

Similarities and dissimilarities of English and Arabic Alphabets in Phonetic and Phonology: A Comparative Study

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Abstract:

This paper will focus on a comparative study about similarities and dissimilarities of the pronunciation between the syllables of English and Arabic with the help of phonetic and phonological tools i.e. manner of articulation, point of articulation and their distribution at different positions in English and Arabic Alphabets. A phonetic and phonological analysis of the alphabets of English and Arabic can be useful in overcoming the hindrances for those want to improve the pronunciation of both English and Arabic languages. We all know that Arabic is a Semitic language from the Afro-Asiatic Language Family. On the other hand, English is a West Germanic language from the Indo-European Language Family. Both languages show many linguistic differences at all levels of linguistic analysis, i.e. phonology, morphology, syntax, semantics, etc. For this we will take into consideration, the segmental features only, i.e. the consonant and vowel system of the two languages. So, this is better and larger to bring about pedagogical changes that can go a long way in improving pronunciation and ensuring the occurrence of desirable learners' outcomes.

Keywords: Arabic Alphabets, English Alphabets, Pronunciations, Phonetics, Phonology, manner of articulation, point of articulation.

Introduction:

We all know that sounds are generally divided into two i.e. consonants and vowels. A consonant is a speech sound, which obstruct the flow of air through the vocal tract. A vowel is the class of sound, which makes the least obstruction to the flow of air. Vowels are usually found at the center of a syllable, and it rare

to find any sound other than a vowel, which is able to stand alone as a whole syllable (Roach, 1992). Each vowel has a number of properties that distinguish it from other vowels. These include the shape of the lips, which may be rounded, neutral or spread. The second property is the position of the tongue, which can be front, middle or back. Finally, the tongue may be raised giving different vowel qualities.

Vowels in English and Arabic have similarities and dissimilarities. They are different in numbers. English has more vowels than Arabic. They also differ in distribution. English word can generally begin with vowels, whereas Arabic word can only be formed from consonants. Both languages have some common vowels. But at the same time, there are some vowels that are restricted to each one of them. First of all, we have to know about the definition of phonetic and phonology which deals with sound system of language.

Definition of Phonetic and Phonology:

Cannorn (1967) and Ekundare (1993) give a definition about phonetics as sounds, which is the basis of human speech as an acoustic phenomenon. It has a source of vibration somewhere in the vocal apparatus. According to Varshney (1995), Phonetics is the scientific study of the production, transmission and reception of speech sounds. It studies the medium of spoken language. On the other hand, phonology concerns itself with the evolution, analysis, arrangement and description of the phonemes or meaningful sounds of a language (Ramamurthi, 2004). Phonology, according to Simpson (1972), is the statement or description of the lingual stoically relevant supra-segmental features, the phonetic system, Allophones, their distribution and the phonological structure. Ekundare (1993) simply puts phonology as “the study of the properties of the sound system of a language which speaker have mastered or internalized by the time they are competent users of it”.

However, the entire sound system works towards the production of what we know as language. Language has been variously defined. Some of them are listed here:

- ❖ ‘Language is a system of conventional spoken or written symbol by means of what human beings, as members of a social group and participants in its culture.’ – Encyclopedia Britannica

- ❖ ‘Language is a set of (Finite or infinite) sentences, each finite in length and constructed out of finite set of elements.’ – Noam Chomsky (1957: syntactic Structure)
- ❖ ‘Language is the institution whereby humans communicate and interact with each other by means of habitually used oral-auditory arbitrary symbols.’ – Hall (1969)
- ❖ ‘Language is purely human and non-instinctive method of communicating ideas, emotions and desires by means of a system of voluntarily produced symbols.’ – Sapir (1921)
- ❖ ‘Language is undoubtedly a kind of means of communication among human beings. It consist primarily of vocal sounds. It is articulation, symbolic and arbitrary.’ - Derbyshire (1967)
- ❖ ‘Language is the expression of ideas by means of speech sound combined into words’. – Henry Sweet (an English phonetician and language scholar).
- ❖ ‘A language is a system of arbitrary vocal symbols by means of which a social group cooperates.’ – Bloch and Trager (American linguists).

The consonant Sounds of English & Arabic Languages:

We all know that English language differs from Arabic language in its linguistic system entirely. Both are descendants of two typical families. English is a scion of the Germanic sub-family of Indo-European languages and Arabic belongs to the Semitic family. They have differences in phonology, morphology, syntax and semantics. “The English phonology system, especially segmental features, is accordingly different from that of Arabic” (Abbas, 2011).

At the beginning, we have known that every language has two sound system, i.e. consonant sound and vowel sound. Like this, English has 24 consonant sounds and 20 vowel sounds while Arabic has 29 consonant sounds and 6 vowel sounds. Both English and Arabic languages classify the sounds in the way into consonants and vowels which I have shown with the help of Table. Firstly, I will discuss about the consonant sounds of both languages.

In the field of the voicing, English and Arabic voiceless and voiced consonants are as shown in the following table:

English	Arabic
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Voiceless Consonants	Voiced Consonants	Voiceless Consonants	Voiced Consonants
f	b	ʔ	b
θ	d	f	d
s	g	t	ḍ
ʃ	v	ṭ	m
h	n	θ	n
p	ŋ	s	l
t	l	ʂ	r
k	r	ʃ	ξ
tʃ	ʒ	h	γ
	ö	k	y
	z	q	w
	j	ħ	ö.
	w	x	z
	dʒ		dʒ

Table (1): English and Arabic voiced and voiceless consonants

Table: (1) shows the following:

1. It is clear that there are no voiceless consonants / tʃ, p / in the Arabic language but at the same time the English language does not have / ʔ, ṭ, ʂ, q, ħ, x / that are Arabic voiceless consonants.
2. The English voiced consonants / g, v, ŋ, ʒ / do not exist in the Arabic and similarly there are no voice Arabic consonants / ḍ, ξ, γ, ö. / in English.
3. Aspirated plosive consonants in both English and Arabic languages affect the following vowels by making them loss of their voicing. They also devoice the following voiced consonant sounds.
4. Assimilation affects the voicing of the consonant sounds in both English and Arabic languages. Thus, the voiced consonants may be pronounced as voiceless and vice versa.

English Alphabetical Verities:

The English alphabet starts with the letter A and finishes with the letter Z. It is always written in the same order. This is called “alphabetical order”. Generally, English alphabets are written from left to right and include 26 letters.

a	b	c	D	e	f	g	h	i	j	k	l	M	n	o	p	q	R	s	t	u	v	w	x	y	z
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Arabic Alphabetical Verities:

The Arabic alphabet (Arabic: عربية أبجدية ‘abjadiyyah ‘arabiyyah) or Arabic abjad is the Arabic script as it is codified for writing the Arabic language. It is written from right to left, in a cursive style, and includes 28 letters.

ي	و	هـ	ن	م	ل	ك	ق	ف	غ	ع	ظ	ط	س	ش	س	ز	ر	ذ	د	خ	ح	ج	ث	ت	ب	أ
y	w	h	n	m	l	k	q	f	g	‘	z	t	d	s	s	Z	r	d	d	k	h	j	t	t	B	,
								h					h				h		h			h				

Phonetic Differences:

Phonetic differences refers to the natural regularities because the phonetic patterns arise from physical (articulation, aerodynamic, acoustic and auditory) restrictions. Such factors belongs to natural patterns.

1. Plosives

- English voiceless plosives / p, t, k / are aspirated in initial position but when they occur between vowels their aspiration may be less noticeable or even absent. In final position (before a pause), they are aspirated in emphatic speech and shorten the vowels before them (O’Connor, 1980: 41). Arabic voiceless plosives / k, t / can be aspirated before stressed vowels or a pause but not as evident in the English. So the Arabic learners tend to pronounce unaspirated / p, t, k / wherever they occur regardless of the nature of the speech.
- The voiceless / t / and the voiced / d / are alveolar plosives in English and dental plosives in Arabic. Therefore, the Iraqi Arab learners replace the alveolar by the →dental because of the interference of the mother tongue on target language. They pronounce voiced / d / instead of voiceless / t / in the past tense of the regular verbs. For example ‘walked’ /wɔ:kt/ → /wɔ:kd/.
- The English voiced velar plosive /g/ has no counterpart in Arabic. So Iraqi Arab learners confuse between voiced affricate /dʒ/ and voice

plosive /g/ in the following words ‘exaggerate’ /ɪgzædərɪt/ → /ɪksægərɪt/ or ‘edge’ /edʒ/ → /eg/. They sometimes pronounce the voiced /g/ as voiceless /k/ especially in the words that have (ex) because they have not mastered the rules of assimilation and they have not recognized the stressed vowels. For example, ‘exist’ /ɪkzɪst/. Thus, the interference of the mother tongue is on the target language of the Iraqi Arab learners.

- d) Some of the Iraqi Arab learners pronounce the voiceless velar plosive /k/ as voiceless palato alveolar affricate /tʃ/ especially when (ch) represent /k/ in the spelling. For example, ‘chemistry’ /kɛmɪsrti/ → /tʃɛmɪstri/ and ‘headache’ /hedɪk/ → /hedatʃ/.

2. *Affricates:*

The voiced English affricate /dʒ/ is palato- alveolar while the voiced Arabic affricate /dʒ/ is palatal. Some of the Arabic linguists consider the Arabic voiced palatal /dʒ/ plosive because of that the Iraqi Arab learners pronounce Arabic /dʒ/ instead of English /dʒ/.

3. *Lateral /l/:*

Lateral /l/ is voiced alveolar in English. It may be voiceless after the aspirated /p, t, k/. Arabic is voiced dental lateral. Iraqi Arab learners tend to pronounce voiced dental /l/ wherever it occurs.

4. *Gliding:*

- a) English /r/ is voiced, retroflex or post-alveolar and gliding (semi vowel) or frictionless continuant. Arabic /r/ is voiced, alveolar and rolled. Iraqi Arab learners often replace English /r/ by Arabic /r/. They tap the tongue tip very quickly several times towards the alveolar ridge not towards the hard palate like English /r/. They pronounce it when the tongue tip is lower than its sides (not curved).
- b) English /w/ is voiced bilabial while Arabic /w/ is voiced labio-velar. Iraqi Arab learners pronounce it from the area between the back of the tongue and the soft palate at the same time two tips are rounded.

Phonological Differences:

Phonological differences refers to the regularities that control the phonetic realizations and the functions of sounds in the words of a language.

1. *Plosives:*

- a) The voiceless bilabial consonant /p/ has no counterpart in Arabic. It is problematic sound for Iraqi Arab learners. Arabic has emphatic /b/ under the influence of the neighboring consonant sounds such as /ʃabr/ 'patience' and /muʔtakir/ 'creator'. Therefore, they will substitute voiceless /p/ by voiced /b/ because they are almost similar to each other. For example 'push' /bʊʃ/ → /buʃ/ and 'people' /'pi:pl/ → /bi:bu l/.
- b) In the articulation of the voiced plosive consonants in the final position of the some English words, the voiceless /h/ sound is heard after the explosion especially when the closure is open and the voice plosive consonant is preceded by another voiced consonant as in 'bulb' /bʌlb^h/. Arabic /h/ compared with English voiceless /h/ is voiced and changed from consonant to a short central vowel.

2. *Fricatives:*

- a) The voiced /v/ has no counterpart in Arabic. It is problematic sound for Iraqi Arab learners. Therefore, they will substitute /v/ by the voiceless /f/ especially in the initial and medial positions. Such as, 'variety' /vəraɪti/ → /fəraɪti/ and 'savour' /seɪvər/ → /seɪfər/.
- b) Although English voiceless /s/ and voiced /z/ have counterparts in Arabic, Iraqi Arab learners confuse them especially in the medial and the final positions because of English irregular spelling. Due to lack of training to master of rules of pronunciation, the learners confuse the sound /s/ as /z/ in the regular plural nouns and third person singular (s) in the present tense including the rules of assimilation and stress. For example 'teasing' /ti:zɪŋ/ → /ti:sɪŋ/, 'please' /pli:z/ → /pli:s/ and 'gas' /gæs/ → /gæz/.
- c) The English voiced palate-alveolar /ʒ/ does not occur in initial position of the English words. It is pronounced as palatal /dʒ/ or /ʃ/ by the Iraqi Arab learners because it does not have a counterpart in Arabic such as /ʒ/ in the word 'decision' /dɪ'sɪʒən/ → /dɪ'sɪʃən/, 'garage' /gæra:ʒ/ → /gæra:dʒ/ and 'beige' /beɪʒ/ → /beɪdʒ/.

- d) English voiceless /h/ occurs initially and medially while Arabic voiceless /ħ/ can occur initially, medially and finally.

3. *Affricate:*

English affricate /tʃ/ has no counterparts in Arabic. Iraqi Arab learners substitute it by affricative /ʃ/ because both /tʃ/ and /ʃ/ are voiceless palato alveolar. For example, ‘question’ /kwɛstʃən/ → /kwɛsʃən/ and ‘sandwich’ /sændwɪdʒ/ or /sændwɪtʃ/ → /sændwɪʃ/.

4. *Nasals:*

There are three (3) nasal consonants in English /m, n, ŋ /, while there are two (2) in Arabic /m, n /. There is no /ŋ/ phoneme in Arabic, Iraqi Arab learners pronounce /ŋg/ instead of /ŋ/ or they sometime pronounce /ŋ/ followed by /g/ in both medial and final positions. For example, ‘racing’ /reɪsɪŋ/ → / reɪsɪŋg/ or / reɪsɪŋg/. Although they pronounce /ŋ/ as an allophone of /n/ before voiceless velar plosive /k/ or uvular plosive /q/ in the medial position, as in /mɪŋkə/ → /mɪŋkə/ ‘from you, single’ or /ʔɪŋqaað/ ‘rescue’, they face difficulty to pronounce English /ŋ/ because of its irregular distribution.

5. *Gliding:*

- a) English /r/ has specific rules required in its pronunciation. It is pronounced in pre-vocalic position of the English words or in the final position of a word followed by another that begins with a vowel sound. Arabic /r/ is pronounced wherever it is written. Iraqi Arab learners pronounce their rolled /r/ instead of English frictionless continuant /r/. They also pronounce /r/ in all position in the English words.
- b) English /r, w, j / are voiced gliding consonants but they lose the voice that they usually have and become voiceless after the voiceless aspirated /p, t, k /. Iraqi Arab learners pronounce voice /r, w, j / everywhere because aspiration in Arabic is not as evident as in English.

6. *Lateral /l/:*

English voiced /l/ has two allophones: light in pre-vocalic position and heavy before consonants and in final position of the word. Arabic /l/ is light but there is only one Arabic word containing heavy (emphatic) /l/ that is

‘Allah’ /ʔalaah/ and its derivatives. Iraqi Arab learners often confuse light /l/ and heavy /l/. they pronounce light /l/ everywhere.

The Vowel Sounds of English & Arabic Languages:

In fact, there is a clear disparity in the number of vowels between the English and Arabic languages. Table (2) shows English and Arabic vowels.

The vowels	English	Arabic
Short	ɪ, e, æ, ə, ʌ, u, ʊ	i, a, u
Long	i:, ɜ:, ɑ:, u:, ɔ:	ii, aa, uu
Diphthong	eɪ, aɪ, ɔɪ, əʊ, aʊ, ɪə, eə, uə	aw, ay
Triphthongs	eɪə, aɪə, ɔɪə, aʊə, əʊə	

Table (2): English and Arabic vowels

The pure vowels are classified in English and Arabic languages similarly. Their description is based on the criteria of the part of the tongue, the height of the tongue and the shape of the lips. Table (3) presents the classification of English and Arabic vowels.

Vowel	Tongue Height			Tongue Part			Lips Shapes		
	Hig h	Mid	Lo w	Fron t	Centra l	Back	Rounde d	Unrounde d	Sprea d
Englis h	ɪ, i: u, u:	e, ə, ʌ, ɜ:,ɔ: ɒ	æ, ɑ:	ɪ, i: e, æ	ə, ʌ, ɜ: ɑ:	u,u:,ɔ : ɒ	u,u:,ɔ: ɒ	e, æ, ʌ ə, ɜ:,ɑ	ɪ, i:
Arabic	i, ii, u, uu		a, aa	a, i, ii	Aa	u, uu	u, uu	a, aa	i, ii

Table (3): Classification of English and Arabic vowels

Table: (2) shows the following:

1. According to the height of the tongue, English and Arabic vowels are classified as follows:
 - a) English close (high) vowels are /ɪ, i:, u, u:/ while Arabic close vowels are /i,ii,u, uu /.
 - b) English between half close and half open (mid) vowels are /e, ə, ʌ, ɜ:, ɔ:, ɒ/. There are no Arabic mid vowels.

- c) English open (low) vowels include / æ, ʌ: / and Arabic include / a, aa /.
2. According to the parts of the tongue, English and Arabic are classified as follows:
 - a) English front vowels include / ɪ, i:, e, æ /, whereas Arabic front vowels include / a, i, ii /.
 - b) English central vowels are / ə, ʌ, ɜ:, ɔ: /, while Arabic has only one central vowel that is /aa/.
 - c) English back vowels are / u, u:, ɔ:, ɒ /, while Arabic back vowels are / u, uu/.
3. According to the shapes of the lips, English and Arabic vowels are classified as:
 - a) English rounded vowels involve / u, u:, ɒ, ɔ: /, while Arabic rounded vowels involve / u, uu /.
 - b) English unrounded vowels are / e, æ, ʌ, ə, ɜ:, ɔ: /, while Arabic are / a, aa /.
 - c) English spread vowels are / ɪ, i: / and Arabic are / i, ii /.

Similarities between Arabic and English:

- They are two different languages.
- They also have different alphabets. The English alphabets has 26 letters while the Arabic alphabet has 28 letters.
- English is written or read from left to right while Arabic is written or read from right to left.
- Some Arabic letters/sounds are not found in English. Like ح خ ص ض ط ظ ع غ ق.
- The English sounds /p/ and /v/ are not found in Arabic.
- The Arabic sentence may not contain a verb.
- The usual word order in English is SVO (i.e. subject then verb then object), while the usual word order in Arabic is VSO (i.e. verb then subject then object).
- Most words in Arabic have different forms for male/female and singular/plural.

Conclusion:

As we have seen in this research, there are many similarities and dissimilarities between the phonetic and phonological system of both English and Arabic languages. This research explains these differences and similarities to accommodate one's language who want to learn English or Arabic as a second language with the correct pronunciation. This research also tries to distinguish between these two systems, and it shows many thing about English consonants and vowels. It gives many of information about classification of consonants and description of speech sounds of both consonants and vowels. In addition to these things, this research gives us a clear comparison between these two systems, as there are some consonants restricted to English and others restricted to Arabic. There is another comparison for vowels and diphthongs between Arabic and English. We have to devote time to recognize the different sounds of hard and soft letters. In conclusion, the purpose of this research which is to help people to pronounce sounds properly is fulfilled through this kind of comparative study between the sound system of English and Arabic.

Reference:

- Husni Al-Muhtaseb, "The need for an Upper Model for Arabic Generation", Discussion paper Number 171, Department of Artificial Intelligence, University of Edinburgh, UK, August 1996.
- Clive Holes; 2004; "Modern Arabic: Structure, Functions and Varities".
- Rogers, Henry (2005). Writing System: A Linguistic Approach. Blackwell Publishing. pp. 135.
- Karin Ryding; 2005; "A Reference Grammar of Modern Standard Arabic".
- Abd-El- Jawad, Hassan (1987), "Cross-Dialectal Variation in Arabic: Competing Prestigious Forms", *Language in Society* (Cambridge University Press) 16(3): 359-367, doi: 10.101/S0047404500012446. Gairdner, W.H.T. (1925), *The Phonetics of Arabic*, London: Oxford University Press.
- J, Sethi and P.v.Dhamija, *A Course in Phonetics and Spoken English*, Second edition, Prentice'Hall of India Private Limited, New Delhi, 2006.

Thelwall, Robin (2003), Arabic, "Handbook of the International Phonetic Association a guide to the use of the international phonetic alphabet", Handbook of the International phonetic Association (Cambridge, UK: Cambridge), ISBN 0-521-63751-1 Barry, M (1991), "Temporal Modelling of Gestures in Articulation Assimilation", Proceedings of the 12th International Congress of Phonetic Sciences, Aix-en-Provence.

Ehsan Mohammed Abdelgadir & VSV Laxmi Ramana, A Handbook on "Introduction to Phonetics & Phonology" for Arabic Students, Notion Press, Chennai, 2017.

http://download.cnet.com/Encyclopedia-of-Arabic-Fonts/3000-2190_4-75764312.html.