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English Department

The Impact of English Orthography On

Arab EFL learners' pronunciation of English

By

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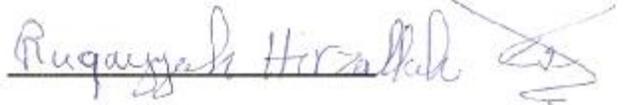
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Dedication

To my parents

To my brothers and sisters

To my professors

To my friends

To every one who helped me

I dedicate my work

Acknowledgements

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Abstract

This study aims at examining the impact of the English orthographic system on Arab EFL learners' pronunciation of English. Due to the disparity or non-correspondence between spelling and pronunciation in English, it's plausible that Arab EFL learners will mispronounce English words. This grapheme-phoneme mismatch in English is compounded by Arab EFL learners' tendency to utilize their transparent Arabic orthography in pronouncing English. The complexity of the English spelling system and the issue of transfer in inducing errors in pronunciation are coupled by EFL teachers' lack of training in pronunciation. The issue of the impact of English orthography on pronunciation is addressed through analysis of a corpus of words and reading sentences read in class by a specimen of Arab EFL learners. The study may contribute to shedding light on some features of interlanguage phonology, with reference to the impact of the native language system.

Chapter One: Introduction

Correct pronunciation is an essential component in language learning. However, this is a component that is rather neglected in ELT. That is why it is sometimes cited in the literature as the Cinderella of language teaching (Dalton, 2000) when compared to other skills and components like grammar and vocabulary. English teachers seem to sidetrack this component, simply because they lack adequate phonetic training or due to the fact that English curricula do not place much emphasis on pronunciation. It seems that English teachers are still encapsulated by their grammar-translation methods which consider pronunciation something peripheral. Learners also do not pay much attention to pronunciation, simply because it is not graded or tested, like other language components such as grammar and vocabulary. In light of this fact, these learners often leave school with relatively good command of lexis and grammar, but low proficiency in pronunciation.

It has been more than 8 years since Palestine shifted its English teaching curriculum from the grammar-translation method to communicatively-based curricula. This shift was made to overcome the deplorable situation of English teaching in which the focus was primarily laid on grammar, or, jokingly, crammar. Since this change, accuracy has lost its grandeur, and fluency has taken over. However, despite shifting methodologies, the overwhelming majority of learners have not been able to improve their speaking ability and communicative skills, not to mention their proficiency in pronunciation. It seems that the communicative approach has fallen short to meet the communicative needs of learners.

The demise of traditionally-based curricula also coincided with the permeation of technology into Palestinian schools and homes. Modern technological devices such

as electronic dictionaries have also been introduced. However, that didn't seem to work much.

It is generally accepted that Arab EFL learners encounter insurmountable problems in getting to grips with English pronunciation. So many of these learners seem to have deeply ingrained habits which are resistant to teaching and to exposure to spoken English.

The fact that these habits extend beyond the realms of phonology and that these learners fail to acquire English articulation and sound patterning is part of the problem. Another significant part of the problem relates to Arab learners' expectations of a one-to-one relationship between sound and symbol and to their lack of phonological awareness and their failure to recognize the peculiarities and obscure subtleties of the English sound system. So it is natural that English pronunciation poses a big hurdle for those learners who are intrinsically equipped with the linguistic habits of their mother tongue. These learners initially experience a serious difficulty acquiring sound patterns that deviate from consistent and reliable grapheme-phoneme mappings. In their pronunciation of English, they tend to employ what we might label as a phonetic approximation model or some sort of perceptual assimilation in which the Arabic writing system is viewed as a reference for perceiving and producing English sounds. The complexity of English pronunciation and the issue of transferring the mother tongue norms to second language learning are coupled by Arab EFL teachers' low proficiency in pronunciation. So many of these teachers make many resident or fossilized pronunciation errors that their students photographically reproduce in their speech.

Having had relatively long experience in EFL teaching, I have witnessed students' overreliance on spelling in decoding words, and this has made me look closely and critically at this phenomenon in language learning.

This current work is a quantitative and qualitative study that aims at uncovering this issue of reliance on the spelling of the word for decoding words.

1.1 The issue of transfer: a theoretical perspective

When learners start producing utterances in a second language, they have a general tendency to fall back upon their mother tongue, and so they apply the rules that they already know. This results in negative transfer. This transfer or interference is evident in all language learning, particularly phonology.

"The transfer hypothesis is an essential component of the psychology of learning." (Khalil, 1999, P.3). This hypothesis claims that L1 interferes with the learning of L2. This type of transfer is called "proactive".

Some linguists and researchers rule out or underestimate the role of transfer in language learning. Dulay and Burt (1974), as reported in Huthaily (2003) argue that transfer has nothing to do with the errors committed by L2 learners. However, this issue is hotly debated. Many linguists like Fries (1945), Lado(1957), Selinker (1997) and McCarthy (2001) believe that transfer is a significant phenomenon that plays a crucial role in language learning. McCarthhy (2001) states that "Perhaps the most stubborn issue that refuses to go away in second language learning is the influence of the first or some other language on the acquisition of a new language." (P.74). Gass and Selinker(1993) point out that "there is now overwhelming evidence that language transfer is indeed a real phenomenon that must be considered in any full account of the second language process." (P.7) . Some linguists such as Selinker(1997) believe

that transfer is a selection process rather than an automatic, inevitable either-or process in L2 learning.

Central to the issue of transfer is the issue of error analysis which involves the discussion of learners' errors to understand the nature of language learning. Within the EA framework, a mixture of interlingual and intralingual or developmental factors are significant in accounting for the causes of errors. Richards (1971) identified four processes or causes: overgeneralization, incomplete application of rules, ignorance of rule restrictions and false concepts hypothesized. Selinker (1972) identified five processes that are vital for the description of the learner's interlanguage: overgeneralization, language transfer, transfer of training, second language learning strategies and second language communication strategies.

The argument in this study is that language transfer is a phenomenon that exists in second language learning. This issue is closely related to the fact that the target language system itself is problematic.

1.2 Orthographic interference: how the native language affects pronunciation

English and Arabic have two different alphabets and differ significantly in terms of the complexity and systematicity of the spelling system. Arabic has twenty-eight consonants and has a triangular vowel system that consists of three pairs of short and long vowel phonemes. The Arabic vowel system is represented in the following chart :
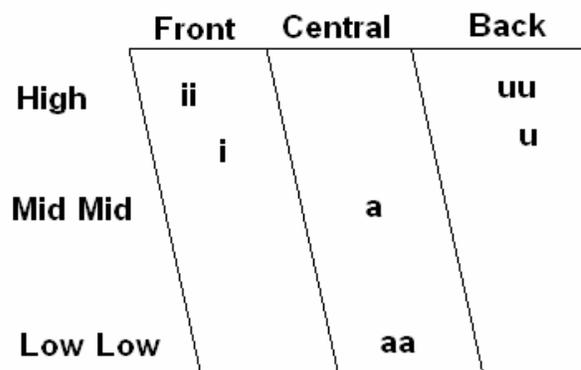
There is a one-to-one correspondence between the phonemes and the graphemes (apart from some exceptions that will be discussed later). Each phoneme is orthographically represented by only one letter individually. Accordingly, Arabic is said to have a transparent orthography.

English, on the other hand, has (according to the phonemic analysis) twenty-four consonants, twenty vowels and diphthongs (depending on the dialect). In addition, English has twenty six letters that are used for representing all the phonemes. Unlike Arabic, English has a complex mapping of graphemes and phonemes. There is no one-to-one correspondence between sounds and letters." For almost every English phoneme there is a large number of different ways for representing it." (Bayraktaroglu, 2007, P.2). Accordingly, English is said to have an opaque orthography. In light of this fact, Arab learners, under the influence of their non-transparent orthographic system, make numerous errors in pronouncing English words. They overrely on their native language habits and employ a sort of a compensatory strategy or some sort of phonetic approximation strategy when pronouncing words. Therefore, it can be said that Arab learners' pronunciation problems are partly ascribed to their overreliance on their native language system. When reading English words they are misled by the poor guidance of English spelling. This overreliance on the native language system is coupled by the complexity of the English orthographic system.

Now let's refer to psychology and theoretical constructs in order to better understand how the native language interferes in learning the target language. Learners have a latent language structure or a coherent system of internalized rules that are reactivated when learning a second language. So learners try to progressively adjust their native language system to the learning of L2 or restructure and

reconceptualize the norms of the target language in compliance with the norms of the native language. This approximative system is referred to in the literature by *interlanguage* or *transitional competence*. Selinker (1972) describes this as an intermediate system located somewhere between the learner's native language and the target language. There is always incongruence between the interlanguage and the target language, which Selinker refers to as "fossilization."

Let's now give an example to show how the learner's internalized rules affect learning an item or a rule in the second language. In Arabic, there is an operative rule of gemination; that is there is much consonant doubling. When an Arab learner sees that an English word like allow or connect has two similar consecutive letters, the rule of consonant doubling comes into play. This tempts him/her to geminate the letter *l* or *n* in the words allow and connect, thus producing a sound that is acceptable in Arabic, but not in English.

1.3 Statement of the problem

One of the most essential and indispensable components of language teaching is the teaching of speaking. On this basis, correct pronunciation is a prerequisite for achieving the goals of communication. Garrigues (1999) points out that good pronunciation is the foundation of effective spoken communication. Seidhofer (1995), as reported in Goodwin (2001), states that "pronunciation is never an end in itself but a means of negotiating meaning in discourse, embedded in specific sociocultural and interpersonal contexts." (p. 117) If interlocutors' pronunciation is clear and correct, the communicative situation goes smoothly. If, on the other hand, speaker's pronunciation is faulty, misunderstanding occurs and comprehension is deterred. Accordingly, pronunciation should be given much more attention as it is a

fundamental element in language learning, primarily because it can affect accuracy and comprehension.

It is evident that Arab EFL learners encounter serious problems with English pronunciation. The problems they have are not only limited to discrete sounds; their pronunciation is wholly faulty. According to Kenworthy (1987) and Brown (1994), the factors that cause difficulties with pronunciation are phonological differences between the target language and the native language. They propose six factors that affect learners' pronunciation: native language, age, exposure, innate phonetic ability, identity and ego and motivation and concern for good pronunciation.

This study aims to add other factors, principally the complexity of the target language phonological system and transfer of training, i.e. teaching practices. The complexity of the English phonological system is largely due to the lack of correspondence between graphemes and phonemes.

The problem of associating pronunciation with spelling is prototypically associated with the Arabic writing system. Arabic spelling within its own system is simple and virtually phonetic. Letters stand directly for their sounds, except in cases like "the assimilated lateral sound/l/ sound of the article (the) as in aš-šams" (Khalil, 1999, p.23.). Arab learners, according to Odisho (2005) initially learn to read Arabic through the fully-vowelized orthography in which all consonants and vowels are represented in the script. Thus, readers learn to use a fully-specified phonological transparent writing system in which every phoneme is visually and phonetically represented in the spelling. In this system, words are easy to phonologically decode since letters have highly consistent and reliable grapheme-to phoneme correspondence. So, "Arabic representation of sounds in writing is far more regular

than it is in English." (Hajjaj, 2001, P.283). However, transferability and overextension of this peculiar feature about Arabic triggers errors.

In contrast, English has a relatively rich sound system with a range of thirty-five to forty-four phonemes, depending on the dialect. In both RP and GA, "there is obviously a mismatch between graphemes and phonemes." (Odisho, 2005, P.125) This mismatch is exemplified by the phoneme /k/ being spelled as c in picnic, k in kitchen, ck in stuck and ch in schedule. It's also exemplified by the grapheme gh being pronounced as /g/ in ghost, as /f/ in laugh; it also shows up as part of a complex digraph as in through or caught, which has no straightforward phoneme-grapheme mappings." This situation is also portrayed with vowels typical of which is

the grapheme *a* which has at least some five different phonemic realizations." (Odisho, 2005, P.127). In addition, "words that sound just alike are sometimes written differently; compare sew, sow, so." (Rogers, 2000, P.16).

In light of the above discussion, the contention of this study is that the English orthographic system doesn't generally match pronunciation. Accordingly, errors occur The mispronunciation of English words is largely due to overreliance on the likely unpredictable English writing system. Arab EFL learners are" often misled by the graphic representation of sounds." (Kharma and Hajjaj, 1989, P.14.).

The problem also has its roots in the Arabic orthographic system which has almost similar visual and phonological representations.

When discussing the impact of the English orthographic system in triggering pronunciation errors, two points have to be highlighted. First, when believing that lack of correspondence between letters and sounds causes pronunciation errors, this means that regular grapheme-phoneme mappings facilitate pronunciation. Second, when ascribing pronunciation errors to the English deep orthographic system, we

cannot ignore other factors that may trigger or cause such errors. The role of the English teacher is also critical. It is known that some of these pronunciation errors can be traced back to the transfer of training; that is many errors can be induced by teachers. This means that teachers can contribute to aggravating pronunciation problems by making errors which they pass over to their students.

1.4 Rationale and significance of the study

It is common that Arab EFL learners, perhaps like any other EFL learners, encounter many difficulties in learning English. These difficulties are traced back to various causes such as negative transfer from Arabic, transfer of training, overgeneralization, incomplete application of rules and many others.

Most studies tackling Arab EFL learners' problems have been restricted to other language components such as grammar and lexis. Phonological problems received the least attention. This is perhaps due to the difficulty associated with conducting studies dealing with pronunciation problems.

The researcher believes that there should be a shift of focus, from tackling syntactic and semantic errors to laying more focus on pronunciation problems. That is why this study has come out to shed some light on some features of interlanguage phonology.

As far as the researcher is concerned, no research has been published on the impact of English orthography on Arab EFL learners' pronunciation. This makes the study a pioneer in this respect.

The present study is expected to provide valuable information to bridge the gap in the available data on the impact of English orthography on pronunciation, with reference to Arab Palestinian EFL learners. The study is also hoped to establish

grounds for further research in this area and set the pace for more investigation and probe in order to increase awareness of the problem.

1.5 Scope and limitations of the study

The current study is conducted on 20 eleventh graders studying at Beit Ula High School and 10 Palestinian teachers of English, some of whom taught those students. The reason for choosing this school in particular is that the researcher teaches at this school where he noticed that the students faced severe pronunciation errors. That is why this study was undertaken.

This study is a preliminary one. It is restricted to one school (a boys' school) and a relatively small number of teachers, since it is not practically feasible to cope with different schools. In light of this fact, the generalizabilty of the findings may be limited due to the relatively small sample of population recruited for the study. However, the findings of the study may be generalizable to other schools under the same conditions Another limitation is that this study focuses only on segmental features; nothing is mentioned about suprasegmental features.

1.6 Purposes of the study

The purposes of the study are multifold. On the whole, it investigates the impact of the English non-transparent orthographic system on the pronunciation of Arab Palestinian EFL learners. In addition, it has other purposes:

1. It aims at investigating how Arabic orthography can interfere in the learning of pronunciation and how Arab learners rely on their mother tongue system in decoding English words.

2. It also aims at checking whether English teachers contribute to the aggravation of pronunciation problems. It investigates whether teachers themselves are misled by English spelling and whether they pass over their errors to their students.

3. It moreover aims at examining teachers' professional views towards issue pertaining to pronunciation, such as the causes of pronunciation problems and suggestions for improvement.

In addition to these purposes, the study aims at helping Palestinian EFL learners improve their pronunciation and raise English teachers' awareness of English pronunciation. This is done first by explaining what errors might occur so that both teachers and learners can avoid. It also provides some pedagogical implications that, if adopted, can help improve proficiency in pronunciation.

1.7 Research hypotheses

The current study principally aims to explore the impact of English orthography on Arab Palestinian EFL learners' pronunciation of English. The general assumption underlying the study is that because the English spelling system generally does not match pronunciation, it is hypothesized that Palestinian EFL learners commit errors in pronunciation. It is also hypothesized that:

1. Consistency between graphemes and phonemes facilitates the pronunciation of Palestinian learners.

2. Due to the lack of training, English teachers may contribute to the aggravation of pronunciation problems by making lots of errors which they transfer to their students.

3. Arabic interference has a critical role in triggering errors in pronunciation.

1.8 Research questions

In order to achieve the objectives of the study, the following research questions are addressed:

1. How does inconsistency between graphemes and phonemes trigger errors in pronunciation?

2. How far do words that show consistency facilitate pronunciation?

3. How can the shallow Arabic orthographic system influence Arab EFL learners' pronunciation?

4. How far do English teachers contribute to the aggravation of problems with pronunciation?

1.9 Key terms

1. **Spelling pronunciation**: one factor in sound change, where a new pronunciation reflects the spelling of the word (e.g., often)

2. **Logographic writing**: a system of writing in which a sign represents an entire word.

3. **Phonographic writing**: a writing in which a sign represents some aspect of pronunciation such as syllables and segments.

4. **Shallow orthography** (**transparent orthography**): a type of orthography in which there is high correspondence between sounds and letters.

5. **Opaque orthography** (**deep orthography**): a type of orthography in which there is no or little correspondence between sounds and letters.

6. **Orthographic depth hypothesis**: correlation between orthographic depth and reading in the sense that shallow orthographies supposedly support word recognition, and opaque orthographies deter reading.

7**. Polyphony**: one discrete grapheme can represent more than one phoneme.

8. **Polygraphy**: a phoneme can be represented by different graphemes.

9. **Graphophonemic awareness**: the ability to match up letters or graphemes in the spelling of words to sounds or phonemes.

10. **Auxiliary letters (digraphs)**: a combination of two letters that represent a single phoneme.

11. **Exocentric digraphs**: digraphs in which the sound is different from that of either of its constituent letters.

12. **Endocentric digraphs**: digraphs in which the sound is the same as that of one of its constituent letters.

13. **Dummy letters**: silent letters which bear no relation to neighboring letters and have no correspondence in pronunciation.

14. **Inert letters**: silent letters in which the letter is sounded in a cognate word.

15. **Empty letters**: letters which never have a sound.

16. **Phonotactcis**: the rules that allow or disallow combinations of sounds.

17. **Phonics**: It is a method of teaching beginners to read and pronounce words by learning to associate letters and letter groups with the sounds they represent.

18. **Obstruent**: it is a consonant sound formed by obstructing airflow, causing air pressure in the vocal tract. Obstruents are a large class of consonants, and they include affricates, oral stops and fricatives.

19.**Morphophonemics**: it is the study of phonemic differences between allomorphs of the same morpheme.

20. **Allomorphs**: they refer to variants of a morpheme. They vary in pronunciation according to their phonetic context.

21. **Morpheme:** It's the smallest meaningful unit in the grammar of a language.

22. **Paragoge**: it is the addition of a sound at the end of a word. Often, this is due to nativization, and it is the logical counterpart of epenthesis.

23. **Epenthesis**: it is the addition of one or more sounds to a word, especially to the interior of a word. Epenthesis may be divided into two types: excrescence (if the sound added is a consonant) and anaptyxis (if the sound added is a vowel).

24. **Proactive transfer**: it is a type of transfer that occurs when learners of L2 tend to carry over some features of L1 to L2. L2 to L1 transfer is called retroactive transfer.

25. **Interlingual error**: it's a type of error that results from interference of the mother tongue.

26. **Intralingual error**: it's an error that reflects the general characteristics of rule learning, such as faulty generalization, incomplete application of rules and ignorance of rule restrictions.

27. **Interlanguage**: it's the second/foreign language learner's system which goes through intermediate stages between the L1 and L2.

28. **sonorant**: sonorants are another large class of consonants which comprise nasals, flaps, trills and liquids.

29. **Homorganic syllabic:** Homorganic syllabics occur when letters such as t , d have a tendency to assimilate to the place of articulation of the following consonant . Thus homorganic means the same organ .

30. **Binyan morphology**: It is a term used in Hebrew grammatical terminology to refer to a verb stem or overall verb derivation. It is a trilateral or triconsonantal root. It is equivalent to the term prosodic template.

Chapter Two: Review of related literature

In this chapter the following are discussed:

1. The writing systems

2. The controversy over English spelling

3. English orthography

4. The Arabic spelling system

5. The orthographic depth hypothesis

6. Grapheme-phoneme correspondences in English

7. Phonological and orthographic processing knowledge

8. The effect of orthographic complexity

9. Graphophonemic awareness

10. Studies on the relation between orthography and pronunciation

For the last three decades, academics and linguists have put forward theories on spelling and its relation to the acquisition of pronunciation. Hill and Rittershofer (1976) have stipulated an integrated approach to pronunciation and spelling in ESL curricula. They have built this approach on the generative theory of Chomsky and Halle (1968) of which generative phonology should be applied in teaching pronunciation. The generative theory suggests that the phonological component in English is described at two levels: the surface of phonetic representation, on which pronunciation is based, and the abstract level of lexical representation, on which orthography is based.

There have also been attempts to present the approach to English graphophonemic investigations, the first of which was presented by Ruszkiewics (1976).This approach is geared toward explaining the relationship between writing and speech. From graphophonemics has evolved what is now referred to as spelling-

pronunciation which is hypothesized to be helpful in building up relatively stable phonologically-underpinned orthographic representations, particularly for learning words with irregular phoneme-grapheme correspondences (Hilti and Reitsma, 2006).

In tracing the relationship between graphemes and phonemes, Ruszkiewics formulates the assumption that "a system of writing has its own peculiar structure which is different from that of the corresponding spoken language." (Ruszkiewics, 1976, p.22).

2.1 The writing systems

According to O'Grady et.al (1991), the various symbols and techniques used in written language show an arbitrary link between symbol and sound. The writing systems are categorized into two basic types: logographic and phonographic. The first refers to "a type of writing in which symbols represent morphemes or even entire words." (O'Grady et.al, 1993, p.465).This type of writing is exemplified by Egyptian hieroglyphics in its early stages. The latter refers to a type of writing in which " the symbols represent syllables or segments." (O'Grady et.al, 1993, P.466).This type is grouped into syllabic writing, which employs signs to represent syllables as is the case with Japanese, and alphabetic writing which represents vowel and consonant segments as is the case with English and Arabic.

2.2 The controversy over the English spelling system

The English spelling system has triggered a feverish debate among linguists and has persistently disquieted researchers. The debate pivots around whether the system shows regularity or irregularity.

Some linguists believe that the English spelling system is regular and rule-governed. Among many are Miller and Albrow. Miller (1973), as reported in Thompson_Panos and Ruzic(1983) claims that nearly eighty-five percent of all

English words have a regular spelling though his claim is not based on substantiated research or a cohesive theory. As reported in Atawneh (1992), Albrow(1972) claims that English spelling displays two systems with fairly phoneme/grapheme correspondences. However, a large number of linguists and literacy researchers, such as Chomsky (1970), Sampson (1985), Dewey (1971), Frost (1992) and Scott (2000), believe that the system is chaotic and recalcitrant. In this respect Sampson states:

"*Our spelling is simply chaotic…It fails to display any system whatever.*"

Sampson (1985:194)

Frost (1992), as reported in Bayraktaroglue (2007) says that English has a deep orthography, showing no consistency. Kessler and Treiman (2003) say that it is morphophonemic rather than phonetic, and English is thought to be far distant from the alphabetic ideal whatever the nomenclature. Dewey (1971) says that English is considered to be chaotic and indefensible. He reached this conclusion after he developed a quantitative measure that aimed at examining whether English spelling is consistent or complex. In his measure he listed all the different spellings for each phoneme. When taking the ratio, he found that English has a consistency of 8%.

The following poem by Gerald Trenite vividly illustrates how English spelling departs from rules:

Dearest creature in creation,

Study English pronunciation.

I will teach you in my verse,

Sounds like corpse, corps, horse,

and worse.

I will keep you Suzy, busy.

Make your head with heat grow dizzy.

This poem is hard to read as it is full of words that share spelling patterns, but do not share pronunciation patterns. Words like creature/creation, head/heat, corpse/corps, horse/worse exemplify this arbitrary nature of English spelling. This arbitrary nature is also illustrated in another poem by Richard Krogh:

Beware of heard, a dreadful word

That looks like beard and sounds like bird.

And dead; it's said like bed, not bead;

For goodness sake, don't call it deed!

Watch out for meat and great and threat

(They rhyme with suite and straight and debt)

A moth is not a moth in mother,

Nor both in bother, broth in brother.

There are, however, some linguists and researchers like Van Dijk (1966) who believe that there are three main divisions in English spelling: the regular, the semi-regular, and the downright irregular. Van Dijk (1966) admits that there are general rules for spelling. This is implicitly stated in the following:

"It may be worth while to make the foreign learners of English

familiar with the general rules of spelling that govern English

pronunciation." (P.8)

Those linguists think that" English orthography does afford to each phoneme at least one regular, clear and consistent representation." (Bayraktaroglu, 2007, P.23.). However, this can be hotly debated. By no means all the English words are spelled with this regular representation. It is true that there are some general rules, but to these rules there is a plethora of exceptions, and there still remains a sizeable residue of words whose spelling is irregular. This is all coupled by the fact there is an

abundance of words, such as choir, colonel and oasis, whose spelling are downright capricious and utterly unexplainable.

The following section discusses some idiosyncrasies and obscurities of English orthography that may help us better understand why English orthography is unprincipled and inconsistent.

2.3 English orthography

One reservation about English orthography is that it has an evidently wide discrepancy between spelling and pronunciation in which " a large variety of vowel sounds and spelling patterns in words may seem downright capricious." (Johnson, 2001, P.372).

O'Grady et al (1993) enlist some problems with English orthography:

1. Some letters do not represent any segment, as exemplified by *pal<u>m</u>* and *sign*.

2. A group of two or more letters can be used to represent a single segment, as exemplified by *<u>th</u>ink*.

3. A single letter can represent a cluster of two or more segments, as exemplified by *sa<u>x</u>ophone* /ks/.

4. The same letter can represent different segments in different words, as exemplified by <u>o</u>n/ɒ /, b<u>o</u>ne /əʊ /, <u>o</u>ne /w/.

5. The same segment can be represented by different letters in different words, as exemplified by /u: / in *r<u>u</u>de*, *l<u>oo</u>p*, *s<u>ou</u>p*, *n<u>ew</u>*, *s<u>ue</u>*.

In addition to these problems with English orthography, Bell (2008) talks about the phonic unreliability of English graphemes and lists more than 4000 common words that show inconsistency between letters and sounds. She concludes that reading difficulties of English words result from the following salient factors:

1.The pronunciation of the graphemes *o*, , *ou*, *ow* is variable. Look at how the *o* sound varies in worn, worth, worry, tomb, wolf, mother, only, programme and once. Also check how the *ou* sound varies in route, four, enough, proud and cousin. In addition, examine how the *ow* sound has different phonetic realizations in blow, now.

2.The letter *a* tends to have a different sound before *ll*, *l*, and after *w*. This is exemplified in the words ally, ball, and ballet.

3. The *a* sound is variable as is the case with famous and famished.

4. The *ea* gives the *ee* sound, but with numerous exceptions. Examples that have the */i:/*sound include cheat, steal, tea, year, ease and deal. Exceptions are exemplified by area, weather, earth, break, stealth, instead, meadow and many others.

5. The *i-e* pattern is undermined mainly by inconsistent doubling (biting, bitten) and sometimes with further complications (rise, risen). The *i* is also variably pronounced in words such as kind/kindle, child/children and wild/wilderness.

6. The use of *ei* and *ie* is inconsistent and overlapping. Words that best exemplify his include eight, reindeer, ceiling, height, their, diet, soldier, pliers and tie. Look at how both the *ei* and *ie* have different phonetic realizations in these words.

7. Some words have surplus letters that are divided into two categories:

a. words with non-phonically doubled consonants (i.e. not keeping a stressed vowel short). Examples include dessert, suppose, arrange, shall, midday, marvellous, collect and settee.

b. words with other phonically surplus letters. Examples include half, exhaust, answer, whole, autumn, thumb, doubt, give and knife.

8. Enormous words diverge from common patterns, and accordingly have tricky pronunciations. These are exemplified by the following:

- spook: brook, hook, cook.

- food: good, wood, flood, foot.

- school: wool, woolen, door.

- butter: butcher, pudding, truth.

- gull: bull, bullet, pull.

- chat: ache, anchor.

- paid: said.

-autumn: aunt, laugh, mauve

- any: deny, reply.

- forward: reward.

- bicycle: cycle

- toes: shoes.

- success: soccer.

- fruit: biscuit

We can also add other sources of difficulty which include the following:

1. Homographs: (words having the same spelling but different pronunciation and meaning) Examples include read: /ri:d/, /red/ and lead:/ li:d/, /led/.

2. Some words have very weird spellings that show no consistency whatever between graphemes and phonemes. These include victuals, thorough, ewe, colonel, oasis, leopard, amoeba, rendezvous and many others.

This fact about the grapheme-phoneme mismatch in English is coupled by the Arab EFL learners' tendency to depend on their phonetic writing system in pronouncing English words. Taking this into account, it is natural that non-native speakers will be tempted to make errors in pronouncing English utterances. In this respect, we are not ruling out other factors that trigger pronunciation errors. A number of pronunciation errors can be developmental or intralingual.

2.4 The Arabic spelling system

Unlike the English spelling system, the Arabic spelling system is quite regular as there is evident correspondence between graphemes and phonemes. There are no complex rules for spelling. In light of this fact, Arabic is said to have transparent orthography. However, there are some irritating irregularities: (Kharma and Hajjaj, 1989, P.56)

1. There are problems with the Arabic glottal stop/hamza/ in various contexts.

2. Some words are problematic, such as the demonstratives /hada/ (this) and /dalika/ (that) which have long vowels, but written with short ones.

3. There are problems with the two ways the final long/a/ is written whether mamdouda (ا) or maqsoura (ى).

4. There is a problem with allophonic variation or environmentally conditioned change of a feature as is the case with assimilation of the definite article/al/. In Arabic, when the definite article occurs before a word starting with a coronal, the /l/ assimilates completely, as is the case with /innas/.

2.5 The orthographic depth hypothesis

As reported in Danielsson (2003), a number of studies have found systematic differences across languages in the reading processes of readers of alphabetic scripts, i.e. comparison between Turkish and American English (Oney & Goldman, 1984), English and German (Lander et al, 1997) .Evident differences have been revealed in terms of the complexity of the relationship between graphemes and phonemes. Some languages, such as Italian, Turkish, Greek, German and Arabic, have high correspondences between graphemes and phonemes, and thus they exemplify shallow orthography. On the other hand, other languages, such as French and English, qualify as an example of a typically deep orthography. To elaborate, Frost, et al (1987), as

reported in Danielsson (2003) indicate, orthographies can be categorized according to the complexity of their letter to sound correspondences. In a transparent orthography, the phonemic and orthographic codes are isomorphic; the phonemes of the spoken word are represented by the graphemes in a direct and unequivocal manner. In a deep orthography, in contrast, the relation of spelling to sound is opaque. Comparison of English and Arabic orthographic systems exemplifies the distinction. The Arabic spelling system directly represents the phonology of the word; each grapheme represents a single phoneme, unlike English in which a phoneme can be realized in different graphemes.

According to the "orthographic depth hypothesis" (see Frost & Katz, 1992), there is a high correlation between orthographic depth and reading or pronunciation in the sense that "shallow orthographies are thought to easily support word recognition processes." (Danielsson, 2003, P.512.). On the other hand, opaque orthographies have a deep impact deterring pronunciation or triggering errors.

In fact, the orthographic depth hypothesis has been based on the reading of single words, and "it's possible that in the reading of connected text, additional factors, such as context factors, might interfere." (Danielsson, 2003, P. 512).

2.6 Grapheme-phoneme correspondences in English

The reading-writing process is inextricably interwoven. However, we should understand how the writing system functions and how it is related to the spoken system. Writing systems are based on grapheme-phoneme correspondences, in which one letter or grapheme represents a sound. However, English correspondences are arguably not regular. Jones (1996) attributes the apparent irregularities to the fact that English spelling has evolved over time and is an amalgam of different traditions.

Kessler and Treiman (2003) say that lists like "tough, though, through, bough" have led people to consider English orthography to be hopelessly irregular, a pathological mishmash of correspondences.

According to Jones (1996), most English consonants exhibit a regular grapheme-phoneme relationship. Irregularity in letter-sound correspondences is evident in vowels which have varying phonemic alternatives for a grapheme and several graphemic alternatives for a phoneme. Accordingly, pronunciation cannot always be extrapolated from spelling because there is little systematicity in grapheme-phoneme correspondences in English. Because of this likely mismatch between letters and sounds, there has been much effortful work on the part of some American writers to amend the English spelling system or even change it. Some even adopt words such as "rite" and "nite" instead of right and night respectively. In fact, such suggested amendments or rectifications might wreck the language

2.7 Phonological and orthographic processing knowledge

According to Gough & Tumner (1986) and Gough & Griffith (1992), it is assumed that word identification depends on phonological and orthographic processing knowledge. "Phonological processing knowledge represents the child's procedural knowledge about grapheme-phoneme correspondence rules."(Arab-Moghaddam & Senechal, 2001, P.140.) These skills help decoders to translate the letters to their corresponding sounds, and then combine these sounds to read words. In light of this, a learner may segment the phonemes in "pat" as /p/,/ æ /, and /t/ and represent each with the corresponding graphemes, p,a,t." (Varnhagan, 1995). This processing knowledge has to do with what is termed as " graphophonemic awareness", which will be discussed later. As reported in Mogahaddam and Senechal (2001), Stanovich & West (1989) define orthographic processing knowledge as the

ability to form, store and access the orthographic representations of words or meaningful parts of words. This knowledge pertains to the reader's implicit knowledge of the letters and their sequence. According to Arab-Moghaddam and Senechal (2001), orthographic knowledge allows the reading of words by sight, and they are presumably acquired through reading experience as children develop extensive spelling-to-sound knowledge.

2.8 The effect of orthographic complexity

Cross-linguistic comparisons are vitally important to unravel how different orthographic systems may induce errors in pronunciation or reading. Undoubtedly, alphabetic scripts are not alike. "They differ, among other things, in the consistency with which the letter map on to the phonology of language." (Arab-Moghaddam & Senechal, 2001, P.141). Consider the case of Arabic versus that of English. Arabic has consistent and simple correspondences between phonemes and their graphemic representations. A grapheme consistently represents the same phoneme, and a phoneme is consistently represented by the same grapheme. English, on the other hand, doesn't have this sort of transparency or shallowness." English orthography is polyphonic and polygraphic." (Arab-Moghaddam and Senechal, 2001, P.141) .

Polyphony is due to the fact that one discrete grapheme can represent more that one phoneme (e.g. ea in steal vs. stealth) . Polygraphy is due to the fact that a phoneme can be represented by different graphemes (e.g. /f/ in farm vs. pharmacy)

In light of this fact, variation in the complexity of grapheme-phoneme mappings has a direct relationship with mispronunciation and misreading. As English spelling offers poor guidance to pronunciation, errors in pronunciation emerge. Lado (1957) labels the resulting errors as "problems of spelling pronunciation". In this respect, he ascribes these errors to two factors: transfer and inconsistency in spelling.

Concerning the first factor, Lado says :

"*one problem is that the same symbol might represent two different sounds in the two languages. In such a case the student tends to transfer the native language symbolization to the foreign language"* (P. 20)

This is exemplified by the erroneous consonant doubling in English. Arab learners carry over the rule of gemination, which is operative in Arabic, to the pronunciation of English.

As for the second factor Lado says:

" *The other possibility of spelling interference with pronunciation arises with inconsistencies in the spelling of the foreign language. The symbol which in one word represents one sound turns out to represent a different sound in another.(P. 20).*

An evident example on this inconsistency of English symbols is found in the x grapheme. This letter is phonetically realized differently as /ks/ in saxophone, /gz/ in exile and as /z/ in Xerox.

2.9 Graphophonemic awareness

A necessary prerequisite to correct pronunciation and reading is graphophonemic awareness, which is defined as "the ability to match up letters or graphemes in the spellings of words to sounds or phonemes detected in their pronunciations." (Ehri & Soffer, 1999, P.1). For the learner to be a skilled reader, knowledge of the idiosyncrasies of the writing system of a language is essential (Adams, 1990; Ehri, 1991; Perfetti, 1985)

According to Ehri & Soffer (1999), alphabetic knowledge involves learning how many different letters in the spelling of words function as graphemes to

symbolize specific phonemes and learning how to segment pronunciations of words to detect these phonemes. In languages such as Arabic, Turkish and German, which are characterized by transparent grapheme-phoneme mappings, the graphophonemic system can easily be worked out. Take, for example, the German phrase *vez name.*In this phrase, all the graphs are phonetically realized as / vez n ɒ mi:/.In Turkish, there is a one-to-one correspondence between the phonemes and the letters (apart form the letter g). For example, the letters *s* and *z* are pronounced as /s/ and /z/ respectively.

By contrast, in languages such as French and English, which are characterized by much less transparent mappings, correspondences are more complex. For example, in English the spellings of /k/ may involve any of the following letters: C, K, Ck, Ch, X, Q. French has yet a deeper orthography. Take, for example the phrase *cherchez les femme*(search for women) . In this phrase, the r sound is rather a uvular rhotic as /g/, and the graphs z,s and e are not articulated.

The importance of investigating graphophonemic awareness and phonological awareness has increased with the advent of connectionist theories and spelling acquisition (Adams, 1990; Brown & Ellis; Ehri, 1992; Foorman, 1994; Perfetti, 1992). According to these theories, " as readers accumulate experience reading words, a network of connections is formed in memory, linking graphemic and phonemic units." (Ehri & Soffer, 1999, P.3)

2.10 Studies on the relation between orthography and pronunciation

Though literature on pronunciation problems is abundant, well-documented research on the impact of English orthography on pronunciation is scanty. This section explores the studies carried out in this domain.

The studies reported are divided into three categories:

1. Studies which involve cross-linguistic comparisons in terms of the orthographic system to explore how orthographic interference induces pronunciation errors.

2. Studies which involve using a Roman script.

3. Other miscellaneous studies.

2.10.1 Cross-linguistic studies

This type of studies aims to compare the orthographic systems of English and other languages to detect how orthographic variations can trigger errors in pronunciation.

In a study entitled " The impact of orthography on the acquisition of L2 phonology: inferring the wrong phonology from print", Goutsougera (2007) investigates how the opaque orthography of English influences the acquisition of L2 English pronunciation. The paper delineates the fundamental differences between English morphophonemic orthography and the Greek purely phonemic orthography. It concludes that Greek learners, who use a Roman script, generate phonology from orthography by mapping graphemes onto phonemes in a true shallow orthography. This conclusion is in congruence with Bassatti (2006), who proposes that L2 orthography affects the mental representations of L2 phonology in beginner L2 learners if L1 is phonetic. It is also in line with Wells (2005), who points out that many of the oddities of non-native speakers' pronunciation of English is due to inappropriate inference from the spelling. These studies are in fact in parallel with the current study which is designed to reveal how Arab EFL learners try to extrapolate pronunciation of English words through overreliance on the English spelling system. These learners, under the influence of their mother tongue orthographic system, transfer their mother tongue habits to English pronunciation. This transfer is a

cognitive process in which the internalized system comes into play when decoding or pronouncing English sounds.

In a speculative and theoretically-based article, Thompson-Panos and Thomas-Ruzic (1983) present facts about Arabic and English, some of which are related to spelling and pronunciation. The paper states that the English spelling system is recalcitrant and full of complex rules. These aspects of English spelling, when combined with the fact that the Arabic writing conventions and vowel system are vastly different, contribute to particular spelling and pronunciation difficulties. The paper adds that Arab learners' unfamiliarity with the English alphabet poses real difficulty for these learners who depend on grapheme-phoneme correspondences in decoding words. One of the graphs the article states as problematic for Arab learners is the/ u/ sound. For example, it is pronounced as / ʌ / in but, but as/ ʊ / in put.

In a contrastively-based paper, Osman (1985) explores sound differences between Arabic and English. He explains some pronunciation problems caused by the English orthographic system such as the allophonic variants of the past tense morpheme, whose phonological realizations are totally different from their orthographic realizations. Some of the problems Osman addresses are the wrong pronunciation of asked and jumped which were pronounced as / dʒʌmpɪd / and /ɒskɪd / respectively. It's clearly noticed that an epenthetic or anaptyctic vowel was unnecessarily inserted by the learners to break the consonant cluster in the final position, thus an unnecessary syllable was added to these verbs. Such types of errors are likely to be confirmed in the current study.

In an MA dissertation, Huthaily (2003) compares and contrasts the sounds of English and Arabic. He explores areas that pose serious difficulties for Arab learners, particularly geminate consonants in Arabic, which tempt Arab learners to double

these consonants in their English pronunciation under the influence of Arabic which allows gemination of sounds in pronunciation.

In a longitudinal study, Geva et al (1993) examine the effect of orthographic complexity on the role of phonological and orthographic skills in children's word reading as well as spelling. They traced the progress of a group of 45 kindergarten children until grade 2 to examine the concurrent development of reading and spelling in English, an opaque orthography, and in vowelised Hebrew, a transparent orthography in terms of reading but opaque in terms of spelling. The results indicated that although phonological and orthographic knowledge played roles in the emergence of reading and spelling in English, orthographic knowledge quickly dominates in such a deep orthography. In contrast, phonological knowledge predicted reading and spelling in Hebrew. It was also found that vowelised Hebrew didn't pose problems for beginning readers because it is relatively transparent in the sense that each grapheme corresponds to a single phoneme. There is a direct systematic correspondence between the 22 consonants and the associated phonemes though silent letters might be problematic in writing. Also, there are some graphemes that have different realizations depending on the neighboring sound and the context. This is exemplified by the /b/ which is pronounced as /v/ and/b/. Hebrew in this domain is like Arabic in the sense that both are Semitic languages that have binyan morphology.

In a study exploring morphological errors among Nigerian learners, Timothy (2007) discusses Nigerian learners' problems with the regular plural morpheme. He concludes that Nigerian learners can't distinguish between /z/ and /s/ as both variants are pronounced /s/ in their language.

In another study, Delatorre and Koerich (2006) discuss Brazilian learners' problems with the epenthetic vowel. They conclude that Brazilian learners tend to

insert an intrusive vowel between the two consonants in the clusters of words ending in the final *ed* morpheme.

2.10.2 Studies examining learners with a Latin alphabet

This type is exemplified by the following studies:

Spencer and Hanley (2003) provide further evidence that the consistency of the orthography influences word recognition. The study examines reading acquisition in children with different L1s learning to read in Welsh and compares them with the performance of children learning to read in English. The study concludes that children in Welsh outperformed children reading in English because the former had relied on a consistent orthographic system.

In a different study entitled "The relationship between grapheme-phoneme correspondences and reading errors in Swedish beginners' oral reading, Danielsson (2003) explores the relationship between error frequencies and correspondences between graphemes and phonemes in words in running texts read by 50 Swedish beginning readers. The study compares error frequencies on words with different degrees of complexity in their grapheme-phoneme correspondences. It reveals that error frequencies can only partly be explained by the degree of word transparency.

The results of the study seem surprising as they give no clear picture as to error frequency and graphemic transparency. Transparent words sometimes resulted in many reading errors at the same time as opaque words were often decoded correctly.In this sense the study yielded opposite results as produced in the studies reviewed.

In another study Fiez (2004) examines how the native language affects reading strategies. He reveals that Italian students transfer their native language shallow orthography, in which letters are associated with sounds to English pronunciation,

thus making errors in pronunciation. This study is in fact in line with the current study which aims to prove that the native language system is transferred to pronunciation

Helman (2004) has examined how the sound system of Spanish may influence the pronunciation of English-language learners who come from a Spanish-speaking background. In his study, Helman reveals that those learners pronounce more accurately those words that show phoneme-grapheme correspondences. In addition, he reveals that learners do not make mistakes when similarities exist between the native language and the target language For example, the study reveals that the Spanish participants had no problem pronouncing the words star, scar, sleep, splash, spray, swim and spirit as similar combinations of consonant clusters in the initial position are permissible in Spanish.

In a study entitled "Orthographic interference and the teaching of British pronunciation to Turkish learners, Bayraktaroglu investigates pronunciation difficulties of Turkish learners of English which are due to differences in the sound-letter representations in the orthographies of the two languages. The data were elicited through an intelligibility test of actual pronunciation of words. The test was given to a homogeneous sample of fourteen Turkish adult speakers of English. The study concludes that a large number of errors could be traced back to the Turkish learners' overreliance on sound-letter correspondences which characterize the Turkish language. Some errors exemplifying inferring pronunciation of English sounds from Turkish found in the study are the substitution of /rɪbz/ by rɪbs/ , /niːz/ by /niːs/ and /kæbz/ by /kæbs/. Since Turkish distinguishes between /s/ and/z/ in spelling, the participants were misled by the spelling of the words, thus substituting /z/ by /s/. These types of errors are likely to be confirmed in the current study.

2.10.3 Other studies

This first study involves learners with Arabic as L1 or learners with L1s that have similar alphabetical systems as that of Arabic.

Rahbari et al (2007) examined the contribution of phonological and orthographic knowledge to Persian reading and spelling. The results show that although monolingual Persian children relied on both phonological and orthographic knowledge, phonological knowledge was a strong predictor for both reading and spelling. The findings also reveal that Persian children read and spelled grapheme-phoneme consistent words more accurately than grapheme-phoneme inconsistent words.

The second study involves English native speaking-children reading English. It is entitled "Poor readers' use of orthographic information in learning to read new words" by MCNeil and Johnson (2008). In this study, the researchers examine the ability of eleven-year-old poor readers to learn new print vocabulary. The study concludes that poor readers were slow in reading due to their false connection between the letters in the spelling and the phonemes in the pronunciation.

In conclusion, it has been shown throughout these various studies that regular writing systems make languages easier to learn and make words easier to pronounce. It has also been revealed that the mother tongue orthographic system could have a great impact on inducing pronunciation errors depending on how letters map onto sounds or vice versa.

Chapter Three: Methodology

In this chapter the research methodology is discussed. The first section is devoted to talking about the subjects recruited for the study. In the second section the procedures and data collection are discussed. The third section describes the materials used. The fourth section discusses how the data are analyzed.

3.1 Participants

The subject pool of the study consisted of 20 students at the 11th grade at Beit Ula Secondary School for boys and 10 teachers, some of whom taught the students enrolled in the study. The teachers were interviewed by the researcher to check how much phonetic training they received and knowledge they had. Both groups had the same test.

The researcher, having had extensive knowledge of the students' proficiency in pronunciation, closely observed his students while reading. He noticed that these students heavily overrelied on the spelling of words. When correcting the erroneous pronunciation of some words, the researcher was told by the students that they produced the same pronunciation their teachers did. Accordingly, this study was initiated by the researcher after visualizing the causes of the problem.

The students have had seven years of English instruction at school. Accordingly, they are supposed to have a reasonable proficiency in pronunciation. However, it was noticed that these students had a low-level proficiency in pronunciation.

To conduct the study, the participants were asked to read out a set of monosyllabic and multisyllabic discrete words and a set of sentences in which typical words from the set were embedded. The sample of participants was randomly chosen by selecting every other name on the list.

3.2 Instrumentation

Procedures and data collection

Two techniques were used to elicit the data for this study. The first was a structured individual interview that was administered to the teachers under study. The interview was intended to check how much training these teachers received. It included questions like years of experience, stages taught, average class size taught, total amount of in-service training received to date on pronunciation , facilities used in checking the right pronunciation and suggestions the teachers visualize for improving their students' pronunciation.(see the whole interview questions in appendix number 2, p84)

The first measure was a diagnostic pronunciation test that was given to the students and the teachers as well. A hybrid of classical research methods and modern tools was used in this study. The classical research method was based on The Word List Style which was adopted by Labov (1966), Ehri and Sofer (2002), Suarez and Meara (1989), Arab_Moghaddam and Senechal (2001) ,Fender (2008) and many others. The modern tool was based on giving contextualized words. The same set of words was embedded in sentences.

Following Labov (1966) who came by the Word List Style and the use of sentences, the researcher gave a diagnostic pronunciation test to the participants. The participants' pronunciations were tape-recorded and transcribed.

3.3 Materials

A total of 47 words were given to the participants. A number of sentences embedding typical words from the list were also given. Three criteria were used in selecting the words for this pronunciation assessment test:

First, the selected words were mostly familiar to and known by the participants. The researcher used this criterion following Fender (2008).

Second, the utterances were grouped into two categories:

a. Fully-transparent words, i.e. words with a one-to-one mapping between graphemes and phonemes.

b. Irregularly-spelled words, i.e. words that are opaque.

The purpose of giving words that show both correspondence and non-correspondence between graphemes and phonemes was to check how correspondences would facilitate pronunciation and how non-correspondences would trigger mispronunciation errors.

To decode words in category A, the participant needs phonic knowledge of basic grapheme-phoneme correspondences, which is a common strategy employed by learners to decode every letter in the alphabet. To decode words in category B, the participant needs to be aware of some English spelling rules, i.e. the functionless "e" in final position, and he has to be able to recognize irregularly-spelled words and also has to "have some knowledge of the multifunctionality of some vocalic graphemes which have a pronunciation that differs significantly from the basic alphabetic pronunciation." (Fender, 2008)

The above distinctly delimited categorization of words is based on the assumption that for some word a basic knowledge of the pronunciation of letters in the alphabet is sufficient. For other words the use of mapping units is insufficient to

decode words and in most cases useless. This category of words needs to be learnt as is.

Third, most of the words (40 words) selected were picked out form the textbooks used at Palestinian schools. The other words were selected from outside the school textbooks to provide further evidence about how English pronunciation is problematic and challenging.

With all these criteria in mind, the researcher requested five teachers to judge the familiarity of the words given to the students.

The words selected had the following properties, some of which (2, 5,6) were adopted from Ehri and Soffer (2002):

1. Transparent mappings between graphemes and phonemes: *stop*, *green*, *strong*.

2. Vowel digraphs: ow as in *now*, *bow* and *mow*.

3. Words having different phonetic realizations of monographs and digraphs: C as in *city* , *succeed*; G as in *ginge*r, *eager*; th as in *loath*, *loathe*; ch as in *chariot* , *ache*.

4. Words having different phonetic realizations of vowels: i as in *mild* and *grind*; u as in *gull*, *bulle*t; oo as in *cook*, *blood*, *woolen*, *floor*.

5. syllabic nasals and liquids: *pistol* , *hidden* and *sudden*

6. Unambiguously functionless letters: final e in *move*, initial g in *gnaw* medial h in *exhaust* and medial b in *debt*, final b in *crumb*.

7. Words that contain orthographically doubled letters: *allow*, *affect* and *correct*.

8. Vowels that have different orthographic realizations but are pronounced with a schwa sound: o in *melody*; u in *succeed*.

9. Morphological endings: these are categorized into two groups:

   a. Plural morpheme of nouns(s)

b. The regular past tense morpheme(ed)

10. Words with very highly unpredictable spellings: *thorough*, *ewe*, *colonel* and *oasis*.

The selection of the words was then based on the ten properties just delineated. These properties represent the various aspects and features of English orthography.

As said earlier, these words were given out of context.Then they were given in context. The purpose of giving words in context and out of context was to check whether there would be any significant differences in reading between the two ways. Therefore the purpose of using the two styles_ the word list style and contextualized words- is to test conscious knowledge versus unconscious knowledge.

The rationale for giving discrete words not connected text is that this word list style is classified as the most careful style since, according to Wolfson (1989), speakers' attention would tend to be drawn to the pronunciation of very feature under study. So, such a style enables students to give more focus to the words being pronounced. In addition, this study is based on the orthographic depth hypothesis which necessitates using single, decontextualised words.

3.4 Data analysis

The data obtained from the two different instruments were analyzed and interpreted qualitatively and quantitatively.

3.4.1 Quantitative data analysis

The quantitative data analysis was carried out with the data elicited from the pronunciation test. It involved statistical figures of the errors made in each category of words. It also included statistical analysis in tabular form of personal information

about the teachers who were interviewed. Personal information included: qualification, years of experience, size of class taught and stages taught.

The procedures used in analyzing the data are as follows:

1.Classification of mispronounced words: errors are classified according to the spelling patterns.

2.Correction of errors: correct pronunciation is provided between slashes.

3.Statistical analysis and frequency count: each error is given a percentage depending on its occurrence in the corpus.

4.Explanation of the influence of spelling on pronunciation by showing patterns.

5.The RP symbols are used to represent the wrong pronunciation and correct pronunciation.

3.4.2 *Qualitative data analysis*

The qualitative data analysis was conducted with the data elicited from the structured interview. The interview aimed at investigating the teachers' views towards issues pertaining to pronunciation. It took place soon after the students and the teachers were given the diagnostic pronunciation test. Two teachers were interviewed in English. The other eight refused to talk in English and insisted on using Arabic.

They said they needed plenty of time to formulate and prepare their answers. It seems that such teachers were unconfident of their ability to run the interview in English. Each interview lasted between ten to fifteen minutes. Before conducting the interview, the teachers were told about the expected questions so that they could think about the answers. During the interview, a tape-recorder was used to ensure the interview process and ease the data review process. Then the data was analyzed.

Chapter Four: Results, Analysis and discussion

In this chapter the findings are discussed. The first section is devoted to discussing and analyzing the results elicited from the test. The second section is devoted to discussing the data elicited form the interview.

The diagnostic test

The following tables illustrate the performance of both students and teachers

Table 1. Categories of errors made by students

No.	Category	Number of words given	Number and percentage of correct pronunciations	Number and percentage of errors	Total
1.	Transparent words	3	60 (100%)	0(0%)	100%
2.	Multiple functionality	22	216(49.5%)	224(50.5%)	100%
3.	Doubling consonants	3	30(50%)	30(50%)	100%
4.	Silent letters	6	24(20%)	96(80%)	100%
5.	Morphological endings	4	3(4%)	77(96%)	100%
6.	Highly-unpredictable spelling of words	4	1(1.25%)	79(98.75%)	100%
7.	Syllabic nasals and liquids	3	30(50%)	30(50%)	100%
8.	Failure to realize the schwa sound	2	0(0%)	40(100%)	100%

Table 2. Categories of errors made by teachers

No.	Category	number of words given	Number and percentage of correct pronunciations	Number and percentage of errors	Total
1.	Transparent words	3	30(100%)	0(0%)	100%
2.	Multiple functionality	22	168(76.4)	52(23.6%)	100%
3.	Doubling consonant**s**	3	9(30%)	21(70%)	100%
4.	Silent letters	6	22(36.6%)	38(63.4%)	100%
5.	Morphological endings	4	17(42.5%)	23 (57.5%)	100%
6.	Highly-unpredictable spelling of words	4	1(1.25%)	39(98.75%)	100%
7.	Syllabic nasals and liquids	3	10(50%)	10(50%)	100%
8.	Failure to realize the schwa sound	2	0(0%)	20(100%)	100%

The figures above reveal the following findings:

1. As hypothesized, transparent words didn't pose any problem whatever to students or teachers. No word in this category was pronounced wrongly. The three words given to the participants (strong, green, stop) were correctly pronounced as / strɒŋ /, / griːn /, / stɒp / respectively. This is in line with most reviewed literature. This

finding has proven that regularly-spelled words facilitate pronunciation.

2. As hypothesized, too, opaque words posed a serious difficulty for students and teachers who relied on the spelling of words to decode English words. This is in congruence with most of the reviewed literature. This finding has proven that irregularly-spelt words trigger errors in pronunciation.

3. The category that caused most errors to students was the eighth one (failure to recognize the schwa sound. No student managed to realize the schwa sound. Then came highly-unpredictable spellings (98.75%0)). Morphological endings (96%) and silent letters (80%) came fourth. As observed in the table, the sixth category (highly-unpredictable spellings) was very problematic and challenging to students as none of the four words representing this category was pronounced correctly by any student, except for one student who managed to pronounce the word oasis adequately, though not totally correct.

4. The category that caused most errors to teachers was also the eighth one (100.%) then came words with highly-unpredictable spelling (98.75%) and doubling consonants (70%). As observed in the table, the eighth and sixth categories represented almost equal difficulty for teachers and students. However, it was surprising to find that doubling consonants constituted a less serious difficulty for students (50%) than teachers (70%). From the findings tabulated earlier it is now evident that English pronunciation is problematic even to teachers who, in this study, tried to extrapolate the pronunciation of words through the spelling of those words.

5. The erroneous pronunciations reveal one strategy espoused by students in decoding English words. This strategy involved overgeneralizing a pronunciation of a certain sound to other sounds. For example, on the basis of analogy, the students equated

between the sound *ow* in *now* and the sound in *mow*. They mistakenly overextended the/aʊ / sound in *now* to the / əʊ / sound in *mow*.

6. The surprisingly substantial number of errors made by teachers proves two things. The first is that English pronunciation is also beyond the grips of teachers who, too, suffer from fossilized pronunciation errors. The second is that this large number of errors renders concrete evidence that English teachers do contribute to the aggravation of pronunciation problems. The fact that many similar errors were made by teachers and students is an alarming finding that proves that teachers have a conceptual difficulty with English pronunciation.

7. As expected by the test, BA.holders performed much better than diploma holders, which might be indicative that more exposure to the language and more training are major factors for progress in pronunciation

8. In terms of intelligibility, deviant pronunciations vary in the degree of impeding understanding. To elaborate, some errors in pronunciation uncovered in this study could impede comprehension, as those errors involving the failure to recognize the multiple functions of English graphemes. Such errors involve distorting the whole word altogether, not just failing to articulate some sounds. Words representing distorted pronunciations in the study include sure, leisure, ewe which were mispronounced as /su:ri /, / li:su:r / and / i:wi / respectively.

However, other errors, such as consonant doubling and failure to recognize the schwa sound, barely deter understanding. However, they are serious errors that always emerge even in the production of highly-advanced learners and professionals.

9. The errors uncovered in the study are not adventitious, random errors in performance due to memory lapses or anxiety, but they are systematic errors which reflect a defect in phonological transitional competence.

10. Though most words given to the students are familiar ones that that are recycled year after year, they are problematic. This is evidence that lack of persistent training on such tricky words is a potential reason for the evident weakness in the pronunciation of Arab EFL learners.

Discussion of the errors

Before we discuss the errors in detail, it is important to note that provision of context to the discrete words didn't salvage the situation. Almost the same errors made in decontextualized words were made in contextualized words. Though it was expected that there should be more focus and attention to discrete words, it was found that no such focus helped much in rendering better pronunciation results.

The errors discussed in the study are categorized into the following:

1. Multiple functionality

2.Doubling consonants

3. Silent letters

4. Morphological endings

5. Highly-unpredictable spelling of words

6. Syllabic nasals and liquids

7. Failure to recognize the schwa sound

4.1 Multiple functionality

English letters may have various functions; that is a graph may have different phonetic realizations. For example, the letter *C* has a value /s/ in *city* as opposed to/k/ in *cat*. In addition, the digraph *Gh* is phonetically realized as /g/ if it occurs initially as is the case in *ghost* and realized as /f/ if it occurs finally as is the case in *cough*. However, this digraph is silent in final position in words like *dough*. These examples attest to the complexity of the English orthographic system.

Arab EFL learners fail to recognize the multiple functions of English letters and tend to pronounce, for example, the letter *C* as /s/ in all contexts, the letter S as /s/ in all contexts, and digraph *Th* as /θ / in all contexts. In the study under analysis, the learners made several errors falling under this category. They can be seen in the following table.

Table 3. Errors in multiple functionality of letters

No.	word	Wrong pronunciation/s	Correct pronunciation
1.	b<u>ow</u>	/bəʊ/	/baʊ/
2.	m<u>ow</u>	/maʊ/	/məʊ/
3.	<u>gi</u>n<u>g</u>er	/gɪŋgər/./gɪŋdʒər/	/dʒɪndʒər/
4.	anger	/ændʒər/	/æŋgər/
5.	loa<u>th</u>	/ləʊð/	/ləʊθ/
6.	loa<u>the</u>	/ləʊθ/	/ləʊð/
7.	<u>ch</u>ariot	/kærɪət/	/tʃærɪət/
8.	<u>ch</u>aos	/tʃ s/	/keɪɒs/
9.	<u>s</u>ure	/sʊːr/, /sʊːri/	/ ʃʊər/,/ ʃÉːr/
10.	lei<u>s</u>ure	/lesuːr/	/liːʒər/
11.	an<u>ci</u>ent	/eɪnsənt/	/eɪn ʃ ənt/
12.	m<u>i</u>ld	/mɪld/	/maɪld/
13.	gr<u>i</u>nd	/græɪnd/	/grɪnd/
14.	g<u>u</u>ll	/gʊl/	/gʌl/
15.	b<u>u</u>llet	/bʌlət/, /bələt/	/bʊlət/
16.	c<u>oo</u>k	/kuːk/	/kʊk/
17.	bl<u>oo</u>d	/bluːd/	/blʌd/

| 18. | w<u>oo</u>len | / wu:lən/ | /wʊln/ |
| 19. | fl<u>oo</u>r | /flʊ:r/ | /fl ɔ:r/ |

The errors are subdivided into the following subcategories:

4.1.1 *Vowel digraphs*

The word *mow* was mispronounced as / mạʊ /. On the basis of false analogy, the students mistakenly thought that the digraph *Ow* in *mow* could be pronounced as is the case in now. They overextended the pronunciation of the digraph *Ow* in *now* to *mow* in which the digraph *Ow* has a different phonetic realization.

4.1.2 *Vowels*

The vowel *i* in mild has a different phonetic realization than *i* in *grind*. The same applies to the vowels *U* in *gull* and *bullets* and the vowel *O* in *cook*, *woolen*, *blood* and *floor*. The students failed to understand that these vowels have visual representations that differ from their phonetic realizations, and they produced the following erroneous pronunciations:

- *gull* was pronounced as / gʊl /

- *blood* was pronounced variably as / blu:d / and /blɔ:d /

- *mild* was pronounced as / mɪld /

- *cook* was pronounced as / ku:k /

- *floor* was pronounced as / flu:r /

4.1.3 *Consonants*

Though most errors in pronunciation occur in vowels, consonants also trigger errors as they have diverse functions that are not recognized by Arab learners of English who tend to overextend the pronunciation of a certain consonant to all contexts. They, for example, fail to realize that the consonant *g* can phonetically be

realized as / dʒ / and / g / and *th* as /θ / and / ð / In the study under analysis, the following errors were made:

- *ginger* was mispronounced as / ɡɪŋər /.

- *loathe* was mispronounced as / ləʊθ /.

- *chaos* was mispronounced as / t ʃÉs /.

- *sure* and *leisure* were mispronounced as / su:r: / and / li:su:r: / respectively.

As observed in the previous discussion, the complexity of the English spelling system is the major cause of pronunciation errors. However, other causes can't be ignored. Some of these errors are teacher-induced ones; that is students reproduce teachers' errors as they imitate their teachers' pronunciation. We can also say that some of these errors could be traced back to the faulty teaching practices. When students in grade 1 are taught the alphabetical letters, they are taught to articulate the *c* as /si:/ in and the *i* as / aɪ /. This pronunciation fossilizes with them in later stages and tempts them to overextend the pronunciation of the *c* and *i* to all contexts, regardless of the fact that these letters have different phonetic realizations.

It is alarmingly surprising that graphs with various functions did not only pose a real difficulty for students, but also for teachers. As observed in the tables 23% of errors falling under this category were made by teachers, and 50% of errors were made by students. This is further evidence for the challenge posed by English pronunciation.

4.2 Doubling consonants

Some English letters are orthographically doubled, but phonetically they are not; that is they are visually represented, but pronounced as a single consonant sound.[1]

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[1] There is some gemination in English as the case with some compounds like bookcase .

Arab learners, under the influence of relying on spelling pronunciation, ignore this fact. Khalil (2000) says that the doubling of English consonants can be attributed to interference from Arabic, since gemination is a common feature of Arabic pronunciation of geminates. These learners carry over some pronunciation habits from Arabic which allows consonant doubling to English, and so they wrongly lengthen some English consonants. In the data under analysis, the students and teachers produced errors which can be seen in the table below.

Table 4. Errors in doubling consonants

No.	word	Wrong pronunciation/s	Correct pronunciation
1.	a**ll**ow	/əlləʊ/	/ələʊ/
2.	a**ff**ect	/əffekt/	/əfekt/
3.	co**rr**ect	/kɒrrekt/	/kərekt/

The same type of error is attested in Khalil(2000) and Kharma and Hajjaj (1989) who conclude that Arab learners are misled by the spelling of words that have consonant doubling, and so they tend to produce double consonants in English words as two consonants instead of a single consonant. The same type of error is also attested in Huthaily (2003) who points out that geminates pose particular difficulty for Arab learners who tend to carry over their mother tongue system which allow much orthographic consonant doubling to English.

It is surprising that doubling consonants represented a more serious difficulty for the teachers. As noticed in the findings, 70% of errors in this category were made by teachers, while 30% of errors were made by students. We can't judge whether this can be ascribed to slovenly carelessness on the part of teachers when they were reading the words given to them.

4.3 Silent letters

A silent letter is a mute, functionless letter that does not correspond to any sound in the word's pronunciation[1]. Silent letters are a noted difficulty of English spelling.

It may be argued that lots of words that contain silent letters are of foreign origin, as is the case with the Greek words *psychology* and *mnemonia* which have alien clusters. The initials Ps and Mn constitute an impermissible combination in the onset position, according to the rules of phonotactics. The same applies to words like gnaw in which the gn combination is not permissible in the onset position. In this

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[1] Carney (1994) distinguishes different kinds of silent letters which constitute differing degrees of difficulty:

1. Auxiliary letters: these are made up of a combination of two letters to represent a single phoneme. In this sense they are digraphs. Carney further groups auxiliary letters into the following categories:

a. exocentric digraphs, where the sound of the digraph is different from that of either of its constituent letters. This category is exemplified by the Th for/ θ /, Sh for / ʃ / and Ph for / f /. In the first two examples the phoneme has no standard single-letter representation. In the third example, the standard single-letter representation uses another letter. To illustrate, the Ph is used instead of F.

b. endocentric digraphs, where the sound of the digraph is the same as that of one of its constituent letters. These include:

- Most doubled consonants, though not geminate consonants as ss in misspell. This doubling, which is due to suffixation or inflection, doesn't pose any difficulty for readers, as Carney believes.

- The discontinguous digraphs whose second element is e as in rate and fine. In this type of endocentric digraphs, the e is silent, and the vowels are lengthened.

- Others such as Ch in check, Gu in guard and Ea in bread. According to Carney, these sometimes pose difficulties for readers.

2. Dummy letters which bear no relation to neighboring letters and have no correspondence in pronunciation. These pose particular difficulty for readers, and they are grouped into two categories:

a. Some are inert letters, where the letter is sounded in a cognate word, e.g. /n/ in damn and damnation, where n is silent in damn and articulated in damnation.

b.The rest are empty letters which never have a sound, e.g. /w/ in answer, /h/ in honest and /b/ in subtle. These present the greatest difficulty. They require good phonological awareness to be decoded correctly.

sense, these clusters of consonants may be simplified by muting the first letter in order not to break the rules of phonotactics.

Other words like *tomb* and *autumn* have clusters of consonants in the coda position that have the same place of articulation or the same manner of articulation. In tomb, both m and b are bilabial. In *autumn* both m and n are nasal. Not articulating the b in *tomb* and the n in *autumn* is perhaps a type of assimilation which involves silencing some letters for the sake of simplification.

Silent letters, particularly dummy letters, pose a challenge for readers. Arab learners, deceived by the spelling of words, have a tendency to articulate silent letters. This can be attributed to two sources. The first source is negative transfer from Arabic. In Arabic, almost all graphemes in a certain word are phonetically realized.

This tempts Arab learners to articulate all the letters in a word. We can also say that Arab learners are influenced by their teachers who themselves articulate silent letters. This is evident in the current study which shows that the teachers under study made numerous errors in articulating silent letters. In this sense, the articulation of silent letters can also be conceptualized as teacher-induced errors.

In the data under analysis, the following errors found are tabulated below.

Table 5. Errors in articulating silent letters

No.	word	Wrong pronunciation/s	Correct pronunciation
1.	mov**e**	/məʊvi/	/məʊv/, /mu:v/
2.	**g**naw	/gnəʊ/	/nəʊ/, /nÉ:/
3.	ex**h**austed	/ɪkshəʊstɪd/	/ɪgz ɔstɪd/
4.	de**b**t	/debt/	/det/
5.	crum**b**	/krʌmb/	/krʌm/
6.	fas**t**en	/fæstən/	/fæsən/

It's evident in the tables that silent letters constituted a serious difficulty for both learners and teachers. 96 errors (constituting 80%) were made by students, and 34 errors (constituting 63.4%) were made by teachers. As observed in the figures, there isn't a very large difference between teachers' performance and students' performance.

4.4. **Morphological endings**

"English phonemes are combined together to form syllables which are, in turn, combined to form a unit of language called morphemes[1]." (Hajjaj, 2001, p..290).

"The variant forms of a morpheme are called allomorphs." (O'Grady, 2005, p.114). Examples of allomorphic variation is found in the pronunciation of the plural morpheme *s* in words like books, doors and churches and the pronunciation of the regular past tense morpheme[2].

The following table illustrates the errors in this category.

Table 6. Errors in morphological endings.

No.	word	Wrong pronunciation/s	Correct pronunciation
1.	ask**ed**	/ɒskɪd/	/æskt/
2.	lab**s**	/læps/	/læbz/
3.	church**es**	/tʃɜːrtʃs/	/tʃɜːrtʃɪz/
4.	laugh**ed**	/lɒvd/,/ləʊghɪd/	/læft/

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[1] Linguists distinguish two types of morphemes: content morphemes such as door,cat and functional morphemes such as the plural morphemes and the ending of the regular past tense. Other linguists categorize morphemes as free and bound. "A morpheme that can be a word by itself is called a free morpheme, whereas a morpheme that must be attached to another element is a bound morpheme." (O'Grady et al, 2005, P.113). For example, the morpheme cat is free as it can be used as a word on its own; the plural suffix –s is bound as it can't be used as a word and must be attached to a free morpheme.

[2] "Pronunciation can be sensitive to morphological factors, including a word's internal structure." (O'Grady, 2005, P.138). The study of this phenomenon in language is labeled as morphophonemics.

The following illustrates the two examples of morphophonemic alternations and the errors made in these alternations.

a. The regular past tense morpheme

The ending of the regular past tense is orthographically realized as d or ed. However, this ending is phonetically realized as /t/,/d/ or /id/.[1]

According to Delatorre and Koreich (2006), by the process of assimilation, the morpheme *ed* is pronounced as /t/ in words ending in voiceless obstruents and as /d/ in words ending in voiced obstruents, sonorants and vowels. The rule can be reworded as the following :

The underlying past tense morpheme is [d] :

[t] is the result of assimilation .

The vowel in [əd / ɪd] is epenthetic .

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[1] Brinton (2000) lists the most final clusters in English words ending in ed:

1. Nasal+stop, as in joined.

2. Fricative+ stop, as in laughed.

3. Stop+stop, as in stopped.

4. Stop+ fricative+ stop, as in fixed.

5. Nasal+ stop+ stop, as in jumped.

6. Liquid+ stop+ stop, as in helped.

Delatorre and Koreich (2006) add other clusters that complement Brinton's list:

7. Affricate+stop, as in judged.

8. Nasal+ affricate+ stop, as in changed.

9. Liquid+ nasal+ stop, as in filmed.

10. Liquid+ stop, as in called.

11. Liquid+ fricative+ stop, as in solved.

12. Liquid+ affricate+ stop, as in searched.

13. Fricative+ stop+ stop, as in risked.

In words that end in t and d the morpheme ed is pronounced with the addition of a syllable[1].

In general, the /id/ allomorph isn't problematic as it doesn't pose difficulties for readers or learners. The allomorph that creates real difficulty is the /t/. Since Arab EFL learners lack the phonological awareness regarding the phonologically-conditioned variants of the regular past tense morpheme, they tend to use the voiced form and insert an intrusive vowel.

In the data under analysis, two types of errors were made in the regular past tense morphemes:

a. substitution of the devoiced form with the voiced one.

In the corpus, the students pronounced *laughed* as / lɒvd/. This word was also mispronounced as /lɒghɪd/.

b. Breaking the consonantal cluster in the coda position.

In the corpus, the students pronounced *asked* as /ɒskɪd/, thus inserting an epenthetic vowel between the final consonant clusters created by assimilation. Therefore a new syllable was added.

Such errors in the ending of the past tense can be ascribed to overreliance on the unreliable orthographic system of English. Graphic information is converted into phonological information. Arab EFL learners, who are generally poor readers, rely on the orthographic system more frequently on the phonological system. Again, this has

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[1] Finch (2000) formulates the three rules governing the formulation of the regular past tense in a simpler way:

- /id/ occurs after stems ending in alveolar plosives (t,d)

- /t/ occurs after a voiceless segment other than alveolar plosives.

- /d/ occurs after a voiced segment other than an alveolar plosive.

The ed becoming t is an example of regressive assimilation in which a segment is influenced by a preceding segment.

its roots in their mother tongue. These learners who have internalized the orthography of their mother tongue fall back on their native language system in decoding English words. As a result, this latent knowledge of their mother tongue system interferes or confounds the pronunciation of such untrained learners.

The same type of errors are attested in Delatorre and Koreich (2006) who conclude that Brazilian learners of English have a tendency to insert an extra vowel between the two consonants in the clusters of words ending in the final ed morpheme. They call this inserted vowel a "paragoge" and distinguish three types of vowel insertion:

- Epenthesis: the process of vowel insertion to an existing structure.

- Prothesis: the process of vowel insertion at the beginning of words.

- Paragoge: the insertion of a vowel at the end of words.

The findings of Delatorre and Koreich and the findings of the current study are also in congruence with the findings of Babtisa (2001) who points out that Brazilian EFL learners have a strong tendency to add an extra epenthetic vowel in between the final consonant clusters created by assimilation, adding a new syllable to these words.

The same type of errors are also attested in Othman (1985) who came across errors in the pronunciation of the regular past tense morpheme in words like *jumped* and *asked*. This error involves adding an unwanted vowel to break up the consonant cluster, thus adding a new syllable.

b. The plural morpheme

The second case of morphophonemic alternation which poses problems for Arab EFL learners is the plural suffix –s. This morpheme has three allomorphs; that is it can be pronounced as /s/, /z/ and /əz/. According to O'Grady et al (2005), there are three rules governing its pronunciation:

- The /əz/ is added to stems that end in a strident coronal consonant.

The /əz/ form shows up only when a vowel is needed to break up an otherwise illegal consonant cluster (no English syllable ends with the coda/dʒz /. This insertion of the epenthetic /ə/ is represented in the following:

$$\phi \longrightarrow \partial \;/\; \begin{bmatrix} + strident \\ + coronal \end{bmatrix} \underline{} \begin{bmatrix} + strident \\ + coronal \end{bmatrix}$$
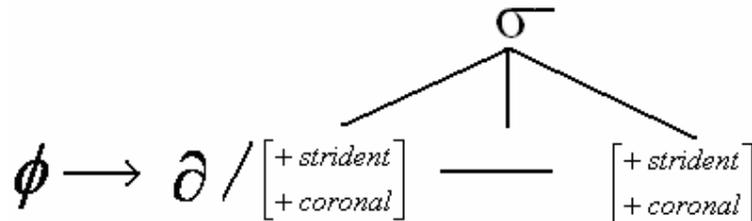
- The /z/ is added to stems that end in a vowel or a voiced consonant that is not both strident and coronal.

- The /s/ is added to stems that end in a voiceless consonant that is not both strident and coronal.

- Arab learners make two types of errors in this subcategory: devoicing the /z/ allomorph and devoicing the / əz/ allomorph.

a. Devoicing the /z/ allomorph

The students under analysis pronounced the s in *labs* as s not as z, failing to recognize the phonologically-conditioned variation. This is again further evidence that such learners rely on the spelling of words because their knowledge in pronunciation is inadequate. The matter is phonologically conditioned by a native language rule .

b. Devoicing the /əz/ allomorph

Another subtype of error falling under this subcategory involves the replacement of the / əz/ by the voiceless form /s/ as in the pronunciation of *churches* which was pronounced as/ tʃɜːrtʃs /. It also involves syllable deletion. This error along with devoicing the /z/ allomorph involves phonetic indiscrimination and attests to lack of phonological awareness on the part of Arab EFL learners.

The same types of errors in the plural morphemes are attested in Timothy (2007) who concludes that the regular plural morphemes constitute a challenge for Nigerian learners. He further says:

> "*Yoruba speakers of English seem to be unable to distinguish between /z/*
>
> *and /s/ as both are pronounced /s/ in Yoruba English.*"

The same type of errors is also attested in Bayraktaroglu (2007) who came across errors such as the pronunciation of *cabs* as /kæbs/ instead of /kæbz/. Bayraktaroglu concludes that such errors are due to orthographic interference as learners tend to guess the pronunciation of words from the spelling of these words. He also concludes that such errors might impede intelligibility or understanding as they change the meaning of pronounced words.

4.5 Highly unpredictable spelling of words

In English, there are words that are bizarrely irregular or phonically undecodable. They are awkward, eccentric words in which pronunciation-spelling mappings are absolutely unpredictable. They can be learnt only by sight. Even highly-advanced readers can't guess their pronunciation.

In the data under analysis, the three words (*colonel*, *ewe*, and *oasis*) were mispronounced by both teachers and students. The errors made can be seen in the table below.

Table 7. Errors in words with highly-unpredictable spelling

No.	word	Wrong pronunciation/s	Correct pronunciation
1.	<u>ewe</u>	/iːwi/	/juː/
2.	<u>colonel</u>	/kɒlənəl/	/kɜːrnl/
3.	<u>oasis</u>	/ɔsɪs/	/əʊeɪsɪs/

As we see the students and teachers relied on the spelling of the three words to pronounce them. This reliance on spelling tempted them to pronounce the words wrongly. This again attests to the likely unpredictable orthography of English and reveals Arab EFL learners' tendency to depend on spelling in decoding English words.

This is again further evidence that proves Arab learners' tendency to carry over their mother tongue consistent and regular grapheme-phoneme mappings to the learning of a second language.

In numerical perspective, 77 errors(constituting 96%) were made by students, and 23 errors (constituting 57.5%) were made by teachers. These figures again prove that teachers are also misguided by English spelling in decoding words.

4.6 Syllabic nasals and liquids

Ordinarily every syllable contains a vowel as its nucleus. However, "a syllable sometimes contains a sonorant nasal or liquid instead of a vowel."[1] (Rogers, 2000, p.59). In words like little, sudden, and didn't there are only consonant sounds in the coda. The final syllables in these words are syllabic as they make up syllables with the accompaniment of vowels. Knowles (1987) says that when a schwa is followed by a lateral approximant *l* [2] or a rhotic approximant *r*[3] or a nasal *m,n,* it tends to combine with it to form a syllabic consonant. He further says: "Syllabic consonants occur when a syllable ends in t,d or n and the next syllable is unstressed and contains an l, m , n or r." (p.120). Since this rule isn't totally sufficient, I think we can better rephrase it as:

Syllabic consonants occur when a syllable ends in the stops b, d, g, t, k,m, n and

fricatives, and the next syllable is unstressed and contains l, m, n, r.

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[1] Liquids and nasals are more sonorous than other consonants They're close to vowels in weight. [O'Grady , 2005 , 30] They have a high rate of sonority that they function as syllabic nuclei .

[2] The lateral approximant has two allophones : clear [L] which occurs before vowels and dark [l] in the coda . In a syllabic consonant , the l is always dark .

[3] Accents which preserve r after vowels are called rhotic ; those that don't preserve r are called non. rhotic .

The question that should be raised is: when articulating the syllabic consonant, can it be pronounced with a vowel. Rogers (2000) says: "Words which have syllabic consonants can alternatively be pronounced with a vowel." (p.59). However, a pronunciation without a vowel is more common. This is attested in the pronunciation of native speakers. Also, the pronunciation with a vowel may sound stilted and artificial, as Rogers (2000) believes.[1]

Arab EFL learners tend to insert an intrusive vowel in the pronunciation of syllabic consonants. This is due to the fact that they are misguided by the spelling of words that contain syllabic consonants. Words like *sudden*, *peaceful* and *bottom* contain vowels before the syllabics. Despite this, unlike Khalil (2000) and Kharma and Hajjaj (1989), I don't tend to consider the insertion of the intervening vowel-the schwa- in words like little and sudden an error, simply because English phonologists and phoneticians believe that such pronunciations with the schwa sound in the syllabic is stilt only, not erroneous. However, I think that the pronunciation of pistol as /pɪstɒl/ isn't acceptable. The following table illustrates the errors made in this category.

Table 8. Errors in syllabic nasals and liquids.

No.	word	Wrong pronunciation/s	Correct pronunciation
1.	pist<u>ol</u>	/*p*ɪstɒl/	/pɪstl/
2.	bott<u>om</u>	/bɒtɒm/	/bɒtm/

In the data under analysis, the three words given to the students and teachers (pistol, hidden and bottom) were invariably pronounced with the intervening vowel.

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[1] Gimson(1980) also reasons that in words like sudden and little the articulation of d, t must be clearly alveolar, and when followed by the homorganic syllabics n and l, the release must be either nasal or lateral without an intrusive vowel.

However, in the words *pistol* and *bottom*, the O was pronounced as in *job*/ dɔab / in the British accent, thus replacing the schwa by the low back vowel o. This is further evidence that Arab EFL learners, and perhaps teachers, are misled by the spelling of words. It is a vivid example showing that Arab EFL learners transfer some features of their mother tongue to the learning of a second language.

In a numerical perspective, 20 errors (constituting 50%) were made by students, and 10 errors (constituting 50%) were made by teachers. We can see that this category was equally problematic for both teachers and students.

4.7 Failure to recognize the schwa sound

The schwa is a mid-central unrounded vowel[1]. It is a reduced vowel that is commonly restricted to unstressed syllables. It is the most common vowel in the whole sound inventory and the most troublesome vowel that poses an insoluble problem as it can visually be represented by any vowel letter or even vowel letter combinations[2].

The schwa has a vital importance in a common articulatory process- schwa deletion or elision. In English, "a schwa is often deleted-in rapid speech- when the next vowel in the word is stressed." (O'Grady et al, 2005, p.46).

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[1] Flemming & Johnson (2007) found that there were significant phonetic differences between the schwa in word-final position as in China and the schwa in other positions, as in suppose and probable.

[2] The following examples show how the schwa is orthographically represented by a diversity of vowel letters and vowel letter combinations like
- **a** in ago, American.
- **e** in receive, paper, open.
- **o** in forget, melody, anchor.
- **u** in suggest, succeed, supply, suppose.
- **ou** in colour, favourite.
- **y** in martyr.

The schwa poses a real problem for Arab EFL learners and teachers as well. It's problematic because it can substitute for several vowels. In other words, it can function as an allophone of other vowel sounds when they are unstressed, according to Roach (2001)." This problem is compounded by the absence of any similar vowel in Arabic." (Kharma and Hajjaj, 1989, p.15.) Because the schwa is graphically invisible, students, deceived by the spelling of words, ignore the fact that some vowels are reduced to a schwa in an unstressed syllable.

In the data under analysis, both teachers and students pronounced the schwa wrongly. The errors can be seen in the following table.

Table 9. Errors in the schwa sound

No.	word	Wrong pronunciation/s	Correct pronunciation
1.	mel<u>o</u>dy	/mɪlɒdiː/	/melədi/
2.	f<u>o</u>rget	/foːrget/	/fərget/

The two mispronunciations provide a vivid example that Arab EFL learners and teachers are misled by the spelling of words. This tempts them to pronounce words depending on the visual representation of these words.

In numerical terms, 40 errors (constituting 100%) were made by students, and 20 errors (constituting 100%) were made by teachers. We can now realize how the schwa is problematic for both teachers and students, who are both deceived by the visual representation of sounds.

Though errors in producing the schwa sound hardly ever deters understanding or impedes intelligibility, they are resident or fossilized errors that always surface in the speech of Arabic speakers. In this respect, they are worth mentioning and discussing.

General comment on the errors

It's clear now after the previous discussion of the errors and their causes that the problem Arab EFL learners encounter with English pronunciation doesn't only involve inability to articulate or produce English sounds. It's a conceptual problem with discriminating between two completely different phonological systems. In light of this fact, the errors found are substantial. The simplest account of this result is that such learners relied continually on the direct visual access route, to use the term adopted by Suarez and Meara(1989). This reliance on such a route made them produce a letter-by-letter pronunciation. Therefore, the subjects performed not extremely badly, but certainly worse than we would expect.

The interview

Nine teachers were interviewed. The interview consisted of personal information- years of experience, degree or qualifications, levels taught and class size taught- and questions to elicit the teachers' professional views regarding teaching pronunciation. The personal information is represented in tabular form below.

Table 3. Teachers' personal information

Number	Years of experience	Levels taught	Class size taught	Degree or qualification
1.	12	10th, 11th, 12th grades	30	BA.
2.	17	7th, 8th, 9th grades	40	Diploma
3.	11	8th, 9th, 11th grades	30-40	BA.
4.	12	1st-5th grades	25-38	Diploma
5.	10	4th, 6th, 7th grades	35-40	Diploma
6.	15	11th, 12th grades	35-40	BA.
7.	17	10th, 11th grades	25-30	Diploma

8.	19	10th-12th grades	25-33	BA.
9.	7	11th, 12th	17	BA.
Average	**13.3**		**31.7**	

As the table shows, all the interviewees are experienced teachers, whose teaching experience ranges from 7 to 19 years. This means that they used the Jordanian textbooks, which were based on the Grammar-translation method, and use the Palestinian curricula which are communicatively-based. As for the levels taught, 5 of the interviewed teachers teach secondary levels; 3 teachers teach basic levels; the other one teaches a mixture of the levels. As for the class size taught, most teachers teach overcrowded classes (35-40). The others are more fortunate as they teach smaller size classes. As for the degrees obtained, 5 teachers are BA holders; the other 4 are diploma holders.

These teachers were asked 8 questions about their views towards pronunciation and degree of application. When asked the following question **(Did you receive pre-service or in-service training on pronunciation? If yes, how much? Do you think that was sufficient enough to qualify you to pronounce well?)** All the teachers confirmed that they had received no or little pre-service or in-service training on pronunciation. Four of them took one course in phonetics. As for the courses the Ministry of Education holds for teachers, those teachers said that during their wide experience, two courses in pronunciation were held, one focusing on places of articulation and manner of articulation, and the other was about stress and intonation. These courses were given by their colleagues. For them, these courses were insufficient to qualify them to pronounce well. These teachers were even dissatisfied about the quality of materials used and the proficiency of teachers who

lectured them. They also said that the courses normally held by the ministry focus mostly on TEFL and class management.

When asked the following question **(Do you believe our students have a problem with pronunciation? If yes, what are the potential reasons?)** the interviewed teachers confirmed the invincible challenge associated with pronunciation. When asked about the potential reasons for this evident weakness in pronunciation, these teachers outlined the reasons as follows:

1. English teachers deemphasize or focus slightly on pronunciation.

2. Arab students are indifferent or careless about this language component, simply because they are not tested on it. So, why should they care about something that isn't part of their overall grade?

3. The English phonological system is complex.

4. English teachers also contribute to this problem because their pronunciation is generally faulty or inappropriate or inadequate. Students tend to imitate their teachers and produce the same errors produced by their teachers.

5. The issue of transfer is decisive in triggering errors in pronunciation. Arab students rely on Arabic when pronouncing English words.

When asked the question **(What difficulties do you encounter in teaching pronunciation?)** eight of them said that pronunciation was given the least emphasis. Five said that they totally ignored the teaching of pronunciation. When tracing the difficulties associated with teaching pronunciation, the teachers mentioned the following:

1. The large number of students in each class is a deterring factor for the success of pronunciation lessons.

2. Lack of facilities or equipment is also a barrier that can't be overcome.

3. There is an extremely imposed curriculum that needs to be completed as there are always common exams which need thorough coverage. So the challenge for teachers lies in, according to Fraser (2001) finding ways to use this material as a springboard to allow learners to acquire some pronunciation skills.

Central to the issue of the imposed curriculum is the issue of time constrains. English teachers lack the time to cover everything in the curriculum. Therefore, they prioritize the points that figure prominently in the exam.

4. Some students come into class with fossilized errors that can't easily be eradicated. According to some teachers, these errors may be due to teachers' faulty pronunciation which students imitate or due to the complexity of the English system.

5. The school environment is not supportive. Because of the noise around school, it is next to impossible to teach pronunciation which requires full attention and absence of distraction or disruption in order to guarantee the success of the pronunciation lesson.

In sum, English teachers avoid teaching pronunciation because they are not sure how to teach it; they do not have the materials and facilities to teach it; and it seems too difficult for them to handle as they lack training.

When asked the question **(How much responsibility do teachers and students shoulder? What solutions do you suggest to overcome students' weaknesses in pronunciation? In what ways do you encourage your students to improve their pronunciation?),** all the interviewed teachers placed most responsibility on students whom they tagged as careless and indifferent. They also believed that teachers shouldered some responsibility as they did not focus much on pronunciation and produced faulty pronunciation in some cases. When asked about the solutions they envision to overcome or even ameliorate the weakness in pronunciation, they suggested the following:

1. Minimizing the number of students in each class.

2. Providing all the necessary equipment needed for teaching pronunciation- CDs, dictionaries, labs and so on.

3. Training teachers on how to pronounce well and how to teach pronunciation effectively.

4. Allowing teachers not to stick to the curriculum so that they can devise activities to make up for the lack in pronunciation activities.

When asked what these teachers did to encourage their students to improve their pronunciation abilities, those teachers talked about using audiovisual aids. They also said that they encouraged their students to practice their English, to communicate in English.

When asked the question **(What is the model in pronunciation for you and for your students?)** , they said that students' model in pronunciation was generally their teachers even if their teachers' pronunciation was inaccurate. As for teachers' model in pronunciation, those teachers said that native speakers were their models. Four said that their model was their colleagues.

When asked the question **(What facilities do you use or consult to make sure of the pronunciation of a certain word?)**, they said that they used the dictionary.

When asked the question **(How far do the English curricula you teach have exercises or activities that focus on pronunciation?)** , various contrasting opinions were given, and these opinions may be outlined as follows:

1. Some teachers thought that the English curricula used in Palestinian schools do not focus on pronunciation.

2. Other teachers thought that the curricula are lacking in activities that are intended to upgrade pronunciation skills. This means that there are some activities, but they are not sufficient.

3. Others assured that the Palestinian curricula are full of exercises on pronunciation, which need to be increased.

As a matter of faith, it is unfair to say that the Palestinian curricula don't have exercises on pronunciation. If we do an in-depth analysis and a thorough investigation of the curricula, we will find that there is a considerable amount of activities, but these activities and exercises are normally ignored, simply because students are not tested on them.

When asked the question (**How far does the Ministry of Education give guidelines on how to tackle this language component?**), the teachers also gave contrasting answers. Five of them said that there were no guidelines whatsoever given by the ministry. Two others said that there were some general guidelines in the teacher's book. Two said that there were some guidelines which were not clear-cut.

In fact, there are some general procedures at the beginning of teachers' book. These procedures are in the form of guidelines for teachers to follow when coming across a pronunciation exercise. However, some teachers tend to gloss over these guidelines.

In a nutshell, it seems that there is consensus among teachers that English pronunciation is a problematic area for Arab EFL learners and teachers as well. Despite this fact, it is neglected by teachers who are rarely provided with clear instructions on how to deal with this important language component.

An overview of the Palestinian curricula reveals that, contrary to what some teachers claim, such curricula do include pronunciation material for students. Each

unit of the student's book includes specific pronunciation tasks that include listening, repeating and drilling. Follow-up activities to reinforce the items taught are also included to provide practice and activate the information received. However, since this language component is not graded, both teachers and students tend to ignore it.

In conclusion, as the test and the interview reveal that pronunciation is problematic for both teachers and students. The large number of errors made by the teachers tested prove that English pronunciation is also beyond the grips of teachers who, too, suffer from difficulties in pronunciation. It is also evident that the weakness in pronunciation is ascribed to several factors, principally the complexity of the connection between letters and sounds.

Chapter Five: Conclusion and Pedagogical implications

Some people think that the problem with pronunciation lies only in the ability of learners to articulate English sounds or perceive them appropriately. However, we should deal with this belief with some grain of salt. This is a minor problem because in the final analysis poor pronunciation resulting from articulatory causes is reasonably intelligible. According to Fraser (2001), the majority of pronunciation problems by far stem not from articulatory causes, but from cognitive causes.

Learners do not internalize the sounds appropriately and do not discriminate phonological systems. This has been proven in this study. The learners in our case seem to have had recourse to spelling to guess the pronunciation of words. This problem of falling back on the spelling of words is closely related to conceptual processes. Learners depend on the internalized rules and concepts that have lingered in their minds in the pronunciation of English sounds. In light of this fact, learners," in the absence of a good model, will perceive, produce and internalize the sounds of the target language based on the native language sounds." (Schutz, 2008). For this reason, if deemphasized at the very beginning, good pronunciation will hardly be acquired, and errors will fossilize despite any effort sought or any teaching methodology, no matter how effective it is. Therefore, it's my contention that it's best to bend when it is a twig.

Seeing is believing is a frequently quoted saying in English. However, in pronunciation, this saying doesn't work. So, it is imperative to replace it with hearing is believing. In the data under analysis, it is evident that Arab EFL learners and even teachers overrelied on the visual representation of graphemes. They used the unreliable orthographic system to decode English words. This is tangible evidence that spelling interference in pronunciation is very intrusive and disruptive. So, the

students ended up in producing distorted sounds or words that could impede intelligibility.

In the current study it has been proven that inconsistency between graphemes and phonemes trigger errors in pronunciation and on other hand, consistency facilitates pronunciation. However, this is not a surprising finding. So, why should we tackle something whose result is predetermined? Through this study, the researcher wanted to raise awareness of a serious problem- the problem with pronunciation.

Pronunciation, which is the least emphasized language component, is a chimera for both teachers and students. It represents an irremediable ailment and the most serious problem in the whole language teaching. It is an inherently transmitted problem that learners do not generally care about and that teachers normally deemphasize or neglect. Most focus is laid on other components like grammar and lexis.

It has also been proven that English teachers contribute to the aggravation of pronunciation problems. This is due to the fact that these teachers make grave errors in pronunciation which pass over to their learners. The teachers under analysis, who are supposed to have some phonological awareness, also relied on the spelling of words. Some of the errors they made don't markedly differ from the errors the students made. We saw that silent letters, words with highly-unpredictable spellings, the schwa, letters with variant phonetic realizations and syllabic nasals and liquids all posed a challenge not only for students, but also for teachers.

There is a point that is not touched upon in the literature and that contributes to the aggravation of pronunciation problems. In addition to the complexity of the English spelling system, the transfer problem and transfer of training, some teaching strategies also play a decisive role in the weakness in pronunciation. When teaching

reading comprehension, English teachers employ silent reading and avoid reading aloud. Even English supervisors ask teachers to avoid reading aloud. In light of this fact, good pronunciation is not acquired, and errors keep emerging.

In light of all that has been mentioned about the inherent weakness in pronunciation, we all, as teachers, should reassess our teaching methodologies and restructure our priorities in teaching, so that we can guarantee a better proficiency in pronunciation. Of course, we are not seeking perfect native-like pronunciation, but at least comfortably-intelligible pronunciation. There are some pedagogical implications and recommendations which might help to improve the low-proficiency in pronunciation. Before discussing these implications, there are some tenets on which we should base our teaching of pronunciation. These tenets and principles are adopted from Fraser (2001).

1. Teaching pronunciation works better if the focus is laid on larger chunks of speech, such as words , tone groups and tonic syllables. This doesn't mean neglecting individual sounds and patterns.

2. Pronunciation lessons work best if they involve the students in actually speaking rather than just learning facts or rules of pronunciation. In this respect, rules can be taught but the focus should not be laid on learning what but on learning how. This principle is in line with Gilbert (2008) who says that such a thing needs effortful work on the part of teachers to keep classes enthusiastic.

3. Learning pronunciation requires an enormous amount of practice, especially at early stages.

In light of the above principles, some steps should be taken and some ideas should be taken into account. The researcher is not going to give a one-size-fits all solution, but one that is flexible to allow adaptation.

1. First and foremost, there is need for a good pronunciation teacher with much specialized training and phonetic background. This seems a pedagogical heresy or a tautology, but such a teacher can help students realize that pronunciation is something worth focusing on.

2. Students should be cautioned against taking English spelling as a guide to English pronunciation. This caution can be coupled by teaching examples that reveal the discrepancy between spelling and pronunciation. It also involves asking students to unlearn the concepts they have internalized. These concepts allow these learners to have recourse to their mother tongue system.

3. Teachers should be given more courses to enhance teacher expertise in teaching pronunciation. Such courses can upgrade teachers' skills in pronunciation and raising confidence as to how to teach pronunciation. It is known that lack of confidence, stemming from lack of training and phonetic background, is a major prod in teaching pronunciation.

4. Pronunciation should be taught integratively with other skills.

5. Facilities and equipment necessary for teaching pronunciation should be provided. This involves providing self-access to listening tapes, other multi-modal audiovisual aids and software programs and electronic dictionaries. Such aids can be used for individual work, whole class work and group or pair work. Although they require training and effortful work on the part of teachers, they can potentially motivate students and raise their awareness and confidence of authentic spoken English. CAP (computer-aided pronunciation) can be particularly helpful, which according to Pennington (1999), has many advantages in relation to language teaching. In this respect, Cauldwell (2002) , as reported in Kypriano (2008), says that CAP can be beneficial to second language learning as it provides a private, stress-free environment

in which students can access virtually unlimited input, practice at their own pace and receive individualist instantaneous feedback. The use of CD_ROMs is also vitally important as it "promotes learner autonomy in the acquisition of pronunciation." (Jenkins, 2004, p.119). This is closely related to the importance of integrating the findings of readily available corpora. Such corpora can be incorporated into teaching pronunciation in which emphasis is laid on genuine English and on task-based teaching. Learners can empower their pronunciation by being exposed to interpersonal input, which exemplifies English sounds, in a relaxing atmosphere in which such learners can learn interaction and expressivity.

6. Students should be given ample opportunities for practice of their pronunciation skills. This is coupled by the need for" reading aloud and recitation." (Celce-Murcia et al, 2007). This substantial practice requires scheduling classes and devoting more time for activities geared for the improvement of pronunciation. This practice, according to Fraser (2001) should be implemented with chorally-supported repetition.

7. It would be desirable to use task force periods for pronunciation. This means that teaching pronunciation must form a component of language activity.

8. There should be intensive contact with good pronunciation models.

9. There is a need for critical listening which involves learners listening to other learners' pronunciation to judge whether it is acceptable or not. This pedagogical implication is adopted from Fraser (2001).

10. Students should be given phonic training which involves the connection between sounds and letters.

11. It is arguably advisable to use the phonetic symbols, which according to Schutz (2008) can be particularly helpful to neutralize negative spelling interference.

12. Tricky words should persistently and directly be taught, especially to struggling students. This is, according to Bell (2008), what advocates of synthetic phonics recommend, calling it ' teaching the extended alphabet code', which they deem to consist of about 150 graphemes.

Finally, it is necessary to conduct more studies in this area so as to identify more substantial information.

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Appendices

Appendix 1: the pronunciation test
I Read the following words

1.stop, green, strong

2.now, bow, mow

3.city, succeed, ginger, anger, loath, loathe, chariot, chaos, sure, leisure,

ancient

4.mild, grind, gull, bullet, cook, blood, woolen, floor

5.pistol, bottom, hidden

6.move, gnaw, exhausted, debt, crumb, fasten

7.allow, affect, correct

8.melody, forget

9.labs,churches

10.laughed, asked

11. thorough, ewe, colonel, oasis

II Read the following sentences

1. The policeman asked me to *stop.*

2. She wants me to *mow* the grass now.

3. The city has many *ancient* buildings.

4. Are you *sure* that you know how to spend your *leisure* time wisely?

5. You must *fasten* your safety belt.

6. They didn't *allow* me to go out.

7. There were a *pistol* and some *bullets* on the *floor.*

8. Don't *forget* to pay back the *debt* by Monday.

9. There is a *hidden treasure* in the cellar.

10. When I *asked* **the teacher a question, he** *laughed.*

11. Our school has two *labs.*

12. The city has three *churches.*

13. The *colonel* **raised three** *ewes* **in the** *oasis.*

Appendix 2: The interview

I personal questions

1. Years of experience:

2. Levels you teach:

3. Class size taught:

4. Degree or qualifications:

II views towards pronunciation and degree of application

1. Did you receive pre-service or in-service training on pronunciation? If yes, how much? Do you think that was sufficient enough to qualify you to pronounce well?

2. Do you believe our students have a problem with pronunciation? If yes, what are the potential reasons?

3. What difficulties do you encounter in teaching pronunciation?

4. How much responsibility do teachers and students shoulder? What solutions do you suggest to overcome students' weaknesses in pronunciation? In what way do you encourage your students to improve their pronunciation?

5. What is the model in pronunciation for you and for your students?

6. What facilities do you use or consult to make sure of the pronunciation of a certain word?

7. How far do the English curricula you teach have exercises or activities that focus on pronunciation?

8. How far does the Ministry of Education give guidelines on how to tackle this language component?

ملخص الدراسة

تهدف هذه الدراسة إلى معرفة مدى تأثير نظام الكتابة في اللغة الانجليزية على لفظ الطلبة العرب للغة الانجليزية.
بسبب التناقض بين الإملاء واللفظ في اللغة الانجليزية ، من المنطقي أن يخطأ الطلبة العرب في لفظ كلمات اللغة
الانجليزية ، هذا التناقض وعدم الانسجام بين النظام المكتوب والنظام المقروء في اللغة الانجليزية يتضاعف مع
ميل الطلبة العرب للجوء إلى نظام الكتابة العربية الشفاف في لفظ الكلمات الانجليزية . صعوبة نظام الإملاء في
اللغة الانجليزية وقضية التداخل بين اللغات في التسبب بأخطاء في اللفظ مرتبطة أيضا بنقص تدريب المعلمين
على اللفظ .

تعالج قضية اثر نظام الكتابة الانجليزي على اللفظ في هذه الدراسة من خلال تحليل مجموعة من الكلمات وجمل
تقرا في الصف من قبل عينة من الطلاب والمدرسين .

يمكن أن تسهم الدراسة في إلقاء الضوء على بعض معالم النظام الصوتي بين اللغات مع الإشارة إلى تأثير النظام
الصوتي الخاص باللغة الأم .