# أخطاء نطق الصوائت الإنكليزية الثنائية والثلاثية التي يرتكبها الطلاب السوريون

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**الملخص**

تؤدي اللغة الأم دورا" هاما" في طريقة نطق اللغة الثانية. وكلما ازدادت الفروق الصوتية بين لغة المتعلّمين الأم ولغتهم الثانية، ازدادت الصعوبات التي سيواجهونها في نطق تلك الأخيرة. لذلك يميل المتعلمون إلى تطبيق القواعد الصوتية للغتهم الأم عند التحدث باللغة الثانية. تقارن هذه الدراسة بين صوائت كل من اللغتين العربية والإنكليزية، حيث تهدف لزيادة وعي متعلمي اللغة الإنكليزية السوريين للتشابه والاختلاف بين هاتين المنظومتين الصوتيتين، وإلى تسليط الضوء على الأخطاء التي من الممكن أن يرتكبوها. استهدفت هذه الدراسة طلاب قسم اللغة الإنكليزية في جامعة البعث، حيث خضعوا لاختبار للنطق لاستنباط الأخطاء التي يرتكبونها عند نطق الصوائت الإنكليزية الثنائية والثلاثية. كشفت نتائج الاختبار أن طلاب اللغة الإنكليزية السوريين يجدون تلك الصوائت صعبة النطق، لأن لغتهم الأم تحوي اثنين فقط من الصوائت الثنائية، ولا تحوي أي صائت ثلاثي. لذا، وفقا" لنتائج هذه الدراسة، يميل متعلّمو اللغة الإنكليزية السوريون على نحو خاطئ إلى استبدال الصوائت الثنائية بصوائت أحادية طويلة، كما يقومون بتقسيم الصوائت الثلاثية إلى جزئين منفصلين لتسهيل نطقها. لذا تؤكّد نتائج هذه الدراسة أهمية تشجيع مدرّسي اللغة الإنكليزية على مساعدة متعلميّ اللغة الإنكليزية في سورية في إدراك الاختلافات الصوتية بين لغتهم العربية الأم واللغة الإنكليزية، وعلى التركيز على تمارين النطق في الصف لكي يتغلّبوا على تلك الصعوبات.

**كلمات مفتاحية:** اللغة العربية، اللغة الإنكليزية، أثر اللغة الأم، الصوائت الثنائية، الصوائت الثلاثية .

# Pronunciation Errors of English Diphthongs and Triphthongs Made by Syrian Students of English

**Zeina Al-Haddad**

**Abstract**

L1 plays an important role in the speech production of L2. The more phonological differences between learners' L1 and L2, the more difficulties learners will have in L2 pronunciation. Learners tend to rely on their L1 and apply the rules they are familiar with when speaking L2. This study compares the vowel sound systems of Modern Standard Arabic and British English. It aims to increase the awareness of Syrian learners of English of the similarities and differences between the vowel sound systems of both languages. Also, it sheds light on possible errors learners may make. This study targeted students of English major at Al-Baath University, using a pronunciation test to elicit their errors when pronouncing English diphthongs and triphthongs. The test results revealed that Syrian learners of English find diphthongs and triphthongs difficult to pronounce, as Arabic has only two diphthongs, and no triphthongs at all. According to results, Syrian learners of English tend to erroneously replace diphthongs with long vowels and divide triphthongs into two separate parts in order to facilitate pronouncing them. Therefore, the results of the study assert the importance of encouraging teachers of English to help Syrian English learners realize the phonological differences between their L1 and English, and to focus on pronunciation tasks in classes in order to overcome those pronunciation difficulties.

**Keywords:** Arabic, English, interference, diphthongs, triphthongs

## 1. Introduction

A person's first language (L1), also called native language or mother tongue, is the first and main language which one learns naturally during childhood; "it refers to not only the language one learns from one's mother but also the speaker's dominant and home language**"** (Subandowo, 2017). It is a foundation on which a learner can build an understanding of the principles of a second language (L2) "which is the language acquired by a person after having acquired the basic system of L1" (Al-Saidat, 2010). L2 is usually used for a special purpose like education.

It is agreed that L2 learners depend on their L1 in the process of their second language acquisition (henceforth SLA). Thus, adult learners of a second language have already gained L1 communicative competence, which includes knowledge of appropriate language behaviour (Ellis & Ellis, 1994, as cited in Huthaily, 2003, p:13). Therefore, when learning a second language, they apply the rules of their first language. This leads to what is called interference which will be thoroughly explained in section 2.1.

Odlin (1989) asserts that language transfer affects all linguistic subsystems including pragmatics, semantics, syntax, morphology, phonology, phonetics, and orthography. Still, it matters much

more for some subsystems than for others, with phonetics and phonology usually the systems where widespread transfer is admittedly clear. Hence, the knowledge of L1 affects the acquisition of L2 especially in the field of phonology. Moreover, learners may face easiness or difficulty in learning the phonological categories of L2 (Azzouz ,2013). That is, if two phonological categories of L1 and L2 share a high degree of similarity, learning the L2 phonological category would be easy for the learner, and the contrary was said to be true.

L2 learners expect to find the same phonological system of L1 in L2, so they start to use their L1 techniques in identifying or uttering L2 sounds. They transfer their L1 sound patterns into the second language, and this is likely to cause foreign accents which appear in the mispronunciations of words by non-native speakers (Al-Saidat ,2010; Al-Shoufi, 2014; Azzouz ,2013; Chouchane, 2016). Nevertheless, most learners wish to succeed in learning a second language without having those foreign accents.

### 1.1 Statement of the problem

Learners' correct pronunciation of a second language is very important to achieve a confident grasp of the spoken SL and is essential for intelligible communication. However**,** when learning L2, learners encounter both similar and different sound patterns

from their L1. Therefore, they may mispronounce the different sounds as there is no comparable sound in the phonemic system of their L1, and this results in mispronunciation and foreign accents.

As the English language has far more vowels than Modern Standard Arabic does, it is expected that some English vowels, especially diphthongs and triphthongs, would raise difficulties in pronunciation for Arab learners.

Therefore, being aware of such differences between Modern Standard Arabic and English sound systems helps learners to realise the potential pronunciation errors made by Arabic learners of English. Also, it forms the first step towards avoiding them to become a more competent English learner by practice.

### 1.2 Significance of the study

This study tackles the pronunciation errors made by Syrian learners of English. It aims at helping Syrian learners and teachers of English have a more profound knowledge of the sound system of the English language and how it differs from that of the Arabic language. It includes a comprehensive detailed description of all Arabic and English vowels. This knowledge helps learners form a better understanding of potential errors and show them how to avoid them.

Moreover, the findings of this study will optimistically urge English teachers to focus more on learners' pronunciation skills by drawing learners' attention to areas of difference between the two languages and encouraging them to practice the new sounds in order to enhance their self-confidence to speak and communicate more proficiently and intelligibly in English.

### 1.3 Objectives of the study

In order to help Syrian learners of English achieve a more proficient production of English vowels, this study aims at:

1. Investigating the pronunciation errors made by advanced Syrian learners of English in producing English diphthongs and triphthongs.
2. Pinpointing how interference of Modern Standard Arabic is a main cause lying behind the difficulties in pronouncing English diphthongs and triphthongs by Syrian Arab learners.
3. Presenting a contrastive analysis of Modern Standard Arabic and British English vowel systems.
4. Finally, providing appropriate solutions for both learners and teachers of English for overcoming pronunciation difficulties caused by L1 interference.

### 1.4 Research hypothesis

A main obstacle in the way of pronouncing an L2 intelligibly and flawlessly is L1 interference. As far as errors made by Syrian ESL learners are concerned, this research hypothesizes the following:

1. The differences between the vowel sound systems of Modern Standard Arabic and English are a main source of the pronunciation errors made by Syrian learners of English; therefore, a contrastive analysis of these two languages will be done in this study to confirm this hypothesis.
2. As the English curricula and teaching methods in Syrian schools do not focus on communicative effectiveness, Syrian students can be recognized by a foreign accent when speaking English.
3. Studying the sound system of an L2, and realizing the new sounds and phonotactics of that language, along with listening to and practicing it, all lead to better achievement in L2 correct pronunciation.

### 1.5 Research questions

This study attempts to address the following questions:

1. What are the differences between the sound system of MSA and the sound system of English regarding vowels?
2. In what ways does Syrians' L1, Modern Standard Arabic, interfere in the pronunciation of English diphthongs and triphthongs?

3. What are the vowels that are more difficult than others for Syrian students of English?
4. What are some useful solutions for overcoming Arab learners' difficulties in English pronunciation?

## 2. Literature Review

### 2.1 Linguistic Interference

According to Flege and Port (1981), a speaker might mispronounce a sound in L2 "because no comparable sound exists in the phonemic inventory of his native language". Avery and Ehrlich (1992) also clarified that L2 learners depend on their LI in the process of their SLA, and that the sound system of L1 may influence the learners' pronunciation of L2 in many ways. For example, when there is a sound in L2 which doesn't exist in the learners' L1 sound inventory, they may not be capable of producing or even perceiving that sound. Researchers interested in cross-linguistic influence have several phrases to choose from in referring to these phenomena, including the following: linguistic interference, language transfer, the role of the mother tongue, and native language influence (Odlin, 1989). In this research, language transfer and linguistic interference will be used. Transfer was defined by Odlin (1989, p.27) as "the influence resulting from similarities and differences between the target language and any

other language that has been previously (and perhaps imperfectly) acquired". Interference, also called negative transfer, refers to "the use of a negative language pattern or rule which leads to an error or inappropriate form" in the L2 (Richards et al, 1992, p.205, as cited in Azzouz, 2013).

Researchers view transfer as having two forms, positive and negative. Positive transfer is when there is a similarity between L1 and L2, which leads to correct language behaviour and assists the acquisition process. Negative transfer, or interference, is when there is dissimilarity between L1 and L2 which leads to acting incorrectly. Although linguistic interference is a major factor in accounting for learners' errors, and the mistakes made in SLA are explained mainly as a kind of interference of L1, language transfer is not easy to detect. It is not always clear whether there is positive or negative transfer. Therefore, it is suggested that it is not sufficient to concentrate only on the production of errors because many manifestations of transfer will be missed. For example, one of the important manifestations of language transfer that is not detectable in production is avoidance. In other words, learners may avoid using a certain linguistic structure in their L2 because it does not exist in their LI. That is, "language transfer might not surface as the production of errors, but as avoiding the use of the different structure altogether" (Huthaily, 2003). In

addition, L2 learners may be more comfortable with using particular forms, words, or sentences more than others which leads to avoidance or underproduction of some difficult structures.

In brief, one of the crucial factors influencing L2 learning process is interference, or negative transfer, that is the effect of one language on the learning of another. Therefore, as the result of such interference, errors may occur in a wide variety of ways especially in L2 pronunciation. Although some researchers argued that transfer had nothing to do with the errors made by L2 learners, currently it is widely accepted that language transfer is one of many factors responsible for the errors committed by L2 learners (Huthaily, 2003). In other words, errors could lead to predicting sources of difficulty. Therefore, making learners aware of cross-linguistic differences will help with certain difficulties in L2. That is, making links between L1 and L2 could be helpful to enrich the students' knowledge and awareness. Therefore, when discussing the influence of L1 on L2, it is necessary to refer to Contrastive Analysis Hypothesis which will be conducted in the next section.

## 2.2 Contrastive Analysis Hypothesis

Contrastive Analysis (henceforth CA), as defined by Crystal (2003, p.107), is "a general approach to the investigation of language. [...]

In a contrastive analysis of two languages, the points of structural difference are identified, and these are then studied as areas of potential difficulty (interference or 'negative transfer') in foreign-language learning". Contrastive analysis hypothesis (henceforth CAH) states that L2 elements that are similar to learner's L1 will be simple for him/her and those different elements will be difficult.

Linguists who believed in the effectiveness of CAH considered that areas of similarities between two languages would be facilitative and easy to acquire or learn for L2 learners; whereas, it was supposed that areas of differences would be problematic. Therefore, CA attempts to clarify differences between the systems of two languages, and encourage teachers and learners to pay attention to areas of possible difficulties which may lead to making errors.

This research tackles two important languages, Modern Standard Arabic (henceforth MSA) and British English (henceforth BE). The vowel sound systems of both MSA and BE will be detailed in the next section to clarify similarities and differences between them and mark out the source of potential errors in the speech of Arabic native speakers.

## 2.3 Vowel Sounds

Roach defines a vowel as a sound during the articulation of which "there is no obstruction to the flow of air as it passes from the larynx to the lips" (Roach, 2000, p.10). Furthermore, Cruttendon (2001) clarifies that "(t)his category of sounds is normally made with a voiced egressive airstream", and "the escape of the air is characteristically accomplished in an unimpeded way over the middle line of the tongue" (Cruttendon, 2001, p.33). That is, the lung-air escapes freely and continuously with neither blockage nor narrowing of the air passage.

Roach (2000) classifies vowels into three kinds: monophthongs, diphthongs, and triphthongs. Crystal (2003) defines monophthongs, also called pure vowels, as vowels during the articulation of which "there is no detectable change in quality during a syllable", and the tongue keeps its position, as in English 'mart' /mɑ:rt/. However, a diphthong is a sound formed by the combination of two vowels in a single syllable. It is of great importance to note that during the articulation of diphthongs, a single noticeable change in quality happens as the tongue starts out in the position for a pure vowel and then moves or glides towards the position for another pure vowel, as in English 'crowd' /kraʊd/. Roach clarifies that usually the first part of all diphthongs

is longer and stronger than the second part. Diphthongs can be divided into two groups, centring and closing diphthongs. Roach also explains, on the other hand, that triphthongs are made of the five closing diphthongs with schwa added to the end of them. A triphthong is defined as a vowel where there are two noticeable changes in quality as if it is a union of three vowel sounds that glide together rapidly and without interruption in one syllable, as in the English word 'fire' /faɪə(r)/.

To describe vowels, three main features are usually used in terms of tongue advancement, tongue height, and lip rounding (Ball & Rahilly, 1999; Fromkin & Rodman, 1998; Ladefoged, 1996). Thus, the first element is the part of the tongue that is raised towards the roof of the mouth which could be front, central or back. Huthaily (2003) explains that the front of the tongue is the part of the tongue that corresponds to the hard palate of the roof of the mouth, and the back of the tongue corresponds to the velum. Also, the center of the tongue is the part of the tongue that is between the front and the back of the tongue. The second element to be mentioned when describing vowels relates to the height of the tongue as it is raised in the direction of the roof of the mouth, which may be close (the tongue is closer to the roof of the mouth), half-close, half-open, or open (the jaw is completely open and the tongue is positioned as low as possible inside the

mouth). Finally, the third element to mention when describing vowels is the shape of the lips. Roach (2003) explains that when articulating a vowel, the lip-shape could be rounded (the corners of the lips are brought towards each other), spread (the corners of the lips move away from each other, as for a smile), or neutral.

The next sections clarify and describe English and Arabic vowel sound systems, to compare them and highlight possible L1 Arabic interference in L2 English vowel sound production.

### 2.3.1 Modern Standard Arabic Vowels

MSA has six monophthongs and two diphthongs (Al-Ani, 1970; Teifour, 2006; among others). Arabic monophthongs consist of three long vowels and three short counterparts. The three long vowels are /a:/, /u:/, and /i:/. Arabic long vowels are clearly represented in orthography by the letters ا /ʔalef/ for /a:/, و /wa:w/ for /u:/, and ي /ja:ʔ/ for /i:/. Examples are ماء /ma:ʔ/ 'water', توت /tu:t/ 'blueberry', and دين /di:n/ 'religion', respectively. On the other hand, the three short vowels are /a/, /u/, and /i/; they are called حَرَكات /ħaraka:t/ in Arabic. Each short vowel is usually represented in orthography by a diacritical mark above or under the consonant letter preceding the vowel. The short vowel /a/ is represented by فَتْحة /fatħa/, as in ذَهَب /ðahab/ 'gold'. The short vowel /u/ is represented by ضَمَّة /dˤamma/, as in

حُبّ /ħubb/ ‘love’. The short vowel /i/ is represented by كَسْرة /kasra/, as in مِن /min/ ‘from’. However, if a consonant is not followed by a vowel sound, the diacritical mark سُكُون /suku:n/ may be used, as in وَرْد /ward/ ‘roses’. Nevertheless, in MSA diacritical marks are not always included in writing because Arabic native speakers can easily interpret them from word context although this may sometimes cause ambiguity for Arabic foreign learners. Moreover, Arabic has two closing diphthongs, /aw/ and /ay/. Arabic diphthongs occur when the letters و /wa:w/ and ي /ya:ʔ/ are preceded by the short vowel /a/ ‘fatħa’ and not followed by a vowel, as in يَوْم /yawm/ ‘day’ and بَيْت /bayt/ ‘house’.

Arabic orthography is shallow and generally every letter represents only one sound. Still, it is of high importance to note that, according to Muhammed (2004), the letters ا /ʔalef/, و /wa:w/, and ي /ya:ʔ/ are pronounced as long vowels only if each one of them is preceded by its short vowel counterpart and is not followed by another vowel. In other words:

- The letter ا /ʔalef/ is pronounced as a long vowel /a:/ if it is preceded by its short vowel counterpart, ◌َ_ /fatħa/, and is not followed by a vowel, as in بَاب /ba:b/ ‘door’.
- The letter و /wa:w/ is pronounced as a long vowel /u:/ if it is preceded by its short vowel counterpart, ◌ُ_ /dˤamma/,

and is not followed by a vowel, as in نُوْر /nu:r/ ‘light’.

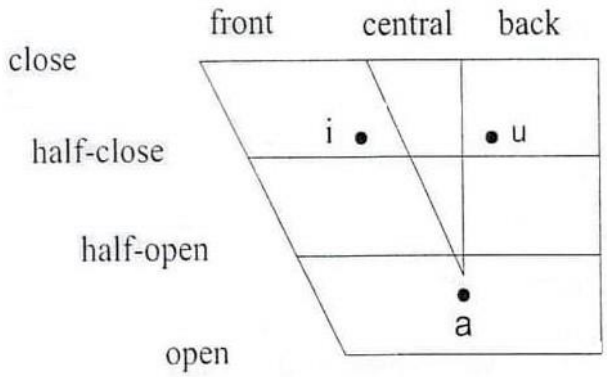
- The letter ي /ya:ʔ/ is pronounced as a long vowel /i:/ if it is preceded by its short vowel counterpart, ◌ِ /kasra/, and is not followed by a vowel, as in فِيْل /fi:l/ ‘elephant’.

As mentioned earlier, Arabic diphthongs occur when the letters و /wa:w/ and ي /ya:ʔ/ are preceded by the short vowel /a/ ‘fatħa’ and not followed by a vowel. Consequently, different sound structures would not always lead to the Arabic letters ا, و and ي being pronounced as long vowels. For example, in the word يَوْم /yawm/ ‘day’, the letter و /wa:w/ is preceded by ◌َ /fatħa/, so it is not pronounced as the long vowel /u:/. Rather, it is pronounced as the diphthong /aw/. Also, in the word يُوَافِق /yuwa:feq/, ‘agree’, the letter و /wa:w/ is followed by a vowel; therefore, it is pronounced as the semi-vowel /w/, not the long vowel /u:/. Furthermore, the word نِيَام /niya:m/, ‘sleeping’, has the letter ي /ya:ʔ/ followed by a vowel, so it is pronounced as the semi-vowel /y/, not the long vowel /i:/. Finally, in the word نَيْزَك /nayzak/, ‘meteor’, the letter ي /ya:ʔ/ is preceded by ◌َ /fatħa/ instead of its short vowel counterpart, ◌ِ/kasra/; therefore, it is pronounced as the semi-vowel /y/ making together the diphthong /ay/. Arabic short and long vowel sounds, their orthographic representation, along with examples are presented in table 1. Concerning Arabic vowel classification, it should be noted here that some linguists

(Al-Qadamaany, 1988; Muhammed, 2004) divide Arabic vowels only into open and close vowels based on the tongue height in the oral cavity. However, we follow in this study the classification of Al-Ani (1970) and Teifour **(**2006**)** presented in Figures 1 and 2 below which display Arabic long and short vowels.

| **MSA Vowels** | **Orthographic representation** | **Arabic name** | **Example** | **English meaning** |
|---|---|---|---|---|
| **Short vowels** | | | | |
| /a/ | ◌َ_ | فَتحة /fatħa/ | بَرّ /barr/ | land |
| /u/ | ◌ُ_ | ضَمَّة /dˤamma/ | بُرّ / burr/ | wheat seeds |
| /i/ | ◌ِ_ | كَسْرَة /kasra/ | بِرّ / birr/ | goodness |
| **Long vowels** | | | | |
| /a:/ | ا | أَلِف /ʔalef/ | بَارّ /ba:rr/ | righteous |
| /u:/ | و | واو /wa:w/ | بُوْر /bu:r/ | unplanted land |
| /i:/ | ي | يَاء /ya:ʔ/ | بِيْر /bi:r/ | a well |
| **Diphthongs** | | | | |
| /aw/ | ◌َوْ_ | _ | بَوْر /bawr/ | unfulfilled |
| /ay/ | ◌َيْ_ | _ | بَيت /bayt/ | a house |

Table 1: MSA vowel sounds



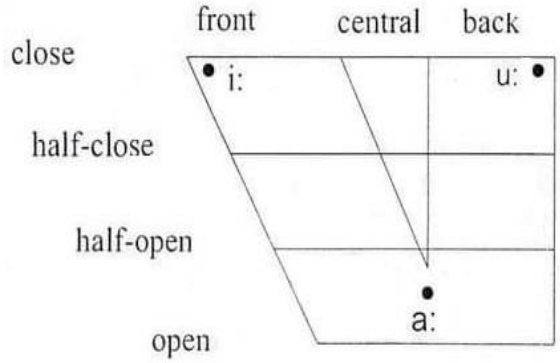




Figure 1: Standard Arabic short vowels Figure 2: Standard Arabic long vowels

(Adopted from Teifour, 2006)

Based on figures 1 and 2, MSA pure vowels can be described as follows in Table 2.

| MSA pure Vowels | Description | Example | English meaning |
|---|---|---|---|
| **Short vowels** | | | |
| /a/ | central, between half-open and open, neutral | حَجَر /ħaʒar/ | a stone |
| /u/ | back, half-close, rounded | حُجْرَة/ħuʒra/ | a room |
| /i/ | front, half-close, spread | حِجارة/ħiʒa:ra/ | stones |
| **Long Vowels** | | | |
| /a:/ | central, between half-open and open, neutral | حاجّ /ħa:ʒʒ/ | a pilgrim |
| /u:/ | back, close, rounded | ثُوْم /θu:m/ | garlic |
| /i:/ | front, close, spread | حِيْن /ħi:n/ | Time |

Table 2: Description of MSA pure vowels

### 2.3.2 British English Vowels

BE contains 12 pure vowels, 8 diphthongs, and 5 triphthongs (Roach, 2000). The pure vowels are divided into 7 short vowels which are /ɪ, e, æ, ɒ, ʊ, ə, ʌ/, and 5 long vowels, namely /i:, ɑ:, ɔ:, u:, ɜ:/. Figure 3 shows the classification of British English pure vowels.

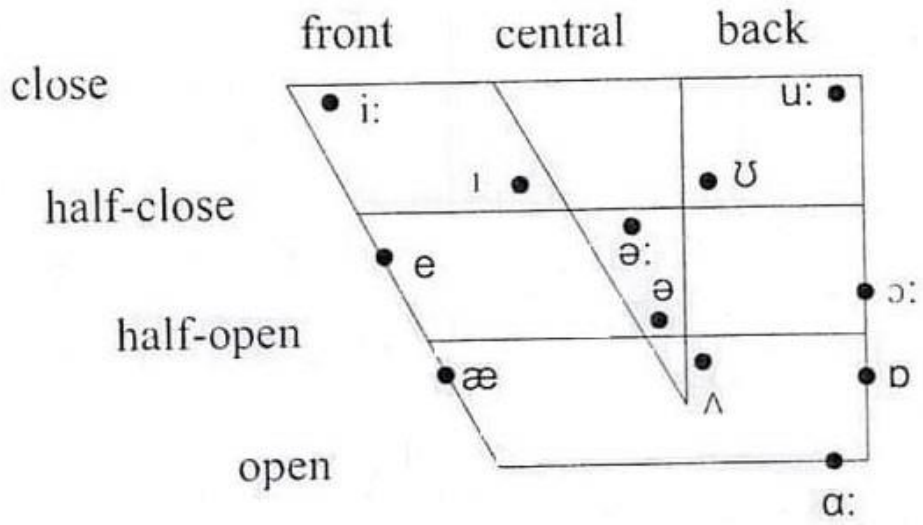



Figure 3: British English pure vowels (adopted from Teifour, 2006)

According to figure3, British English vowels can be described in tables 3 and 4 as follows:

| **BE short Vowels** | **Description** | **Examples** |
|---|---|---|
| /ɪ/ | front, half-close, spread | fish /fɪʃ / |
| /e/ | front, between half-close and half-open, spread | yes /jes/ |
| /æ/ | front, between half-open and open, spread | gas /gæs/ |
| /ɒ/ | back, between half-open and open, rounded | cross /krɒs/ |
| /ʊ/ | back, half-close, rounded | put /pʊt/ |
| /ə/ | central, between half-close and half-open, neutral | about/əbaʊt/ |
| /ʌ/ | central, between half-open and open, neutral | rush /rʌʃ/ |

Table 3: Description of British English short vowels

| BE long Vowels | Description | Examples |
|---|---|---|
| /iː/ | front, close, spread | see /siː/ |
| /ɑː/ | back, open, neutral | half /hɑːf/ |
| /ɔː/ | back, between half-close and half-open, rounded | horse /hɔːrs/ |
| /uː/ | back, close, rounded | soon /suːn/ |
| /ɜː/ | central, between half-close and half-open, neutral | purse /pɜːrs/ |

Table 4: Description of British English long vowels

The diphthongs of British English are eight:

- Three ending in the central short vowel /ə/ and called centring diphthongs, which are /ɪə/ as in 'near' /nɪə(r)/, /eə/ as in 'share' /ʃeə(r)/, /ʊə/ as in 'cure' /kjʊə(r)/
- And five ending in half-close vowels /ɪ/ or /ʊ/ and are called closing diphthongs, which are /eɪ/ as in 'ray' /reɪ/, /aɪ/ as in 'my' /mɑɪ/, /ɔɪ/ as in 'joy' /dʒɔɪ/, /əʊ/ as in 'go' /gəʊ/, and /aʊ/ as in 'down' /daʊn/.

It is worth noting that English diphthongs can occur in all word positions, except for /ʊə/ which cannot occur initially. Figure 4 presents English Diphthongs.

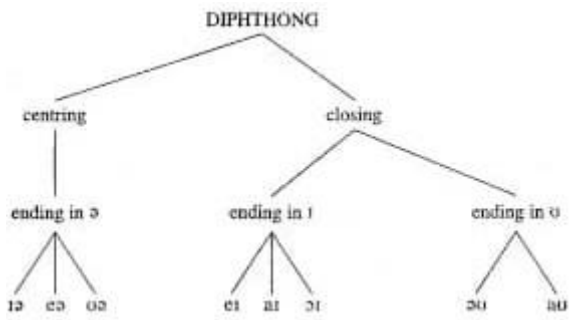



Figure 4: British English diphthongs (adopted from Roach, 2000)

As mentioned earlier, a triphthong is a glide from one vowel to another and then to a third one within the same syllable, quickly and without interruption. The five English triphthongs are /eɪə/ as in 'player' /pleɪə(r)/, /ɑɪə/ as in 'fire' /fɑɪə(r)/, /ɔɪə/ as in 'employer' /ɪmplɔɪə(r)/, /əʊə/ as in 'mower' /məʊə(r)/, /aʊə/ as in 'tower' /taʊə(r)/. Triphthongs can be seen as being composed of the closing diphthongs followed by a schwa /ə/ within the word, either as an undividable part of the word, as in 'choir' /kwɑɪə(r)/, or as a suffix added to the root, as in 'greyer' /greɪə(r)/ (Cruttenden, 2001). However, triphthongs are the most complex English vowel sounds; they can be difficult to pronounce or recognize (Roach, 2000). Therefore, there is a tendency in BE to omit the second vowel element of the triphthong when pronouncing it rapidly, calling this process as 'smoothing' (Cruttenden, 2001).

| British English Glides | | | |
|---|---|---|---|
| **Diphthongs** | | **Triphthongs** | |
| /ɪə/ | deer /dɪə(r)/ | /eɪə/ | mayor /meɪə(r)/ |
| /eə/ | pair /peə(r)/ | /ɑɪə/ | inspire/ɪnspɑɪə(r)/ |
| /ʊə/ | sure /ʃʊə(r)/ | /ɔɪə/ | lawyer /lɔɪə(r)/ |
| /eɪ/ | face /feɪs/ | /əʊə/ | slower/sləʊə(r)/ |
| /aɪ/ | light /lɑɪt/ | /aʊə/ | tower /taʊə(r)/ |
| /ɔɪ/ | toy /tɔɪ/ | | |
| /əʊ/ | most/məʊst/ | | |
| /aʊ/ | town /taʊn/ | | |

Table 5: British English glides

### 2.3.3 CA between Arabic and English Vowels:

After presenting Arabic and English vowel systems, it is time now to compare both Arabic and English vowels to find where they are similar, which facilitates L2 pronunciation, or different which may cause difficulties in pronunciation for Arab learners of English. To begin with, Arabic short vowels are relatively similar to their English counterparts (Teifour, 2006; Al-Ani, 1970). For instance, the Arabic /i/ is similar to the English /ɪ/ in being front, half-close, and produced with spread lips. Also, both Arabic /a/ and English schwa /ə/ are central and articulated with neutral lips, but they are slightly different in tongue height as /a/ is between half-open

and open and schwa /ə/ is between half-open and half-close. Moreover, Arabic vowel /u/ and English vowel /ʊ/ are both back, half-close, and produced with rounded lips.

In addition, there are similarities between some Arabic and English long vowels. Both Arabic /i:/ and English /i:/ are front, close, and produced with spread lips. Also, Arabic /u:/ sounds the same as English /ʊ:/ as they are both back, close, and rounded.

Arabic diphthongs, /ay/ and /aw/, differ from their English similar diphthongs, /aɪ/ and /aʊ/, in the sense that the element that the Arabic diphthong begins with is shorter than the element that the English diphthong begins with. In addition, according to Al-Qadamany (1988) and Muhammed (2004), it is worth mentioning here that Arabic pure vowels and diphthongs do not occur word initially, whereas most English vowels do.

However, it was clarified earlier that MSA has only 6 pure vowels and 2 diphthongs, whereas English has 25 vowels, including monophthongs, diphthongs, and triphthongs. As English has far more vowels than Arabic, some of the English vowels would probably raise difficulties in pronunciation for Arab learners.

Some English vowels may be pronounced in spoken Arabic as allophones of Arabic vowels depending on the voicing of the following sound or the accent of the Arabic speaker. For instance, in Arabic, the long vowel in وَفاة /wafa:t/ ‘death’, is pronounced

similar to English /æ/; also, in دَهْر /dʌhr/ 'a long time', the vowel is very similar to English /ʌ/. Therefore, as Chouchane (2016) asserts, vowels like /æ/ and /ʌ / "are all allophones; they do not make any difference neither in meaning nor in morphemic transcription and do not at all impede intelligibility". Thus, English vowels /æ/ and /ʌ / are considered to be just allophones of the same vowel /a:/ and /a/, respectively. Also, schwa /ə/ is considered an allophone of the short vowel /a/ in unstressed syllables, as they are very similar in classification, as in the second syllable in مَذْهَب /maðhab/ 'religion'. Furthermore, Al-Shoufi (2014) clarifies that the English vowel /ɑ:/ can be an allophone of the Arabic long vowel /a:/ as in فاضِل /fa:dˁel/ 'virtuous', and the English vowel /e/ can be an allophone of the Arabic short vowel /i/, as in قِفْ /qef/ 'stand up', although rarely occurring. In addition, in colloquial Syrian Arabic, which is not the language tackled in this study but spoken daily by the participants, it is common to pronounce a lengthened version of the English short vowel /e/, as in بيْت /be:t/ 'house'. Also, in colloquial Syrian Arabic spoken in Homs, the city where this study was conducted, an allophone of the English vowel /ɒ/ may be frequently used, as in رُحْت /rɒħt/ 'I went', and an allophone of the English vowel /ɔ:/ may occur in words such as دير الزور /de:r izzɔ:r/ 'a city in north Syria'. In brief, some English vowels do not exist in MSA vowel system, but are pronounced as allophones of

its vowels or of vowels of colloquial Syrian Arabic spoken in Homs, namely /æ, ʌ, ɑ:, ə, e, ɒ, ɔ:/.

In view of that, the vowels which the researcher expects to be the most difficult to pronounce for Syrian learners of English are the vowels not existing in MSA vowel system, not even as allophones. The English vowels that are totally absent from MSA vowel system are the long vowel /ɜ:/, the diphthongs /ʊə/, /eə/, /ɪə/, /ɔɪ/, /eɪ/, /əʊ/, and all the triphthongs. Therefore, it is expected for Syrian learners of English to have L1 interference affecting the pronunciation of the latter vowels in L2 English by wrongly pronouncing them or replacing them with easier familiar vowels to them.

**2.4 Previous Studies**

Al-Shoufi (2014) tested 63 Syrian learners of English who belong to different L2 levels in Damascus city. She used a list of nonsense words to elicit participants' pronunciation errors when producing English vowels. Participants were recorded, then recordings were analysed using Praat. Results showed that participants made less errors when pronouncing vowels similar to Arabic vowels. Also, the researcher found out that more errors were related to diphthongs and triphthongs than to monophthongs.

Chouchane (2016) conducted a study on two Omani Arabic native speakers who have studied English as an L2 for eight years in Omani schools. The researcher recorded two Omani participants reading aloud a previously designed dialogue. Participants' performance revealed their confusion between the vowels /æ/ and /ʌ/. Also, participants failed to reduce English vowels to schwa as it was represented by many vowel letters, to the contrary of the consistency in the Arabic language where every sound is represented by one letter. In addition, due to the inconsistency in English orthography, students confused the diphthong /eɪ/ with /i:/ as they both may be spelled as 'ea', as in 'great' /greɪt/ and 'leave' /li:v/.

Khalifa (2020) did a contrastive analysis of Arabic and English regarding consonants, vowels, and stress. He checked for negative transfer from Arabic L1. He tested 45 Egyptian, Libyan, and Saudi Arabian students studying in England. He elicited data by recording participants reading aloud lists of English words and doing guided composition by describing a picture. The study revealed that the participants confused many of the English vowels and diphthongs with each other and also substituted Arabic vowels for English ones. About 16% of the errors were confusing short vowels with one another, for example, /ɪ/ with /e/, /æ/ with /ɑ:/, /ʊ/ with /ɒ/ etc. Also, about 15% of errors were when pronouncing diphthongs.

Moreover, 22% of participants made pronunciation errors related to orthography, and 16% of errors were not reducing vowels to schwa.

Al-Asas (2020) investigated vowel pronunciation errors made by Syrian first-year students of the English major. The researcher tested sixty-two students using questionnaires and a pronunciation test. She found out that the most problematic vowels were /ɜː, ɔː, ɒ/, the diphthongs /eə, ʊə, ɪə, ɔɪ, əʊ/ and almost all triphthongs.

## 3. Methodology

### 3.1 Introduction

This research investigates pronunciation errors made by Syrian learners of English when producing English diphthongs and triphthongs. It presents a contrastive analysis between MSA and English to pinpoint how interference of MSA is a main reason of learners' difficulty in pronouncing BE vowels correctly. This chapter explains the methodology followed in this research. It is divided into three sections. The first section clarifies the approach of this study. The second section details data collection instruments, the participants, and data collection procedures. The final section explains research validity and reliability.

### 3.2 Approach of the Study

For the purposes and scope of this research, the researcher believed that using the quantitative research method would be useful. As she aims to analyze a linguistic phenomenon, the pronunciation errors related to L1 interference of Syrian native speakers of Arabic learning English, the researcher believed that eliciting data through recording the subjects' pronunciation would greatly serve her goals. Thus, analyzing collected data and getting numerals and statistics in the results make this a quantitative method.

### 3.3 The Study

The researcher employed a pronunciation test including word-lists covering all English diphthongs and triphthongs in all possible word positions to be read by the student participants. The following sections will detail data collection instruments and processes, the participants, and validity and reliability of this research.

#### 3.3.1. The Pronunciation Test

According to Flege (1980, cited in Khalifa, 2020), one important elicitation procedure in SLA research is reading aloud second language pronunciation. That is, as subjects read aloud already

prepared materials containing particular sounds, their performance is recorded for later analysis. This enables the researcher to record the actual pronunciation of a foreign language by the target subjects in order to analyse it later.

Recording subjects has great advantages. It enables the researcher to focus, in the first place, on meeting the subjects and maintaining an appropriate test setting to have accurate results of the recordings; hence, the researcher can save the test utterances for analysis at a later time. Consequently, the researcher can study the saved recordings without any rush, and s/he can keep repeating them without any disturbance for the already recorded subjects. In addition, the researcher can listen to a recorded utterance as many times as s/he wishes until s/he reaches satisfaction of detecting and analyzing any phenomenon s/he is studying. Finally, all recordings can also be kept for future studies focusing on relative linguistic features. (Khalifa, 2020).

Therefore, the researcher employed a word-list reading task in this research for eliciting data on diphthongs and triphthongs production by Syrian Arab learners of English. The list of words used in the present study included 28 mostly familiar words covering, in total, all English diphthongs and triphthongs in all possible word positions.

### 3.3.2 The participants

Participants in this study were Syrian fourth-year students at the English Department at Al-Baath University. They were enrolled in the second semester of the academic year 2020-2021. The Participants were twenty-five students. They had started studying English since the first grade of their elementary school, or even kindergarten, making together a total of twelve years of studying the English language at school. To be mentioned, the English curricula in Syrian schools is taught by Syrian native speakers of Arabic. Also, it focuses on teaching students the grammar and vocabulary of the English language with very limited practice of speaking, if any.

### 3.3.3 Data Collection Procedures

To carry out the prepared pronunciation test, the researcher headed to the lecture halls of the fourth-year students of English at Al-Baath University. At the end of lectures, and after taking the permission of the lecturers, the researcher explained to the students that she was working on a research in the field of phonetics, and that she needed voluntary participants to be recorded for the research. The researcher clarified that she needed the recorded-test data to explore the way Syrian students pronounce English rather than to test them so that she helps them

feel more at ease and avoids stressing them. All students were assured that their participation is totally voluntary. Also, students were promised that the recorded-test outputs and any information that may reflect their personalities will remain anonymous and will only be used for the purpose of this study. The researcher also noted that the test takes only a few minutes. Fortunately, many students raised their hands willing to participate in the pronunciation test. The researcher and the willing students met outside the lecture hall and went to another empty hall in order to avoid any kind of noise or distractions that might affect the quality of the recordings. Accompanied with the researcher, participants entered the hall one-by-one to be recorded with the rest waiting outside. Each participant was asked to read the lists of words clearly and loudly, repeating each item twice in order to gain accurate speech data. The data was recorded via an original microphone held by each participant close to his/her mouth to get clear recordings, already tested by the researcher to give satisfactory sound quality for the test, and attached to an HTC 728Ultra mobile phone. The recorded tests continued for five days to reach the desired number of 25**.**

After the collection of the data from all participants, the recordings were saved as digital sound files and labeled individually according to each participant's name initials for easy

access. Then, each recording was phonetically transcribed on a separate sheet of paper. The researcher listened carefully to each recording using earpieces to get accurate details. For extra accurate transcription results, each item of the word lists was listened to many times until the researcher felt sure what the sounds she was hearing were. She kept repeating listening to each item until she felt satisfied with the appropriate transcriptions, as those are the basis for the study analysis. Simultaneously, the researcher asked an interested colleague, an MA holder in linguistics, to also transcribe the recordings for her to compare both phonetic transcription results for more accuracy. After finishing both work, results were compared. Slight differences were found. Therefore, both transcribers listened again, together, to the questioned items until they agreed on the more precise transcription to keep.

### 3.3.4 Validity and Reliability of the study

Choosing suitable research tools is necessary to get valid results. In this study, the quantitative method of collecting data has been used in the form of a pronunciation test. After designing the test instrument by the researcher, three referees were asked to judge the validity of each of the pronunciation test. They were PhD-holder instructors at the Department of English, Al-Baath

University. They asked for the modification of some items of the pronunciation test. Then, all needed modifications were done, and unnecessary items were removed. Finally, the three referees signed the tests approving it. Also, the collection and analysis of data was done with great amount of accuracy and honesty to convey valid and reliable results.

## 4. Analysis and Discussion of the Results

### 4.1 Introduction

This chapter discusses the performance of the participants in the pronunciation test via illustrative tables. The test items are classified into two categories. Each vowel sound is placed in all possible word positions, initially, medially and finally. The analysis includes precise numbers and percentages of the results.

### 4.2 Pronunciation test analysis

Table 6 displays the two categories under study, diphthongs and triphthongs. It offers the number of the given words in each category, the number and percentage of the correct pronunciations as well as those of the wrong ones. The categories are presented in table 6**:**

| Test category | Number of given words | Number & percentages of correct pronunciations | Number & percentages of errors | Total number of pronunciations |
|---|---|---|---|---|
| Diphthongs | 21 | 351 66.8% | 174 33.1% | 525 |
| Triphthongs | 7 | 114 65.1% | 61 34.9% | 175 |

Table 6: Performance of the participants in the pronunciation test

### 4.2.1 The first category: Diphthongs

The items of this category are 21 English words containing the eight English diphthongs in different word positions. They are:

- /ɔɪ/: 'oil', 'boil' and 'employ'
- /aɪ/: 'aisle', 'polite', and 'dry'
- /eɪ/: 'eighty', 'great' and 'day'
- /əʊ/: 'ocean', 'soldier', and 'go'
- /ʊə/: 'tour'
- /ɪə/: 'ear', 'beard', and 'near'
- /eə/: 'air' and 'share'
- /aʊ/: 'out', 'account', and 'now'

MSA has only two diphthongs, /aw/ and /ay/, versus eight in English; therefore, it is expected, according to CAH, that Syrian ESL learners find them difficult to pronounce. Table (6) shows that the

percentage of incorrect pronunciations in this category is 33.1%. Among these diphthongs, /ʊə/ appears to be the most difficult for the participants, with 91% of mispronunciations. In most cases, this diphthong has been changed into either /ɔ:/, /u:/ or in some cases /aʊə/. Obviously, the diphthongs /ʊə/, /ɪə/ and /əʊ/ do not occur in participants' L1; also, all of them include the problematic vowel for Arab learners /ə/, which justifies why these diphthongs have been mispronounced by a large number of participants.

| **BE Diphthongs** | numbers &percentages of correct pronunciations | Numbers & percentages of incorrect pronunciations | Incorrect pronunciations |
|---|---|---|---|
| /ɔɪ/ | 52 69.3% | 23 30.7% | most initial: ɔɪə |
| /aɪ/ | 59 78.7% | 16 21.3% | most initial |
| /eɪ/ | 48 64% | 27 36% | i&m&f: all */e:/ |
| /ʊə/ | 2 8% | 23 92% | auə + ɔ: + u: |
| /ɪə/ | 34 45.3% | 41 54.7% | i:i: m:3: f:i |
| /eə/ | 16 32% | 34 68% | **i**: 20*/e:/, **f**: 14* /e:/ |
| /ɑʊ/ | 74 98.7% | 1 1.3% | ɑ: m |
| /əʊ/ | 37 49.3% | 38 50.7% | most i&m&f: */ɔ:/ |

Table 7: Performance of the participants in pronouncing diphthongs

(i: in initial position, m: in medial position, f: in final position)

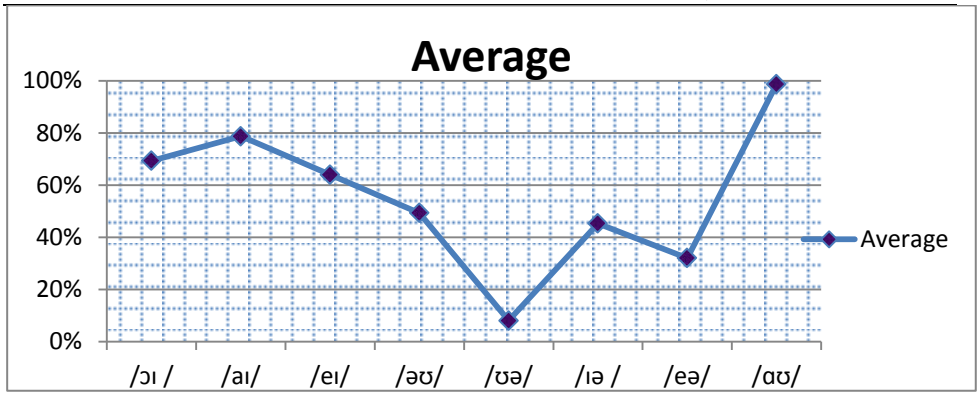



Figure 5: Correct production of diphthongs

Moreover, the diphthong /eɪ/ is 20 times incorrectly pronounced as /e:/ in word-initial positions, as the latter sound exists in the participants' spoken language. A common phenomena noticed in this study is that participants tend to lengthen the first part of diphthongs and delete the second part, thus pronouncing centring diphthongs /ʊə/ as /ʊ:/, /ɪə/ as /i:/, and /eə/ as /e:/ making them easier to pronounce, as the resulting sounds all exist in the participants' L1. This also applies to the diphthong /eɪ/ when erroneously pronounced as /e:/ in all word positions. The diphthong /əʊ/ is similarly replaced with the pure long vowel /ɔ:/, and the diphthong /ʊə/ is generally replaced with the pure long vowels /ɔ:/ or /ʊ:/. The fact that English has more diphthongs than MSA leads to L1 negative interference making Syrian ESL learners generally replace diphthongs with long vowels similar to their first element to make their pronunciation easier.

However, some participants strangely inserted a schwa after the diphthong /ɔɪ/ in word- initial positions, thus making the triphthong /ɔɪə/. Also, the diphthong /ɪə/ was replaced by the short vowel /e/, mostly in final positions.

Expectedly, the least problematic diphthong for the test participants was /aʊ/ which resembles to some extent the Arabic diphthong /aw/. In this case, L1 plays a positive role in facilitating the production of /aʊ/ and causing positive interference. Table (5) shows that only one participant could not produce it correctly.

### 4.2.2 The second category: Triphthongs

In this category of the pronunciation test, five English triphthongs were embedded in seven words: /aɪə / in 'liar', /aʊə/ in 'our' and 'power', /əʊə/ in 'lower', /ɔɪə/ in 'royal' and 'soya', /eɪə/ in 'player'. Table (8) displays participants' performance in pronouncing triphthongs in the test. According to table (8), 34.9% of the total pronunciations of triphthongs were erroneous. It shows that the most problematic triphthong in the pronunciation test was /əʊə/, with 60% of incorrect productions. It consists of the diphthong /əʊ/ and a schwa, thus asserting again that this diphthong is definitely difficult for Syrian students of English to pronounce. Participants repeatedly replaced /əʊə/ by /a.wə/ and /ɔ:.wə/. Moreover, as was explained in 2.4, a triphthong is a vowel having

two noticeable changes in quality as if it is a union of three vowel sounds within the same syllable; it is something expected for the participants to encounter considerable difficulties pronouncing them due to the absence of triphthongs in their L1 Arabic. Therefore, an important phenomenon to realize in the results of the pronunciation test is participants breaking a triphthong into two separate parts, and replacing the middle vowel element with the semi-vowel /w/ or /j / to make it easier to pronounce**.** 17 participants out of 25 broke the triphthong /aʊə/ into two parts, pronouncing it as /a.wa/, /ə.wa/ or /a:.wə /. Also, 15 participants did not pronounce the triphthong /ɔɪə/ correctly, but divided it into two parts for easier pronunciation to become /ɔ:.jə/. In addition, 7 participants broke the triphthong /aɪə/ into two parts pronouncing it as /a.jə/. Similarly, participants pronounced /eɪə/ as /e.jə/. These erroneous pronunciations result in changing the quality of a triphthong and dividing one syllable into two, which leads to having a foreign accent when speaking English. Finally, the least difficult triphthong to pronounce for the participants was /eɪə/, with 8% of incorrect pronunciations.

| **BE Triphthongs** | numbers & percentages of correct pronunciations | numbers & percentages of incorrect pronunciations | Incorrect pronunciations |
|---|---|---|---|
| /aɪə/ | 14 56% | 11 44% | **m**: 7* /a.jə/ |
| / aʊə / | 27 54% | 23 46% | **m**: 3* /ə.wə/ **i**: 9*/a.wa/ + 4*/a.wə/ + + 1*/ɑ:/ |
| /əʊə/ | 10 40% | 15 60% | 7* /aʊə/ + 3*/ɔ:ə/ |
| /ɔɪə/ | 29 58% | 21 42% | **m**: 2* /ɔɪa/ **f**: 6* /ɔ:.jə/ + 5* /ɔ:.ja/ +2* /əʊ.jə/ + 1* /ɔ:jə/ + 1*/ɒ.ja/ |
| /eɪə/ in /pleɪə/ | 23 92% | 2 8% | aɪə e: j |

Table 8: Performance of the participants in pronouncing triphthongs

(i: in initial position, m: in medial position, f: in final position)

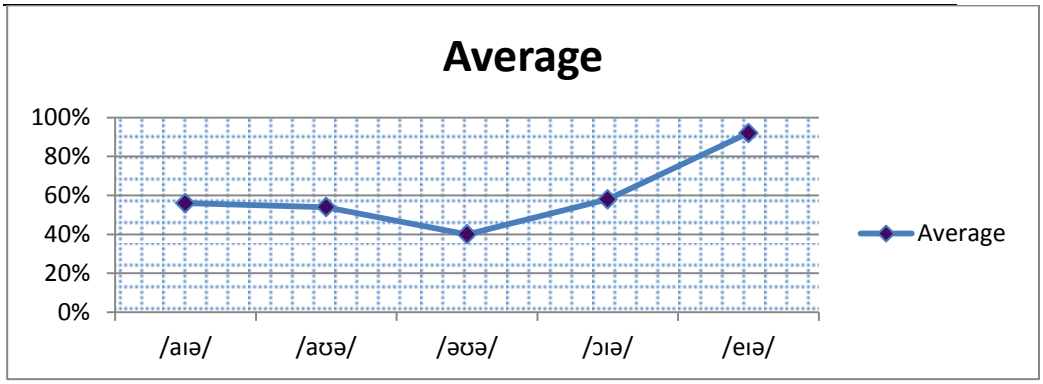



Figure 6: Correct production of triphthongs

## 5. Conclusion

### 5.1 Summary of the results

The present research attempts to inquire into L1 interference of MSA on Syrian students' production of British English diphthongs and triphthongs. MSA has only six pure vowels and two diphthongs; it does not have any triphthongs. British English has twelve pure vowels, eight diphthongs, and five triphthongs. The similarity between the Arabic diphthongs, /aw/ and /ay/, and English diphthongs /aʊ/ and /aɪ/, respectively, resulted in L1 positive interference facilitating pronouncing them for Syrian ESL learners and causing small number of errors.

However, as English diphthongs and triphthongs include the movement from one vowel quality to another within the same syllable, it makes it difficult for Arab ESL learners to produce them

correctly. Therefore, Syrian learners of English tend to reduce English diphthongs and triphthongs to shorter more simple versions, by:

- Replacing a diphthong with one long pure vowel, generally by lengthening the first element of the diphthong and deleting the second one, as when pronouncing /ʊə/ as /ʊ:/, /ɪə/ as /i:/, /eə/ as /e:/, /eɪ/ as /e:/, and /əʊ/ as /ɔ:/ or /ʊ:/.
- Replacing the middle vowel element of a triphthong with the semi-vowel /j/ or /w/ and dividing a triphthong into two separate parts, usually a short vowel followed by a two-sound combination: /jə/ or /wə/. Resultant pronunciations of this process might be: /V.jə/, /V.ja/, /V.wə/, and /V.wa/. Dividing a triphthong into two separate parts and replacing the middle vowel element with a semi-vowel to make the triphthong easier to pronounce for Syrian ESL learners result in erroneous pronunciation of English triphthongs and incorrect division of one syllable into two**.**

## 5.2 Pedagogical implications

1. Students of English should learn English sounds in accordance with CA theory. In other words, they should be taught the similarities and differences between English and MSA.

2. Students should be taught English phonetics at school. They should be provided with more pronunciation practices to improve their pronunciation performances. Of course, it would be better to use audio aids in class.
3. Special attention should be paid to the sounds which do not exist in the learners' L1. In addition, English vowels should be given more focus as they have proved to be the most difficult for most Arab students of English.

**5.3 Recommendations for further research**

The current study can be developed by future researchers when carrying their own studies. Accordingly, the researcher encourages them to:

1. Apply the same tools of this research on a larger sample in order to get a more extensive study
2. Conduct the same study in other Syrian universities to check for equivalent results

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