

THE USE OF LONG VOWELS AMONG SAUDI LEARNERS

**A Case Study of Students in the Department of English,
College of Education, Salman bin Abdul-Aziz
University**

By: Fatima A. Muhammed Zein. Ph.D Salman bin
Abdul-Aziz University

Abstract

The interest in English vowels' problems has been traced to many years ago, however, it has been observed that in EEL learning situations problems of vowels production and perception are still there. Fortunately, there is always a room for amelioration with more investigation in real language learning settings. Therefore, the attempt made in this study is to investigate the difficulties faced by EEL Saudi students in English long vowels production. It mainly examines which long vowels represent more difficulty, and whether long vowels' substitution is the most frequent in the students' spoken performance. The participants were 10 trainee students, affiliating to the Salman bin Abdulaziz University, College of Education, Department of English. The data was collected by observation ,tabulated analyzed, and relevant studies have been discussed. The findings showed more difficulty in pure vowels resulted from relying on spelling. Both long vowels and diphthongs were shorten and substituted, due to the learners ignorance of length in English. The findings will have useful pedagogical contribution to EFL learning improvement, particularly EFL phonetics, hopefully.

KEY WORDS: long vowels, problems, phonetics,
pedagogical .

المستخلص:

يرجع الاهتمام بمشكلات الصوائت الانجليزية لزمان بعيد, لكن من الملاحظ أن هذه المشكلات مازالت موجودة في تعلم اللغة الانجليزية كلغة أجنبية, مشكلات إخراج وإدراك. لحسن الحظ توجد فرص للتحسين بمزيد من التحري في المحيط الحقيقي لتدريس اللغة الانجليزية. لذلك كانت هذه المحاولة لمناقشة الصعوبات التي تواجه دارسي اللغة الانجليزية كلغة أجنبية في الصوائت الانجليزية الطويلة. بلغ عدد المشاركات 10 طالبات متدربات ينتمين إلى جامعة سلمان بن عبدالعزيز, كلية التربية, قسم اللغة الانجليزية. تم جمع البيانات بالملاحظة, وتمت جدولتها و تحليلها و توصلت الدراسة إلي أن الطالبات يواجهن مشكلات في الصوائت الطويلة لاعتمادهن على الإملاء و إخراج الصوائت القصيرة بدلا عن الصوائت الطويلة نظرا لجهل الدارسات بقوانين الصوائت الطويلة . من المأمول ان تسهم نتائج هذه الدراسة في تحسين تعلم اللغة الانجليزية كلغة أجنبية, وخاصة علم الأصوات.

1. INTRODUCTION

Second language acquisition has been a rich area of investigation (Brown & Rodgers, 2002 :xi); many researchers have examined problems pertaining to the acquisition of L2 at all levels e.g. Ellis (1985), Roach(1991), Ladefoged (1993,2001), Brown (2000), etc. Phonetics has also been a fertile field of study, where researchers have immersed in studying problems of pronunciation of words as well as sounds; consonants and vowels. Long vowels' problems are hot issues of discussion by many investigators.

1.0. The Problem of the study:

The problem states that the difficulties Saudi EEL learners encounter in pronouncing English long vowels may particularly pertain to the ill-realization of English

vowel length. The negative impacts of this ill-realization are offense and misunderstanding because it renders the learners to modify the forms entirely ; for instance ,when a learner lengthens /i/ into /i:/ { pick} becomes { peak}. These problems can easily be detected by native speakers of English and professional teachers. It is important to note that the problem discussed here is an outcome of the researcher expertise in teaching English for university learners. Teaching students in the Department of English ,College of Education, Salman bin Abdulaziz University during eight semesters, within four successive academic years, the researcher observed their tendency to modify pronouncing English vowels, particularly, long vowels.; Therefore, the ultimate goal of this study is to examine problems encountered by Saudi students in EFL long vowels production, and propose amenable pedagogical implications. Therefore the purpose of the study is to achieve the following objectives:

- i). To draw more attention to the issue of pronunciation of Saudi EEL learners as a challenging area of research.
- ii) To .mainly investigate the difficulties in long vowels that encounter Saudi EEL learners .
- iii). To identify and discuss areas of more frequent problems.
- iv). To come out with implicational remedial proposed solutions that may help tackle these difficulties. So the following research questions are addressed for achieving these objectives:
 - i) Is most of the long vowels' difficulty encountered by the students in Salman bin Abulaziz University, College of Education in pure long vowels than in diphthongs?
 - ii) Are there more problems detected in long *back* vowels?
 - iii) Is substitution of long vowels the most frequent ?.

1.1. Research Limitation

This study is limited to English long vowels solely; neither short vowels nor triphthongs are included in its domain, but they may be referred to in discussing some previous studies that compare long vowels and their twins short vowels. The sampling group is ten students drawn from Salman bin Abdulaziz University, College of Education, Department of English, and the results can be generalized to EFL learners.

1.2. Research Significance

Firstly, the significance of this study stems from the importance of vowels in language, in that the vowels reflect class, society, and identity. (Smith, 2012). Secondly, it is envisaged that investigating this problem helps in touching the areas of the difficulties that are faced by the students in English long vowels, so that they can be solved. Thirdly, the study seeks to help EFL teachers and students, syllabus designers and those who have interest in this field.

2. THEORETICAL FRAMEWORK & LITERATURE REVIEW

2.1. Long vowels

It is generally stated by many linguists and phoneticians that vowels as oral sonorous sounds (i.e. they can be heard at greater distance) that are produced with the vocal folds vibrating and the vocal tract more open than it is for consonants; thus allowing the air to move in a continuous stream from the lungs without being blocked in any way, in the mouth or throat. (Jones 1972; Roach, 1991; Ladefoged, 1993; Richards & Platt 1995; Stewart & Vaillette, 2001). In many languages there are some vowels and consonants whose production is held longer than that of other vowels and consonants. A vowel length is the distinctive extended duration of time taken to produce it. (Jones, 1972 ; Ladefoged, 1993 ; Roach, 1991 ; Wikipedia, 2008). Length in pure vowels is either indicated

by a colon placed immediately { : } after a language segment or by doubling the symbol to help learners remember the length difference. (O'rgady, 1996; Ladefoged, 1993). An important feature of English long vowels is that; they vary in length due to a) *stress* , b) *the contexts* i.e. the *type of sounds* that follow them, and c) the type of *syllable*. These can be explained as follows: English strong forms of vowels which seem to be longer 'appear' in stressed syllables, and weak forms 'appear' in unstressed syllables. (Ladefoged, 1993). For examples, in 'speed, speedy, speedily' the length of vowel gradually shifts in accordance with the modification of stress in the target syllable; thus making the stress syllable in 'speedily' the longest and in 'speed' the shortest. (Ladefoged, 2001:82). The short schwa /ə/ is the weakest vowel . Open syllables (ends in vowels) seem to be longer than closed syllables (ends in consonants),for example, /si:/ is longer than /si:m/, and closed vowels are longer when followed by a voiced consonant as in /si:d/ ,but it is short when the syllable is closed by a voiceless consonant(Lujan , 2006) , as in /si:t/.

It is possible to classify vowels as tense (produced with muscular tension) or lax according to their length, because in many languages long vowels tend to favor tenseness ; this is true for English in which tense vowels are long and lax vowels are short. Tense vowels are assumed to receive considerable muscular tension on the part of the tongue (Jones, 1972 :39). The tongue or the lips take more extreme positions to produce them. (Richards& Platt 1995; Stewart, &Vaillette, 2001). They are higher and less centralized compared to their lax counterparts (Odden, 2005). Being tense, a vowel undergoes bigger change from mid-central for its production, for instance, the short vowel /i/ is less palatal than the long vowel /i:/,and the short vowel /u/ is more labial than the long vowel /u:/.

2.0.2. Classification ,Description, and Transcription of Long Vowels

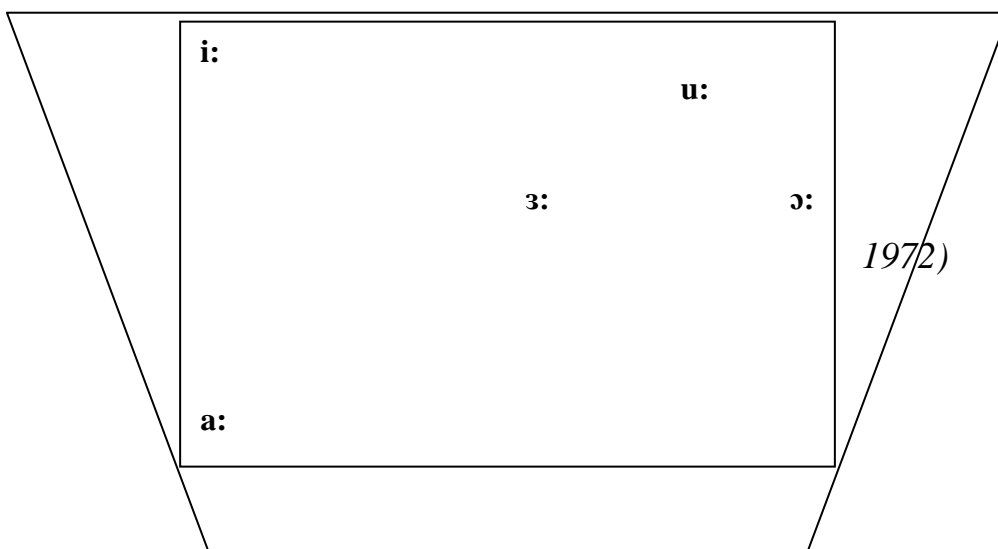
Classification, description and transcription of pure long vowels are based on the following four points:

Firstly, the movement of the different parts of tongue. Vowels produced by the movement of the front part are classified front, those produced by the back part are classified back, and those produced by the central part are classified central .

Secondly, the length of the vowel: English has three back long vowels, these are:/u: , ɔ: ,a: / as in boot /b u: t/ 'bought' /b ɔ: t/ 'arm' /a: m/ and farm /fa:m/. English has only single front long vowel /i:/ as in me /m i:/ and 'heat' / h i: t /. It is produced with the tongue in a forward relatively closed position in the mouth. The single central long vowel is long schwa /ɜ: /. The spelling of this vowel is a vowel + r, as in 'bird' /b ɜ:d/.

Thirdly, the height of the tongue: When the back part of the tongue is raised the high back, /u:/ is produced, when the front part of the tongue is raised the high front /i:/ is produced (O'Grady, 1997),when the back part of the tongue is lowered the low back (/a:/) is produced , and when the tongue raises between high and low to a mid-position / ɜ: / is produced .Figure 1 shows this.

Figure (1) Pure vowels (monophthongs)



Fourthly, the shape of the lips: The lips take different shapes to produce vowels; when they take a round shape the vowel produced is described as rounded such as, /u:/ in /du:/; when they are spread the vowel is described as unrounded such as, the front vowel /i:/ in /ki:/, and when they are not noticeably rounded or spread the vowel is said to be neutral. (Roach, 1991; Richards&Platt, 1995). English has five pure long vowels and eight diphthongs (combination of two vowels). These are:/i:/ in keep /ki:p/, /ɜ:/ in fur /fɜ:/, /ɔ:/ in saw /sɔ:/, /ɑ:/ in bar /bɑ:/, and /u:/ in /sku:l/ (Birjandi .&Salmani, 2005),they are described in Table (1)

Table 1 : Transcription and Description of Pure Long vowels

Symbolic representation	Transcription	Orthographic representation	Description
/i:/	/i: t/	eat	high front unrounded vowel
/u:/	/w u: /w u: d /	wood	high back rounded vowel
/ɔ:/	/k ɔ: t/	caught	mid-high rounded vowel
/ɑ:/	/ɑ: t/	art	low back rounded vowel

/ɜ:/	/f ɜ: m/	firm	mid central unround ed vowel

Adapted from(O'Grady, 1996)

2.0.3.English Long vowels: Spelling Versus Pronunciation

Spelling relates to long vowel pronunciation, therefore any problem in spelling may trouble this pronunciation.. It appears that English spelling lacks the correspondence between its sounds and the graphemes that represent them.(Cholij&Nogaraj, 2004; Steinberg &Sciarini, 2006; Fromkin, Rodman, Hymes, 2007 ;Zein, 2008).The deletion of silent letters occurs frequently in the students' performance. Hence, it affects their pronunciation. For instance, missing 'e' in 'fine' may change it to 'fin'. There are various devices for designating length in vowels, some of these are: 1). The final silent letter { e } at the end of a word is an indicator of a preceding long vowel or a diphthong. For examples, a). The { i } in ' fine' is pronounced as the diphthong /ai/ /fain/. b). In 'mouse' {ou } is pronounced /au/ /maus/. c). In 'late' { a } is pronounced /ei/ /leit/. d) In these {e} is pronounced /i:/ /ði:s/. e). In 'home' 'o' is pronounced /ou/. f) In 'tube' 'u' is pronounced /u:/. 2) Doubled letters indicate length, for example, the double {ee} in green and the double {oo} in wood, but in words such as ' took' it is pronounced /u / /tuk/. 3) Other examples of a. { e, a } are pronounced /i: / in read /r i: d/, {ow }and {ou} are pronounced /aw/ in house, {ou} are represented /ɔ:/ as in fought, {o} is pronounced /u:/ in lose, and { u } is pronounced /aj/ in buy. 4). Vowels became long when they are affected by adjacent sounds,

for example, the vowels preceding the dental nasal plus dental stop clusters as in : behind, ground. However, English spelling shows some instances in which long vowels are shortened due to the neighboring consonants. Vowels are shortened when followed by consonant clusters. There are cases of shortening them in verbs when changed into nouns or past. Examples in Tables (2.a, 2.b)

Table (2. a) Shortened Long Vowels

Verb	Transcription	Noun	Transcription
Heal	/h i:l/	health	/ h e l θ /
Weal	/w i:l/	wealth	/w e l θ /
Deep	/ d i :p/	depth	/d e p θ /

Table (2. b) Shortened Long Vowels

Present Verb	Transcription	Past Verb	Transcription
Keep	/ k i :p/	kept	/ k e p t /
Read	/r i: d /	read	/r e d /
Bite	/b a i: t /	bit	/ bit ə n /

Long vowels underwent several changes and this resulted in long vowels becoming diphthongs in Modern English

2.1 Diphthongs

English has eight diphthongs : /ei, ai, ɔi , ou, au, eə, iə ,uə/ ou/. (Roach, 1991).A diphthong is a sequence of two vowels (Odden, 2005: 21) that are realized as one sound in pronunciation. As the sound glides into the second part of the diphthong, its loudness decreases. The first vowel is

essentially louder and stronger, but the second is 'shorter and quieter' . (Roach,1991). Diphthongization involves changing one part of a vowel by raising , lowering, bleaching, or laxing. (Birjandi P.&Salmani,,2005). Cases of raising the following vowels /i:/, /ɔ:/, /u:/ to /ei/ , /u:/, /au/ respectively have been observed. The tongue moves from a certain pure vowel's position into another (Lujan, 2006; Roach, 1991; Birjandi.&Salmani, 2005). For example, in producing /ai/ there are two types of movements : The movement of the back part of the tongue to produce /a:/ ; the starting point of the diphthong, and the movement of the front part to produce /i/, the ending point of the diphthong. There are nine vowels in English RP (Received Pronunciation) categorized into two taxonomies centering and closing diphthongs. The four centering diphthongs end in the central vowel / ə /;these are /i ə ,uə,eə / as in ‘here’ , ‘doer’, ‘there’. They are produced by the quick movement of the central part of the tongue. Closing diphthongs are five, two of them end in /u/, and three of them end in /i/. These are shown in Table (3) .

Table (3.A) Shows Transcription of Centering Diphthong

Symbolic representation	Orthography	Transcription	Starts	Ends
/e ə /	air	/ e ə /	/e/	/ ə /
/i ə /	here	/hi ə /	/ i /	/ ə /
/u ə /	sure	/ f u ə /	/u /	/ ə /

Table (3.B) Shows Transcription of Closing Diphthongs:

Symbolic representation	Orthography	Transcription	Starts	Ends
-------------------------	-------------	---------------	--------	------

/ei/	Say	/sei/	/e/	/i/
/ai/	High	/hai/	/a:/	/i/
/ɔi/	Boy	/bɔi/	/ɔ/	/i/
/ou/, /ə u/	go	/gou/	/ə/, /o/	/u/
/au/	how	/hau/	/æ/	/u/

Symbols used in Table (2.1.5) are adapted from (Roach, 1991:20-22)

A competent EFL learner is capable of producing these vowels fluently. Any noticeable deviations in their performance indicates difficulty.

2.1. LITERATURE REVIEW

Many researchers have examined SLA/EFL learners' production of English vowels. In a longitudinal study, Vergun, (2006:2-1) examined the acquisition of the American English vowels / i: i, u: ,u/ by a Spanish learner, who was given listed words to read in a naturalistic classroom .The present study is also based on the natural data, but the researcher picked the words from the participants while they were doing actual teaching rather than listing words to read. Vergun's finding showed the learner's reliance on his L1 categories in producing L2 ; both //i: ,i/ were made high front, and /u: , u/were made high back, which means that the participant was unable to distinguish the short vowels /i , u / from their long counterparts /i: ,u:/ ,hence, producing them with the same length and height. (Zein ,2008). Moreover, the same vowels

/i:/,i/,u:/,u/ were investigated by Ahmad (2013) to see vowel length's discrimination in the pronunciation of Malay speakers of English in words that contain these two set of vowels. This study goes in the same vein, but it focuses on participants production rather than perception. The finding was that the participants tended to 'voice and prolong' the short vowel /u/ more than the long vowel /u:/.Further, previously, Don (1997) studied these English vowels(/i:/,i/& /u:/,/u/) produced by speakers of Malay, in twenty words that include twenty RP (Received Pronunciation) vowels ,and found that the participants did not distinguish / i:,u:/from/i, u/ .This is the same as reported by Zhao (1995).

In the same vein , Bayonas (2008) examined the perception of /i ,i: ,u: ,u/ by native speakers of English and native speakers of Spanish, and found non-native speakers of English have difficulty in producing the long English vowels/i: ,u:/. Similarly, Markovic (2009) examined these four English vowels produced by experienced Serbian learners of English and reported cases of substituting the long front vowel /i :/, by the short one / i/, due to the similarity of vowels in both languages Serbian L 1 and English. It is obvious that this interpretation agrees with the second claim of 'Contrastive Analysis Hypothesis' that is more helpful in stating that difficulty and transfers of items from one language to another may result from similarity of forms in the target language and the learners' native language (Gass&Selinker, 1994:3). Likewise, Kadenge,(2013) investigated the differences between the spoken English of L1 Shona speakers and that of the native RP speakers. The participants were seen to break up diphthongs e.g the palatal glide /j/ is epenthesized in / ɔ ɪ /, /e ɪ/, /a ɪ /, and /e ə / to become /ɔ j ɪ/, /e j ɪ/, /a j ɪ/ and /e j ə / ,before /i/, simplify diphthongs into

monophthongs by omitting their second parts, and lengthen the monophthong to compensate for the loss of the deleted vowels, this is what Clements & Keyser (1983:77) termed “compensatory lengthening”. Moreover, English diphthongs were substituted by their native vowels, in that the two Shona /o/ and /a/ replaced /əʊ/ and /ou/ in words such as, {go} /gou/ and /ei/ in /sei/. Kadenge attributed this to two reasons: i).the non-existence of diphthongs in Shona ii).The influence of English orthography, specifically the alphabetic letters ‘o’ and ‘a’ in the words ‘go’ and ‘data’, what is termed spelling pronunciation. Previously, Richards & Platt argued that:

Away of pronouncing a word which is based on its spelling, which may differ from the way it is generally pronounced. For example, a non-native of English might pronounce yacht as /jɔkt/. Native speakers also use spelling pronunciation, and some have become acceptable ways of pronouncing words such as /ɔftən/ for often rather than /ɒfən/

Richards & Platt (1985:267)

Furthermore, he went on to say that English long vowels /i: , /a:, u: / were realized as short /i, a, u/, respectively because of the influence of the native language. In addition to the above mentioned problems, the situation was getting worse due to the fact that English was taught by L1 Shona speaking teachers who lack technical expertise on the teaching of English pronunciation.

Chen & Jung (2013) investigated the acoustic differences between production of English speakers and Chinese learners of English in English vowels, and found that Chinese tended to front the vowels and shorten them, thus,

mispronouncing 'bought'/bɔ:t/ as 'bot' /bɒt / and boot /u/ as boat . Interestingly, they have proposed applying the learners' previous knowledge of their native language to the second language pronunciation , and familiarizing teachers with the learners' first language sound system.(Brown,2001) to help them diagnose the difficulties easily.

Feest & Swingley (2011) used a word transcription task to examine Dutch and English listeners interpretation of vowel duration . He found Dutch misperceived 'lengthened short vowels' and 'shortened long vowels', due to the effect of 'coda voicing' on vowel duration in English. (Denees, 1955). Otomo, & Carol (1992) examined the acoustic description of female and male vowel production in a standard phonetic context, and detected cases of vowels substitution because the participants did not differentiate long from short vowels . Moreover, the duration was longer in the voiced pairs than in the voiceless , and vowels produced by females are longer than those produced by males. On the contrary of all these studies Ali (2013) found that difficulty Sudanese EFL learners faced in producing English vowels was not due to long/short vowels distinctions, since there is correspondence between Arabic long /short vowels.

3.METHODOLOGY

This is a case study for the students of Salman bin Abdulaziz University, College of Education. Data was collected from the researcher's observation, references, periodicals and previous studies, and it was analyzed using 'One-Sample T Test'

3.0. Participants

The participants were ten Arabic speakers drawn from the Salman bin Abdul Aziz University, College of Education,

Department of English. They were 3rd year trainee students practicing teaching in real classroom situations. They form a homogenous group of the same age approximately, the same level of education, and to a large extent the same background knowledge of English. The input they received in English was restricted and limited to the formal classroom instructions in an EFL context . To have pure data from real classroom teaching performance ,the subjects neither received previous special training for this test, nor they were informed that they would be tested.

3.1.Instrument

Speech data was collected from the performance of the participants during three different sessions. As a supervisor for the students ,the researcher had to fill 3 forms for each trainee student performance. The allotted time for each session was 40 minutes' time. The researcher has chosen two periods for each candidate to collect data. Depending on the discrimination and identification of the forms that she heard from the subjects, and following Roach's(1991) ways of vowels' transcription, the researcher collected data from the natural settings where, she observed the subjects while they were actually teaching. This auditory identification and discrimination aids in gaining real data. It "is an irreplaceable tool in the analysis of vowel substitutions and development" (Donegan , 2013)

3.2. Procedures

Based on her perception of discrimination and identification of vowels, and following observational data collection procedure, the researcher kept immediate records of every word that a participant was unable to produce correctly . A carefully designed table was allocated to each individual participant to obtain instant feedback by transcribing each word where deviations of long vowels or diphthongs were detected.

Pure long vowels and diphthongs were tabulated, the modified forms have been listed, and their frequencies have been calculated in order to be analyzed using 'One-Sample T Test'. Tables (4) and (5) below present examples of the performance of participant number 4 in long pure vowels and participant number 10 in diphthongs. All the examples are from Saudi intermediate school syllabus.

Table (4) Shows Participant NO 4 Erroneous Long Vowels:

vowel	/i :/	/u :/	/ɔ:/	/a:/	/ɜ:/
Frequency	5	8	5	2	3
Erroneous vowels	/i/	/u/ /ɔ/ /ou/	ɔ/ /ei/ /ʌ/	/æ	/u: /a: /ɜ:/
Erroneous form	/fil/	/wud/,/ f lou/	/kɔld / / k ɔ:f/	/blænt /	/f u:rnɪʃ ə/ /Pa:fu: m/ /w ɔ:k/
correct form in the text	Feel /fi: /	/wu:d/ wood /flu:/ /	cold /k /ɔ:l d/ / k ʌ f/ cough	Plant /pla: nt/	fɜ:nɪʃə/ furniture /pɜ:fu: m/ Perfume /wɜ:k/ work

Table (5) Shows Participant NO 10 Erroneous Diphthongs

Diphthongs	Frequency	Erroneous Diphthongs	Erroneous forms	Correct forms
/ei/	9	/e/, /a/,/a/,/u:/, /i:/	/beilt/,tuθpæst / /stri:t/	/belt/ , belt Straight /streit/ / tu: θ peist/ toothpaste
/ai/	5	/i:/	/wi:d/ /mi:/	/waid/ wide /mai/ my

Table (6)Shows Frequency of Erroneous Long Pure Vowels

participant	1	2	3	4	5	6	7	8	9	10	Total
Back	0	4	3	1	1	2	3	4	9	1	61
Front	2	4	7	5	3	1	3	1	1	3	30
Central	0	1	2	3	0	1	2	1	2	2	14
Total											105

Table (7) shows Frequency of Erroneous Diphthongs

Participant	1	2	3	4	5	6	7	8	9	10	Total
Frequency of Errors	3	5	2	15	3	2	2	4	2	16	54

4. ANALYSIS OF RESULTS, DISCUSSION, AND FINDINGS

This section presents the data which will then be analyzed by using 'One-Sample T Test' to calculate the mean, the standard deviation and 'T'.

4.0. ANALYSIS OF RESULTS & DISCUSSION

Research Q 1 Is most of the long vowels' difficulty faced by the students in Salman bin Abdulaziz University, College of Education in pure vowels or diphthongs?

To answer this question the mean, the standard deviation, and 'T' have been calculated in Table (8).

Table(8) shows that for pure vowels is (4.881) in Sig.(2-tailed).000, and 'T' for diphthongs is(3.151) in Sig.(2-tailed).012. This means that the students encounter more problems in pure vowels than in diphthongs, that can be attributed to the influence of the learners' L1 vowels' system(Zhao,1995; Vergun,2006;Markovic,2009;Feest&Swingley;2011),difficulty of producing these sounds(Bayonas,2008),and lack of vowels competence. Table(3.1) sheds more light on illustrative examples taken from participant number 4 performance in long vowels. They are mostly problems of : a).shortening /i:/,in 'feel' to become 'fil'. It is essential to note that/i:/ is difficult to produce, it requires more muscular tension, more tongue height, more lips spreading ,and therefore more energy to produce. In addition, the coda consonant, perhaps is another justification for the participant to shorten the /i:/ and compensate this length in having full aspirated /l/ in /fil/. b). Inserting /i:/ in /dresi: ʃ o p/ can be due to the difference between the target language and the learners native language ,in which there is immense use of vowels' insertion because of the lack of consonant clusters in

Arabic. For instance, in the past tense verb such as, /k ə t ə b ə/ the vowel is inserted after each consonant, having the phonotactic C V C V C V (Zein,2008). Besides, in Arabic there are only three long vowels, namely, the lengthened: 'aa', 'ii', 'uu', to contrast five long vowels and eight diphthongs.

However, diphthongs problems are not less serious than pure vowels problems faced by the learners. These are ,simplifying diphthongs to become pure vowels(Roach,1991),breaking up diphthongs by epenthesis a vowel . This can be attributed to the influence of L1 and English orthography (Kadenge,2013). Table (5) provides examples of diphthongs problems produced by participant number 10 . Some of them are: The diphthong /ei/ was shorten to /a/, thus producing /tuθpæst / instead of / tu: θ peist/ , according to the its graphic representation/ past/. /ei/ was also modified to /i/, to change straight into street . /ai/ was replaced by /i/ in wide and my to produce /wi:d/ and /mi:/,due to the learners ignorance of the fact that the final silent 'e' lengthens the preceding vowel.

Table (8) One-Sample Statistics

	N	Mean	Std. Deviation	Test Value	T	Df	Sig. (2-tailed)	
Pure vowels	10	10.5000	6.11465	0	5.430	9	.000	increa

Diphthongs	10	5.4000	5.42013	0	3.151	9	.012	increase
------------	----	--------	---------	---	-------	---	------	----------

Research Q 2 Are there more problems detected in long back vowels?

To answer this question the mean , the standard deviation, and 'T' have been calculated in Table (10).

Table (10)One-Sample Statistics

	N	Mean	Std. Deviation		T	Df	Sig. (2-tailed)	Inference
Front	10	3.0000	1.94365	0	4.583	9	.001	increase
Back	10	6.1000	4.81779	0	4.881	9	.001	increase
Central	10	6.1000	4.81779	0	4.004	9	.003	increase

Table (10) shows that 'T' for back vowels is (4.881) in Sig.(2- tailed) .001. In front vowels, 'T' is (4.583) in Sig.(2- tailed) .001. In central vowels 'T' is (4.004)) in Sig.(2- tailed) .003. This means that back vowels' problems are the greatest of the three categories, and that front vowels' problems are greater than central vowels problems .

Table (10) also shows identical mean for both back and central long vowels (6.1000). Deviant forms produced by participant number 4 are taken from Table (3.1) :Some of these are:

- i) /u:/i s shortened to /u/ and diphthongized to /ou/ ii). /ɔ:/ is shortened to /ɔ/, diphthongized to /ei/,and substitutes /ʌ/

It is important to mention that producing /u:/ is a difficult task to do by EFL learners; because it involves movement of the high back part of the tongue with more muscular control, and more lips' rounding. Therefore, the participant tended to use its shortened counterpart /u/, hence, producing the word /w u: d/ 'wood' as /w u d/ 'would'. Having replaced /u:/ by /ou/ the participant found /ou/ easier and lighter to pronounce than /u:/, though it was produced by two tongue movements. The researcher claims that moving the back part of the tongue is difficult for the learners even or producing Arabic sounds, unless they are well trained.

RQ 3 Is substitution of long vowels the most frequent in the students' speaking?

Table (11) One-Sample Statistics

	N	Mean	Std. Deviation	Test Value	T	Df	Sig.(2-tailed)	Inference
Omission	10	.0000	.00000 ^a	0	0	0		
Addition	10	.0000	.00000 ^a	0	0	0		
Substitution	10	14.5000	9.11958	0	5.028	9	.001	increase

The statistical data in Table (11) shows that substitution has the greatest mean (14.5000), This means that all the students errors are substitution errors. For instance, /ɜ:/ is replaced by /u:/, /a:/, /ɔ:/ in words such as, /w ɜ:k/ for /w ɜ:k/. /fɜ:nɪʃə/ as /fu:rniʃə/, /Pa:fu:m/ for /Pɜ:fu:m/. /u:/ is replaced by {u}. It is important to note that the students seemed to match pronunciation to the orthographical

features of the words because of the difficulty of this English vowel schwa /ɜ:/, whose production requires the center of the tongue to be in a curly position. (Jones, 1972). It was postulated that the difficulties that learners faced in English long vowels might not be due to long/short vowels' distinction in English and the learners' native tongue. (Ahmad, 2005)

Moreover, it was proposed using previous knowledge of the learners' native language to assist in second language pronunciation (Brown, 2001; Chen & Jung, 2013).

However, the impact of EFL L1 interference in pronunciation is so enormous that can be improve it, but the mission of getting rid of the accents seems not easy goal to be achieved. The reliance of the learners on spelling and their lack competence result primarily from inadequate input, that results from poor learning; the way a language is used reflects the way it is learnt (Ellis, 1985:266).

1. More problems have been detected in pure vowels than in diphthongs .
2. Substituting both vowels and diphthongs ,due to reliance of the participants on spelling, and their adoption of avoidance strategy to escape the difficulty.
3. Shortening long vowels and diphthongs /i:/, /u:/, /a:/ /ɜ:/ (due to), lack of length realization , inadequacy of input, and the influence of learners' mother tongue.
4. Epenthesis /i:/ due to lack of consonant clusters in Arabic .
5. Inconsistency of English spelling.

4.1. Findings

5. Recommendations & Conclusion

1. Empowering learners competence in vowels should by adequate input.

3. Eliminating the influence of the learners' L 1 accent.
 4. Regularizing English spelling to match vowels' transcription and orthography.
 - 5 .Improving the present situation of learning & teaching English phonetics, particularly by being more practical than theoretical using:
 - a. Illustrative diagrams of vowel chart and speech-related technology for training EFL learners.
 - b. Spectrographic devices, focusing more on the following most difficult long vowels for EFL learners of English : /ɜ:/, /u:/.
 - c.. Sensitizing &activating learners auditory identification and discrimination of vowels .
 - d .Fluent models of EFL teachers.
- Further studies on:
- a. Insertion of the lax vowel /i/ by EFL learners.
 - b. Perception and production of tense vowels particularly /u:/ and /ɜ:/
 - c. How to use spectrographic devices in EFL classrooms.

Conclusion

Trying to establish a general stance of vowel length problems was the main theme of this paper. However, the vital question was not only to identify these problems, but also to find ways out of their causes. Accordingly, a critical discussion of the result data and related literature was made. Finally, a number of reformatory suggestions were made..

References

- Ahmad, W.(2005). Vowel Length Discrimination Among Malay speakers of Malaysian English: an Instrumental study. Accessed from <http://www.pendeta.um.edu.my.2013>
- Ali, E.(2013). Pronunciation problems: Acoustic analysis of the English vowels

- produced by Sudanese learners of English. Accessed on April 25, 2014, from <http://www.academicjournals.org/journal/IJEL/article-abstract/369798C41601>.
- Bayonas, M.(2008). Perception of English Vowels as First and Second Language. University of North Carolina: Greensboro.
- Birjand,P. and Salmani, M.(2005). An Introduction to Phonetics. Bazarcheh. Ketaab: Enghelab Zabankadeh Publications
- Brown, D. (2001).Teaching by principles: an Interactive Approach to Language Pedagogy. New York: Longman.
- Brown, J. and Rodgers, T (2002). Doing Second Language Research. Oxford: Oxford University Press.
- Chen, H and Jung, W. An Acoustic Analysis of Chinese and English Vowels. Hong Kongand Kaohsiung.From www.arabou.edu.kw/.../ On April 20, 2013
- Cholij and Norgaraj,G.(2004).English Basics; A companion to Grammar and Writing. Cambridge.Cambridge :University Press.
- Clements, G. and Keyser, J. (1983) C V Phonology: A Generative Theory of the Syllable. Cambridge: Mass MIT Press.
- Denes, P. (1955). "Effect of duration on the perception of voicing," J. Acoust. Soc. Am. 27, 761–764 . In Feest and Swingley,(2011). Dutch and English listeners' interpretation of vowel duration. Acoustical Society of America. Accessed from

[http:// www.psych.upenn.edu/~swingle/.../vdfestswingle](http://www.psych.upenn.edu/~swingle/.../vdfestswingle)
[on May 4, 2013](#)

Donegan, P. Normal Vowel Development. Mānoa :University of Hawai'i. Accessed from <http://www.123people.ca/s/patricia+donegan> on April 21, 2013.

Don,Z. (1997).Malaysian English: an Instrumental Analysis of Vowel contrasts. From: http://www.academia.edu/3771469/Malaysian_English_an_instrumental_analysis_of_vowel_contrasts

Ellis, R.(1985). Understanding Second Language Acquisition. Oxford: Oxford University Press.

Feest,S and Swingle,D (2011). Dutch and English listeners' interpretation of vowel duration. Acoustical Society of America, Accessed from :

<http://www.psych.upenn.edu/~swingle/.../vdfestswingle>
[on May 4, 2013](#)

Fromkin, Rodman, and Hymes, N.(2007). An Introduction to Language. Boston: Thomas Wadsworth.

Gass,S. &Selinker, L.(1994) Introduction. In Gass, S. and Selinker, L. (eds.) *Language Transfer in Language Learning*. Amsterdam: John Benjamins Publishing Company.

Jones, D. (1972). An Outline of English Phonetics. Cambridge: Cambridge University Press.

Kadenge,M. African Englishes: The Indigenization of English Vowels by Zimbabwean Native Shona Speakers. Accessed from <http://>

- www.jpanafican.com/.../3.1shonaafricankadenge. on
November 4, 2013.
- Krashen, S.(1987). Principles and Practice in Second
Language Acquisition. New York:
Prentice-Hall International
- Ladefoged, P.(1993) .A course in Phonetics. Loss Angeles:
HBJ College Publishers
Leopold.
- Ladefoged, P.(2001). A course in Phonetics. 4th ed. Loss
Angeles: Heinle & Heinle.
Thomson learning
- Lujan, B.(2006). The American Accent Guide. Salt Lake
City: Lingual Arts.
- Markovic, M. (2009).The Production of High English
Vowels by Serbian Native
Speakers of English. Cambridge: Cambridge
Scholars Publishing
- Odden, D.(2005). Introducing Phonology. Cambridge:
Cambridge University Press.
- Otomo, K. and Carol, S.(1992). The Acquisition of
Unrounded Vowels in English.
Journal of Speech and Hearing .Research 35.604-16. in
Donegan, P(2007).
Mandarin Speakers' Production of English Vowel.
Accessed from
www.123people.ca/s/patricia+donegan , March, 2010.
- Donegan, P. Normal Vowel Development. Mānoa
:University of Hawai'i. Accessed
From <http://www123people.ca/s/patricia+donegan>,
April 11, 2013.
- O'grady, W, et al(1996). Contemporary Linguistics. An
Introduction. Pearson: Longman.

- Vergun, A.(2006). A longitudinal Study of the Acquisition of American English Vowels. MA Thesis, Portland State University.
- Richards, J. & Platt, J. (1995). Longman Dictionary of Applied Linguistics. London: Richards Clay, The Chaucer Press.
- Roach, P.(1991). English Phonetics and Phonology. Cambridge: Cambridge University Press.
- Smith, T.(2012). The Importance (or not?) of Vowels. Accessed from: - importance- or-not-of-<http://dialectblog.com/2012/4/10/the-vowels/>, April, 2014.
- Steinberg, D. and Sciarini, N.(2006). An Introduction to Psycholinguistics. Harlow: Pearson Education LTD.
- Stewart, T. and Vaillette, N. (2001). Language Files :Materials for an Introduction to Language and Linguistics. Columbus: The Ohio University Press.
- Wikipedia, (2008). The Free Encyclopedia . Phonology. Presenting Phonemes. [http://www.en.wikipedia .org/wiki/R-colored_vow](http://www.en.wikipedia.org/wiki/R-colored_vow), February 26 , 2013.
- Zein ,F (2008). Transfer Errors in EFL Students Writing. Unpublished PhD Paper. University of Juba, Sudan.
- Zhao (1995). Vowel length. Accessed from [http://en Wikipedia.org/wiki/vowel_length#-](http://en.Wikipedia.org/wiki/vowel_length#-) January 29, 2013.