

**The Pronunciation Errors of L1 Arabic Learners of L2  
English:  
The Role of Modern Standard Arabic and Vernacular  
Dialects Transfer**

أخطاء النطق للناطقين باللغة العربية الذين يتعلمون اللغة الانجليزية كلغة ثانية:  
تأثير النقل عن اللغة العربية الفصحى الحديثة و اللهجات المحلية

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## **Abstract**

Learning a second language is not an easy task. Throughout the learning journey, learners make errors and have their errors corrected by their teachers, until they learn this second language. This study attempts to investigate the pronunciation errors of the native Arabic learners, who are learning English as a second language. This study focuses on the pronunciation errors that result from the impact of the vernacular dialects of the native speakers of Arabic. These errors are investigated through contrastive and error analysis studies shedding the light on the Arabic linguistic input that causes this first language transfer and the repair strategies that the learners attempt to implement to overcome these pronunciation problems.

## ملخص البحث

تعلم لغة ثانية ليس بالأمر السهل. أثناء رحلة التعلم يخطئ المتعلمون و يقوم المعلم بتصويب أخطائهم الي أن يتعلموا تلك اللغة. هذه الدراسة عبارة عن محاولة لدراسة أخطاء طريقة النطق للناطقين باللغة العربية الذين يتعلمون اللغة الانجليزية كلغة ثانية. تركّز هذه الدراسة على أخطاء طريقة النطق الناجمة عن تأثر المتعلمين بلهجاتهم المحلية. يتم تحليل تلك الأخطاء من خلال دراسات التحليل المقارن و دراسات تحليل الأخطاء لألقاء الضوء علي المدخلات اللغوية العربية التي تتسبب في هذا التدخل اللغوي للغة الأم و كذلك لألقاء الضوء علي الاستراتيجيات التصحيحية التي يحاول الطلاب تطبيقها للتغلب على مشكلات طريقة النطق.

## **Dedication**

To the soul of my beloved father, the person who made me what I am now. To my beloved mother, the person who kept supporting and motivating me until all my education ambition became possible. To my beloved children Rewaa and Mohamed urging them to be much better than what I am.

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## **List of Acronyms**

CA (= Contrastive Analysis)

EA (= Error Analysis)

EFL (= English as a Foreign Language)

ESL (= English as a Second Language)

FLT (= First Language Transfer)

IPA (= International Phonetic Alphabet)

L1 (= First Language)

L2 (= Second Language)

MSA (= Modern Standard Arabic)

NL (= Native Language)

TL (= Target Language)

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# **Chapter 1**

## **Introduction**

The spoken version of Language started numerous centuries before the written one was invented. Human beings depended on speaking for communication until written scripts were possible. In the Stone Age era people depended primarily on oral discourse in all their life aspects. This definitely made humanity lose track of what happened these days, as there are no records of the events that took place then, but the only remaining evidence of these days are the sounds that were used in these languages. Through these sounds people narrated stories and exchanged expertise from one generation to another. Some civilizations were able to maintain their language without a written form until now. A good example is the Nubian civilization in the southern part of Egypt and the northern part of Sudan. Although they speak Arabic perfectly well, they still converse in their mother tongue, which does not have an orthographic system. Fromkin and Rodman (1983, p.18) elaborate more on this idea as follows:

The only hard evidence we have about ancient languages is written, but speech precedes writing historically by an enormous period of time, and even today there are thousands of speech communities speaking perfectly “up-to-date” languages that lack writing systems.

### **1.1 The Importance of Pronunciation**

Despite the fact that nowadays human beings have writing systems to record their languages and numerous digital machines to make saving them even easier, people still communicate through speaking more than they do through writing. Therefore much attention is to be paid to pronunciation, as it contributes to conveying the right message in oral discourse. If the message is not properly articulated, pronunciation might sometimes hinder communication or lead to the wrong apprehension of what is said. Zimmermann (2004, p.29) stated that “Pronunciation is crucially important, as it is usually the first thing people notice about a language learner’s English”.

This is one of the reasons why, for the purpose of this study, the researcher will concentrate on English pronunciation errors made by native Arab speakers, while they are conversing, delivering speeches or giving presentations. Paying keen attention to these errors and attempting to correct them will affect the process of second language acquisition and learning. In some cases erroneous pronunciation might lead to the wrong spelling as well. The following examples by Zimmermann (2004, p.31) illustrate this impact; “ ...’will’ is often replaced by ‘well’ and ‘park’ by ‘bark’, ‘sale’ by ‘sell’ are often confused and so on”.

The examples above mean that the pronunciation errors can affect other linguistic levels at the same time. On the other hand, spelling also directly contributes to some pronunciation errors. Words such as, *debt*, *lieutenant*, *laugh*, *dough*, to mention only a few, are very confusing to the learner and might lead to pronunciation errors based on the written form. This highlights the fact that English has a deep orthography system in which the relationship between letters and sounds is not a one to one relationship. In other words, a group of letters might represent only one sound as in (tio) making the sound /ʃ/. Another problematic area in English orthography as well, is when one letter is represented by different sound articulations i.e. the letter (a) in words such as *man*, *car* and *cautious*.

On the contrary, the Arabic orthographic system is shallow. The letter sound relationship in Arabic is more explicit than that in English. In Arabic the word is almost pronounced as it is written. Especially in consonants, except for some rare cases, almost every letter represents a sound. The rare cases are those of assimilation as in the word /ðəmb/ ذنب as illustrated in table 5 in chapter4. The /n/ is assimilated to /m/, because of the adjacent stop /b/. On the other hand, Arabs depend more on their diacritic system to insert vowels or to add stress to words, especially in connected speech.

Moreover, some of the spelling dilemmas in English resulted from the archaic pronunciation and spelling by the non-native speakers who were working in the printing press industry some centuries ago. They were affected by their native tongue and this led to the fossilized spelling forms we recognize now as Standard English spelling. The best description of what happened might be:

When the printing press was introduced in the fifteenth century, not only were archaic pronunciation “frozen”, but the spelling did not always represent even those pronunciations, since many of the early printers were Dutch and were unsure of English pronunciation. (Fromkin and Rodman 1983, p.157)

The above interrelated spelling and pronunciation problems were mentioned as examples that contributed to making English orthography deep and problematic. These problems made English spelling a complicated task for the Arabic learner. Because English orthography is more complicated than Arabic, the native speaker of Arabic might adopt some repair strategies from his or her L1 orthographic system to facilitate his or her spelling and pronunciation task, i.e. reading words such as *debt*, *listen*, and *fasten* as they are written. Kharma and Hajjaj (1997, p.14) summarize this as:

The spelling of Arabic is overwhelmingly regular. In contrast, the spelling of English is seemingly very irregular. Moreover, to the learner, written English is not always a reliable guide to pronunciation, and they are often misled by the graphic representation of sounds.

They also gave the following examples as a proof of the irregularity of the English spelling system:

1. /f/ *deaf*, *suffer*, *rough*, *phase*.
2. /i:/ *lead*, *see*, *people*, *machine*, *me*, *deceive*, *believe*, *quay*, *key*, *amoeba*

The main focus of this study will be directed to the Arabic and English sound systems which can be more problematic in the area of pronunciation, and thus causing errors. Swan and Smith (2007, p. 196) state that “English has 22 vowels and diphthongs to 24 consonants”, while “Arabic has only eight vowels and diphthongs ... to 32 consonants.” This is considered a good starting point for contrastive analysis to demonstrate the great diversion of the 2 sound systems.

## **1.2 The Role of Vernacular Arabic Dialects in the Pronunciation of ESL**

Discussing the differences between the sound systems of English and MSA might not be sufficient for the purpose of this study. We also need to consider the diverse varieties of spoken Arabic from the Ocean to the Gulf with noticeable differences in some consonants and more significantly in the vowel system, stress and sometimes in some lexical items. This will be discussed in detail in the literature review chapter and will be referred to as diglossia. This diglossia creates some vernacular dialects which may vary in similarities and differences from one region to another. Swan and Smith (2007, p. 195) point out that these differences between the vernacular Arabic dialects are “more marked than, say, differences between UK, US and Australian English”.

The impact of these vernacular Arabic dialects on English pronunciation will be the main focus of the analysis chapter, as they are thought to be one of the reasons that contribute to pronunciation deviations of native Arabic speakers when they learn English. That is why we find the speakers of different Arab dialects make different errors. If these errors were all related to MSA only, the speakers would probably make similar errors. In this research, it is claimed that most of the errors in the collected data are dialect specific.

## **1.3 Investigation Tools**

In the light of the above interwoven factors of first language transfer, and the relationship between pronunciation and the orthography systems, the researcher intends to investigate the pronunciation errors using different linguistic analysis tools in an attempt to identify the type of these errors. In the chapter to come, the literature review, the researcher will shed the light on (CA) contrastive analysis, which was the first attempt by linguists to investigate and trace the source of errors where some differences occur in the mother tongue and the target language. Then, the natural development, which followed CA and will be discussed in the same chapter, is (EA) error analysis. EA went far beyond just contrasting the similarities and differences of the first and the target languages in order to find out the problematic areas for learners. On the contrary, it investigated a variety of factors that led to more complicated errors, which sometimes have overlapping sources.

It will also be of crucial importance to demonstrate the differences between a mistake and an error, as the nature of the problem (mistake or error) will affect tracing its source and deciding on its correction strategy. In order to use either CA or EA, there must be a linguistic corpus. A thorough analysis of the corpus and a complete illustration of the data collected will be provided in chapter 4, which will also discuss the findings that resulted from this data.

In order to analyze pronunciation errors, the researcher considers demonstrating a brief idea about the role of phonetics and phonology in the literature review chapter a must. Some other factors such as fossilization and the sociolinguistic background might indirectly have an impact on the L1 transfer. Thus, they will be discussed in the conclusion as parameters of certain errors.

#### **1.4 Research Rationale and Questions**

The researcher is interested in error analysis, especially pronunciation errors, as speaking and proper pronunciation do not only reflect the level of education the ESL/EFL learner receives, but it is also a reflection of their personal profile and prestige, especially if they are formal officials or diplomats addressing audience in public. In addition, the researcher's background is applied linguistics and he has been collecting corpus of both written and oral errors for almost 2 decades until he had the opportunity to investigate the problem in an academic study and to contribute to finding possible remedial strategies for it.

Therefore, this study is attempting to address the following questions:

1. In what way do vernacular dialects of Arabic affect the pronunciation of English as a second language?
2. What are the common errors and repair strategies the participants employ?

## Chapter 2

### 2. Literature Review

In order to pave the way for a clear perspective of my scope of error analysis and correction, the following linguistic areas must be illustrated; contrastive analysis, errors, mistakes, error analysis, first language transfer, vernacular dialects , phonetics, phonology, fossilization and finally the role of sociolinguistics which might directly or indirectly contribute to fossilization.

#### 2.1 Contrastive Analysis

Writing “Linguistics Across Cultures” in 1957, Lado started to attract the linguists’ attention to contrastive analysis. Nevertheless, it was not until the 1960s and 1970s that serious attempts to investigate the problems caused by differences of the native language and the target language were implemented. Fisiak, Lipinska and Zabrocki, (1978) define contrastive analysis as “a subdiscipline of the linguistics concerned with the comparison of two or more languages or subsystems of languages in order to determine both the differences and similarities between them”. While, Gass and Selinker (2008, p. 96), by contrast, consider contrastive analysis as:

a way of comparing languages in order to determine potential errors for the ultimate purpose of isolating what needs to be learned and what does not need to be learned in a second- language-learning situation.

The above definitions might mean that linguists, who believed in that, thought that the areas of similarities in languages would be facilitative and help the learner acquire or learn the target language easily. Whereas, it was supposed that areas of differences are the problematic ones. For instance, Fries (1945, p. 9, in Fisiak, 1983) thought so highly of CA that he pointed out that

“The most efficient materials are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner”

Therefore, the major concern of CA is predicting areas of difficulties and those of easiness to help the teachers in classrooms cater for the difficult ones as sources of errors. A good example of this is provided by Liggett (1983, p. 29) about Arabic speakers learning English stating that they might find it difficult to insert the verb “ to be” in the sentence “ Ali is



Happy” and say it as “ Ali happy”, because they do not have this structure in their mother tongue. Another more specific example which is directly related to the study of this research is Zimmermann’s (2004) table of words using the minimal pair /b/ and /p/. Arabic does not exhibit the voiceless stop consonant /p/, whereas English does. Thus, the native speakers of Arabic learning English usually resort to the voiced stop /b/ instead, and use voicing as a repair strategy. Reading Zimmerman’s table 1, we find many examples of this repair strategy. If voicing is used in context it might lead to miscommunication or the delivery of the wrong message i.e. *can I bark here?*, instead of *can I park here?* In table 1 below, the Arabic speaker might voice all the words containing /p/ to /b/ and thus it is so probable that mutual intelligibility is hindered.

B	P
Ball	Paul
Bay	Pay
Bee	Pea
Back	Pack
Bark	Park
Rib	Rip
Lab	Lap

Table 1: Minimal pairs. Aapted from Zimmermann (2004)

It is also probable that some errors might result from the minimal pairs /f/ and /v/ as indicated by Smith (2007, p. 197) to have sentences such as; *It is a fery nice fillage*. Here also Arabic does not exhibit the phoneme /v/, but unlike the /p/ case, Arabic does not exhibit the voiced phoneme. Therefore, the native speakers of Arabic resort to the sound that their language exhibits, the voiceless /f/. In other words, /p/ and /v/ cause the native speaker of Arabic to use the repair strategies of voicing and devoicing accordingly, due to their nonexistence in Arabic.

Although CA seemed to hold for some time to help educators with second language learning, it did not continue to satisfy linguists in identifying all possible sources of errors. Some of the major criticisms of CA were that it is theoretical and has no direct use in classes. Sanders (1976) best pictures this in the following statement “To use the results of CA raw in the classroom is rather like presenting a customer in a restaurant with the ingredients and a recipe”. Another criticism by Di Pietro (1971) is “A linguistic item from the target language is not necessarily best taught in contrast with its opposite number”. A good example of Di Pietro’s explanation is the flapping /ɾ/ that the Arabs produce. If they are taught a British curriculum, it will be a problem, as it is not pronounced in final positions or before a vowel. On the other hand, it is considered a facilitator in American English, as it is pronounced especially in final positions.

Sanders (1971) points out that we cannot depend on a hierarchy of difficulties based on contrastive analysis as a basis for the sequencing of teaching materials. This means that it is more beneficial for both teachers and students to spend more time on structures that occur more frequently in the target language (TL), than on structures that do not occur in the learner’s first language and might not be so effective. Odline (1997, p.17) supports this mentioning that “Some differences between languages do not always lead to significant learning difficulties”. Odline also adds “... empirical research was beginning to show that learning difficulties do not always arise from cross-linguistic differences and that difficulties which do arise are not always predicted by contrastive analyses”.

CA has 2 versions. The first is a strict one that assumes that all the errors of the L2 learner are caused by L1 transfer and by comparing the 2 languages, these errors will be predicted. This version is the strong version of CA, which could not maintain its validity for long, as some errors were not exhibited as linguistic features in L1. The second version which is the weak version of CA does not take a strict position like the first one. It claims that it can give explanations to observed errors and not like the strong version depending heavily on prediction. Therefore, there was a need for another tool that attempts to understand the occurrence of errors rather than predict them. Hence, Error Analysis, (EA) was next.

## 2.2 Error Analysis

The criticism directed to the CA above does not, by any means, make us deny its contribution to the development of linguistics or language teaching. It was the first step towards error correction and first steps are always insufficient. Therefore, error analysis (EA) was another integrating step on the way to error correction.

Unlike CA, Liggett (1983, p. 34) defines EA as "... the study of learner mistakes..., it starts from the demonstrated student errors". This definition clarifies that it is more of a study of the learner's errors than just comparing 2 languages without bearing the learner's situation in mind as a significant variable. Gass and Selinker (2008) support the same idea adding that error analysis is a "type of linguistic analysis that focuses on the errors learners make. Unlike contrastive analysis (in either its weak or strong form), the comparison made is between the errors a learner makes in producing the (TL) and that TL itself". In this case we investigate the errors, because a learner made them, not because we are trying to predict that learners might make such errors in the future, as the case is in CA.

In their journey from native language (NL) to target language (TL), learners attempt to hypothesize the target rules, therefore fall in an approximate system of language, which is neither the L1 nor the L2. This system is known as the "interlanguage", (Richards, 1974). Some of these hypotheses are L1 dependent and lead to errors caused by first language transfer. These errors vary from one learner to another due to different variables, such as "...learning strategies, different training procedures, individual differences of teachers, text books..." (Jain, 1974, P. 189). This interlanguage phase is temporary until the learner improves his performance which is inevitably based on his improved competence of the TL. Given various names and being more complicated than being referred to in one paragraph, first language transfer will be discussed in detail in a section of its own below.

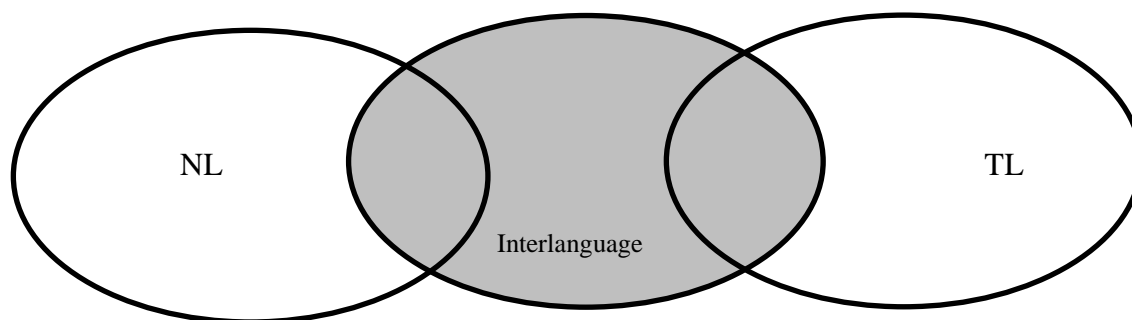


Figure 1: Interlanguage. Adapted from (Corder, 1971)

Errors were considered as a source of shame for the learner and the good learner is the one who does not make errors. The view to errors had changed after the publication of “Corder’s article entitled “The significance of Learner Errors” (1967) that EA took a new turn.” (AbiSamra, 2003). Since then, linguistics started to look upon errors differently. Gass and Selinker (2008, p.102) claim that “Errors can be taken as red flags; they provide windows onto a system - that is, evidence of the state of a learner’s knowledge of the L2.” They even continue to defend errors stating that “they are not a reflection of faulty imitation”, but “they are to be viewed as indications of a learner’s attempt to figure out some system”, as indicated in figure 1 above, where most of the errors take place in the interlanguage zone. Gass and Selinker (2008) also emphasize that “Errors are 'indispensable', since the making of errors can be regarded as a device the learner uses in order to learn.”

Corder (1974) highlighted the significance of EA as “Systematically analyzing errors made by language learners makes it possible to determine areas that need reinforcement in teaching”. Whereas, Liggett (1983, p. 34) adds “Error analysis equips teachers to deal with what the experts refer to as interlanguage or approximative systems”. It is also worth noting that errors are divided into 2 main categories: (1) Performance errors, which are “...those that a student makes because he is tired or nervous”. (2) Competency errors, which are “... those he makes because he does not know how to apply the grammar rules he is learning” (Liggett, 1983, p.34). This would directly lead us to the next section to illustrate the differences between mistakes and errors in detail.

As the case is for contractive analysis, some shortcomings of error analysis also exist. One major problem error analysis faces is that of categorization, as Oline (1997, p. 19) demonstrates;

“One of the major challenges for error analysts is deciding what category to assign a particular error to. For example, omitting an article in English may quite arguably be a case of simplification with a Spanish speaker but a case of transfer with a Korean speaker”.

Gass and Selinker (2008, p. 108) are also in agreement with the above problem clarifying that “Finally, we deal with another problematic area of error analysis relating to the source of errors. Within the framework of error analysis, the assumption is that errors can be categorized as belonging to one source or another”. They also directed another criticism to error analysis claiming that “One of the major criticisms of error analysis was directed at its total reliance on errors to the exclusion of other information. That is, critics argued, one need to consider nonerrors as well as errors to get the entire picture of the learner’s linguistic behavior”.

Another issue that depends on the awareness and experience of the teacher is being able to differentiate between an error and a mistake and to decide which one requires correction and probably training, and which one does not. Over correction of mistakes is not necessary and causes disappointment for the learner. The difference between errors and mistakes is discussed in detail in the following section.

We must also consider the difference between errors and mistakes, as it will help, define, categorize, analyze and finally correct the errors made by learners. Green and Tanner (1998, p. 93) state that a mistake is characterized as “a slip of the tongue”; that is, “the learner knows the correct form but has temporarily forgotten it”. They also added that “There are several reasons why learners may make mistakes; for example, they may be tired, or not concentrating. Learners can often catch and correct their own mistakes”. While Gass and Selinker (2008) give a contrasting definition of both errors and mistakes clarifying that “A mistake can be self-corrected, but an error cannot. Errors are “systematic,” i.e. likely to occur repeatedly and not recognized by the learner. Hence, only the teacher or researcher would locate them, the learner wouldn’t”.

Therefore, more attention is to be paid to errors not mistakes, as an error is made when the learner does not know the rule. Hence, they either need to know the rule or need more training to it. In other words, the learner is not aware that he/she is making an error. This also means that the learner's knowledge is not complete yet. On the other hand, depending on the learner's level of competence, the teacher should be aware that one learner's mistake can be another's error and vice versa. A good example for this is when one of my excellent grade 10 students said "she *\*have* beautiful eyes". I was certain it was a mistake, because when I asked him to repeat it, he could correct himself, while laughing at his mistakes. Yet, it can be an error for a beginner learner who is learning the conjugation of the verb "to have". In the following sections, the researcher will narrow down the scope of the research to the errors made in spoken English and specifically pronunciation errors caused by first language transfer (FLT).

### **2.3 First Language Transfer**

Sources of errors are classified in different ways according to different criteria. For the purpose of this research, I will focus on the first source of Selinker's categorization (in Richards, 1974, p. 37) classifying error resources as follows:

1. Language transfer
2. Transfer of training
3. Strategies of second language learning
4. Strategies of second language communication
5. Overgeneralization of TL linguistic material.

As the title of this research focuses on FLT, the first source of Selinker's categorization is the major point of research in this dissertation. First language transfer also has other terms, such as first language interference and interlanguage, in some contexts. Although interlanguage usually indicates the stage the learner has reached so far and the learning strategies of that phase that might or might not be caused by interference of the first language. The British Council website provides the following explanation of the relationship between first language transfer and interlanguage "Interlanguage is often heavily influenced by L1 and interference from this may make it seem perfectly logical to the learner, although it is incorrect. It is

important for teachers to understand this and also to see interlanguage as a series of learning steps”. (British Council BBC, Tools for teachers). A simplified definition of first language transfer by Lado (1957, in Gass and Selinker 2008, p. 89) is:

Individuals tend to transfer the forms and meanings, and the distribution of forms and meanings of their native language and culture – both productively when attempting to speak the language and to act in the culture, and receptively when attempting to grasp and understand the language and the culture as practiced by natives.

According to Faerch and Kasper (1987, in Mahmoud 2010, p. 127), “transfer is a psycholinguistic process whereby L2 learners activate their previous linguistic knowledge in developing or using their interlanguage”. Mahmoud also adds that “transfer may be used as a learning strategy to formulate hypotheses about the target language and as a communication strategy to test these hypotheses”.

Investigating and discussing pronunciation errors caused by first language transfer makes it necessary to demonstrate the reasons why learners resort to first language in general and why they resort to it for pronunciation in specific. Sometimes the native tongue is the only resource for a learner to complete a sentence with a lexical item or insert a preposition. It sometimes works, as in the Arabic example of using the word يلعب /jælʕb/ which means (play) in English. In its both versions the English and the Arabic this lexical item has different meanings according to the contexts it is used in. Therefore, the English speaker might use it to “play football” or “play the guitar”. The Arabic learners can use the same word in Arabic in the two contexts above as well. They might use their Arabic competence of this word and apply it to the second context of (playing the guitar) to compensate their incomplete knowledge of which word to use in English. What is good about this use of FLT is that it saves the learner and s/he might be reinforcement by the teacher for a good guess. This type of transfer is called positive transfer, where the cross-linguistic similarities between L1 and L2 are helpful.

On the other hand, other examples might cause errors. The following grammatical example occurs frequently with an Arab learning English; I enjoyed \**with* my holiday. They refer to Arabic and use the preposition they use in this collocation in Arabic with the verb in English. This type of transfer is called negative transfer which is defined by Odline (1997, p. 36) as “... divergences from the norms in the target language”.



### 2.3.1 Segmental Errors

#### Chart of English Consonants

(sample words are given below the symbol with the relevant sound in red)

MANNER	Place of Articulation						
	Labial	Labiodental	Interdental	Alveolar	Alveo-palatal	Velar	Glottal
Stop	voiceless	p		t		k	ʔ
		pill		till		kill	uh-oh
	voiced	b		d		g	
		bill		dill		gill	
Flap/Tap	voiceless			ɾ			
				butter			
Fricative	voiceless	f	θ	s	ʃ / ʒ		h
		fine	thin	ship	pressure		hill
	voiced	v	ð	z	ʒ / ʒ		
		vine	then	zip	pleasure		
Affricate	voiceless				tʃ / tʃ		
					choke		
	voiced				dʒ / dʒ		
					joke		
Nasal	voiced	m		n		ŋ	
		simmer		sinner		singer	
Approximant	voiced	w		r	y		
		wore		roar	your		
Lateral	voiced			l			
				lore			

Table 2: Chart of English Consonants

Source: <http://pages.uoregon.edu/l150web/conson.html>

ARABIC	Bilabial	Labio-dental	Dental	Alveolar	Post-alveolar	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	b		t d				k	q		ʔ
Nasal	m		n							
Fricative		f	θ ð	s z	ʃ		x ɣ		ħ	h
Affricative					dʒ					
Trill				r						
Approximant						j				
Lateral Approximant					l					

Table 3: Chart of Arabic Consonants

Source:

[http://www.andrewbrotherton.com/languages/ipa/consonant\\_files/ipa\\_consonants\\_arabic\\_660pxwide.htm](http://www.andrewbrotherton.com/languages/ipa/consonant_files/ipa_consonants_arabic_660pxwide.htm)

To narrow down the scope of this study to pronunciation errors, the researcher finds it necessary to demonstrate the factors that contribute to either facilitating learning or making FLT a hard task for the learner and thus leading to errors. In the light of tables 2 and 3 above, the researcher will give a comparison between the 2 sound systems of Arabic and English focusing on the areas of difficulty for the native speakers of Arabic who are learning English as a second language.

Language universals i.e. sounds that occur in almost all languages of the world help learners acquire the sounds of L2 easily. Maddison (1984, in Odlin, 1997, p. 120) explains that “... in a controlled sample of 317 languages, the vowels /i/, /u/ and /ɑ/ all appeared in the phonemic inventories of 250 languages; similarly, the bilabial nasal /m/ appeared in almost 300 languages, and the voiced bilabial stop /b/ in almost 200 languages”. Whereas, those sounds that exist only in the TL most probably cause errors and take long time to learn. Odlin also confirms that “the significance of such cross-linguistic facts for the second language acquisition is that there seems to be a rough correlation between the frequency of a sound and its difficulty for adults learning a second language”. Based on that and by looking at tables 2 and 3 above, we notice that the voiceless stop /p/ exists in English but it does not in Arabic. The same case is also applicable to the voiced fricative /v/. As will be demonstrated below, these 2 phonemes might be problematic for some native speakers of Arabic.

This would lead us to the segmental errors “i.e. errors involving vowels and consonants”, Odlin (1997, p.114). These errors are caused by the sounds that exist in English, but do not in Arabic. Sounds like /p/ and /v/ are a double trouble for the Arabic speaker, because they do not exist in Arabic, but at the same time their Arabic minimal pairs /b/ and /f/ are a good escape for the Arabic speaker. As shown in table 8 below *bray* is used instead of *pray* and \*fideo is the alternative of video. Amazingly enough, the same error occurs with the English speaker learning German or Arabic, as the sound /x/ exists in both languages, but does not exist in English. The English speaker resorts to the minimal pair /k/ as in the Arabic words دخان /dɒxæn/ and دكان /dɒkæn/ , where the first means smoke, while the second means shop. The English speaker pronounces them both as /dɒkæn/, which means shop.

Another important feature of Arabic that allows FLT is as Hayes (2006, p. 322) points out “A unique feature of the Arabic writing system is the status of short vowel symbols. In Arabic, symbols for the vowels (i, u, and a) are typically omitted from written texts and are easily filled in by skilled readers”. A good example is the word فعل /fiʕl/ as a noun, while it is left for the reader to use contextual information to guess the vowel insertion for the word /faʕala/ which has exactly the same spelling above of فعل but it functions as a verb not a noun. This process that naturally governs the relationship between the Arabic orthography and pronunciation systems makes it common for the native speaker of Arabic to insert vowels in English words as will be illustrated in chapter 4.

### 2.3.2 Suprasegmental Segmental Patterns

Odlin ( 1997, p.118) explains his view of suprasegmental patterns stating that “Although cross-linguistic influences on pronunciation frequently involve segmental contrasts, the influences are also frequently evident in suprasegmental contrasts involving stress, tone, rhythm, and other factors”. A good example of the above is the stress shift that may change the word class of an English word from a noun to a verb or vice versa as in the word *present*. It could be /'prez(ə)nt/ as a noun or /pre'z(ə)nt/ as a verb. Some other times, it might cause total ambiguity for the listener, as s/he might not be able to interpret the pronunciation. Arabic speakers have stress shifts in their pronunciation that are not recognized stress patterns in English. This can be the result of either the stress patterns of Modern Standard Arabic (MSA) or their vernacular Arabic dialects as represented in the word *opposite* /'ɒpəzɪt/, where they stress the second syllable instead of the first to sound like /ɑ'pəzət/. A demonstration of MSA stress patterns will be presented later in this chapter, as a rough guide to the spectrum of Arabic dialects stress patterns. Some suprasegmental errors are probable to occur due to a vernacular dialect affected by another language, as the case is in the dialects of Tunisia, Algeria and Morocco, which are affected by the French pronunciation, as they borrow and embed French words in their Arabic sentences in everyday language. As an example of the French stress patterns Odlin ( 1997, p.117) states that “ French speakers, for example, tended to accent syllables at the end or close to the end of English words...(e.g., motor and moteur)”. Arabic speakers in the above countries, therefore, tend to create a new syllable and stress it as in the past forms of (like) /lar'kid/, surprise /sərpəra'zɪd/. Doing so, they not only follow the French pronunciation pattern by stressing the last syllable, but they also add a new syllable to the word.

Another beneficial feature of suprasegmental patterns is the role of intonation. Arabic speakers learning English might be fortunate, because in a study it was found out that "... it does seem significant that Spanish and Arabic are, like English, intonational languages", Odlin (1997, p.119). The significance of intonation signals is that they indicate the speaker's emotions and they also provide hints of opening and closing, and turn taking in speech. According to a study by Keller-Cohen (1997), "A similarity in the suprasegmental patterns of two languages can give a learner important advantages in learning the syntax of the target language".

## **2.4 Vernacular Dialects**

All languages have a standard version and a colloquial one. Arabic is not an exception. "There is a universal 'pan-Arabic' language, which is taught in schools, used by the mass media in all Arab countries, and for all communications of an official nature" Swan and Smith (2007, p. 195). On the other hand, this variety is not the spoken everyday variety. Swan and Smith continue clarifying that " Within each country, often in quite small areas, a wide variety of colloquial dialects have developed, differing one from another not only in pronunciation, but also in common lexical items and, to some extent, in structure".

In some cases these differences might cause intelligibility problems, as the diversion is vast especially in terms of stress, intonation and lexical item. Lipiski (1997, cited in Watson, 2002, p.8) calls this "diglossia". Although diglossia exists in all language, it is noticeable it exists in the Arab world to some extremes that it might hinder intelligibility between some dialects. Watson (2002, p. 8) explains that "Dialects of Arabic form a roughly continuous spectrum of variation, with the dialects spoken in the eastern and western extremes of the Arab-speaking world being mutually unintelligible". She also tried to divide these two parts of the Arab World into 2 clearly identified sections, as shown on the map below, mentioning that the eastern part can be from "a line from Salum in the north to roughly the border of Sudan-Chad in the south". While the western section contains "... the Maghribi dialects spoken to the west of this line". Watson (2002, p.9).



Figure 2. Watson's Arabic Dialect Sections. Adapted from (Arabbay.com)

To give examples of this diglossia in terms of lexical items; the word *now* means /dæbə/ in Moroccan Arabic, while it is /delwæʔt/ in Egyptian Arabic and /tæwə/ in Tunisian and Libyan Arabic. In Lebanese Arabic the same word is /hæl'læ/, which does mean that the eastern dialects also have some noticeable differences. Another brilliant example of both phonological and sociolinguistic diglossia in the Arab World is the word *woman*. In the western part they pronounce it as /m'ræ/, because they follow an iambic word stress system, which consists of “one short or weak beat followed by one long or strong beat” Macmillan Dictionary (2002). While in the eastern part they pronounce it as /'mæxæ(h)/, as they follow a trochaic word stress system, that is; “ A metrical foot consisting of a stressed syllable followed by an unstressed syllable, as in *season*” The Free Dictionary (2013).

On the sociolinguistic level the word *mara* (woman) is commonly used in almost all Arab countries. Meanwhile, it is not only offensive for an Egyptian woman, but it is also a taboo word in Egypt, especially for the middle and upper classes. An Egyptian woman prefers being referred to as a *madame* , the word borrowed from French, the formal Arabic word *say'yda* or for the less educated classes the Arabic word *set* is even better than *mara*. The role of sociolinguistics should be taken into consideration when talking about pronunciation, as it directly interprets the diverse differences of vernacular dialects, especially inside the same community, where the dialectal differences are not so diverse.

## 2.5 Syllable Structures in Arabic and English

A comparison of Arabic and English syllable structures might facilitate the task of finding out why Arabic speakers sometimes have stress shift or vowel insertion as repair strategies. “English and Arabic are two languages that differ greatly in the range of syllable structure patterns they make use of”, (Odisho, 1979, p. 205). He also adds “Thus great interference is expected when English assumes the status of the target language for the native speakers of Arabic”.

In their cross-sectional study of 3 Arabic dialects (Moroccan, Tunisian and Lebanese) Hamdi, Ghazali and Barkat (2005, p. 2246) conclude that “In MSA, consonant clusters are not permitted in syllable initial position”. Moreover, they claimed that “ There are three underlying syllables in MSA: CV, CVC and CVV and two syllables CVVC and CVCC that appear only in surface phonetic forms such as at pause or following other phonological processes”. From the above we notice that in MSA initial consonant clusters do not exist. Nonetheless, they might hold for some Arabic dialects i.e. (woman) is /mra/ in Moroccan, which permits initial consonant cluster, while it is /mara/ in all eastern Arabic dialects. In English CCVC and CCCVC syllable structures exist as in *stand* and *splendid*. Watson (2002, p.56) supports the above stating that “Most eastern Arabic dialects exhibit a fairly limited range of syllable types. Three basic syllables are attested in Cairene and San’ani: CV, CVV, and CVC”. What Watson mentions about the basic syllables is in accordance with Hamdi, Ghazali and Barkat’s study.

In his study on consonant clusters and abutting consonants, Odisho (1979, p. 207) found out that “Arabic and Syriac do not permit medial clusters”, instead they “allow one consonant to abut on another” i.e. *madrasa* (school) CVC.CV.CV. Breaking the word into 3 syllables makes it obvious that the middle consonants /d/ and /s/ belong to different syllables and although they are adjacent, they do not make a medial consonant cluster.

Watson (2002, p.59) gave examples of final consonant clusters from both Cairene and San’ani dialects, but she stated that “CVCC is restricted to phonological word-final position in San’ani and to utterance-final position in Cairene; and CVCCC is restricted to

phonological word-final position in San'ani, but is not attested in Cairene.” A word such as *malibistsh* (I did not wear) represents a very specific vernacular dialect feature of Cairene. While, *magalaynsh* represents the San'ani case of CVCC. This means that some dialects exhibit final consonant clusters, even if they are rarely used. This might also explain why some native speakers of Arabic may have problems with final consonant clusters, while others may not.

## 2.6 Stress Patterns in Arabic and English

The syllable structure of any language has a direct impact on its stress patterns. As the case is above with syllable structures, Arabic and English also have noticeable differences in terms of stress patterns. The combination of syllable structure and stress patterns might interpret in what way FLT occurs in stress shifts. Kenworthy (1987, p. 18) highlights the importance of the use of stress as follows:

If the learner doesn't stress one syllable more than another, or stresses the wrong syllable, it may be very difficult for the listener to identify the word. This is because the stress pattern of a word is an important part of its identity for the native speaker.

Kharma and Hajjaj (1997, pp. 24-25) simplify the English word stress patterns as follows:

- (i) All one-syllable words, spoken in isolation, are stressed
- (ii) A two-syllable word has one stressed syllable, on the first as in '*study*, or on the second as in *be'lieve*.
- (iii) Prepositions, like verbs, often have stress on the second syllable, e.g. *a'bove*.
- (iv) If a word has a diphthong or a tense vowel, the stress often falls on it, e.g. *ho'rizon*.
- (v) If there is no tense vowel or diphthong, stress often falls on the third short vowel from the end or the second from the end if followed by two consonants e.g. '*cinema*, *hori'zontal*.
- (vi) In words of three or more syllables there is usually one stressed syllable, but occasionally there may be two, e.g. *ex'cessively* or '*over'esteimate*.

Some good examples of stress shifts that might make the native speaker of English unable to identify the correct word are suggested by Kenworthy (1987, p. 18) are adapted in the table below as follows:

Input	Output
Wri' <i>tten</i>	Retain
<i>Com</i> fortable	Come for a table
Pro <i>duct</i> ivity	Productive tea

Table 4: Stress Shifts

Kharma and Hajjaj (1997, p. 26) claim that “Unlike English, Arabic stress patterns are far more predictable” and they also summarize the Arabic word stress patterns in 4 categories:

- (i) A word of one syllable whether short or long, takes a primary stress, e.g. '*min* (from), '*bard* (cold).
- (ii) A word of two or three syllables takes a primary stress on the first syllable, e.g. /ʔbædæn/ (never), /kætæbæ/ (he wrote).
- (iii) A multi-syllable word takes the primary stress on the last syllable if it is long, e.g. /yæktu'bu:n/ (they write).
- (iv) If the last syllable is not long, the primary stress falls on the last long syllable, e.g. /ʔihtu'mæmuhu/ (his interest).

From the above comparisons between the English and the Arabic syllable structures and stress patterns, we notice that differences of syllable break down and stress exist. The prominent differences are mainly exhibited in the initial and final consonant clusters. As a result, the native speakers of Arabic might have difficulties stressing the right syllable or adopt some repair strategies such as vowel insertion or stress shift depending on their competence of the Arabic syllable structure and stress patterns.



## 2.7 Repair Strategies

In order for learners of a second language to cater for pronouncing the words they are learning, they adopt some strategies in their interlanguage phase to help them pronounce these words properly. These repair strategies describe the mechanism of how they avoid these target lexical items or phonemes. Thus they make phonological changes that lead to changes in the syllable structure. In this section a brief description of these repair strategies will be as shown below:

1. Vowel insertion occurs when a speaker inserts a vowel between consonant clusters. The word *documents* is a good example. The proper pronunciation is /'dɒkjʊmənts/, while some speakers pronounce it as /'dɒkjʊmɪntɪs/ adding the vowel /i/ to split the final consonant clusters.
2. Deletion is another strategy learners adopt to facilitate pronunciation if the sound does not exist in their dialect. The word *gentle* is usually pronounced as /'ʒent(ə)l/ in many Arabic dialects, instead of the correct form /'dʒent(ə)l/. The first consonant /d/ of the affricate /dʒ/ is deleted.
3. Metathesis is a strategy in which the position of the phonemes are reordered, as in the word *ask* when it is pronounced as \*aks.
4. Prothesis is the insertion of a vowel at the beginning of a syllable containing a consonant cluster. This is a common repair strategy employed by native speakers of Arabic learning English. It usually occurs in word chunks where a word ends with a consonant and the next word begins with a consonant too. The Arabic speaker here finds it difficult to maintain pronouncing adjacent consonant clusters in connected speech. The combination of *ice cream* is a perfect example when it is pronounced in some Arabic dialects as /ais ekrim/ not /ais krim/.

5. Substitution occurs when the Arabic speaker in some dialects pronounce /'dʒent(ə)l/ as /'gent(ə)l/. He or she replaces the consonant with another, perhaps because it does not exist in their dialect. This way, the word *gentle* can serve 2 examples of repair strategies.
  
6. Voice alternation is a commonly used strategy, because Arabic does not exhibit the phonemes /v/ or /p/. An example is when the speaker voices the /p/, as the case is in the word *pen* when it is pronounced as *ben*. Devoicing occurs when the /v/ is replaced by /f/ as in the word *video* when it is pronounced as\* *fideo*. In the first case miscommunication might take place as the listener might think of a ben instead of a pen, but in the second case the speaker invented a word that does not exist in English.

## **Chapter 3**

### **The study**

#### **3.1 Overview**

This study aims to investigate the role of L1 transfer of native Arabic speakers' pronunciation errors in English. Investigating pronunciation errors required data collection and categorization of these errors followed by contrastive and error analysis to identify the errors which are caused by L1 transfer, and give a thorough description of the underlying process of the repair strategies the speakers attempted to employ depending on their vernacular Arabic dialects. Therefore, this study attempts to answer the following research questions;

1. In what way do vernacular dialects of Arabic affect the pronunciation of English as a second language?
2. What are the common errors and repair strategies the participants employ?

Based on the aforementioned, in this chapter the researcher will consider the quantitative and the qualitative research methods, and the population sampling. The researcher will also give a thorough description of the participants in both the uncontrolled and the controlled groups. Then a demonstration of the instruments which were used in the data collection will follow. Data analysis procedures will be dealt with briefly in this chapter, as detailed descriptive analyses are presented in Chapter 4. Finally, the researcher will mention the ethical considerations which were taken into account to carry out this study.

#### **3.2 The Quantitative Method**

“Quantitative research is the collection and analysis of numerical data to describe, explain, predict or control phenomena of interest” ( Gay, Milla and Airasian, 2009, p.7). This type of research requires a huge sample of participants , which is enough to provide reliable statistics about the phenomena being investigated. Some feature characteristics of quantitative research are that the researcher uses non-interactive instruments for his or her data collection such as paper and pencil or online surveys and they also control the contextual factors and could interfere with the data collection.

Quantitative research is “... applied to describe current conditions, investigate relations, and study cause-effect phenomena”, (Gay, Milla and Airasian, 2009, p.8). The word quantitative implies massive dependence on statistics to interpret the data collected in this type of research.

### **3.2.1 Types of Quantitative Research**

There are four types of quantitative research 1. Survey research, 2. Correlational research, 3. Casual comparative research, 4. Experimental research. In this section, the researcher will explain the nature and the purpose of each type.

The first type, survey research, “involves collecting data to test hypothesis or answer questions about people’s opinions on some topic or issue”, (Gay, Milla and Airasian, 2009, p.175). Alain (1993, P.6) adds that “there are many data collection and measurement processes that are called surveys--marketing surveys, opinion surveys, and political polls”. There are two types of survey research; the first one is cross- sectional in which “data are collected from selected individuals at a single point in time. It is a single, stand-alone study”. Gay, Milla and Airasian ( 2009, p.176) . Further to this, they added that the other type is longitudinal and it depends on collecting data in different times and this type of surveys is useful for “studying the dynamics of a topic or issue over time”.

The second type of quantitative research is correlational research. Price and Oswald (2006) state that

“Correlational research tests for statistical relationships between variables. The researcher begins with the idea that there might be a relationship between two variables. She or he then measures both variables for each of a large number of cases and checks to see if they are in fact related.”

Thus, it is a study that investigates whether or not and to what extent an interrelationship exists between two variables. A good example of this is testing whether or not auditory learners are creative and to which degree their ability to learn through listening makes them

create pictures in their minds and comprehend faster than others who might, for instance need tactile learning styles.

The third type is casual comparative research. Gay, Milla and Airasian (2009, p218) define it as an attempt "... to determine the cause, or reason for existing differences in the behavior or status of groups or individuals", meaning that these groups already have existing differences and the role of the researcher is to investigate the reasons that caused these differences to occur.

Experimental research is the last type of quantitative research. It is described as the most structured research type, because "... the researcher manipulates at least one independent variable, controls other relevant variables and observes the effect on one or more dependent variables". That is, "The researcher determines 'who gets what?' ", (Gay, Milla and Airasian, 2009, p.218)

### **3.3 The Qualitative Method**

Unlike the quantitative method, the qualitative method does not rely on numbers or statistics. "Qualitative research is the collection, analysis and interpretation of comprehensive narrative and visual (i.e., nonnumerical) data to gain insights into a particular phenomenon of interest", (Gay, Milla and Airasian , 2009, p7)

The major aim of qualitative studies is to "... conduct a systematic study of a case or cases and to give a rich description of the object of inquiry", (Boudah, 2011, p. 127). Boudah adds that this method also takes different forms of study such as "case study, multicase study, or multisite study". For a detailed Qualitative research overview, see appendix 1.

### **3.3.1 Types of Qualitative Research**

There are three types of qualitative research. The first one is narrative research which is concerned with investigating how different people conceive life or the surrounding world from their own point of view based on their personal narrations. This might require an open interpersonal interview during which the researcher collects stories from participants. On the other hand, narrative research might also be involved in the history of a phenomenon.

Ethnographic research is "... the study of the cultural patterns and perspectives of participants in their natural settings" (Gay, Milla and Airasian, 2009, p.13). In ethnographic studies there is some sort of keen relationship between participants and their settings. Therefore, the researcher should be cautious in the way s/he approaches the population of participants. They must build good rapport with them and get slowly involved into their settings before they start collecting their data. It is also preferable that the researcher does not collect data as one package. They are to collect them over a period of time and in portions, as gaining the participants trust and more understanding of the culture with the course of time will be of great help.

Case study is the third type of qualitative research in which the researcher conducts "...research on a unit of study or bounded system" (Gay, Milla and Airasian, 2009, p.14). They also added that "Case study research is an all-encompassing method covering design, data collection techniques, and specific approaches to data analysis". Robson (2004, p.473) claims that "A case study could be approached as an exercise in the generation of grounded theory; or it could be thoroughly ethnographic". This means that the population in investigation might range from a single person having a specific phenomenon that requires investigation to an ethnographic group.

### **3.3.2 Instruments of Qualitative Research**

Observation, interviews and document reviews are the major instruments for data collection in qualitative research. Questionnaires and examining records are also included. For the purpose of this study data was collected through means of observation in the uncontrolled group and personal interviews for the controlled task. The purpose of observational data is

To take the reader into the setting that was observed. This means that observational data must have depth and detail. The data must be descriptive – sufficiently enough descriptive that the reader can understand what occurred and how it occurred. The observer’s notes become the eyes, ears and perceptual senses for the reader. The description must be factual, accurate and thorough without being cluttered by irrelevant minutiae and trivia. Patton (2002, p.23, in Boudah, 2011, p134)

The observer’s roles vary according to the nature of the observation task. S/he might fully or partially participate in the observation or just be an onlooker. Some advantages of observation as a data collection instruments are “... to discover things that participants might not freely talk about in interview situations” (Cohen, Manion and Morrison, 2003, p.305). The other type of data collection is interviews. They have four subcategories, as given by Patton (2002):

1. informational conversational interview
2. interview guide approach
3. standardized, open-ended interview
4. closed, fixed-response interview

### **3.4 Differences between the Quantitative and the Qualitative Methods**

As explained above, both methods are different in terms of nature, data collection instruments, data collection and targeted population. “Qualitative researchers do not necessarily accept the view of stable, coherent uniform world... and because different people and groups have different perspectives and contexts, the world has many different meanings”, (Gay, Milla and Airasian, 2009, p.7). Also data collection in qualitative research occurs in naturalistic settings, where the researcher is a participant observer. This also provides the researcher with very rich and diverse data over the time. For a thorough comparison of the characteristics of quantitative and qualitative research, see appendix 2.

### **3.5 Reliability and Validity**

In order for any research to be successful it has to maintain a high degree of reliability and validity. By definition reliability is "... a synonym of consistency and replicability over time... For a research to be reliable it must demonstrate that if it were to be carried out on a similar group of respondents in a similar context, then similar results would be found" (Cohen, Manion and Morrison, 2003, p.117).

On the other hand, Cohen, Manion and Morrison (2003, p.105) claim that validity has two versions. The earlier version defines validity as "... a demonstration that a particular instrument in fact measures what it purports to measure". Whereas the second version suggests that validity has different forms, as noted below:

"...in qualitative data validity might be addressed through the honesty, depth, richness and scope of the data achieved, the participants approached and the disinterestedness or objectivity of the researcher. In quantitative data validity might be improved through careful sampling, appropriate instrumentation and appropriate statistical treatments of the data".

### **3.6 The Present Study**

Demonstrating the above comparison between the quantitative and qualitative research methods, the researcher thought that the qualitative method would suit his purposes and scope of research, as he aims to do in-depth description and analysis of a linguistic phenomenon, that is pronunciation errors related to L1 transfer of native speakers of Arabic, in order to find out the underlying causes of these phenomena and attempt to draw pedagogical recommendations for these pronunciation problems. The following sections will highlight the participants, the data collection instruments and procedures, the data analysis procedures and the ethical considerations.



### **3.7 Participants**

In order for the researcher to carry out this research, he collected data from 2 different groups over more than 20 years. The first group was an uncontrolled group and it took more than 20 years of data collection. The other group was a controlled group and data collection was done by means of a controlled task during a personal interview. Both groups are demonstrated in detail below.

#### **3.7.1 The Uncontrolled Group**

The researcher's motivation for conducting this research stemmed through studying contrastive and error analysis as part of an applied linguistics diploma, back in 1991. This branch of linguistics was very interesting to him. Since then he has got an everlasting wish of intentional and non-intentional observation of errors in general. Nevertheless, spoken errors were both attractive and easy to observe. Hence, the observer started taking notes of any errors he might hear. The whole world was an uncontrolled group of data collection for him. He started collecting pronunciation errors from the uncontrolled group as a non-participant observer. This group had a wide range of representatives, as it contained teachers in general and teachers of English in specific, because they have better English proficiency levels. It also contained Arabic learners of English as a second language who belonged to different Arabic nationalities and dialectical zones. This uncontrolled group also reached out of the school settings to conferences, media, and any setting where it was possible for an Arab native speaker to speak English. The outside school uncontrolled group contained celebrities, scientists or athletes. The role of the researcher was that of the note taker of the errors these participants made while they were speaking. Note taking could be on the spot when the researcher was not a participant observer i.e. watching a televised interview. Participant or non-participant observations were used and the data was collected through field notes. All the above participants belonged to different age groups, educational backgrounds, demographics, and genders.

### **3.7.2 The Controlled Group**

The controlled group consisted of 10 participants, where 9 of them were males and one was a female. They were meant to be a heterogeneous group to represent a wider spectrum of the vernacular dialects of Arabic. Three of them were Palestinians, two were Egyptians, and one from each of the following nationalities; Emirati, Syrian, Jordanian, Tunisian, and Moroccan. They belonged to different age groups, ranging between 17 and 55. Nine of them had different jobs in different institutes, while the tenth was attending high school. 6 of the working population were teachers of English, 1 worked in the ministry of health and the other 2 had administrative positions in different educational institutes. This meant that they had different educational backgrounds and different Specializations. One of the teachers had a master's degree, while all the rest had B.A degrees. It is worth noting that these teachers belonged to different countries. As a result, they learned English as a second language through different curricula and teaching techniques in diverse educational systems. The remaining participants were qualified in health sciences, social work, and IT. Their age groups, qualifications, positions and experience were indicators of different exposure scopes to English as a second language.

### **3.8 Data Collection Procedures and Instruments**

For the purpose of this study, the data were collected by using semi-structured observation, note taking and interviews. "A semi-structured observation will have an agenda of issues but will gather data to illuminate these issues in a far less pre-determined or systematic manner" (Cohen, Manion and Morrison, 2003, p.305). The researcher's agenda in this case is the pronunciation errors. In order for the presenter to reinforce his hypothesis about them, he had to keenly observe speakers from different walks of Arab societies and follow his observations by note taking in the event of error occurrence. This is what mainly took place with the first group of participants- the uncontrolled group.

For the researcher to test the reliability and validity of his collected data from the uncontrolled group, he decided to use another instrument, i.e. interviews. The researcher gathered the words or phrases containing pronunciation errors from the uncontrolled group above and excluded all the errors that were not resulting from L1 transfer, then he grouped them according to their error types i.e. vowel insertion. The researcher devised 43 stimuli as a representative sample (see appendix 4). The stimuli were presented in context but were not marked inside the sentences by any means in order to give the reader the opportunity to read in natural settings without any pressure or cautiousness. These stimuli were underlined afterwards for easy referencing for the researcher, and the readers of this research. The researcher held one on one interviews with the participants in the controlled group, explained the nature of the research and the task. Then, they read the sentences out loud in order for the researcher to record them. They were all willing to participate without hesitation to the extent that they volunteered to record again, when the sound quality was not good or when someone interrupted the recording. Most of the recordings took place at the school the researcher works at and one recording was outside where the participant worked. All ethical precautions were taken into consideration as will be explained in the ethics section below.

### **3.9 Data Analysis Procedure**

The data is grouped and categorized in tables according to the error type made by the participants and the repair strategy they adopted. The tables contain 4 columns; the word number, the input (the original English word), the output (transcription of the deviated pronunciation) and the repair strategy (description of what the participants did to pronounce the word). The serial numbers of words are used to refer to the word in the in-depth explanation of errors under each table to facilitate the researcher's and the readers' task to find the word easily.

At the beginning of the data analysis section an intralingual comparison between words in Modern Standard Arabic and different vernacular dialects of Arabic is held to demonstrate that these dialects not only affect the pronunciation of English, but they also affect the pronunciation of their own native tongue, which is a normal case in all languages, where we have a standard variety and many dialects. After that the researcher gives detailed descriptions of what occurs in each case of the deviated English pronunciations and relates

them to the speakers' vernacular dialects in an attempt to explain how these dialects might have affected the pronunciation of that English word. Additional examples are also given in some cases for more elaboration on the occurrence of the same error type given in the tables.

### **3.10 Ethical Considerations**

Why do researchers need to consider ethical issues? The answer is, because the participants “may be faced with situations that cause stress or anxiety” (Robson, 2004, p.65). To start collecting the data, the researcher sought the necessary approvals of the institutions and the participants taking place in the study. Being a member of the school English staff, the researcher had the approval of the school principal, who was himself interested in the topic and was generous enough to give consent to ask any member of the school staff to participate. Also permission was taken from the administration of the participant who did not work at the school. A thorough explanation of the research topic and the nature of the task in the interview were given by the researcher. All participants read carefully and then signed the consent form, see appendix 3. For the purpose of confidentiality, all participants were assured that their names, output, and any information that might make them recognizable will remain anonymous and will only be used for the purpose of this study. They were also informed that their participation is totally voluntary and that they have the right to stop and withdraw at any time.

### **3.11 Limitations**

There was no opportunity in this study to have wider access to a bigger scope of Arabic speakers to generalize the findings. Although the uncontrolled group represents many of the Arab countries, they do not represent all. This study also did not investigate other variables that might affect error occurrence, such as social and educational backgrounds in detail. This study is focused on the linguistic variables that cause first language transfer. It is worth noting that some other error sources exist and sometimes overlap, i.e. teacher induced errors or lack of training.

## Chapter 4

### Findings and Analysis

The analysis chapter has 4 corpus tables. Table 5 has examples from different Arabic varieties showing the input form of MSA and its pronunciation in the vernacular dialects of different Arab countries. This table is used to prove that the diglossia these countries have might not only affect their pronunciation of English, but primarily their pronunciation of Arabic. After that, tables 6, 7 and 8 demonstrate stimuli from the first uncontrolled group showing the input word, the output or the mispronounced one and the repair strategies employed by the speakers. The last type of tables (9, 10, and 11) will display the stimuli which were embedded in sentences and given to the controlled group to read out loud in natural reading speed. A brief analysis follows the tables of the uncontrolled group, while a thorough analysis follows each table of the controlled group to illustrate the sources of errors and the repair strategies which take place accordingly.

#### 4.1 Categories of Arabic Dialects

In chapter 2 Watson (2002) divided the Arab world only into 2 main dialectical sections. This would ignore major categorizations in the eastern side of the map given. The researcher agrees that most of the western section dialects might belong together, bearing in mind some isoglossal differences within the same zone. As the Arab world occupies a vast area of land from the Atlantic Ocean to the Arabian Gulf, this would normally lead to different varieties of spoken Arabic. These varieties can be divided into some main dialect areas. These areas are similar to some extent so that they represent a geographical linguistic category. We have the Gulf area dialects which are very similar and also use words borrowed from Persian such as *Bheema* بيمه (insurance). This area is also affected by words borrowed from Urdu and English. Iraq is close to the Gulf area dialect with heavy dependence on borrowed Persian words. The other category is the dialects spoken in Levant, now known as Syria, Lebanon, Palestine and Jordan. Egypt has its own unique dialect and stands alone as a category. Another unique dialect which makes a category of its own is Sudanese Arabic. The rest of the North African Arab countries have similar dialects and depend on words borrowed from French and used in their daily spoken Arabic, with the exception of Libya, where people use

borrowed words from Italian such as *lamette* (blade). Figure 2 below illustrates the divisions above.



Figure 3: Researcher's suggested Arabic dialect zones

#### 4.1.2 MSA vs. Vernacular Arabic Pronunciation

	Standard pronunciation	Deviated pronunciation/ accent	Meaning in English
A	/bəhr/ بحر	/bəhər/ Lebanese, Syrian, Iraqi, Jordanian, Gulf area	Sea
B	/ʃəkl/ شكل	/ʃekəl/ Lebanese, Syrian, Iraqi, Jordanian	Form/shape/way/style
C	/ðəmb/ ذنب	/zəmb/ Egyptian /(ð)zəneb/ Lebanese, Syrian, Iraqi, Jordanian, Gulf area	Sin
D	/mɒtazawiz/ متزوج	/emzaweɜ/ Lebanese, Syrian, Iraqi, Jordanian	Married
E	/əmn/ أمن	/əmen/ Lebanese, Syrian, Iraqi, Jordanian, Gulf area	Security
F	/kəθi:r/ كثير	/keti:r/ Egyptian /ekti:r/ Lebanese, Syrian,	Much/many
G	/mæθelen/ مثلا	/mæselen/ Egyptian, Lebanese, Syrian. /mætelen/ Libyan	For example

Table 5

Table 5 illustrates examples from different Arabic dialects to demonstrate the underlying repair strategies taking place while pronouncing some words according to the characteristics of each dialect. In examples A and B the countries mentioned have a lot of vowel insertion in their vernacular dialects. In example C, the Egyptians substitute the /ð/ for /z/. In addition to this, the vowel insertion by the Lebanese and Syrians assimilated the /m/ to /n/. While for the Egyptians the change is for the first consonant /ð/, which does not exist in colloquial Egyptian Arabic. There is no vowel insertion in the Egyptian case and the /n/ sound is assimilated to /m/, as MSA pronunciation exhibit, affected by the following final consonant /b/ forming a final consonant cluster, which the other dialects do not exhibit.

In examples (D) and (E), there is also vowel insertion but in two different positions. In (D) the pronunciation of word /mɒtazawiz/ is totally changed and a vowel was inserted in an initial position due to the existence of deviated consonant cluster /mz/. Whereas, in (E) the vowel insertion occurred before the final consonant to avoid the difficult consonant cluster. Egyptians pronounce the word /əmn/ as it is, because as Watson denoted above, Yemeni and Egyptian Arabic sometimes exhibit final consonant clusters. Examples (F) and (G) display two contradicting cases, even within the same vernacular dialect. In (F) all the dialects converted the /θ/ into /t/ due to what they are used to doing in their dialects. The Syrians and the Lebanese inserted a vowel in an initial position. In the last example the same dialects in (F) converted the same sound /θ/ to /s/ instead of /t/ as they did in the previous example.

## 4.2 Types of ESL Pronunciation Errors by Native Speakers of Arabic in the Uncontrolled group

	Input	Output	Repair Strategy
1	Priority	/perjɔrəti/	Vowel insertion
2	Spreadsheet	/sepredʃit/	Vowel insertion
3	Splendid	/seplendəd/, /sepelendəd/	Vowel insertion
4	Thanks	/θæŋkes/	Vowel insertion
5	Tasks	/tæskes/	Vowel insertion
6	Table	/'teɪbel/	Vowel insertion
7	English	/ ɪŋɡɪlɪʃ/	Vowel insertion
8	Industry	/ 'ɪndəsteri/	Vowel insertion
9	Sixty	/sɪkesti/	Vowel insertion
10	Methodologists	/meθədə'lədʒɪstɪs/	Vowel insertion
11	I don't know	/I dəʊnte nəʊ/	Vowel insertion
12	Should try	/ʃʊde traɪ/	Vowel insertion
13	Background	/bækəgrawnd/	Prosthesis
14	In front of	/ɪn əfrʌnt əv/	Prosthesis
15	You have three pens	/ju hæv ɜθri penz/	Prosthesis
16	A hundred clips	/ ə hʌndrəd ɛklɪps/	Prosthesis
17	Major news	/medʒər enuz/	Prosthesis
18	Had three	/ həd ɜθri:/	Prosthesis
19	Same class	/ seɪm ɛklɑ:s/	Prosthesis
20	Ice cream	/ais ɛkrim/	Prosthesis
21	Lesson plan	/ləsən eplæn/	Prosthesis

Table 6

The data collected from the uncontrolled group will provide a global understanding of the errors in relation to the dialect zones in figure 2. The researcher will attempt to demonstrate these errors in the light of the first research question; *in what way do vernacular dialects of Arabic affect the pronunciation of English as a second language?* The he will discuss these errors and their repair strategies in detail in the controlled group section. The stimuli in the controlled group are less than the ones displayed in the uncontrolled group, as some items were excluded, because they are a repetition of the same error.

In table 6, there are 2 types of errors both of which are phonological i.e. vowel insertion and prosthesis. Referring them to table 5 and to figure 2, they will lie mainly in the Gulf and Levant dialect zones. These zones tend to insert vowels to avoid the impact of consonant clusters.



	<b>Input</b>	<b>Output</b>	<b>Repair Strategy</b>
22	Development	/ 'dɪvləpmənt/	Stress shift+ vowel omission+ syllable omission
23	Surprised	/sərpraɪ'zɪd/	Stress shift+ vowel insertion+ syllable addition
24	Lived	/lɪ'ved/	Stress shift+ vowel insertion+ syllable addition
25	Liked	/laɪ'kɪd/	Stress shift+ vowel insertion+ consonant substitution + syllable addition
26	Planned	/plæ'nɪd/	Stress shift+ vowel insertion + syllable addition
27	faced	/feɪ'sɪd/	Stress shift+ vowel insertion + syllable addition
28	Opposite	/ɑ'pəzət/	Stress shift
29	Specific	/s'pəsɪfɪk/	Stress shift
30	Practically	/præk'tɪklɪ/	Stress shift
31	English	/ɪŋ'ɡɪlɪʃ/	Stress shift
32	Industry	ɪndəs'tɪrɪ/	Stress shift
33	Willingness	/wɪlɪn'ɡənəs/	Stress shift+ consonant substitution+ vowel insertion
34	Deficiency	/dɪfɪ'ʃənsɪ/	Stress shift
35	Intelligently	/ɪntəlɪ'dʒəntli/	Stress shift
36	Recently	/rɪ:'s(ə)ntli/	Stress shift
37	Committed	/ 'kəmɪtəd/	Stress shift
38	Forget	/ 'fə(r)get/	Stress shift
39	Review	/ 'rɪvju:/	Stress shift
40	Structurally	/stræk'ʃʊrəli/	Stress shift+ consonant substitution
41	Influenced	/ɪn'fʊluənsɪd/	Stress shift+ vowel insertion+ consonant substitution + syllable addition
42	Theoretically	/, θə're'tɪklɪ/	Stress shift
43	Pressing	/pre'sɪŋ/	Stress shift
44	Shopping	/ʃɒ'pɪŋ/	Stress shift
45	Beginning	/ 'bɪɡnɪŋ/	Stress shift+ syllable omission

Table 7

The problem table 7 displays is that the native speakers of Arabic may not be able to stress the right syllable. Almost all Arabic dialects have this problem, due to the differences of both syllable structures and stress patterns in Arabic and English, as discussed in chapter 2. Therefore, they shift the stress in a way that reflects the native stress pattern. This results in subsequent phonological and repair strategies processes such as vowel omission, vowel insertion, syllable omission and consonant substitution.

	<b>Input</b>	<b>Output</b>	<b>Repair Strategy</b>
46	Courage	/ˈkʌrɪʒ/	Consonant deletion
47	Manage	/ˈmænɪʒ/	Consonant deletion
48	Manager	/ˈmænɪʒə(r)/	Consonant deletion
49	Jam	/ʒæm/	Consonant deletion
50	General	/ˈʒen(ə)rəl/	Consonant deletion
51	Gentle	/ˈʒentəl/	Consonant deletion+ vowel insertion
52	Journal	/ˈgɔrnæl/	Consonant substitution + vowel substitution
53	Gym	/ʒɪm/, /gɪm/	Consonant deletion+ Consonant substitution
54	Jelly	/ˈʒɪli/, /ˈgɪli/	Consonant deletion+ Consonant substitution
55	The sun	/zə sʌn /	Consonant substitution
56	Think	/sɪŋk/	Consonant substitution
57	Pray	/breɪ/	Consonant substitution + voicing
58	poor	/bɔ:(r)/	Consonant substitution + voicing
59	Park	/bɑ:(r)k/	Consonant substitution + voicing
60	Pen	/ben/	Consonant substitution + voicing
61	Promote	/bərəmot/	Consonant substitution + voicing+ vowel insertion
62	Video	/ˈfɪdiəʊ/	Consonant substitution+ devoicing
63	language	/ˈlæŋɡwɪtʃ /	Consonant substitution+ devoicing
64	Vanilla	/fəˈnɪlə/	Consonant substitution+ devoicing
65	Seven	/ˈsef(ə)n/	Consonant substitution+ devoicing
66	Supervisor	/ˈsu:pə(r), faɪzə(r)/	Consonant substitution+ devoicing
67	Asthma	/æsˈtemə/	Consonant and vowel insertion+ stress shift
68	comment	/kɒmˈment/	Consonant insertion+ stress shift
69	connect	/kənˈnekt/	Consonant insertion
70	Committed	/kəmˈmɪtəd/	Consonant insertion
71	Think so	/sɪŋk θəʊ/	Consonant substitution

Table 8

Table 8 contains a conglomeration of errors based on different MSA and vernacular dialects' characteristics. From 46 to 54 all the consonant deletions and substitution took place, because Arabic does not exhibit the phoneme /dʒ/. Then the consonant substitution in 55 and 56, occurred because in Egypt they substitute the standard /θ/ and /ð/ for the vernacular /s/ and /z/. While, the rest of devoicing processes until 61 occurred, because MSA does not exhibit the phoneme /p/. The same case applies to the stimuli from 62 to 66, as MSA does not exhibit the phoneme /v/. The error in 67 with consonant and vowel insertion and stress shift occurred due to the deep orthographic system in English, unlike the shallow and direct orthographic system in Arabic. The consonant insertions in the following examples are the result of the orthographic system in Arabic. In MSA the sound is doubled, if the letter is.

### 4.3 Types of ESL Pronunciation Errors by Native Speakers of Arabic in the Controlled group

	Input	Output	Repair Strategy
1	Priority	/perjɔrəti/	Vowel insertion
2	Spreadsheet	/sepredʃɪt/	Vowel insertion
3	Splendid	/seplendəd/, /sepelendəd/	Vowel insertion
4	Thanks	/θæŋkes/	Vowel insertion
5	Tasks	/tæskes/	Vowel insertion
6	Table	/'teɪbel/	Vowel insertion
7	Sixty	/sɪkesti/	Vowel insertion
8	Background	/bækəgrawnd/	Prothesis
9	You have three pens	/ju hæv ɐθri penz/	Prothesis
10	Major news	/medʒər enuz/	Prothesis
11	Ice cream	/aɪs ɛkrɪm/	Prothesis
12	Lesson plan	/lɛsən eplæn/	Prothesis

Table 9

The analysis of the controlled group stimuli is an attempt to answer the second research question; *what are the common errors and repair strategies the participants employ?* In table 9 all the errors are related to vowel insertion and prothesis which leads to creating a new syllable in the word. The vowels which are used in this case are mainly /ɛ/ and /ə/. As explained in the literature review chapter above, Arabic does not exhibit a big variety of consonant clusters. Inserting vowels is a major error for Arabs living in Palestine, Syria, Iraq, Jordan and the Arabian Peninsula. For these people, the Arabic varieties they speak depend heavily on vowels to break up the words into more syllables for easier pronunciations, even if these vowels do not exist in the standard variety. Words such as; /fæhed/ instead of /fæhd (leopard), and /næser/ instead of /næsr/, (victory), are just two examples. It also occurs randomly in Egyptian Arabic. The following explanations will clarify the specificity of each word and the reason of error occurrence in them.

In the first word *priority* the initial consonant cluster is problematic for the Arabic speaker who is used to inserting vowels between consonants to make the pronunciation task easy. Then, this very word has another kind of problem which is a vowel cluster immediately following the consonant cluster. Thus, the speaker inserted a vowel to split the consonant

cluster and add a new syllable. Here it is not only the direct impact of the vernacular dialect but it is also the level of difficulty of the initial consonant cluster, which MSA does not permit. The problem is worse in (2, 3) where the initial cluster is made of 3 consonants instead of 2. Therefore, the word *splendid* has 2 deviated versions, one with only one vowel insertion and the second with 2 vowel insertions.

The problem with consonant clusters continues in (4, 5) but in final positions, where a vowel is inserted and consequently a syllable is added. The word *table* (6) has two versions /'teɪb(ə)l/ and /'teɪbl/ ,Macmillan (2002). Nevertheless, the speakers in Syria, Lebanon, Jordan and Palestine usually pronounce it /'teɪbel/. Here the matter is not only a vowel insertion to break a consonant cluster, but replacing a vowel that already exists with another one. Talking about initial and final consonant clusters does not mean that middle position consonant clusters do not cause problems for Arabs. *Sixty* and *background* (7, 8), for instance, have a middle position problem, which makes the Arabic speaker insert a vowel and adds a syllable to the word.

On the other hand, the vowel insertion error does not only occur because of consonant clusters on the word level. The problem also occurs in connected speech. In examples (8, 9, 10, 11, 12) when a word or a syllable ends in a consonant and the following word or syllable starts also with a consonant (abutting consonants), the same problem occurs and a vowel is inserted at the beginning of the following word as in *ice cream*, *major news* and *lesson plan*.

	<b>Input</b>	<b>Output</b>	<b>Repair Strategy</b>
13	Development	/ 'dɪvləpmənt/	Stress shift+ vowel omission+ syllable omission
14	Surprised	/səprar'zɪd/	Stress shift+ vowel insertion+ syllable addition
15	Lived	/lɪ'ved/	Stress shift+ vowel insertion+ syllable addition
16	Liked	/laɪ'kɪd/	Stress shift+ vowel insertion+ voicing + syllable addition
17	Planned	/plæ'nɪd/	Stress shift+ vowel insertion + syllable addition
18	Opposite	/ɑ'pəzət/	Stress shift
19	Specific	/s'pəsɪfɪk/	Stress shift
20	Practically	/præk'tɪklɪ/	Stress shift
21	Willingness	/wɪlɪn'gənəs/	Stress shift+ consonant substitution+ vowel insertion
22	Deficiency	/dɪfɪ'ʃənsɪ/	Stress shift
23	Intelligently	/ɪntelɪ'dʒəntli/	Stress shift
24	Recently	/ri:'s(ə)ntli/	Stress shift
25	Committed	/'kəmɪtəd/	Stress shift
26	Structurally	/stræk'ʃərəli/	Stress shift+ consonant substitution
27	Influenced	/ɪn'fəluənsɪd/	Stress shift+ vowel insertion+ consonant substitution + syllable addition
28	Theoretically	/ 'θɪərə'tɪklɪ/	Stress shift
29	Pressing	/pre'sɪŋ/	Stress shift
30	Shopping	/ʃɒ'pɪŋ/	Stress shift
31	Beginning	/'bɪɡnɪŋ/	Stress shift+ syllable omission

Table 10

In table 10 above most of the errors are stress shift errors. This error results from the difficulty of pronouncing the consonant clusters at the beginning or the end of words in some cases. In some other cases, it results from the impact of the French pronunciation, used in daily spoken Arabic, for some Arab speakers in countries such as Tunisia, and Morocco. This stress shift error also leads to other errors such as consonant substitution, vowel insertion, and syllable addition or omission.

The word *development* (13) has three errors. The first one is a stress shift, where the stress is on the first syllable instead of the second. This might be due to the massive use of primary stress on the first syllable in Arabic, as previously illustrated in chapter 2 above. This led to a vowel omission and consequently to the omission of a syllable. The speaker who makes this error attempts to facilitate the pronunciation and shorten the word from 4 to 3 syllables. Nevertheless the meaning is not ambiguous here. A puzzling fact about this word is that it is rich in vowels, with which the Arabic speaker is familiar. But the stress position and the multi-syllable structure are the problem.

The next category of words *surprised*, *lived*, *liked* and *planned* (14, 15, 16, 17), resulted from the above mentioned source of being accustomed to the French stress patterns in everyday Arabic version in Tunisia and Morocco. In this case also the stress shift caused other subsequent errors. In *surprised*, *lived* and *planned*, the problems are stress shift, and vowel addition before the last consonant which in turn resulted in a syllable addition. While in *liked* a fourth error occurs too. The voiceless /t/ was substituted with the voiced /d/ due to the insertion of the vowel /i/ immediately before it.

All the cases from 18 to 31 have one error in common, stress shift. Nevertheless, in a few cases, there are some subsequent errors too. On the other hand, the reason for stress shift might vary from one word to another. For example, in the word *opposite* (18) the stress shift occurred, because in Arabic when the letter is doubled the sound is doubled too, which is not the case in English. From this perspective, the Arabic speaker would not probably see the significance of the first letter “o” as a syllable on its own. In the rest of the cases, except for (21, 26, 27, and 31) the stress shift has no subsequent errors and is mainly due to the difficulty of having multi-syllables which might not have counterparts in Arabic. It is also noticeable that in cases (19, 29) *specific* and *practically*, having a consonant cluster in initial positions contributes to the problem. Another source of the stress shift error in the words *pressing* and *shopping* (29, 30) is the everyday vernacular dialect affected by the French patterns which are used in Tunisia and Morocco.

Referring back to examples that have subsequent errors such as; *willingness* (21) we will find that the stress shift caused the substitution of the /ŋ/ with /n/ and /g/ in order to insert a vowel immediately after the /g/ which is starting the new stressed syllable. Also in *structurally* (26) the stress shift is followed by a reduction of the consonant /tʃ/ to its minimal pair /ʃ/, as the first sound does not exist in Arabic and to make the newly stressed syllable easier to pronounce. The word *influenced* (27) is another example of stress shift, vowel insertion and a consonant voicing from /t/ to /d/ at the end of the word, which immediately led to a syllable addition. All this chain of errors occurred to facilitate the syllable break down for the Arabic speaker. In the last example, *beginning* (31), there is a stress shift and a syllable omission, which also occurred due to the stress pattern followed in this word, where the stress lies on the second syllable.

	Input	Output	Repair Strategy
32	Courage	/ˈkʌrɪʒ/	Consonant deletion
33	Manage	/ˈmæniʒ/	Consonant deletion
34	Manager	/ˈmæniʒə(r)/	Consonant deletion
35	Jam	/ʒæm/	Consonant deletion
36	General	/ˈʒen(ə)rəl/	Consonant deletion
37	Gentle	/ˈʒentel/	Consonant deletion+ vowel insertion
38	Journal	/ˈgərnæl/	Consonant substitution + vowel substitution
39	Gym	/ʒɪm/, /ɡɪm/	Consonant deletion+ Consonant substitution
40	Jelly	/ˈʒili/, /ˈgili/	Consonant deletion+ Consonant substitution
41	The sun	/zə sʌn /	Consonant substitution
42	Think	/sɪŋk/	Consonant substitution
43	Pray	/breɪ/	Consonant substitution + voicing
44	Park	/bɑː(r)k/	Consonant substitution + voicing
45	Pen	/ben/	Consonant substitution + voicing
46	Promote	/bərəmot/	Consonant substitution + voicing+ vowel insertion
47	Video	/ˈfɪdiəʊ/	Consonant substitution+ devoicing
48	Vanilla	/fəˈnɪlə/	Consonant substitution+ devoicing
49	Seven	/ˈsef(ə)n/	Consonant substitution+ devoicing
50	Asthma	/æsˈtemə/	Consonant and vowel insertion+ stress shift
51	Think so	/sɪŋk θəʊ/	Consonant substitution

Table 11

In table 11, in the first three examples (32, 33, 34), we find that the strong consonant /dʒ/ is pronounced as the soft one /ʒ/ due to the effect of the local dialects of especially Syrians and Lebanese as they use the /ʒ/ in both their pure Arabic accent or the Arabic accent affected by some borrowed French words used in these dialects, for example; rouge (red), *rodage* (running), and *sauvage* (savage). The same applies to Jordanians and Palestinians, except for the impact of borrowed French words; their dialects do not exhibit borrowed French words in daily use like the Syrians and Lebanese. It should be born in mind that the position of the sound does not affect its pronunciation. In the following examples (35, 46, 47) the /dʒ/ is in an initial position where the air stream is still fresh and forceful, yet the pronunciation stays the same /ʒ/. In the initial position case the Egyptians make the same error. Nevertheless, there is no consistency in the Egyptian case. If we look at words such as *journal*, *gym*, and *jelly* (38, 39, 40), we will find that in the word *journal* the first consonant sound is substituted



by a completely different one /g/ , whereas in gym and jelly, we have two different versions of the same word one with /ʒ/ and the other with /g/.

The inconsistency is probably an indication of different linguistic and socio-linguistic parameters. As for the linguistic ones, like other above mentioned Arabic speaking peoples, the Egyptians have the sound /ʒ/ in their standard Arabic version. Nonetheless, their dialect is vigorously affected by the /g/ sound they inherited from the Arab tribes that conquered Egypt and introduced Arabic to the Egyptians. Those tribes were mainly from Yemen “... Umar wrote to Amr ordering him not to enter Egyptian territory, believing with some justification that the 4,000-strong army of Yemeni tribesmen accompanying Amr was too small and ill-equipped to be an effective invasion force.”, (Gearon,2011). For the Egyptians, until now, /g/ is widely used instead of /ʒ/ and /dʒ/.

On the other hand, overgeneralization should be avoided, as it is not the case for the whole of the English learning population in Egypt. The /g/ and /ʒ/ and even the correct version /dʒ/, have their socio-linguistic parameters that indicate the geographical zone, level of education and social class. It is assumed that the correct version is used by learners who have quality education either in sophisticated language schools or by well trained teachers in government schools. This applies to all the above mentioned countries, as well. The /ʒ/ pronunciation error indicates a less quality education level or the linguistic parameter mentioned above of being affected by every day spoken Arabic. Whilst, the /g/ pronunciation might indicate that the learner resides in a rural area, especially in Upper Egypt.

The following two examples *the sun* and *think* (41, 42) are the direct impact of the vernacular Egyptian Arabic dialect, where the interdental sounds /θ/ and /ð/ do not exist in everyday language. Amazingly enough, Syrians and Lebanese have the same case in their vernacular dialects with the same sounds in words such as /izæ/ (if), or /sərwe/ (wealth), but they do not make the same error in English.

The next problematic consonant for native speakers of Arabic is the sound /p/, which does not exist in the Arabic sound system. Thus, Arabs tend to pronounce it as /b/. In fact, this sound is complicated for Arabs learning English, as it has another level of difficulty for them, which is aspiration. This process does not exist in the Arabic phonetic system. Unless the context is clear and helps communication take place, two of the above four examples (43, 44) might either be confusing or ambiguous for the native speaker of English. The big semantic difference between *pray* and *bray*, and *park* and *bark* is so obvious. The same difficulty of aspiration and pronunciation of /p/ exists for the word *pen* (45). The next word *promote* (46) has the same problem of this initial consonant phoneme, but this problem was explained in the vowel insertion table above using other examples. Here the focus is on voicing the initial position /p/ and substituting it for /b/.

Another phoneme that does not exist in the Arabic sound system is /v/. It might also be problematic for some Arabic speakers on relatively multiple levels. The first level is linguistic, as they either prefer resorting to the easy Arabic phoneme /f/ or are unable to pronounce /v/ and it becomes a fossilized error with the course of time. The second level of difficulty it causes is semantic as in the word *vanilla* (48). The word /fə'nɪlə/ in colloquial Arabic means shirt.

The last two words in table 10 (50, 51) are good examples of the confusion of the learner or an indication of suffering from the interlanguage phase. In the first example, two factors contribute to his confusion, spelling and the middle consonant cluster. The word *asthma* at first sight for the Arabic speaker has 3 consonants in the middle /s/, /θ/ and /m/. This is a big problem for the Arabic speaker to handle. Without referring to a dictionary s/he hypothesizes pronouncing it. Therefore, they divide it into syllables, substitute the /θ/ with /t/, add a vowel /e/ and shift the stress. This refers to our discussion above of the irregular orthography of English. Such a pronunciation might make the meaning totally ambiguous for the listener, even if it is used in context. The last word in the table is a unique example of the confusion and the interlanguage phase which the learners are experiencing. Although they are aware of the difference between /s/ and /θ/, they substitute them, because they occur successively in two adjacent words. For them, they sound like tongue twisters.

## Chapter 5

### Conclusion and Pedagogical Implications

We all need the proper pronunciation either in first language acquisition or when learning a second language, in order for our speech to be intelligible to others. Intelligibility is the core of any communication process and pronunciation is its tool. In one's native language the other party might tolerate an accent, fast speech, falling tones etc., as they can still get the message. When learning a second language the significance of proper pronunciation doubles. Conversing with TL speakers differs in many ways. They belong to different sound and orthography systems, syllable structures, stress patterns and different cultural background. In the conclusion section, the researcher attempts to suggest some research and pedagogical solutions to help cater for pronunciation problems for the native speakers of Arabic learning English as a second language.

Most of the CA research between Arabic and English aims to compare Standard English to MSA. Although this comparison is required on the phonological and orthographic levels, more research is to be dedicated to vernacular Arabic dialects. They still maintain the same orthographic system of MSA, but there are considerable differences on the phonological level to the extent that it causes noticeable diglossia on all levels. There are differences in the pronunciation of some phonemes, stress patterns, syllable structures, syntax and semantics. On the lexical level, there are major differences using some words, e.g. (*moos*) in Egypt is the shaving razor, while it is a knife in Libya. In syntax, the negation markers come before the verb in almost all Arabic dialects as in / mæ əhib/ (I do not like), while in Egypt it is / mæ əhibi/ and in Tunisia it is / mæ nəhibi/, where these dialects have 2 negation markers /mæ/ before the verb and /i/ at the final position of the verb. Dedicating more research to the vernacular dialects of Arabic will help identify the problematic areas of each dialect and thus address the errors which are specifically related to the dialect in investigation.

On the other hand, CA is not the tool that can enable us to identify all errors. Some errors are classified as teacher induced errors. The teachers at school are Arabs who were educated with vernacular dialects backgrounds by teachers suffering from the same problems. This might lead to fossilization. The British Council website states that “Fossilization refers to the

process in which incorrect language becomes a habit and cannot easily be corrected". If not handled soon, especially for the younger or recently graduated teachers, these pronunciation errors by teachers in Arabic classrooms will become fossilized errors and they will transfer their pronunciation to generations to come. Therefore, intensive in-service phonetics and phonology training courses might be the answer to this problem. It is also preferable that these courses are taught by specialized native speakers.

To avoid this problem occur in future, much attention is to be paid to pre-service teacher training courses. They must have strong phonetics and phonology courses to raise their awareness of the English phonetic system. Nevertheless, studying phonetics and phonology in isolation might also lead to fossilization like senior teacher generations. Therefore, a course of EA and CA is recommended, especially if it focuses on the vernacular problems of the teachers' dialect. As a result of this, they will be aware of starting their professional teaching equipped with tools to predict and/or analyze errors that might occur either due to MSA or their vernacular dialect transfer.

The next step is how to get a new generation of learners having as proper pronunciation of ESL as possible. The first solution was just stated above, by listening to proper pronunciation from their teachers, as the first source of input, especially at early ages. Teachers might also make use of technology and use YouTube for interesting videos to attract the learners and at the same time give them the opportunity to listen to native speakers. The least they might do, if they do not have WIFI environments in their schools, is to have recorded texts and play them in classes, preferably with questions tailored especially to assess their ability on grasping the right pronunciation.

Having adequate input of English over some years, it is also recommended to include simple phonetics and phonology lessons in course books. These lessons should include the IPA, in order to teach the learners how to look up not only the meaning of the word in a dictionary but also its phonetic transcription. Another important recommendation is to encourage our students be independent learners making use of modern technology. They have daily access

to the internet and they can watch educational videos on YouTube on their own. Teachers might assign them a homework task using some online resources at home and getting back to them with the answers later. Many of them also have smart phones with numerous ESL applications, including dictionaries having vocal pronunciation of words.

The above mentioned measures are possible during the teaching or presentation phases. During the practice and production phases it is inevitable that errors will occur. If the above measures would be considered as preventive, the following measures might be considered as corrective. Hence, teachers should be aware of the learning environment, which should create a peaceful intimate atmosphere for the learner to either practice or produce language. Teachers should not consider errors as taboo or a sign of low achievement; rather they would deal with them as part of the learning process and indicators of the learners' development towards TL. Learners might be inhibited by a tense atmosphere in which they worry about errors all the time and expect the teacher's correction at any time during their oral production.

Building on the environment basis, teachers should not interrupt the flow of their learners' speech to correct them on the spot, whenever they make an error. The idea of intimidation threatens the learners' development. Teachers should also be aware that there is a difference between errors and mistakes. Therefore, correcting mistakes is not necessary sometimes, especially if they know the learner's proficiency level. Meanwhile, over correction of errors is disappointing. Teachers are recommended to concentrate on 1 or 2 errors at a time to avoid disappointment and to give the learner an opportunity to have enough training. It is worth noting that some errors occur or fossilize due to lack of training. On the other hand, correction might occur not only by the teacher but by other parties as well. Giving the learners self-correction opportunities, will help them have self-confidence and will also lower their affective filter towards mistakes, as they are self-correctable.

The other type of correction is peer correction. In the UAE teachers have the privilege of teaching multi-national learners. In case there are native speakers in class, this will be a great input resource for other learners. Listening to them, self-correction processes might function naturally. In case the multi-national learners are only Arabs, this is also beneficial, as they

belong to different dialect zones and might identify the deviations of each other. Peer correction does not usually make the learner embarrassed in front of the whole class. In general, exposure to native speaker input is also necessary after making errors. It should be an everlasting process, especially with all these possible media and means of digital technology available.

On the pedagogical level, more attention should be given to the speaking skill, as it is the tool through which pronunciation is evaluated and corrected. Speaking tests should be included in formative and summative assessments. In the formative assessment case, the learners will have corrective feedback to help them develop, whereas speaking should be included so that the learners are aware of the importance of pronunciation and take it seriously to pass their speaking tests. It should also be born in mind that negative washback is to be avoided in both formative and summative assessments. In other words, “an oral proficiency test is introduced in the expectation that it will promote the teaching of speaking skills” (Taylor 2005, p.154).

To conclude, this study focuses on the linguistic factors that make FLT contribute to making pronunciation errors. Further research is required to investigate extra-linguistic variables. Some socio and psycholinguistic variables must be liable to investigation. For example some learners consider learning a second language a threat to their identity. From their point of view their mother tongue is an inseparable part of their being. Therefore, pronouncing the second language properly, for them, is a kind of tongue twisting and adopting habits that are not part of their cultural background. Therefore, integration between linguistic and extra-linguistic researches might provide a clearer picture about the role of FLT in making pronunciation errors from various aspects.

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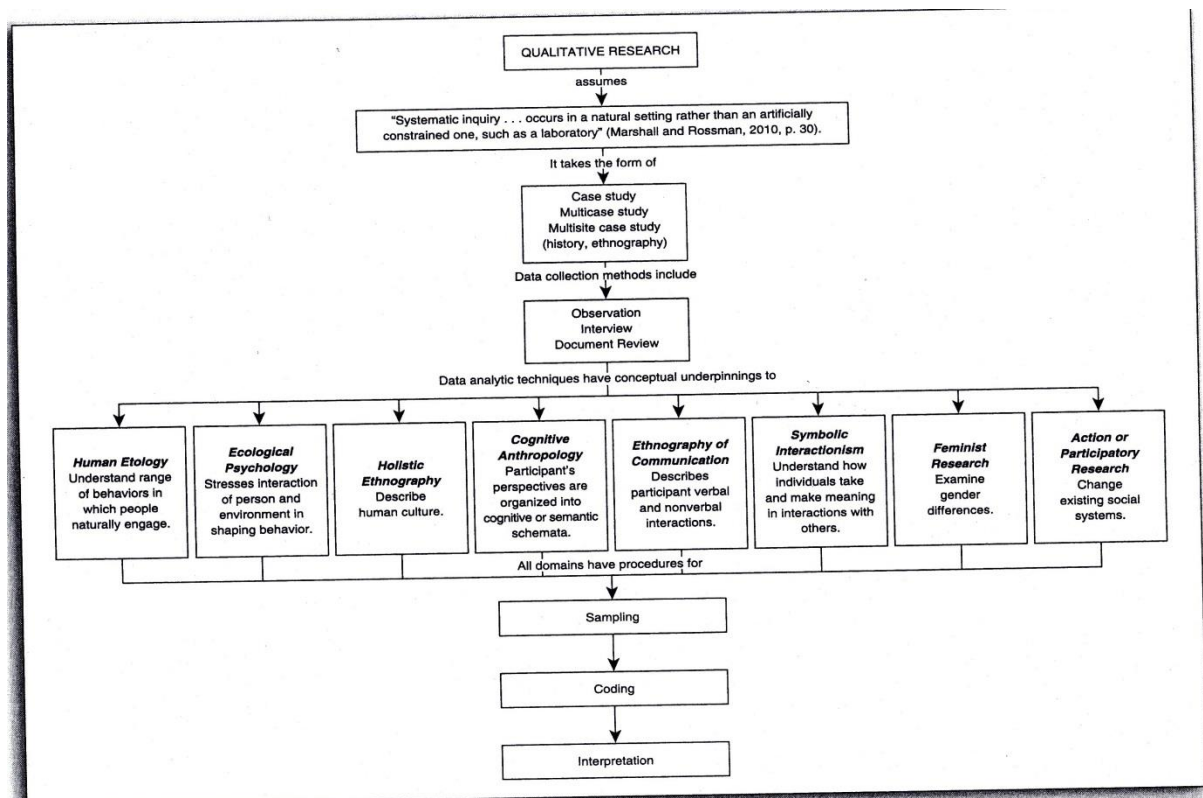
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# **Appendix 1**

Qualitative Research Overview

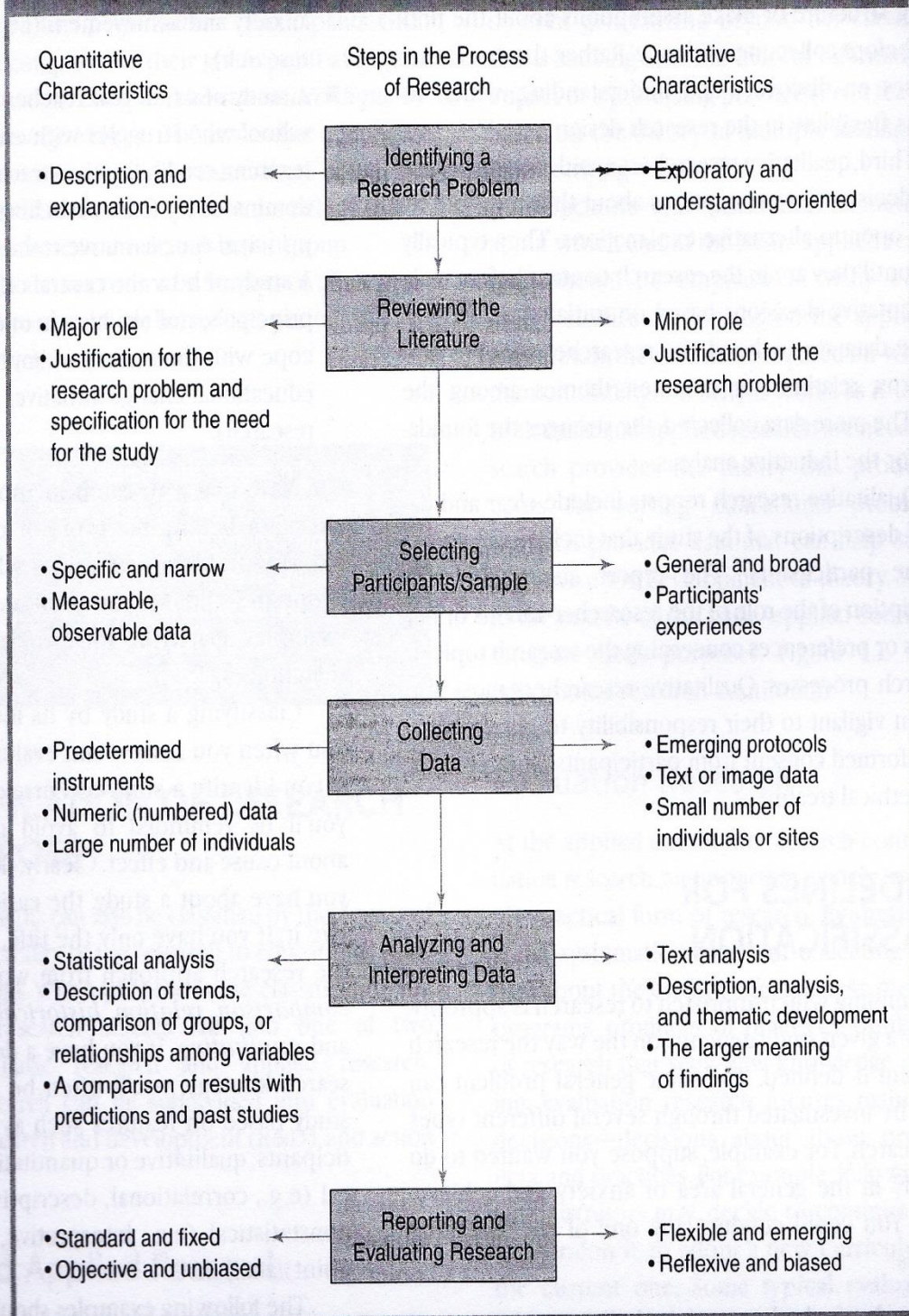


Source: Adapted from Marshall & Rossman (2010).

## **Appendix 2**

Characteristics of Quantitative and Qualitative Research

**FIGURE 1.1 • Characteristics of quantitative and qualitative research**



Source: *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* by Creswell, John W., © 2002. Adapted by permission of Pearson Education, Inc., Upper Saddle River, NJ.

## **Appendix 3**

Consent form



## CONSENT FORM

Full title of the dissertation:

Analysing pronunciation errors resulting from first language transfer of native Arab speakers and suggesting remedial work for error correction.

**Please initial box**

1. I confirm that I have read and understood the information sheet for the above study and have had the opportunity to ask questions.

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving reason.

3. I agree to take part in the above study.

Researcher's vow:

I hereby promise that all the personal data of the participants will remain anonymous and the linguistic data collected will only be used for the purpose of this study.

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name of Researcher

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature



## **Appendix 4**

Stimuli in context

Please read the following sentences loudly.

1. Finishing the spread sheets is a priority.
2. It was a splendid party.
3. Thanks! I am really touched.
4. I can't do a thousand tasks at the same time.
5. Put this cup on the table, please.
6. There are 60 days of actual teaching this trimester.
7. I have no idea about his background.
8. I have only 3 pens in my bag.
9. I just listen to the major news then I change the channel.
10. I love ice cream.
11. Can we discuss this lesson plan together, please.
12. Our professional development session today is about IT.
13. I was surprised to see him here.
14. He has lived in Paris for 20 years.
15. We planned this unit together.
16. The bakery is on the opposite side of the road.
17. My visit does not have any specific goals. I only miss you.
18. Practically speaking, he is the best.
19. His willingness and persistence encouraged me to appoint him.
20. You need treatment for calcium deficiency.
21. Martha handled the problem intelligently.
22. We have recently launched our latest model in the U.A.E market.
23. Michael committed a horrible crime killing 2 kids.
24. He is influenced by his family traditions.

25. Theoretically speaking, we can do it.
26. We can win the match by close pressing most of the time.
27. I love shopping in Dubai malls.
28. Courage is what courage does.
29. Our manager is a kind man.
30. I love mango jam.
31. In general, I do not eat okra.
32. Fredrick is a gentleman.
33. I like reading journals in the balcony with a cup of tea.
34. I must go to a gym.
35. The sun is shining today.
36. I think this is the best movie I have ever watched.
37. Muslims pray five times a day.
38. Yahoo promotes its services very well nowadays.
39. YouTube is my favourite video website.
40. I love vanilla ice cream.
41. 7up is my favourite soda drink.
42. Sandra suffers from asthma.
43. I do not think so.