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A Descriptive and Contrastive Study of English and Arabic Vowels: A Selective Study^(*)

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Abstract

This study highlights an important issue; the *contrastive analysis of English and Arabic Vowels*. The current study aims to compare English and Arabic Vowels to enable the students to understand the similarities and differences between the English and Arabic segmental vowel phonemes. The study deals on one hand on the difficulties that a learner faces in pronouncing English words with vowel sound as there is no correspondent vowel in Arabic language. On the other hand, it investigates the common errors that are committed by students while pronouncing the vowel sounds according to their spelling form to predict pronunciation problems to avoid them and find out practical measures and solutions to make sure that they will not occur. Thus, the students can learn English vowels and avoid committing errors in the mirror of their understanding of their differences form Arabic vowel sounds. This study is also concerned with developing solutions and suggestions to solve the problems that learners face while pronouncing words that contain vowels. This is a case study in which the descriptive method is used and thirty male and female students from the Department of English Language, College of Education, Saber, University of Aden are randomly selected as the sample. The learner's speeches during talks, lectures and presentations in the class are recorded to collect the data as naturally as possible. The comparative and contrastive methods are also applied in order to find out the similarities and differences between English and Arabic vowel sounds. The data is analyzed to obtain the results about different English vowels from the Arabic vowel sounds.



Introduction:

Each language has a specific phonological system that includes the classification of the sounds into segmental phonemes such as consonants, vowels, diphthongs and their characteristics and suprasegmental features such as stress, intonation and tone. The classification and pronunciation of these sounds differ from one language to other. Normally the consonant sounds are clear in most of the languages whereas the differences are found in vowel sounds. As this study deals with English and Arabic, concentration is focused on the English and Arabic vowel sounds in order to show how they are similar and different and what are the different vowel sounds between the two languages. It also tries to find out how the Arabic language speakers learning English pronounce the English vowels and is there any mother tongue interference on their pronunciation of the English vowel sounds. The research is a descriptive case study of the students of English Department, College of Education, Saber, University of Aden. In order to find out how do they pronounce the English vowels and particularly the vowels which are not used in Arabic language.

The essential significance of this research is to help the students develop their abilities in correctly pronouncing the vowel sounds of the two languages and to know how they are similar and different in both the languages. The study is divided into four sections as follows:

Section One: Focuses on the overview, the significance, the research questions, the objectives, the limitations, and the structure of the study.

Section Two: Includes the methodology of the study, the data description.

Section three: Provides of a comparative study between English and Arabic vowels.

Section four: Concluded by the conclusion, suggestions and recommendations that enable the students to overcome this problem.

Overview:

Phonetics and Phonology

Phonetics and phonology are two main branches of linguistics that study speech sounds. Phonetics, as an independent aspect, focuses on the production, transmission and reception of speech sounds whereas Phonology is concerned with the function of the sounds and the internal relation between them, which means that, it concentrates on the sound systems of a particular language.

According to *Roach* (2022, 58) "Phonetics can be defined as a scientific study of speech sounds.... The central concerns in phonetics are the



discovery of how speech sounds are produced, how they are used in spoken language, how we can represent speech sounds with written symbols and how we hear, listen to, and recognise different sounds". Whereas for Roach "The most basic activity in phonology is phonemic analysis, in which the objective is to establish what the phonemes are and arrive at the phonemic inventory of the language.... For some phonologists the most important area is the relationships between the different phonemes - how they form groups, the nature of the oppositions between them and how those oppositions may be neutralized" (58).

Jane Yates (2005) suggests: "The spelling of the vowel sounds, in particular, is unreliable guide to their pronunciation. Also, many vowel and consonant letters are silent: they are simply not pronounced at all. Each sound is considered separately, by sound rather than by spelling, automatically, students will learn them by practicing symbols of sounds in all possible positions in a word spelling".

English Vowels:

Vowel sounds are "sounds which are made without any kind of closure or impediment to the escape of air through the mouth" (Jackson, 1982, 20). Vowels can be pure vowels or diphthongs. The pure vowel is a vowel produced with a single movement of the mouth whereas a diphthong is produced with two movements. English vowel sounds can also be described as the free and continuous flow of air through the mouth. This is possible because during the articulation of English vowel phonemes. There is no obstruction, and there is no blockage in the oral passage, but in the articulation of plosives, nasals, and affricates, there should be a kind of obstruction of the air in the mouth. Thus, in the classification of English vowel sounds, the following points should be taken into consideration:

What is the part of the tongue used during the articulation of the vowels?

It includes the three positions of the tongue as follows:

Front vowels position: Are vowels during the articulation, the front of the tongue is the active articulator, it raised towards the hard palate. the passive articulator, for example, the English words; seat-/i:/, sit-/ɪ/, set-/e/, sat-/æ/.

Back vowels position: Are vowels during the articulation, the back of the tongue is the active articulator, it raised towards the soft palate, the passive



articulator. For example, the English word: hot- /ɒ/, fast- /ɑ:/, caught- /ɔ/, book- /ʊ/, food- /u:/.

Central vowels: Are vowels during the articulation, the center of the tongue is the active articulator, it is raised towards the point between the hard palate and the soft palate, the passive articulator. For example, the English words; cup - /ʌ/, girl - /ɜ/, father - /ə/.

What is height of the tongue that is raised towards the roof of the mouth during the articulation of the vowels?

It includes the three positions of the tongue as follows:

Close vowels: Are vowels during the articulation, the tongue is closed to the roof of the mouth. For example, the words *seed* the vowel in this word is front close vowel because the front of the tongue is closed to the hard palate, but in the English word *soon* is a back close vowel because the back of the tongue is close to the soft palate.

Open vowels: Are vowels during the articulation, the tongue is far away from the roof of the mouth. For example, the English words; *sat*, *card*, so the vowel in the word *sat* is front open vowel while the in the word *card* is back open vowel.

Half close and half open vowels: Half close vowels during the articulation, the tongue is between the close and open position but nearer the close position than the open one, whereas half open vowels, during the articulation, the tongue is between the close and open position, but closer to the open position than the close one.

What is the shape of the lips during the articulation of the vowels?

The shape of the lips: In the lips position vowels can be classified into two categories as follows:

Rounded vowels position: Rounded vowels can be pronounced when the lips position is rounded or closed so according to the articulation of these English words the lips are rounded; *taught*, *book*, *shoot*, *shoes*, etc.

Spread (Unrounded) vowels position: Spread (unrounded) vowels can be pronounced when the lips position is neutral or spread. So according to the articulation of these English words, the lips are in a spread position; *seat*, *seed*, *sit*, *fast*, ...etc.

Finally, the English vowels phonemes can be categorized into two main groups such as:

Short vowels: This group of vowels consisting of seven phonemes as follows:

/ɪ/, /e/, /æ/, /ɒ/, /ʌ/, /ʊ/, /ə/.

sit, set, sat, hot, cup, put, father.



Long vowels: This group of vowels consisting of five phonemes as follows:

/ɪ:/, /ɑ:/, /ɜ:/, /ɔ:/, /u:/

seat, card, learn, caught, food.

Arabic vowels: Arabic vowels differ from English vowels because they can be represented by letters, Arabic vowels are allophonic, and notations can represent them. Thus, they can be divided into two types; the first type is called monophthongs, which include six vowels and three short vowels, and the others are long. The second type is the diphthong which consists of two sounds.

Therefore, Arabic short vowels can be divided into [Fatha, Kasra, Dammah] such as:

/a/ - This is called [Fatha] in Arabic vowels and it represented by (َ). In the comparing with English vowels, it is short vowel, here, the tongue in half - open position and the lips in neutral position.

So, it expresses the accusative case- example, /rasama/ -*drew*.

/i/ - This called 'Kasra' in Arabic vowels and it represented by (ِ). In comparing with English vowels, it is short vowel, here, the tongue in half-close position and the lips are un-round position. So, it expresses genitive case- example, /sir/ - *secret*.

/u/ - This is called 'Dammah' in Arabic vowels and it represented by (ُ). In comparing with English vowels, it is a short vowel, here, the tongue in the half-close position and the lips are rounded position. So, it expresses nominative case, for example /sum/ - *poison*.

At the same time, the long vowels of Arabic are called the letters of prolongation, [huruf-ul-mad] and they are similar to short vowels in their positions but differ by their duration of the time they take, So, they are:

/aa/ This long vowel of Arabic is preceded by the notation (َ) [Fatha] and formed by the prolongation letter /a/, for example, /qaabala/- *met*.

/ii/ - This long vowel of Arabic is preceded by the notation (ِ) [Kasra] and formed by the prolongation letter /j/, for example, /fiil/- *elephant*.

/uu/- This long vowel of Arabic is preceded by the notation (ُ) [dammah] and formed by the prolongation letter /w/, for example, /tuul/- *length*.



Finally, Arabic diphthongs can be expressed as combination of two sounds, that mean it constructed of vowel sound and consonant sound and there are, two diphthongs in Arabic such as:

/aw/ (اُ) The glideness in this Arabic diphthong moves from the vowel **/a/** into the consonant **/w/** to form the diphthong sound **/aw/**, for example **/nawm/ - sleep**.

/aj/ (اَي) The glideness here in the Arabic diphthong moves from the vowel **/a/** into the consonant **/j/** to form the diphthong sound **/aj/**, for example, **/bajt/ - house**.

By this way the researcher overviewed about the English vowels and the Arabic vowels in a short and brief view in this study.

Significance of the Study:

This study focuses on the description and comparison between some English and Arabic vowel pronunciations that second-level students at the English Department, College of Education - Saber, University of Aden ignore. The significance of this research is reflected in the following:

- 1- It addresses the learners at the Department of English Language, College of Education, Saber, University of Aden. It attempts to clarify the rules on which vowels pronunciation is based because five vowels in English that are different than Arabic sounds.
- 2- The student's lack of understanding of the similarities and differences between the English and Arabic language vowels hinders their phonetic learning activities, which affects their performance in pronouncing the vowel sounds correctly.

Objectives of the Study:

- 1- To provide the student with the differences and similarities between English and Arabic vowel sounds pronunciation.
- 2- To find out the difficulties that students face in pronouncing sound forms.
- 3- To investigate the common mistakes in pronouncing sound forms in relation to their spelling.

Research Questions:

This study is carried out in order to find out answers to the following three inquires:

- 1- What are the differences and similarities between the segmental vowel phonemes of Arabic and English?



- 2- What are the difficulties that students face in pronouncing sound forms in relation to their spellings?
- 3- What are the common mistakes that occur in pronouncing sound forms in relation to their spellings?

Limitations of the Study:

This study is carried out at the English Department, College of Education - Saber, University of Aden, during the academic year (2020 - 2021). The topic is limited to the pronunciation of English and Arabic vowel sounds and not to any other English or Arabic sounds, whether diphthongs or consonants.

Methodology:

The researcher believes that the importance of contrastive analysis as a discipline is still great and will continue to be like this as long as foreign language teaching exists.

The Descriptive-Analytical method is adopted in this research. Quantitative analysis of the data collected through the recordings from the classes is carried out to come out with the differences and similarities between the segmental vowel phonemes of Arabic and English, the areas of difficulties faced by students in pronouncing sound forms in relation to their spelling.

Vowel's phonemes similarities and differences:

/a/. is English short, front, unrounded vowel. It is in the English words: [*mad, sad, bag*] It can be contrasted with the Arabic short unrounded vowel /a/ in which it takes place in the Arabic words / rasama / or in /la/.

/i/. is English short high, front, close, unrounded vowel. It is produced with spread position of the lips, while the back of the tongue is lowered, such as in the English words, [*sit, kid*]. So, it can be contrasted with the Arabic short, front, unrounded vowel /i/, like in the Arabic words /sir/ [secret] or /bint/ [girl].

/u/. is English short, back, close, rounded vowel. It is produced with a half-close position of the tongue and the lips slightly rounded, such as in the English words [*put, book*]. So, it can be contrasted with the Arabic short a half - close, rounded vowel. For example, in the Arabic words /sum/ [Poison] or /ful/ [jasmine].



/i:/. is English long, front, close, unrounded vowel. It is in the English words [seat, seed]. It can be compared with the Arabic long, unrounded vowel /ii/, such as the Arabic words /diin/, /tiin/, /fiil/.

/a:/. is English long, low, back unrounded vowel. It produced by the back of the tongue in the position with unrounded lips. Example /fa:st/, /ka:d/. It can be compared with the Arabic long back unrounded vowel /aa/. For example, the Arabic words /faar/, /haar/.

/u:/. is English long back close rounded vowel. The production of this sound by the back of the tongue in the close position and the lips to be rounded. Example, /fu:d/, /su:n/. It can be compared with the Arabic long back rounded vowel /uu/, it can be founded in the Arabic words /tuul/, /suuq/.

/ɔ:/. is English long back rounded vowel; it can be produced by the tongue in the half open and half close position with rounded lips. It can be founded in the English words [caught, saw]. This vowel can be contrasted with the Arabic diphthong /aw/, the glide started from the vowel /a/ to the consonant /w/ like the Arabic words [noom, yoom].

Data Analysis and Discussion:

From students' recordings in the area of vowels, the researcher reaches to the following points:

a. /i/ and /e/ are normally confused so students produce *bed, will* and *well, pit* and *pet, thin* and *then*. The students are found to mix between the /e/ sound and /i/ sound. In many cases they pronounce them similarly under the influence of the Arabic vowel system in which these vowels are not having the similar vowel sounds.

b. /a/ and /ʌ/ are also substituted by each other that learners utter but for *bat- some- come – custom- tongue thorough- exchanged* to.

c. /o/ and /ɔ:/ are replaced by one another, students use /o/ for both sounds or mixed with good – God. /æ/ and /a:/ are also confused, students tend to replace them as /ka:t/ for /kæt/ and /kæ/ for /ka:/, or even with long (o) in *wall – hall- call – tall*. As an area of confusion between sounds and spellings. In fact, all vowels cause problems for FL learners. Especially when they're compared with Arabic ones. Thus, all students produce incorrect sounds. Arab learners of English do not substitute English vowels for their Arabic counterparts but, instead they try to reach the target sounds although they are not totally successful in accomplishing their goal.

d. The sound /ɔ:/ is found in words like *ball* /bɔ:l/ and *tall* /tɔ:l/. The students are found to mispronounce it with the English sound /ɑ:/ which is found in *car* /ka:/, as they pronounce it as it is written with 'a' letter. The



sound /a:/ is also mispronounced with /r/ sound when it occurs in word like *car* /ka:/. They pronounce it as it is written ending with 'r' as *car* /ka:r/ which is a wrong pronunciation of the word. This is due to the influence of Arabic language vowel system which pronounces /r/ at the end of the word.

e. The /ə/ sound is a peculiar sound of English language. It is unstressed mid central spread vowel. It occurs in unstressed syllable. The speakers of Arabic find difficulty in pronouncing this sound and mispronounce it with other vowels and if the sound occurs at the end of the English word, such as *father* /fa:ðə/ and *mother* /maðə/. The students pronounce the Schwa at the end of the word as /r/ sound as it is written with 'r' at the end of the word. Many students are found to pronounce it as its written more than they are pronounced in English.

The systematic differences between the vowel system of English and Arabic and the representation of the English vowels segmentally and the Arabic short vowels are represented suprasegmentally in *thama*, *fatha* and *kasrah* make students of English Department, College of Education-Saber, University of Aden mispronounce them under their mother tongue interference. The errors which are committed by Arabic speakers studying English makes it necessary for the instructors of the Spoken English, Phonetics and Phonology courses concentrate on the student's pronunciation of the vowel sounds more than the consonants. They need to vary in their teaching methods and give chance to the students to pronounce the vowel sounds in the classes individually or in more drills and conversation.

Conclusion:

It can be concluded by comparing the pronunciation of some English vowels sounds with Arabic vowels sounds as follows: -

	English vowels	Arabic vowels	Examples	
			English	Arabic
1	/a/	/a/	/sat/	/la/
2	/I/	/I/	/sit/	/sir/
3	/U/	/u/	/put/	/sum/
4	/i:/	/ii/	/si:t/	/diin/
5	/a:/	/aa/	/fa:st/	/haar/
6	/u:/	/uu/	/fu:d/	/tuul/
7	/o:/	/aw/	/ko:t/	/nawm/



By this way, first it can be finalized that the three English short vowels sounds /a/, /i/, /u/ have the same pronunciation of the Arabic short vowels sounds /a/ fatha, /i/ kasra, /u/ dammah, for example, /sat/ - /laa /, /sit. - /sir/, /put/ - /sum/.

Secondly, the four English long vowels sounds / i:, a:, u:, ɔ:/, also have the same pronunciation of the Arabic long vowels sounds ,for example, /si:t/ -/diin/, long kasra, /fa:st/-/haar/, long fattha, /fu: d/ - /tuul/, /kɔ:t/ or /so:/ - /nawm/; long dammah.

Therefore, only some vowel sounds of the two languages can be performed in the same pronunciation, not all the vowel sounds. So, this may return to the reasons that the English language vowels are more than the Arabic vowels in their phonetics systems, also some English vowels do not exist in Arabic such as /e/, /e:/, /ə/ vowels.

Recommendations:

- 1- learners have to look at the dictionaries to ensure correct pronunciation.
- 2- Learners should be motivated by the teachers to correct their pronunciation.
- 3- Learners should listen to native speakers.
- 4- teachers should use a computer to improves teaching pronunciation and arise students' motivation towards learning English.
- 5- The college teachers introduced the 'Train the Trainer' program, in which the teachers share their difficulties and find solutions from one another. Experienced teachers have to organize training sessions for the teacher.

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