code-mixing; i.e. sex, age, level of study. field of study and/or place of residence.
2. Reasons of code-mixing among University students.
3. Situations where the University students code-mix.

I understand that my involvement is confidential and that I can withdraw from the study at any time, without affecting my relationship with the researcher/s now or in the future.

Signature:

Name:

Date:

Return Address: Please submit this form to the researcher

This study has been approved by the University of Western Sydney Human Research Ethics Committee. The Approval number is: H9682

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 0013 or email humanethics@uws.edu.au. Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Appendix 6: Participant Information Sheet

Human Research Ethics Committee
Office of Research Services

Participant Information Sheet (General)

An information sheet, which is tailored in format and language appropriate for the category of participant - adult, child, young adult, should be developed.

Note: If not all of the text in the row is visible please 'click your cursor' anywhere on the page to expand the row. To view guidance on what is required in each section 'hover your cursor' over the bold text. Further instructions are on the last page of this form.

Project Title: Code-mixing between Arabic and English: Reasons and Motivations. A Jordanian Case Study

Who is carrying out the study?

You are invited to participate in a study conducted by Reema Salah AI Hayek, PhD candidate, School of Humanities and Communication Arts in the University of Western Sydney, under the supervision of Dr. Rosemary Suliman.

What is the study about?

The purpose is to investigate (a) factors that affect code-mixing, for example gender, level of study, area of study, age and place of residence; (b) The reasons for code-mixing and (c) the situations where they deliberately code-mix, e.g. in speaking.

What does the study involve?

Mixed methods will be used with students in three Jordanian Universities. A questionnaire will be disposed to the participants and audio taped interviews for nearly 30 minutes on their campuses. The researcher will observe the linguistic behaviour of the participants while talking to them.

How much time will the study take?

The survey will take approximately 15 minutes to be completed and the interviews will have a duration of 30 minutes to 40 minutes.

Will the study benefit me?

It will provide you with an opportunity to reflect on your views and implementation of the linguistic phenomenon; code-mixing.

Will the study involve any discomfort for me?

Respect for your opinions and if you are uncomfortable you may stop the interview.

How is this study being paid for?

The study is being sponsored by the University of Western Sydney/ Australia.

Will anyone else know the results? How will the results be disseminated?

All aspects of the study, including results, will be confidential and only the researchers will have access to information on participants. The results will be known after the completion of my PhD thesis, seminars, conference presentation(s) and/or journal article(s).

Can I withdraw from the study?

Participation is entirely voluntary: you are not obliged to be involved and – if you do participate you can withdraw at any time without giving any reason and without any consequences.

Can I tell other people about the study?

Yes, you can tell other people about the study by providing them with the chief investigator's contact details. They can contact the chief investigator to discuss their participation in the research project and obtain an information sheet.

What if I require further information?

When you have read this information, Reema Salah AI Hayek will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact

1. Reema Salah AI Hayek,

17111889@students.uws.edu.au, mobile number (Jordan) or +61420407228 (Australia).

2. Dr. Rosemary Suliman. r.suliman@uws.edu.au. School of Humanities and Communication Arts, University of Western Sydney.

What if I have a complaint?

This study has been approved by the University of Western Sydney Human Research Ethics Committee. The Approval number is [H9682]

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61247360229 Fax +61247360013 or email humanethics@uws.edu.au.

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

If you agree to participate in this study, you may be asked to sign the Participant Consent Form.