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Contrastive Analysis Of Vowel Sound IN English And Vowel Sounds In Arabic

A thesis Submitted In Partial Fulfillment Of The Requirements for the degree M.A in applied linguistic [ELT]

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Dedication:

To the soul of my father, and to those still

pushing me for more successes.

Acknowledgement:

During preparing this thesis I had supported and encouraged by many people.

A special kind of debt is owed to my supervisor Dr ALbushra Abed ALLtif for giving time generously to read, add comment and correct the research.

I also like to express my deep gratitude to my wife for her encouragement and unending patience, guidance to make thesis come to light.

Finally, I'll grateful to all Nile valley University, especially college of post graduate.

A word of thinks is also due to the Librarians at Tubok public Library for their assistance, and to Awany for his neat typing.

Abstract

The study aimed at investigate and analysis, comparison between the vowel sounds in English Language and their counterparts in Arabic Language as to know the pronunciation of these sounds and its comparison with each other to explain the faces of similarties and differences between these vowel sounds, with aim of helping the learners of English to pronounce these sounds in proper way. The importance of this study erupt from the need to understand the similarties and differences between these sounds from the linguistic and pronunciational nature and explain the linguistic characters for each letter.

The study of the vowel sounds in English Language and Arabic Language and their comparison method was adopted. The study shown that there are similarties and differences between these vowel sounds. The study recommended that the learners and readers of English should give great attention to these similarties and differences and to the influence of the mother tongue on learning other languages.

ملخص البحث

تهدف هذه الدراسة إلي البحث و التحليل و المقارنة بين أصوات اللين في اللغة العربية ورصيفاتها من أصوات اللين في اللغة الإنجليزية بغرض معرفة كيفية نطق هذه الأصوات ومقارنتها مع بعضها البعض لتوضيح أوجه التشابه والاختلاف بين هذه الأصوات، بغرض مساعدة المتعلمين للغة الانجليزية علي نطق هذه الأصوات بصورة صحيحة، ترجع أهمية هذه الدراسة إلي الحاجة لفهم أوجه التشابه والاختلاف بين هذه الأصوات من حيث طبيعتها اللفظية و الكتابية وبيان الخصائص اللغوية لكل حرف.اتبعت الدراسة منهج دراسة الأصوات في اللغتين العربية والإنجليزية و مقارنتهما مع بعضهما البعض وأوضحت الدراسة إن هنالك أوجه للتشابه وأخري للاختلاف بين هذه الأصوات. توصي الدراسة المتعلمين و القراء للغة الإنجليزية بالانتباه لهذه الاختلافات و التشابهات ومحاولة التخلص من تأثير اللغة الأم علي تعلم أي لغة أخرى.

List of phonetics symbols

- a = Alef
- i: = Ya
- w: = Waw
- i = Alfateha
- e = Alkasara
- u = Aldama

Table of contents

Chapter one: Introduction

1-1. Background

This study will go to investigate the field of sounds especially vowels sounds in English language and vowels sounds in Arabic language and making comparison between these vowel sounds in these languages to find out the similarties between these sounds and also to explain the differences if there are any differences.

The study of these vowel sounds will be from to aspects: one is the manner of articulation of these sounds and the second is the place of articulation of these sounds.

1-2. Statement of the problem:

The study hypotheses that there are many kinds of similarties between these vowel sounds in these languages (English language and Arabic language) and also there are some differences and the study is going to prove this.

1-3. Significance of the study.

This research is going to add new horizon for the Arabian learners of English language especially in the field of vowel sounds by making direct comparison between these vowel sounds in English language and vowel

sounds in Arabic language as to show the similarties and the differences between these vowel sounds in manner and place of articulation.

1-4. Purpose of the study

The object of this paper is representing in studying and comparing between vowel sounds in English language and vowel sounds in Arabic language as to find out are there any differences or similarties between these vowel sounds. the study attempts to help the learners of these languages to anticipate the pronunciation errors that are likely to commit while producing these vowel sounds.

1-5. Questions of the study

The study intends to answer the following questions

(1) What are the similarties between these vowel sounds ?

(2) what are the differences between these vowel sounds?

(3) Are the similarties and differences in manner of Articulation?

(4) Are the similarties and differences in place of Articulation?

1-6. Hypothesis of the study

This study hypothesizes that there are great similarities and differences between vowel sounds in English and vowel sounds in Arabic in two aspects: manner and place of Articulation.

1- 7. Limitation of the study

This study focuses on the major fields of speech sounds especially the vowel sounds in English language and Arabic language, this study is specified to investigate the vowel sounds only, not all sounds in English language and Arabic language .

Chapter Two

Literature Review

2-1. Organs of speech

(Peter Roach 1979 from page 8 to page 133)

There are many organs that play a great role in the process of speech, every organ participates according to its position and importance in this process.

The Larynx has very important functions in speech, but before the study looks at these functions It must examines its anatomy and physiology that is, how it is constructed and how it works. The Larynx in the neck; it has several parts, its main structure is made of **Cartilage**, a material that is similar to bone but less hard. If we press down on our nose, the hard part that we can feel is cartilage. The Larynx structure is made of two large cartilages, these are hollow and are attached to the top of the **Trachea;** when we breathe, the air passes through the trachea and the larynx. The front of the larynx comes to a point and you can feel this point at the front of your neck-particulary if you are a man and/ or slim.

This point is commonly called the **Adam's Apple.**

Inside the "box" made by these two cartilages are the **Vocal folds,** which are two thick flaps of muscles rather like a pair of lips; an older name for these is **vocal cords.** At the front the vocal folds are joined together and

fixed inside of the thyroid cartilage. At the back they are attached to a pair of small cartilages called the **arytenoid cartilages** so that if the arytenoid cartilages move, the vocal folds move too.

The arytenoid cartilages are attached to the top of the cricoids cartilage, but they can move so as to move the vocal folds apart or together. We use the word **glottis** to refer to the opening between the vocal folds. If the vocal folds are apart we say that the glottis is open; if they are pressed together we say that the glottis is closed.

This seems quite simple, but in fact we can produce a very complex range of changes in the vocal folds and their positions. These changes are often important in speech.

There are four easily recognizable states of the vocal folds; it would be useful to practice moving your vocal folds into these different positions.

i)Wide apart: The vocal folds are wide apart for normal breathing and usually during voiceless consonants like, **p,f,s**. Your vocal folds are probably apart now.

ii) Narrow glottis: if the air passed through the glottis when its narrowed the result is affricative sound for which the symbol is **h.** The sound is not very different from a whispered vowel. Its called **a voiceless glottal fricative.** Practice saying ahahahahahahah-alternating between this state of the vocal folds and that described in (iii) below.(iii) position of vocal fold vibration. When the edges of the vocal folds are touching each other,

or nearly touching, air passing through glottis will usually cause vibration. Air is pressed up from the lungs and this air pushes the vocal folds apart so that a little air escape. As the airflows quickly past the edges of the vocal folds, the folds are brought together again. This opening and closing happens very rapidly and is repeated regularly, averaging roughly between two and three hundred times per second in woman's voice and about half that rate in an adult mans voice.(iv) Vocal folds tightly closed: The vocal folds can be firmly pressed together so that air cannot pass between them, when this happens in speech we call it a **glottal stop** or glottal **plosive,** for which we use the symbol?. You can practice this by coughing gently.

2-2. Study of speech sounds:

2-2-1. Articulators of speech sounds :

All the sounds we can make when we speak are the result of muscles contracting. The muscles in the chest that we use for breathing produce the flow of air that is needed for almost all speech sounds; muscles in the larynx produce many different modifications in the flow of air from the chest to the mouth. After passing through the larynx, the air goes through what we call the **vocal tract,** which ends at the mouth and nostrils. Here the air from the lungs escapes into the atmosphere. We have a large and complex set of muscles that can produce changes in the shape of the vocal tract, and in order to learn how the sounds of speech are produced it

is necessary to become familiar with the different parts of the vocal tract. These different parts are called **Articulators**, and the study of them is called **Articulatory phonetics.**

2-2-2. Phonetics and Phonology

This study look at two further areas of aspects. Each is important in its own way, and each is an area on which students working in an advanced level in phonetics and phonology spend a considerable a mount of time.

Phonetics:-

As we know that phonetics deals with representing of sounds or in other words how we write these sounds.

Laboratory phonetics:-

Experimental phonetics has been an important part of phonetics for most of the Twentieth century, and experimental work in phonetics laboratories has produced many Important discoveries about how speech is produced and perceived. Too often, however, this area of the subject has been regarded as a mysterious world where incomprehensible things are done with expensive equipment. This situation is changing rapidly, and one consequence of the easier availability of instrumental speech analysis Techniques is that the fields of descriptive phonetics, pronunciation teaching and experimental phonetics have become much more closely linked. Computers and software needed to analysis speech are becoming much cheaper, and the increasing of accessibility of the internet is adding

to the availability of suitable technology. In explaining the subject matter of experimental phonetics it is helpful to start by looking at the speech chain, which may be diagrammed in simplified like this:

Speakers	Speakers	Transmission	Listeners	Listeners
Brain	vocal tract	of sound	ear	Brain
1	2	3	4	5

Articulatory	Acoustic	Auditory
Phonetic	Phonetic	Phonetic
Level	Level	Level

With currently available technology we are not able to discover what goes on in detail in the brain when some one is speaking (stage1), although we can make informed guesses based on evidence such as speech errors ("slip of the tongue").

The effects on speech production of different sorts of brain damage and the evidence of brain scanning. Much more is known about stage2, the articulatory aspect of speech production. Many special instruments have been developed to help us to find out about such things as the pressure of air in the lungs and the vocal tract, the flow of air out of the mouth and nose, the opening and closing of the vocal folds and of the soft palate, and the movements of the articulators like lips and the lower jaw.

X-ray techniques were used extensively for examining the movements of articulators until the 1970s, and produced very important discoveries, but it later became clear that there were serious health risks in using normal

radio graphic and cimeradiographic technology, Safer "micro beam" techniques with much low doses of radiation were developed in the 1980s, but even those are now little used. Contact between the tongue and the palate can be measured electrically by means of **electro palato graphy**, were apiece of molded plastic is fitted to the hard palate. This false palate is similar to palate that holds false teeth for those who used them but, instead of having teeth, this palate contains small electrodes that can detect the contact of the tongue with the hard palate. This technique can reveal a great deal of interesting information about the working of the tongue during speech. Additionally, it is possible to detect the electrical activity that is produced when muscles contact, through **electromyography** and we can thus observe the complex co-ordination of activity in the muscles controlling speech production. They can be very useful both for discovering in detail how English speakers produce their speech sounds, and for demonstrating to learners of English their pronunciation errors in away that helps them that correct them. To give a simple example, recording the air flow from speakers mouth can show how successfully they are producing aspiration appropriate for syllable-initial **p, t** and **k.**

Stage3, the transmission of sound waves through the air, is studied by **acoustic analysis.** Much has been discovered about the sounds of speech in this way. We can discover the physical events that produce the

perceptual characteristics of speech sounds, including the **Duration** of sounds or syllables (we often refer to duration as "length" the **Intensity** of different sounds (which is closely related to the loudness that we perceive), and the fundamental frequency of voiced sounds (which is closely related to the pitch).

Until recently, the acoustics analysis of speech was such a slow and laborious business that only small samples of speech could be analyzed; however, developments in computer technology have made it possible to carry out analysis on a much longer scale. Software for acoustic analysis and spectrographic displays of speech is available at little or no cost via the internet, and it is now possible to get a computer to produce a simple phonetic transcription of what is said to it. Computers can provide additional pronunciation training at times when a human teacher is not available, and can help children with hearing and speech disorders to improve their speech. As mentioned above, it is possible to produce an accurate computer analysis of the fundamental frequency of speech, this can be displayed on a screen to help some one in practicing pronunciation of prosodic features of speech. Finally, it is of great importance to discover more about how the listeners brain identifies what is receives from the ear (stage4and 5) Many experiments have shown how sensitive human beings are to be very slight acoustic differences and how flexible they are in being able to adjust to very different speakers.

2-3. Classification of speech organs

The organs of speech are divided into many parts as to explain the role and participation of these articulators in production of speech sounds, beside to the easiness of studying this parts. The classification begins with:-

i) The **pharynx** is a tube which begins just above the larynx. It is about 7cm long in women and about 8cm in men, and at its top end its divided into two parts, one part being the back of the mouth and the other being the beginning of the way through nasal cavity.

ii) The **velum** or **soft palate** allows air to pass through the nose and through the mouth, but often in speech it is raised so that air cannot escape through the nose. The important thing about the velum is that it is one of the articulators that can be touched by the tongue. When we make the sounds **k** and **g** the tongue is in contact with the lower side of the velum, and we call this velar letters.

iii) The **hard palate** is often called the "roof of the mouth" you can feel its smooth curved surface with your tongue.

iv) The **alveolar ridge** is between the top front teeth and the hard palate. you can feel its shape with your tongue. Its surface is really much rougher than it feels, and is covered with little ridges. Sounds made with tongue touching here (such as **t** and **d**) are called alveolar.

v) The **tongue** is, of course a very important articulator and it can be moved into many different places and different shapes. It is used to divide the tongue into different parts, though there are no clear dividing lines within the tongue. These parts are **tip, blade, front, back** and **root.**

The **teeth** (upper and lower) only at the front mouth, immediately behind the lips, and you should remember that most speakers have teeth to the sides of their mouths, back almost to the soft palate. The tongue is in contact with the upper side teeth for many speech sounds. sounds made with tongue touching the front teeth are called **dental.**

vii) The **lips** are important in speech. They can be brought together (when we produce the sounds **b, p**), brought into contact with the teeth (as in **f,v**)or rounded to produce thru lip- shape for vowels like **Ụ:.** sounds in which the lips are contact with each other are called **bilabial**, while those with lip- to-teeth contact are called **labiodentals.**

The seven articulators described above are the main ones used in speech, but there are three other things to remember. Firstly the larynx could also be described as articulator a very complex and independent one-secondly, the **jaws** are some times called articulator, certainly we move the lower jaw a lot in speaking. But the jaws are not articulators in the same way as the other, because they cannot themselves make contact with other articulators. Finally, although there is practically nothing that we can do with the **nose** and the **nasal cavity,** they are very important part of our

equipment for making sounds particularly nasal consonant such as **m,n.** Again, we cannot really describe the nose and the nasal cavity as articulators.

2-3-1. English vowels

2-4. Distribution of English vowels sounds:-

The word vowels is very familiar one, but when we study the sounds of speech scientifically we find that it is not easy to define exactly what it means.

As we know that vowels are twenty in number.

The most common view is that vowels are sounds in which there is no obstruction to the flow of air as it passes from larynx to the lips. A doctor who wants to look at the back of patient's mouth often asks him to say "ah"; making this vowel sound is the best way of presenting an unobstructed view.

What we are doing here is looking at the different contexts and positions in which particular sounds can occur; this is the study of **distribution** of the sounds, and is of great importance in phonology. Study of the sounds found at the beginning and end of English words has shown that two groups of sounds with quite different patterns of distribution can be identified, and these two groups are those of vowel which is the centre of our research and the other is consonant.

The research is going to study English vowels sound by looking at vowels, and it is necessary to say some thing about vowels in general before turning to the vowels of English. We need to know in what ways vowels differ from each. The first matter to consider is the shape and the position of the tongue.

It is usual to simplify the very complex possibilities by describing just two things: Firstly, the vertical distance between the upper surface of the tongue and the palate and secondly, "horizontally" the part of the tongue, between front and back, which is raised highest. Let us look at some examples:

i) Make a vowel like the i: in the English word "see" and look in a mirror; if you tilt your head back slightly you will be able to see that the tongue is held up close to the roof of the mouth, now make an a vowel(as in the "cat") and notice how the distance between the surface of the tongue and the roof of the mouth is now much greater. the difference between i: and a is a difference of tongue height and we would describe i: as a relatively **close** vowel and a as a relatively **open** vowel. Tongue height can be changed by moving the tongue up and down, or moving the lower jaw up or down. usually we used some combination of the two sorts of movement. So we would illustrate the tongue height difference between i: and a as in :ii) Making the two vowels described above, it is the front part of the tongue that is raised. We could therefore describe i: and a as

comparatively **front** vowels. By the changing the shape of the tongue we can provide vowels in which a different part of the tongue is the highest point. A vowel in which the back of the tongue is highest point is called **back** vowel. If you make vowel in a word "calm" which we write phonetically as a**:**, you can see that the back of the tongue is raised. Compare this with a in front of a mirror, a is a front vowel and a**:** The vowel in "too" (u:) is also comparatively back vowel, but compared with a**:** it is close. So now we have seen four vowels differ from each other; we can show this in a simple diagram.

Front	back
Close	i**:** u**:**
Open	æ ɑ**:**

However, this diagram is rather un accurate. Phoneticians need a very accurate way of classifying vowels, and have developed a set of vowels, arranged in a close- open, front- back diagram similar to the one above .

These **cardinal vowels** are a standard reference system, and people being trained in phonetics at an advanced level have to learn to make them accurately and recognize them correctly. If you learn the cardinal vowels, you are not learning to make English sounds, but you are learning about the range of vowels that the human vowel apparatus can make, and

also learning a useful way of describing, classifying and comparing vowels.

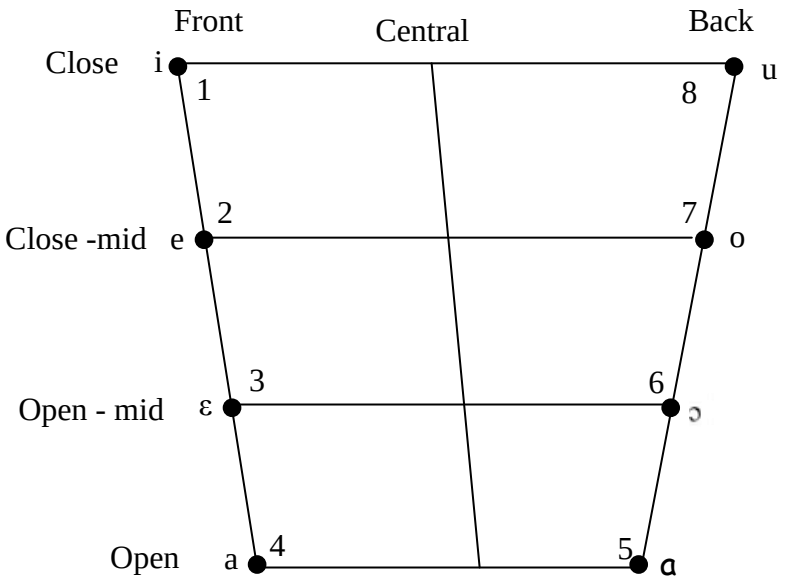


Fig . 5 Primary cardinal vowels (Peter Roach)

It has become traditional to locate cardinal vowels on a four –sided figure (quadrilateral) of the shape seen in fig.5 (the design used here is the one recommended by the (International phonetic Association) the exact shape is not really important- squire would do quite well – but we will use the traditional shape.

The vowels on fig.5 are the so-called **primary** cardinal vowels; these are the vowels that are most familiar to the speakers of most European languages, and there are other cardinal vowels (**secondary** cardinal vowels) that sound less familiar. Cardinal vowel no.1 has the symbol {i}, and is defined as the vowel which is as close and as front as it is possible

to make a vowel with out obstructing the flow of air enough to produce a friction noise; friction noise is the sort of hissing sound that one hears in consonant like **s** and **f**. cardinal vowel no.5 has the symbol {a} and is defined as the most open and back vowel that it is possible to make. cardinal vowel no.8 {u},is fully close and back and no.4 {a}, is fully open and front. After establishing these extreme points, it is possible to put in intermediate points (vowels no.2,3,6and 7). Many students when they hear these vowels find that they sound strange and exaggerated; you must remember that they are extremes of vowel quality. It is useful to think of the cardinal vowels framework like a map of an area of county that you are interested in. obviously, if the map is to be useful to you it must cover all the area; but if it covers the whole area of interest it must inevitably go a little way beyond that and include some places that you might never want to go to. However, it is still important to know where the edges of the map are drawn. When you are familiar with these extremes vowels, you have learned away of describing, classifying and comparing vowels(as mentioned above) For example we say that the English vowel a (the vowel in "cat") is not as open as cardinal vowel no.4{a}.in this research cardinal vowels will always be printed within square brackets to distinguish them clearly from English sounds. We have now looked at how we can classify vowels according to their tongue height and their front ness or back ness. There is another important variable of vowels

quality, and that is lip-rounding. Although the lips can have many shapes and positions, we will at this research consider only three possibilities. These are:

i) Round, where the corners of the lips are brought towards each other and the lips pushed forwards. this is most clearly seen in cardinal no.8{u}. ii) Spread, with the corners of the lips moved away from each other, as for a smile. This is most clearly seen in cardinal vowel no.1{i}. iii) Neutral, where the lips are not noticeably rounded or spread. The noise most English people make when they are hesitating (written "er") has neutral lips position.

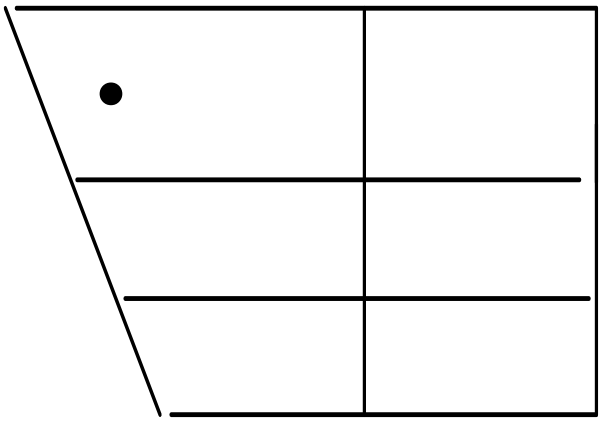
2-4-1. Vowels sequences

Now, using the principles that have just been explained, we will examine some of the English vowels.

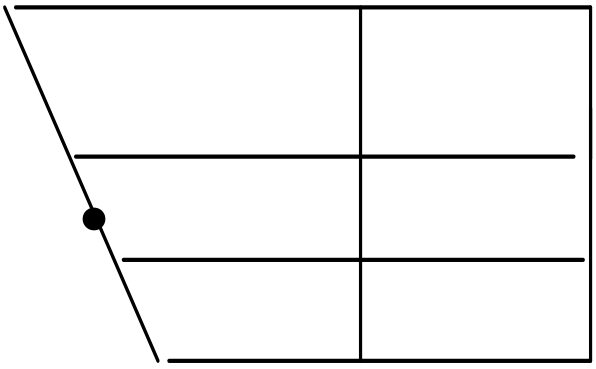
2-5. English short vowels

English has a large number of vowels sounds: The first ones to be examined are short vowels. The symbols for these short vowels are: **I,e, æ, ʌ , ɒ,ʊ.** short vowels are relatively short, as we shall see later, vowels can have quite different lengths in different contexts. Each vowel is described in relation to the cardinal vowels.

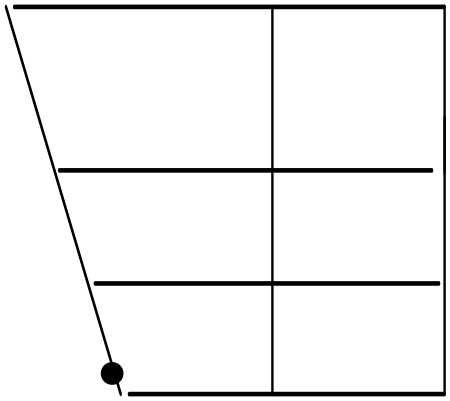
(The shapes are designed by the researcher)



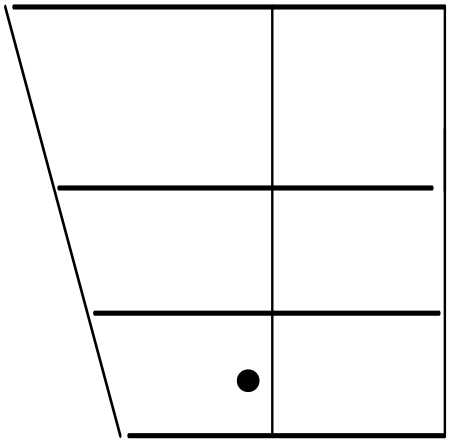
I (example words: "bit", "pin", "fish") the diagram shows that, though this vowel is the close front area compared with the cardinal vowel no.1{i} it is more open, and nearer to the centre the lips are slightly spread.



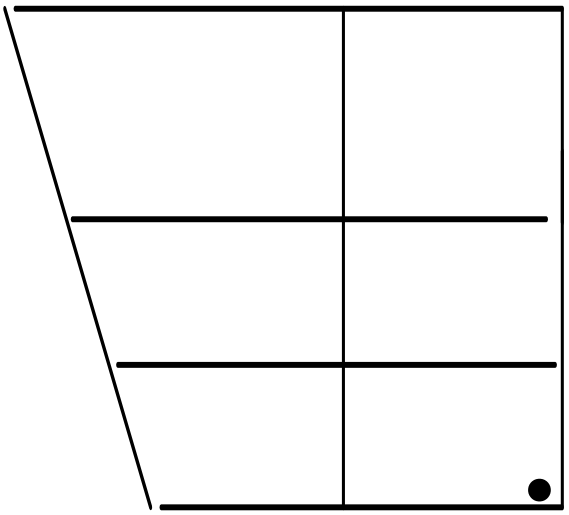
e (example words: "bet", "men", "eyes")this is a front vowel between cardinal vowel no.2{e and no.3 { ɛ }.the lips are slightly spread.



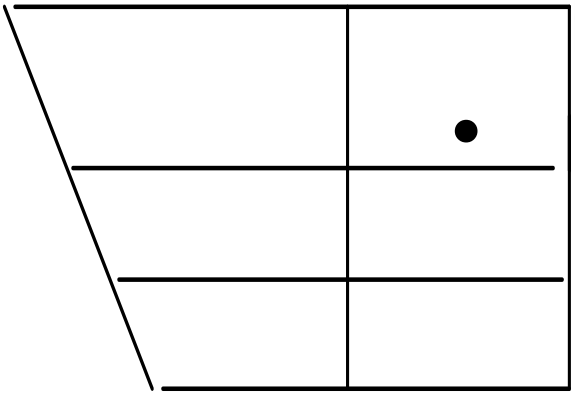
æ (example words: "bat", "man", "gas") this vowel is front, but not quite as open as cardinal no.6 {a}. the lips are slightly spread.



Λ (example words: "but", "some", "rush") this is a central vowel, and the diagram shows that it is more open than the open-mid tongue height. The lips position is neutral.



ɒ (example words: "pot", "gone", "cross")this vowel is not quite fully back, and between open-mid and open in tongue height. the lips are slightly rounded.



ʊ (example words: "put", "pull", "push") the nearest cardinal vowel is no.8 {u}, but it can be seen that u is more open and nearer to central. The lips are rounded.

There is one another short vowel, for which the symbol is e. this central vowel- which is called **schwa**-is a very familiar sound in English, it is heard in the first syllable of the words "about", "oppose", "perhaps" for example. Since it is different from the other vowels in several important ways.

The [ə] vowel (" **schwa**")

The most frequently vowel in English is e, which is always associated with weak syllables. In quality it is mid (that is, half –way between close and open) and central (that is, half- way between front and back). It is generally described as lax, that is, not articulated with much energy. Of course, the quality of this vowel is not always the same, but the variation is not important.

Not all weak syllables contain /ə/ though many do. Learners of English need to learn where /e/ is appropriate and where it is not. To do this we must consider spelling. It has been suggested that there is not really a contrast between / ə /and /ʌ/, and no minimal pairs can be found to show a clear contrast between /ʌ/ and e in unstressed syllables. This has resulted in a proposal that one phoneme symbol (e.g.ə) be used for representing any occurrence of /ə/ or /ʌ/, so that, " cup" would be transcribed **'kəp'** and "upper" as əpə. This new ə phoneme would have two allophones, one being /ʌ/ and the other/ʌ/; the stress mark would indicate the /ʌ/ allophone and in syllables not mark for stress it would be

more likely that /ə/ would be pronounced. Other phonologists have suggested that /ə/ is an allophone of several other vowels; for example, compare the middle two syllables in the words " economy" I'kɒnəmi and "economic" i:kə'nɒmik- it appears that when the stress moves away from the syllable containing /ɒ/ the vowel becomes /ə/. similarly, compare "Germanic" d_{33}:'mænik with "German" 'd_{33}:mən- when the stress is taken away from the syllable mæn, the vowel weaken to ə. The conclusion that could be drawn from this argument is that ə is not a phoneme of English, but is an allphone of several different vowel phonemes when those phonemes occur in an unstressed syllable.

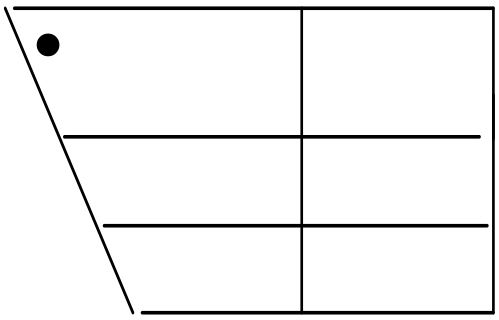
2-6. English long vowels:-

The vowels sounds, which is representing in the five long vowels; which tend to be longer than the short vowels in similar contexts. It is necessary to say " in similar contexts" because, the length of all English vowels sounds varies very much according to their context {such as the type of sound that follows them} and the presence or absence of stress. To remind you that these vowels tent to be long, the symbols consist of one vowel sound symbol plus a length mark made of two dots: Thus we have: (i:,ɜ:,ɑ:,ɔ:,u:). we will now look at each of these long vowels individually.

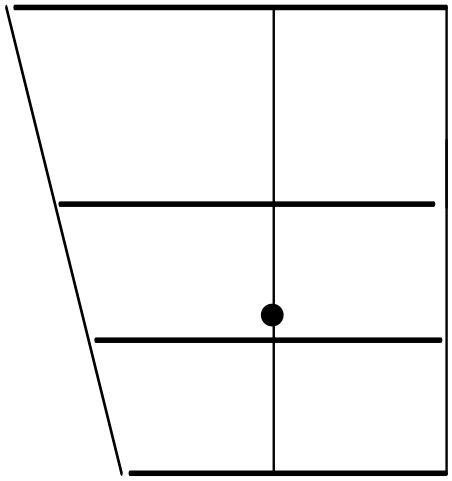
You may have noticed that these five long vowels are different from the

six short vowels, not only in the length but also in quality. If we compare some similar pairs of long and short vowels, for example I with i: or ʊ with u: or æ with ɑ: we can see distinct differences in quality {resulting from difference in tongue shape and position, and lip position} as well as in length. For this reason, all the long vowels have symbols which are different from those short vowels; you can see that the long and short vowel symbols would still all be different from each other even if we omitted the long mark, so it is important to remember that the length mark is used not because it is essential but because it helps learners to remember the length difference. Perhaps the only case where a long and short vowel are closely similar in quality is that of ə and ɜ: but ə is a special case, as we shall see later.

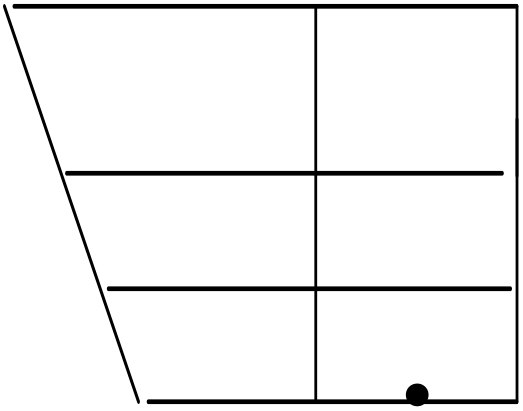
The long vowels are:



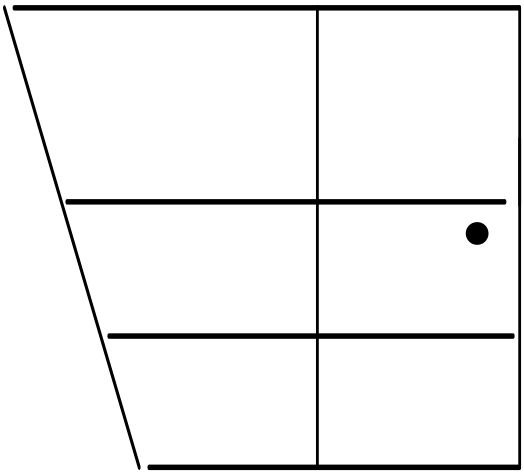
I: (example words: beat, mean, peace) this vowel is nearer to cardinal vowel no.1[i] (that is, it is more close and front) than the short vowel of "bid", "bin", "fish".) although the tongue shape is not much different from cardinal vowel no.**1**, the lips are only slightly spread and this is not results in a rather different vowel quality.



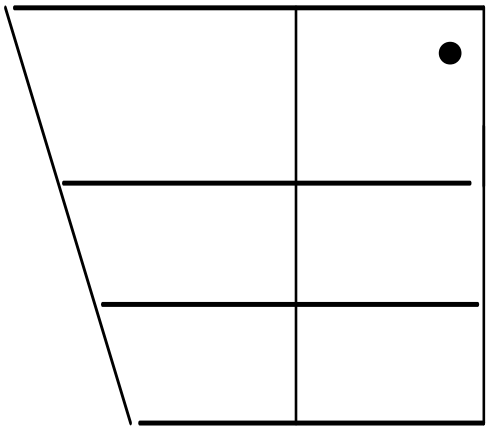
ɜ: (example words: "bird", " fern"," purse") this is central vowel which is well-known in most English accents as a hesitation sound (spelt "er"), but which many foreigners find difficult to copy. The lip position is neutral.



ɑ: (example words: "card", "half", " pass") this is an open vowel in the region of cardinal vowel no.**5** [ɑ:], but not as back as this. The lip position is neutral.



ɔ: (example words:" board", " torn", " horse") the tongue height for this vowel is between cardinal vowel no.**6** [ )] and no.**7 [o]**, and closer to the latter. This vowel is almost fully back and has quite strong lip-rounding.



u: (example words: "food", "soon", " loose") the nearest cardinal vowel to this is no. **8** [U], but it is much less back and less close; while the lips are only moderately rounded.

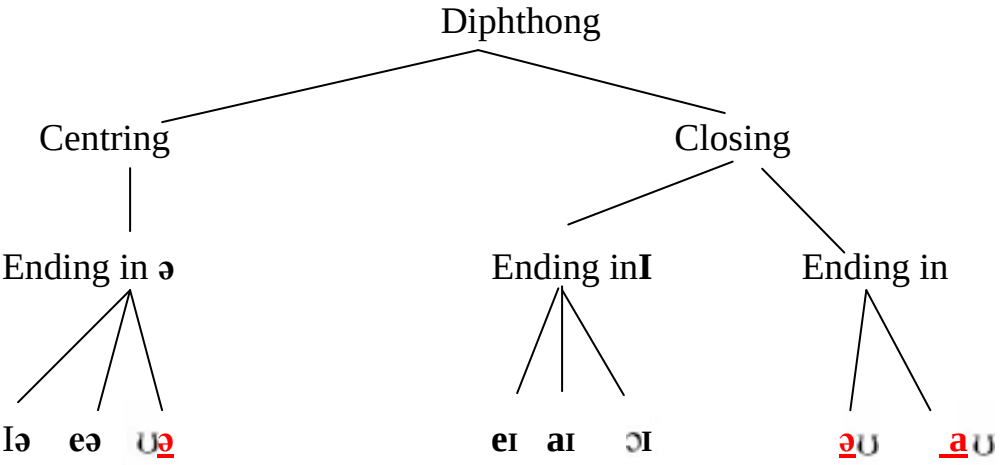
2-7. Diphthongs:

Are sounds which consists of a movement or **glide** from one vowel to another .

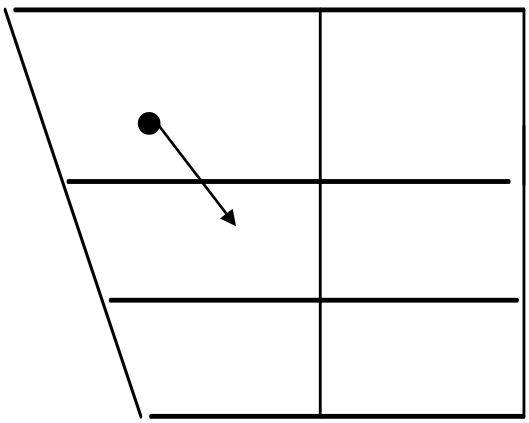
A vowel which remains constant and does not glide is called **pure vowel**, and one of the most common pronunciation mistakes that result in a learner of English having a "foreign" accent is the production of pure vowels where a diphthong should pronounced. In terms of length, diphthongs are like the long vowels described above. Perhaps the most important thing to remember about all the diphthongs is that the first part is much longer and stronger than the second part; for example, most of the diphthong **aI** (as in the words "eye", "I") consists of the **a** vowel, and only in about the last quarter of the diphthong does the glide to **I** become noticeable. As the glide to **I** happens, the loudness of the sound decreases. As a result, the **I** part is shorter and quieter. Learners must, therefore,

always remember that the last part of English diphthongs must not be made too strongly.

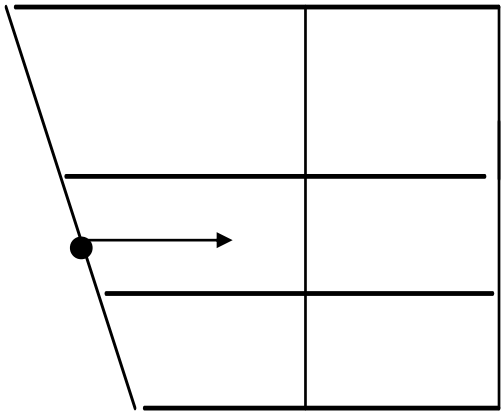
The total number of diphthongs is eight (though ʊə is increasingly rare.) the easiest way to remember them is in terms of three groups divided as in this diagram:



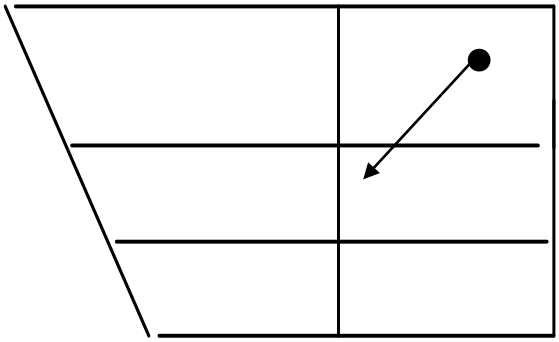
The centring diphthongs glide towards the ə (schwa) vowel, as the symbol is indicate.



Iə (example words: "beard", "Ian", fierce") the starting point is little closer than I in the "bit" , "bin".

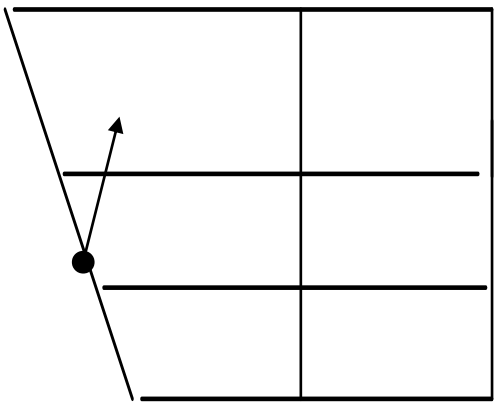


eə (example words**:** "aired"**,** "cairn", "scarce") this diphthong begins with the same vowel sound as the **e** of "get", "men".

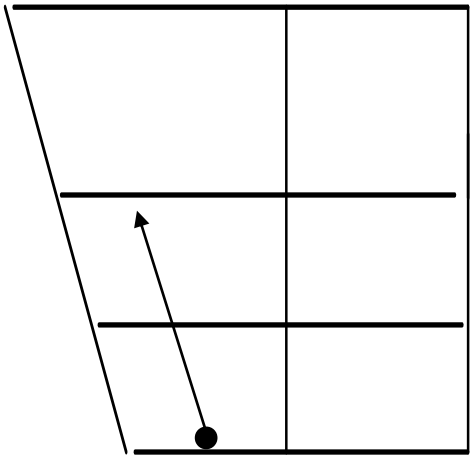


ʊə(example words: "moored", " tour") for speakers who having this diphthong, this has starting point slightly closer thanʊ in "put", "pull". Many speakers pronounce ɔ**:** instead.

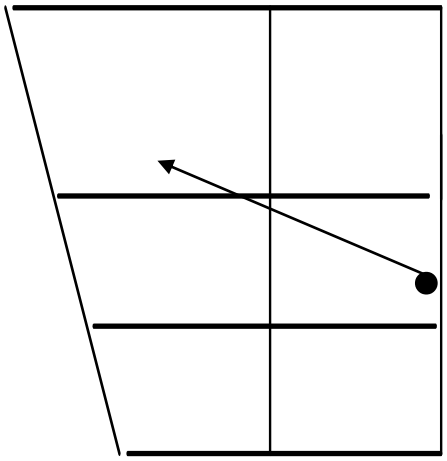
The closing diphthongs have the characteristic that they all end with a glide towards a closer vowel. Because the second part of the diphthong is weak, they often do not reach a position that could be called close. The important thing is that a glide from a relatively more open towards a relatively more close vowel is produced. three of diphthongs glide towards I, as described below:



eɪ (example words: "paid", "pain", "face") the starting point is the same as the **e** of "get", "men".

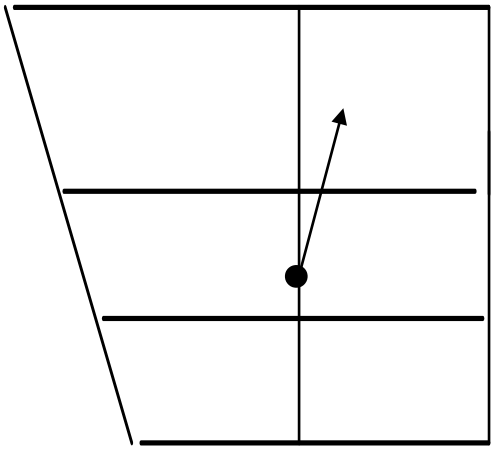


aɪ (example words: "tide", "time", " nice") this diphthong begins with an open vowel which is between front and back; it is quite similar to the u of the words "cut", "bun".

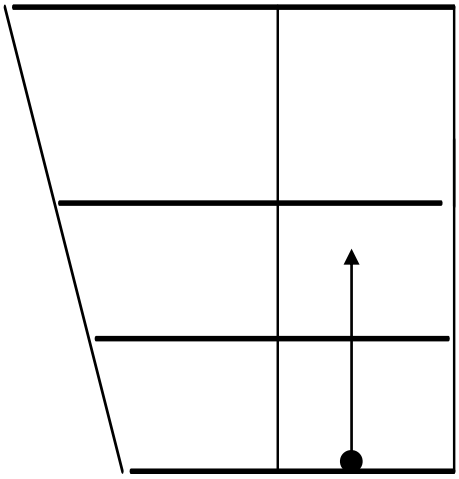


ɔɪ (example words: "void"," loin", "voice") the first part of this diphthong has the same quality as **:** in "ought", "born"**.**

Two diphthongs glide towards **ʊ**, so that as the tongue closer to the roof of the mouth there is at the same time a rounding movement of the lips. This movement is not large one, again because the second part of the diphthong is weak.



əʊ (example words: "load", "home", "most") the vowel position for the beginning is of this is the same as for the "schwa" vowel ə, as found in the first syllable of the word "about". The lips may be slightly rounded in anticipation of the glide towards, for which there is quite noticeable lip-rounding.



aʊ (example words: "loud", "gown", "house") this diphthong begins with a vowel similar to ɑː. Since this is an open vowel, a glide to would necessitate a large movement. Usually in English the glide towards begins but is not completed, the end of the diphthong being somewhere between close-mid and open-mid in tongue height. There is only slight lip-rounding.

2-8. Triphthongs.

most complex The English sounds of the vowel type are the **triphthongs**. They can be rather difficult to pronounce, and very difficult to recognize. A triphthong is a glide from one vowel to another and then to a third, all produced rapidly- and without interruption. For example, a careful pronunciation of the word "hour" begins with vowel quality similar to **ɑː**, goes on to a glide towards the back close rounded area (for which we use the symbol), then ends with a mid-central vowel (schwa, ə). We use the symbols **aʊə** to represent the way we pronounce "hour", but this is not always an accurate representation of the pronunciation.

The triphthongs can be looked on as being composed of the five closing diphthongs described with ə added on the end. Thus we get:

eI + ə = eI ə **əʊ+ ə = əʊə**

aI + ə = aIə **aʊ + ə = aʊə**

ɔI+ ə =ɔIə

The principal cause of difficulty for the foreign learner is that in present-day English the context of the vowel movement is very small, except in very careful pronunciation. Because of this, the middle of the three vowel qualities of the triphthong (that is, the **I** or ʊ part) can hardly be heard and the resulting sound is difficult to distinguish from some of the diphthongs and long vowels. To add to the difficulty, there is also the

problem of whether a triphthong is felt to contain one, or two syllables. Words such as "fire" **faIə** or "hour" **aʊə** are probably felt by most English speakers to consist of only one syllable, whereas "player" **pleIə** or "slower" **sləʊə** are more likely to be heard as two syllables.

We will not go through a detailed description of each triphthong. This is partly because there is so much variation in the a mount of vowel movement according to how slow and careful the pronunciation is, and also because the "careful" pronunciation can be found by looking at the description of the corresponding diphthong and adding ə to the end. However, to help identify these triphthongs, some examples words are given here:

eIə	"layer",'player'	**əʊə**	"lower", mower"
aIə	"liar", "fire"	**aʊə**	"power", "hour"
ɔIə	"loyal", "royal"		

2-9. Arabic vowels:

In his book (Anais 1979 from page 16 to page 43) said that vowels in languages are main sounds and most common in it, but the previous Arab scientists did not care most about it.

The mention to it was not deep, not regarded as structure, form of words and did not combine from it except branch's part.

The reason for this is that Arabic writing from the old times focus only on the consonants sounds and made symbols to it.

Till this time Arabian writers felt the importance of the vowel sounds

((long /a /and long /i/)) and wrote them on some texts and inscriptions position became like this till the ancients writers wrote short vowels and a greed to name it vowel diacritical marks in Islamic ages.

In his book ((Ibin Geny 1200))noticed to these sounds saying that ((know that the vowel points are parts of letters)) and these letters are; al-alef, alya and al-waw) (a, i: and w)

The vowel letters as we know three also ,the vowel points are three which are ((Alfateha(i), Alkasara(e) and Aldama(u)The ancients writers were naming Alfateha the small Alef and Alkasara small ya and Aldama the small waw. These letters some times we find them longer and complete if the Hamza and assimilated letter come after it like /Yasha/ [yezh'er] /daba/ [daba] (animal).

What indicates to these diacriticals as parts of the letters that when you lengthening any one of them according to the contexts which is part of it comes directly; but these letters which happen as for lengthening of diacriticals were not be except as consonants because they are extensions and extensions never be moved.

This is what Ibin Geny has said.

The researcher can see that the ancients writers felt as the modern fell that the difference between Alfateha (i) and what is called Alef Al-mad (long i) and Alkasara(e) and Ya Al-mad(long e) and dama (u) and Waw Almad (long w) is just difference in quantity.

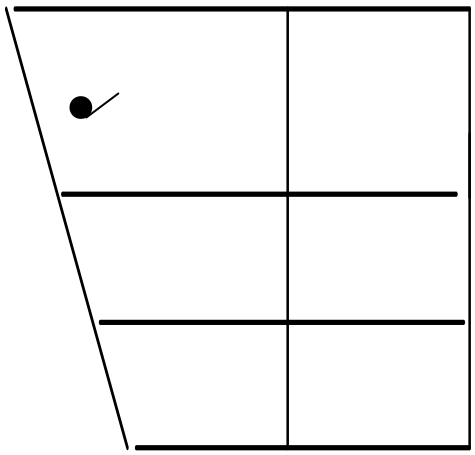
What is called Alef Al-mad (long a)in fact is a long fateha (long a)and what is called (long i) is no more than long (e) and (long w) regarded as long u) and the way of pronouncing Alfateha (i)and the position of the tongue with it is similar completely to the way of pronouncing what is called Alef Almad (long a)we should regard the difference in long between them.

The researcher can get from this that ancients confessed by three vowel sounds only and these sounds are; fateha,(i) Aldama (u)and Alkasara.(e)

ٍٍWhen we mention Arabic language we indicate to the condition which transferred to us in Koranic recitations, for we have not any means by which we can emphasize the way of pronunciation these sounds in an old ages, because the vowel sounds in modern Arabic dialects developed more and more. Even the vowel sounds differ some how in the most popular Koranic recitations in different environments.

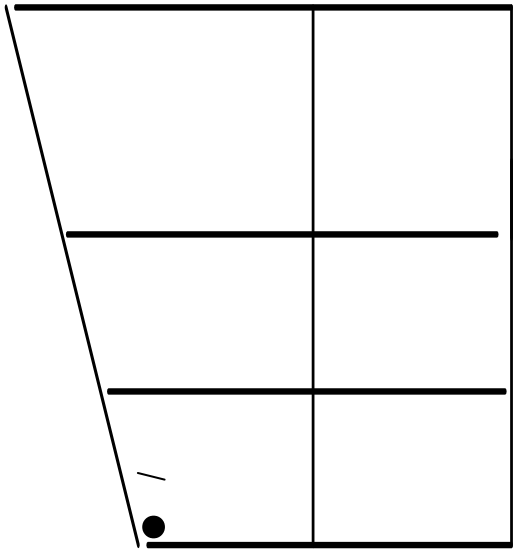
From this preparation we can find out that Arabic vowel sounds can be divided into two parts:-

Arabic short vowels consist of: Alkasara(e) ,Alfateha(i) and Aldama (u). we know that vowels can have quite different lengths in different contexts. Each vowel is described in relation to the cardinal vowels shape number 5.



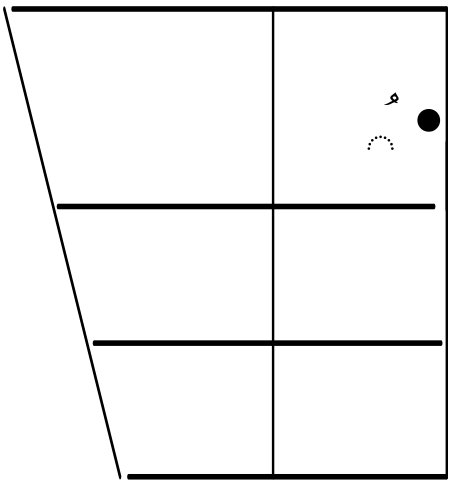
(1) Alkasara(e) (examples words): /etahed/ [I:tahad] (to unite); /etasaa/ [I:tasa] (to widen) the diagram shows that, though this vowel is close front area, compared with the cardinal no.1[i] it is more open and nearer to the centre the lips are slightly spreaded.

We can add that Al-kasara (e)when it affects by emphatic pronunciation sounds (Alsad-Aldad- Alta- Altha) (and may be (Alkha- Algain- Algaf) we notice this sound (Al-kasara)(e) can tendence slightly towards the symbol (e) and this can happen especially with the **occlusion sounds** (Alsad- Aldad- Altha Alta) this changing does not intended to itself but the position of the tongue moves from its narrow position for what is demanding by **occlusion sounds** to the upper jaw taking concave shape.



(2) Al-fateha. (i)(examples words /darab/ [darab] (beat) /ktab/ [katab] (wrote) the diagram shows that, though this vowel is front, but not quite as open as cardinal vowel no. 4[a] the lips are slightly spread.

If we compare Al fateha by the standards of vowel sounds, we can find it close similar to the symbol (a) when it affects by the emphatic pronunciation.



(3) Aldama(u) (example words): /Saul/[sua:l] (question) /maktub/ [maktoub] (written) (message) the Arabian Dama(a)completely typical to the symbol (u) it does not affect by the louder sounds. The diagram shows that this vowel is nearest cardinal vowel no.8[u], but it can be seen that Aldama (u)is more open and nearer to the back. The lips are rounded.

But for the slanting vowel sounds we will study Al fateeha(i) inclines towards Alkasara (e) only for its most common language in old or

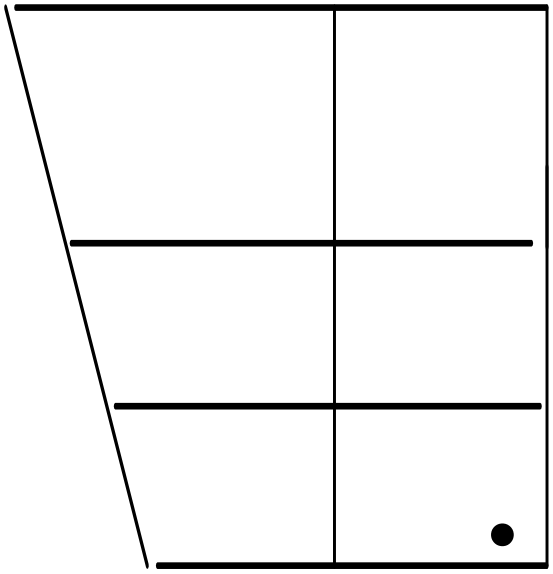
modern Arabian dialects and which taken more attention from public readers.

If the slanting is very strong, Alfateha(i) may be very close to the symbol (e) as in this word when we stop on it in reciting./Rahma/[rahama[(mercy) but for the light slanting may be Alfateha (i) very close to the symbol 3 as in this word /zaid/ [Za:d].

Alfateha (i) generally by all its sorts can be accounted from the widen vowel sounds except if it's slanting very strong. But for Al-dama(u) and Alkasara (e)they are from the narrow vowel sounds. This division has its importance for what happen to these sounds form the linguistic phenomena, in most times we notice that what happen to Aldama (u)happens to Al-kasara (e)because each of them is narrow vowel sound, unlike Al-fateha (i)it's independent part has its own phenomena.

2-9-1. Arabic long vowels:-

These vowels are three in numbers which are (Alalef - Alya - Alwaw) also the ancients people called these lengthening letters. If we study them in an individual position we find that:-



(1) Alalef (a)never could be as an original but exceed like /daraba/ [daraba] because it is from Al-darb/ eldarb/ [eldarab] or turned from Ya (i:)or Waw(w) like /rama/ [rama] (throw) because it is from Al ramy (throwing)and /Gaza/ [gaza] (invaded) so it is from Algazu, (invadition)except in words that never conjugated like the letters and nouns in these cases Alalef (a) should considered as original. Also Alalef (a) should be with it two or three letters in any word as to say its turned from original.

If we make a diagram for these examples we can notice that Alalef (a) is close to the long symbol a: Alalef (a): ((example words: /rama/ [rama] (throw) (invaded) /gaza/[gaza] this is an open vowel in the region of cardinal no. 5[a:] but not as back as this. The ;lips are neural .

Generally Alalef (a)in many words can turn to a long ,short Fateha.(i) Some times Hamza (همزة)or long Dama(u) and some times closed ta.(تاء مربوطة).

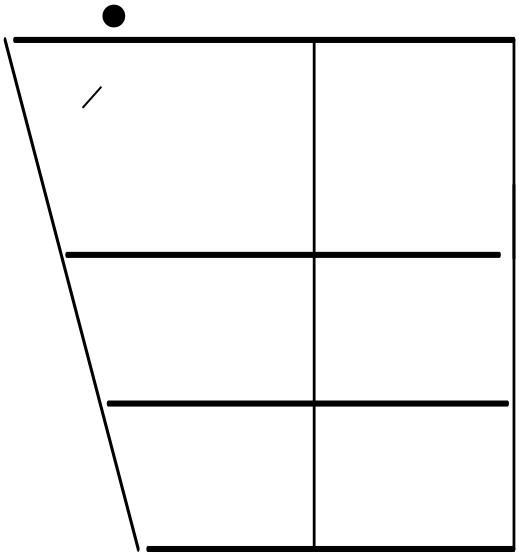
But for what is concerning to Alya and Alwaw (i: and w) they need to be treated especially because the position of the tongue with them is close in position with other vowel sounds.((Notice Alya(i:) and Alwaw (w) called semi vowel sounds)) The experiments indicated that we can hear a little hiss in examples like /bit/ [bI:t] (home) and /Yum/ [yom] (day).

Alya (i:)and Alwaw (w) they are the position in the consonant sound move to vowel sound. We can say Alya(i:) and Alwaw (w)are transitional sounds. For this transitional nature, very short not clear in hearing if they compare with vowel sounds may be accounted as consonant sounds.

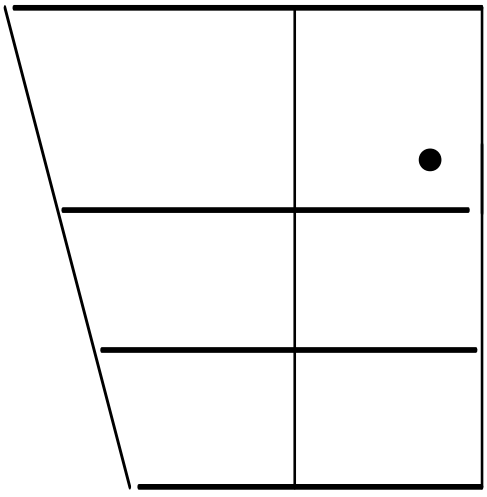
Alya (i:) and Alwaw (w) they have double nature for this the research preferred to treat them especially.

Many linguistic phenomena happen to these sounds the most famous one they are subject to change into complete vowel sounds.

2-9-2. Arabic short vowels



(2) Alya: (i:) we notice that the position of the tongue be nearly in the position of pronouncing the vowel sound (i) but the space between tongue and the middle upper jaw in pronouncing Alya(i:) be more narrow than pronouncing(i) comparing by little hiss for it may be consonant sound, the lips affect by the pronouncing of Alya(i) and goes spreaded. The diagram shows that Alya(i) is close to the vowel no.1[i], this vowel is in close front area it is more open and nearer to the centre the lips are slightly spread.



(3) Alwaw: (W) there is no difference between it and Al-dama (u) except in the furthest tongue and the furthest jaw in case of pronouncing Alwaw (w) it could be narrow and can be heard a little hiss makes Alwaw (w) similar to consonant sounds, but when we look to position tongue with Alwaw (w) we can considered it as similar to the sound (u).The out of Alwaw (w)is not the lips only as the

ancients thought, but in fact it is from the furthest tongue when comes to the furthest jaw, but the lips when pronouncing Alwaw(w) goes rounded or complete rounded and may be clear round of lips with Alwaw (w)made the ancient writers to attribute the out of Alwaw (w)to the lips.

The diagram shows that Alwaw (W) is nearest to the cardinal vowel no.8 [u] and the u is more open and nearer to central. The lips are rounded.

But in the old-time when Arab writers thought there are short vowel diacriticals before the long letters, this was not correct, they have said as an example there is Fateha(i) on Alta (t)in the word /kitab/ [kI:tab] ((book)) and Kasara(e) under Alra (r) in /Karim/[kari:m](generous) and Dama(u) above Algaf (Q) in /yaguol/ [yagoul] ((say)) and the fact these diacritical are not exist and Alta,(t) Alra(r) and Algaf(q) they are moving by the lengthening letters.

Ibin Giny thought that there is slanting Fateha(i) towards Aldama(u) before emphatic pronunciation Alef (a) in the word (Alsala) (the pray) and regarded it as a kind branch of Alfateha,(i) and he should limit the branch sorts for the vowel sounds.

*Slanting fateha towards Alkasara(e) as mentioned above.

*Lengthening Alef (a) when it slants to be a companied by Alkasara(e)as in reading of / riba/ [ri:ba] (usury) .

*In what is called emphatic pronunciation Alef(a) and it's lengthening Alef (a)slanting toward Aldama(u) in reading the word (Alsala)(the pray).

* lengthening ya (i:)slanting toward Aldama(u) and this what is called (Eshimam)) when some Arabs pronounce by the passive verb like /gela/ [gi:la] (said) /bia/ [bi:a] (sold).

This is what in concerning of the long Arabic sounds.

2-9-3. Semi soft sounds:

There are two sounds among the linguistic sounds deserve to be treated in especial way because the position of the tongue which is very similar to soft sounds, and experiments have shown that we can hear little hiss with them, these sounds are Alya and Alwaw (i: and w) in examples like /bit/[bi:t] /youm/ [youm] in the form of Alya (i:) we notice that the tongue is nearly in the position of pronouncing the(i) sound but the distance between the tongue and the middle of the upper jaw in pronouncing Alya(i:) being more narrow than pronouncing (i)sound for this we can hear that little hiss. because Alya(i:) consists of little hiss when we pronounce it we can regard it as silent sound. if we look at the position of the tongue, we find it very similar to the (i) sound and for this reason the speakers termed it by semi soft sound.

Also Alwaw (w) no difference between it and Al-dama(u) except in the distance between the furthest tongue and the furthest jaw in the

pronunciation of Alwaw(w) is more narrow than pronouncing Aldama (u) and a little hiss can be heard for Alwaw (w) made it as similar to the silent sounds. but when we look to the position of the tongue with it we can account it as similar to the soft sound (u).

Alya and Alwaw (i: and w) they are the position in which the silent sound can move to soft sound. And the fact that Alya(i:) is transitional sound, that its form from the position of the soft sound(i) and move quickly to another position of soft sounds, and also Alwaw (w) it begins in from the position of the soft sound (u) and the tongue move quickly to another soft sound position. Alya and Alwaw(i: and w) they have double nature and for this reason we preferred to treat them in especial way. And many linguistic phenomena happen to these sounds, the most common one that they can change to complete soft sounds. And the out come of Alya(i:) as the modern experiments describe it, goes to extend degree to the description of the ancients writers to it. and the outcome of Alwaw (w)is not the lips only as the ancients writers thought, but in fact its from the furthest tongue when it comes near to the furthest jaw but the lips when they are pronouncing Alwaw (w) goes round or in accurate description complete its round. And we mentioned before that the lips effect by the pronunciation of the soft sounds, and they are parted with the front soft sounds and rounded with the back soft sounds. as the lips effecting and parted by the pronouncing of Alya(:ه)also effecting and

rounding with the pronouncing of Alwaw (w) and may the clearness of rounding of the lips in pronouncing Alwaw (w) made the ancients writers attribute the way out of Alwaw (w) to the lips.

And this is what made the reader of recitations when they are speaking about kind of recitation called it (Eishemam) pointing to possibility of sign to Aldama (u) by the movement of the lips.

2-10. Contrastive Analysis:-

If we look at the study of vowel sounds in English and vowel sounds in Arabic language we will find many similarties between these vowel sounds in many aspects first: in the distribution of these vowel sounds also in sequences of these sounds.

Second: in manner of pronunciation of these sounds.

Third: in place of Articulation of these sounds. Also there are many differences aspects like the numbers of these sounds in the two languages are not equal, even in the long vowel sounds there is not complete similar between these sounds .

2-11. Mother tongue Interference:-

Mother tongue is language that every one finds his parents, environment, community speak this language and he learnt it from them and taught it in all of his growing stages ,spoke by it as kid, young and man, and it is the pronunciation's language he spoke naturally and instincingly and for this it’s the language that combined in his pronunciation and speaking the

models speaking which made to him especial manner, has its effect in learning any other language.

From pure practical side also our pronunciation to our mother tongue regarded as the base on which we built our learning to any foreign languages and it is necessary to study our linguistic habits especially in pronunciation, for it helps us learn the pronunciation of the foreign languages. Mother tongue pronunciation interference is clear in our pronunciation for the other languages when we form it by what is suiting to our speaking habits in pronunciation that affected to us in all our environments even among the school walls.

2-12. Previous studies :-

There are many studies have studied the languages from many aspects and angles, even these studies analyzed these languages and other studies specialized in comparing between these languages or between parts of it. Some books or writtens devoted parts of it to study or discuss the sounds of these languages or parts of these sounds.

All these books studied the learning of the second language and the connection between these books that all of it interested to study the Mother Tongue Interference and the sounds of this language(especially the vowel sounds) and the Articulators parts that we use in pronunciation of these sounds.

From these studies

(The Linguistic Meeting and Errors Analysis) which was written by Dr: Mohamoud Ismail Siny and Isehaq Mohamed Al-Amin, this study pointed to many points of views or theories that shown in the field of learning foreign languages, and should be provided for those who are studying these languages, and the base of making meeting studies between different languages.

Also the study points to other opposite direction to this one, calling to not depend on the results of linguistic analysis in knowing to the linguistic problems which facing those who study these languages, because this meeting analysis building on wrong assumption and its prophetic and this what is known by Linguistic Interference, and transfer of experience from language to another. Also the study points to many linguistic problems in growth and the nature of the studied language.

The chapters of this book (The Linguistic Meeting and Errors Analysis) chosen from many books and scientists periodicals, the first part of these essays treating with linguistic meeting problems from its importance and its applications in the field of sounds, Syntax, vocabularies.

Second study

((Learning Second Language theories)) translated by Abd Al-Rahaman Abd Al-Aziz and Mohamed Al-Abdan, this study describes the great advance in learning second language in the later three decades, in this branch as its main branch and recent from branches of applied linguistics science.

The translation of this book coming as contribution to let the Arabian reader by the theories of second language learning especially in the field of sounds, which discussed accurately and in more details to make it ease for the Arabian learner or reader to encourage him to go further in this field.

The last one that connecting with this research is that written by Dr: Mohamed Ali Al-kholy (under the title (Linguistic studies) in his book the writer discussed many various linguistic topics, treated them in a good manner, among these topics he spoke about the sounds of language and its sorts and the Articulators of pronunciation, also he treated the transformational theory and its basic rules, transformitionality and soundism and he gave some laws, rules to be applied on the Arabic Language.

He pointed also to the importance of Linguistic Listening craft from the readiness, and the nature of listening itself and selecting main thoughts.

Contrastive analysis

Lado defined contrastive analysis as " the comparison of any two languages to discover and describe the problems that the speakers of one of the languages will have in learning the other" (Lado-1964). The contrastive analysis approach created in 1957 was designed to contrast the sound system, morphological system, syntactic system, and cultural system of two languages for the purpose of discovering similarties and differences, with the ultimate goal of predicating areas that will be either easy or difficult for learners. Lado believed that the structures that are similarties between the first and second language will easily be transferred and will function correctly in the second language. on the other hand, those structures will not function satisfactorily when transferred to the second language.

Lado's main interest was creating pedagogical materials, many of which were based on the assumptions of contrastive analysis.

Chapter 3.

Methodology of the study

3-1. Introduction:-

Methods of studying or collecting data are very various and different, so the selection one of these methods should be harmonized with a research according to its nature. the researcher is followed the way of study, analyze and compare data from references in both languages English and Arabic that concerning with the vowel sounds and write the essence and summary of the methodology.

3-2. Instrument:-

After my reading to the book of **Peter Roach** (phonetic and phonology). The researcher found that, it gave a good background about many topics that concerning with sounds as general in English language, then described and introduced the sounds and divided it into parts one of these parts is the vowel sounds. then described the organs of speech in details showing the role of these organs in pronouncing to these sounds as general and in vowel sounds as in determination. then the book studied the vowel sounds individually, and then divided these sounds into many parts, like short vowels and long vowels and studied the vowel sounds in more details from two angles:-

One, from the point of the place of Articulation these sounds, that means which part that we should use when we want to pronounce one of these sounds and as we know that we have many Articulators that can participate in the operation of pronunciation of these sounds. Second, the manner of articulation these sounds, that means, how is the shape of the tongue can be(vertical and horizontal) when we pronounce one of these vowel sounds.

Also the book divided the vowel sounds into short and long sounds and spoke about this distribution in more details that can provide a great motivation for the learners of English language to benefit from this prosperous book.

In his book (Linguistic sounds) The researcher has got that Anis indicated to many points very important in the field of studying languages especially the sounds, he has shown the importance of this study as general and in the area of linguistic research basically. He pointed to the best ways to pronounce the sounds of the language, knowing the nature of every sound and how can it be produced and the complete control on the organ of speech. he also designated to the historical background to the phenomenon of the sound and described the human sound, how it can produce and spoke about the beginning of the linguistic sound, then he pointed to the importance of listening in the operation of the recognition of the linguistic sound.

In details he spoke about the Articulators of speech sound, describing the contribution of each one of these articulators in the operation of pronouncing these sounds (especially the vowel sounds), the place of articulation of these vowel sounds and the manner of pronouncing these sounds, the shape of the tongue and the distance between it and the upper jaw. he also divided the vowel sounds in Arabic language into long vowels and short vowels and semi vowels, and he explained some standards to pronounce these vowel sounds in correct way.

From the comparison that researcher has done, after reading and analysis to these books (phonetics and phonology) (linguistic sounds) he has reached to, that there is great similarties between these books, in the way of describing and distribution of the vowel sounds, then in the manner and place of Articulation these sounds. Also there is a little difference between these vowel sounds mentioned in chapter 4.

Chapter 4

Data Analysis

4-1. Introduction:-

The learners of English language actually will benefit from this research at least in aspect that there is possibility in comparing between sounds in any languages.

AS the study hypothesizes that there is great similarties between these vowel sounds and this is new horizon for the Arabian learners of English language especially in making direct comparison between these vowel sounds in English Language and vowel sounds in Arabic Language in two points manner and place of Articulation-

4-2. Comparing vowel sounds of English and Arabic According to the manner of Articulation .

As it is well-known to every body that all speech sounds are made with some movement of air, the regressive pulmonic is by far the most commonly found air movement in the languages of the world. How an air moves into and out of the lungs? It is important to know some thing about this, since it will make it easier to understand many aspects of this speech, particularly the nature of stress and intonation. The lungs like sponges that can fill with air, and they are contained within the ribcage. If the ribcage is lifted upwards and out wards there is more space in the

chest for and they expand, with the result that they take in more air. If we allow the ribcage to return to its position quite slowly, some of the air expelled and can be used for speech sound. if we wish to make egressive pulmonic air stream continue without breathing in again, we can make the ribcage press dawn on the lungs so that more air is expelled. In talking about making air flow into and out of the lungs, the process has been described as though the air were free to pass with no obstruction. but as we know that the vowels are the sounds in which there is no obstruction to the flow of air as it passes from the larynx to the lips, this is the way that vowels are made, but we need to know in what ways that vowel sounds in English and in Arabic are similar in manner of Articulation, the first matter to consider is the shape and the position of the tongue. it is usual to simplify the very complex possibilities, by describing just two things: **firstly,** the vertical distance between the upper surface of the tongue and the palate, **secondly,** "horizontally" the part of the tongue, between front and back, which is raised highest.

If we compare the short and long vowel sounds according to what we have said about the tongue we will find that in some short vowel sounds:-

(1) The tongue is held up close of the mouth.

(2) The distance between the surface of the tongue and the roof of the mouth is narrow.

As we have in these symbols:-

(A) **I** example /bit/ [bi:t] similar to Al-kasara (example /eatahed/ [i:tahad] to unite)they are more open the lips are slightly spread. the tongue is held up close of the mouth's roof, the distance between them is narrow.

(B) **æ** (example – /bat/ [bat] it is similar to Al-fateha (example /darab/ [daraba]-to beat) the tongue is highest close the mouth's roof also the distance between tongue and mouth is very narrow.

(C) **u** (example put) this symbol is typical to Al-dama(example /Saul/ [soul]- question) the tongue is not close/touch completely to the roof of the mouth, the distance between them is not so wide, the lips are rounded.

In the long vowel sounds:-

(1) The tongue is far from the roof of the mouth.

(2) The distance between the surface of the tongue and the roof of the mouth is very wide.

(D) **ɑ:** (example words, /card/ [kard], /pass/ [pas]) this symbol is typical to the long vowel sound in Arabic (Al-alef) (a) example /rama/ [rama] "throw"/gaza/ [gaza]"invaded") the tongue is lower and far from the roof of the mouth, the lips are neutral.

Al-alef (a)generally in many words can turn to short or long Fateha, (u)some times Hamza,(همزة) or long Dama(u) and some times closed ta.(تاء مربوطة).

Alya and **Alwaw** (i: and w)(they need to be treated especially because the position of the tongue with them is close in position with other vowel sounds.(Notice :Alya and Alwaw (i: and w))called semi vowel sounds) the experiments indicated that we can hear a little hiss in examples like /bit/ [bi:t] "home" and /yum/ [youm] "day".

Alya and Alwaw(i: and w) they are the position in which the consonant sound change to vowel sound. We can say Alya and Alwaw(i: and w) are transitional sound. For this transitional nature, if they compare with vowel sounds may found short, not clear in hearing for this reason may be accounted as consonant sounds. Alya and Alwaw(i: and w) they have double nature for this, the research treated them especially.

Many linguistic phenomena happen or occur to these sounds, the most famous one, they are subject to change into complete vowel sounds.

Alya: i:(we notice that the position of the tongue be nearly in the position of pronouncing the vowel sound(i) but the space between the tongue and the middle upper jaw in pronouncing Alya (i:) be more narrow than pronouncing (i) comparing by little hiss, for this it may be consonant sound, the lips are affect by the pronouncing of Alya (i:) and goes slightly spreaded.

Alwaw: (w) there is no differences between it and the Aldama (u) except in the space between the furthest tongue and furthest jaw in case of pronouncing Alwaw,(w) it could be more narrow and can be heard a little

hiss makes Alwaw(w) similar to consonant sounds, but when we look to the position tongue with Alwaw(w) we can consider it as similar to the sound(u).

The out of Alwaw (w) is not the lips only as the ancients thought, but in fact it is from furthest tongue when comes to the furthest jaw, but the lips when pronouncing Alwaw (w) goes rounded or completely rounded and may be clear round of the lips with Alwaw (w)made the ancient writers attribute the way out of Alwaw (w) to the lips.

4-3. **Comparing vowel sounds of English and Arabic According to the place of Articulation.**

This comparison is done through the primary cardinal vowel sounds, if the reader learns the cardinal vowel which is a standard reference system, he is not learning to make English sounds, but he is learning about the range of vowel sounds that the human vocal apparatus can make, and also learning a useful way of describing, classifying and comparing vowels, It has become traditional to locate cardinal vowels on a four-sided figure (quadrilateral) of the shape. (The design used here is the one recommended by the International Phonetic Association) the vowels on this shape are so-called primary cardinal vowels; these are the vowels most familiar to the speakers of most European languages, and there are

other cardinal vowels (secondary cardinal vowels)that sounds less familiar.

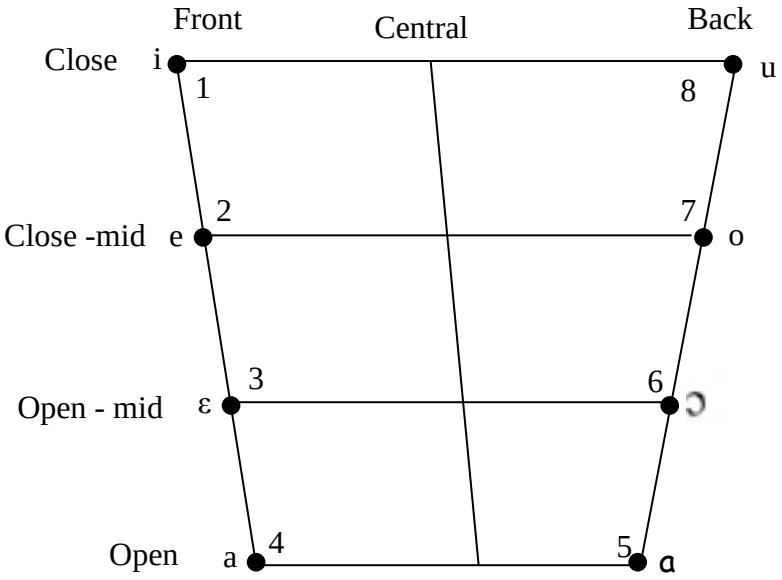


Fig . 5 primary cardinal vowels (Peter Roach)

If we divide the vowels as we have done into short and long vowels we will find that the short English vowels compared with the short Arabic vowels shows that:-

The English short vowels which are (**I, e, æ, ʌ ,ʊ**) examined from place of Articulation:-

(**A**) Cardinal vowel no.1 has the symbol[i],and is defined as the vowel is close and front.

(**B**) Cardinal vowel no.2 has the symbol[e],and is defined as front vowel between cardinal no.2 and no.3 [ɛ] that means its close-mid.

(**C)** Cardinal vowel [a].is defined as front vowel, but not quite as open as cardinal vowel no.4[a].

(**D)** Cardinal vowel ɒ this vowel is not quite fully back, and between open –mid and open.

(**E)** Cardinal vowel ʌ this is central vowel, more open than the open-mid.

(**F)** Cardinal vowel u is more open and nearer to centre.

If we look to the short Arabic vowels comparing with English short vowels according to the primary cardinal vowels we can find that:-

(**1) Al-kasara(**e)is close front area compared with cardinal vowel no.1[i] it is more open and nearer to the centre. we can add that when it by emphatic pronunciation sounds((Alsad-Aldad- Altha)) affects and may be ((Alkha- Algain- Algaf)) we notice this sound (Alkasara)(e) can tend slightly towards the symbol no.2[e] and this can happen especially with the **Occlusion sounds (**Alsad- Aldad-Altha-Alta).

(2)**Alfateha**, (i) though this vowel is front, but not quite as open as cardinal vowel no.4[a].Alfateha(i) is close similar to the symbol[a]but did not typical and can direct slightly towards the symbol (a) when it affects by the emphatic pronunciation.

(3) **Aldama**, (u)completely typical to the symbol(u) and this vowel is nearest to the cardinal vowel no.8 [u], but Aldama(u) is more open and nearer to the back.

But for the slanting vowel sounds, the research will high light on Alfateha (i) inclines towards Alkasara(e) only, for its most common language in old or modern Arabic dialects and which taken more attention from the public readers.

If the slanting is very strong, Alfateha (i) may be very close to the symbol(e) as in this word when we stop on it in reciting,((Rahma)) ((mercy))but for the light slanting Alfateha (i) may be very close to the symbol (3) as in this word /Zaid/[zi:d].

Alfateha(i) generally by all its sorts can be accounted from the widen vowel sounds except if its slanting is very strong.

But for Aldama and Alkasara(u and e) they are from the narrow vowel sounds. this division has its importance for what happen to the se sounds from the linguistic phenomena, in most times we notice that what happen to Aldama(u) happens to Alkasara(e) because each of them is narrow vowel sound, unlike Alfateha(i) it's independent part has its own phenomena.

We can summarize the comparison in the following table.

(A) Comparing short vowels sound of English and Arabic According to the place of Articulation

	English short vowel	Arabic short vowel	Manner of Articulation	Place of Articulation
1	i-e		More open the lips are slightly spreaded/ the tongue is held up close of the mouth's roof.	They are close as front ((close-mid))
2	Æ-		The tongue is highest close the mouth's roof/ the distance between tongue and roof of the mouth is very narrow.	They front but not quite as open as cardinal vowel no.4(a)
3	**u -**		The tongue is not touch completely close to the roof of the mouth , the distance between them is not so wide, the lips are rounded	They are more open or between back and centre
		Alkasara (e)	More open the lips are slightly spread, the tongue is held up close to the roof of the mouth.	It is close as front ((close-mid))
	ɒ	Alfateha (i)	The tongue is highest close to the roof of the mouth, the distance between tongue and the roof of the mouth is very narrow.	It is front but not quite as open as cardinal vowel no.4[a].
		Aldama(u)	The tongue is not touch completely close to the roof of the mouth, the distance between them is not so wide, the lips are rounded.	It is more open or between back and centre.

The long English vowels are ((i:,ɜ:,ɑ:,ɔ:,u:))
First we look at them from manner of Articulation:-

(A) i: this vowel is nearer to cardinal vowel no.1[i] although the tongue's shape is not much different from the vowel no.1, the lips are only slightly spread.

(B) ɜ: The edges of the tongue touch the roof of the mouth, the distance between the tongue and the roof of the mouth is very narrow, that means in most English accents can hear hesitation sound, the lips position is neutral.

(C) ɑ: The tongue is far from the roof of the mouth, the distance between them is wide, the lips position is neutral.

(D) ɔ: The tongue height for this vowel is between cardinal vowel no.6 [ɔ] and no.7 [o] and has quite strong lips-rounding.

(E) u: The tongue is nearly flat, there is no touch between tongue and the roof of the mouth.

Arabic long vowels according to the manner of Articulation:-

(1) Alalef-(a) the tongue can touch the roof of the mouth lightly, the distance between them is wide, the lips position is neutral.

(2) Alya-(i:) this vowel is more open, the tongue is held up close of the roof of the mouth, the lips are slightly spread.

(3) Alwaw-(w) this vowel is more open, the tongue is not touch completely close to the roof of the mouth, the lips are rounded.

(2) English long vowels from place of Articulation:-

(1) i: this vowel is more close and front.

(2) ɜ: this vowel is central.

(3) ɑ: this is an open vowel in the region of cardinal vowel no.5[ɑ] but not as close as this vowel.

(4) ɔ: this vowel is middle between vowels no.6 [ɔ] and no.7 [o] and closer to the latter this vowel is almost fully back.

(5) u: this vowel is nearest to cardinal vowel no.8[u] but it is much less back and less close.

Arabic long vowels according to the place of Articulation:-

(1) Alalef-(a) this vowel in the region of cardinal vowel no.5 [ɑ] but not as back as this.

(2) Alya-(i:) this vowel is close to the vowel no.1 [i], this vowel is close front area.

Alwaw-(w) this vowel is nearest to cardinal vowel no.8[u] and u is more open and nearer to central.

We can summarize the comparing be illustrated in the following table.

(B) Arabic long vowels according to the place of Articulation:-

	English long vowels	Arabic long vowels	Manner of Articulation	Place of Articulation
1	.i:		The tongue is not different too much from the vowel no.1. the lips are only slightly open.	This vowel is more close and front.
2	ɜ:		The tongue touches the roof of the mouth, the lips are neutral.	This vowel is central
3	ɑ:		The tongue is far from the roof of the mouth, the lips are neutral.	This vowel is open in the region of cardinal vowel no.5[ɑ] not as back as this.
4	ɔ:		The tongue height between cardinals 6 [ɔ] and no.7[o] the lips are strong-rounded.	Close to vowel no.7[o] almost fully back.
5	u:		The tongue is nearly flat there is no touch between the tongue and the roof of the mouth.	This vowel nearest to the vowel no.8[u] but much less back and less close.
		Alya. (i:)	The tongue is held up close to the roof of the mouth, lips slightly spread.	This vowel close to vowel no.1[i], this vowel is close front area.
		Alwaw (w).	This vowel is more open, the tongue is not touch completely close to the roof of the mouth, the lips are rounded.	This vowel is nearest to cardinal vowel no.8[u],and U is more open and nearer to central.
		Alalef. (a)	The tongue can touch the roof of the mouth slightly, the position is neutral.	This vowel in the region of cardinal vowel no.5[ɑ]but not as back as this.`

Similarties and differences between English and Arabic vowels:

Similarties:

If we look at the short English vowel sounds and compare them with Arabic short vowel sounds as to see are there any equivalents to these sounds the researcher found that:

i-This vowel sound is equivalent to slanting al-kasara.

e- This vowel sound is equivalent to al- kasara.

(æ) This vowel sound is equivalent to al-fateha.

(ʌ) This vowel sound is to slanting al-fateha.

(ʊ) This vowel sound is near to al-dama.

(ɒ) This vowel sound is equivalent to alef al-mad.

Differences:

If we look at these long English vowel sounds and compare them with Arabic long vowel sounds as to see are there any equivalents to these sounds the researcher found that:

I: This vowel sound is very near to alya (i) /gila/ [gi:la].

3: This vowel sound is also very near to alya (i) /bit/ [b3:t].

ɑ: This vowel sound is equivalent to the long alef (lnog a) /ragaa/ [raga:].

ɔ: This vowel sound has no equivalent in Arabic language.

u: This vowel is equivalent to the long waw (long w) /gauo/ [ga:ouo].

But for the diphthongs the researcher found that:

(Iə) This vowel sound is equivalent to ya al-mad (long i) /noudia/ [nuodi:a].

(eə) This vowel sound is near to alef al-mad (long a)/musa/ [mousa].

(ʊə) This vowel sound is equivalent to al-dama (u) /naudo/ [naoudu].

eI- This vowel sound is near to alef al-mad (long a) /bani:a/ [bani:aa].

aI- This vowel sound is equivalent to alef al-mad (long a) /alea:ya/ [aali:ya:].

(ɔI)- This vowel sound has no equivalent in Arabic language.

(əʊ)- This vowel sound has no equivalent in Arabic language.

(aʊ) This vowel sound has no equivalent in Arabic language.

(aʊə) This vowel sound has no equivalent in Arabic language.

Chapter 5

Conclusion

5-1. Introduction:-

This chapter deals with the results of reviewing and summary the vowels sounds in English and in Arabic. This study is hypothesizing that there are many kinds of similarties between these vowels sounds in these languages (English language and Arabic language) and also there are some differences, and the study will prove this.

This study hypothesizes that there are great similarties and differences between vowels sounds in English and vowels sounds in Arabic in two aspects:

Manner and place of articulation.

If there are some similarties between these vowels sounds, what are the similarties between these vowels sounds?

And what are the differences between these vowels sounds?

Are the similarties in manner of articulation?

Are the differences in place of Articulation?

To what extend can learner make use of such comparison?

5-2. Findings:-

The results were identical to the hypothesis of this research.

Generally there is a big similarties between the vowels sounds of English and their counterpart in Arabic language in two aspects which are represented in the manner of articulation and place of articulation, and this was through the comparing of these sounds, which is briefed in two tables showing the similarties between short vowel sounds and long vowel sounds in English language and Arabi9c language, these tables were found in the end of chapter four.

However the similarties are not identical, there is some specific simple differences in the length of pronunciation of short vowel sounds in English and Arabic language, also there is difference in number between these vowels in the two languages ((I,e, English language has 20 vowels, while Arabic language has almost got 8 vowels.

5-3. Recommendations:

1- The teachers should encourage their students to speak in English during the whole school day.
2- Learners should use the electronic devices to learn the correct pronunciation.
3- Students must practice and apply the good pronunciation in their speaking.
4- Learners can listen to Channels TV. and broad casts that working in English language.
5- Students should ask their teachers about any word if they do not know its pronunciation.

5-4. Suggestions:

The researcher suggests the following studying research to be the study and analysis the Effect of Geographical environment on learning English language.

Or make a contrastive analysis to recitation in Arabic language and Intonation in English language.

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