The Production of RP English Vowels by Native Omani Adults:A Quantitative Analysis


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#### Abstract

: The primary aim of this study is to determine if RP English vowels that do not have counterparts in Omani Arabic constitute learning problems to Omani adult learners ( OALs) of English, and to decide if the size of the vowel contributes negatively to vowel production as attempted by these learners. Other minor objectives are to elicit learners' of English feedback about the main oddities they have faced while studying RP English vowels, and the effectiveness of the teaching techniques used to teach these vowels. This feedback is obtained via distributing a questionnaire to forty six departmental college students who have already taken a course in phonetics.The subjects who took part in the experiment were sixteen OALs joining a college foundation programme. Forty tokens were read by the subjects where each RP English vowel is repeated twice. The results obtained were subjected to mean value and percentage analyses. As expected, nonexisting diphthongs caused the major area of production difficulty, followed by non-existing monophthongs. In contrast, RP English long vowels registered little difficulty. The main strategy adopted by these learners to produce these problematic vowels was phonemic substitution. Diphthongs were replaced by long vowels while monophthongs were replaced by other equivalents.


The important findings revealed by the questionnaire are; (i) the most effective techniques that contribute to the mastery of RP English vowels are constant listening to native speakers, ear training, vowel identification drills, transcription drills, and minimal pair drills, and (ii) RP English vowels should be taught in a sequence, viz, monophthongs, dipthongs, and triphthongs.


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| لق الصوائت في الانجليرزية الفصحى كما يؤديهه المتعامهون العهمانيـون الكبار: تشليل كمي |  |
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قسم اللغة الانجليزية- كلية الآداب- جامعة البصرة
الملخص:
تمتل الهدف الرئيس من هذه الدراسة في تحديد مدى تأثنر اختلاف الصوائت في الإنجليزية الفصحى واللهجة العمانية المستعملة في نطقها من المتعلمين العمانيين وتحديد مدى تأثنر حجم الصائت سواءً أكان(مفرداً أم مزدوجاً) سلبيا في نطقه من لدن هؤلاء المتعمين • من بين الأهداف الأخرى : تسليط الضوء على الصعوبات الرئيسة التي يواجها هؤلاء المتعلمون عند دراستهم لهذه الأصوات ومدى فاعلية طرائق التنريس المستخدمة في تدريس هذه الصوائت على دقة نطقها. تتلخص النتائج الرئيسة لهذه الدراسة بما يلي:
(1) يشكل الاختلاف في الصوائت المستخدمة في اللهجنين المصدر الأساس لصعوبة نطق
هذه الصوائت
() إن نطق الصوائت المزدوجة هو الأكثر صعوبة يليه نطق الصوائت المفردة غير المستخدمة في اللهجة العمانية
() سجل نطق الصوائت الطويلة تأثنثرا بسيطا فياسا بالمزدوجة والمفردة القصبرة (گ) تتجلى

الاستراتيجية الرئبسة التي يستخدمها المتعلمون في نطق الصوائت الصعبة بالإبدال الصوتي (0) من بين طرائق النتريس الأكثر فاعلية في تدريس الصوائت الإنجليزية هي الاستماع المستمر للمتحدثين الأصليين وتدريب الأذن عليها وتمارين تحديد الصوائت والتمثيل الصوتي لهذه الصوائت وإجراء التطبيقات اللازمة لأزدواج الكلمات المتباينة بصوت واحد (7) أما النتيجة الأخرى فينبغي تدريس الصوائت الإنجليزية بالتتابع وعلى النحو الآتي : الصوائت المفردة ثم المزدوجة الثنائية فالمزدوجة الثلاثية .


The mastery of the pronunciation of a target language is not an easy task. In most cases, the foreign accent is affected in one way or another by the native accent( cf. Avery and Ehrlich, 1992; Vergun, 2006). Pronunciation errors made by non-native speakers ( NNSs) are not only random attempts to produce unfamiliar sounds but they also reflect the sound inventory, concatenation rules, and the stress and intonation patterns of the source language ( Swan and Smith, 1987).

Evidence from ELT revealed that the production of the foreign language vowels is one of the challenging tasks (cf. Bert, 2004). Accordingly, this issue has to be given much attention on the part of ELT teachers and students alike. Broadly speaking, the production of RP English vowels is hampered by a number of obstacles; the irregularity of English spelling and the transfer from L1(Bond,2001; Bert,2004; Wells, 2005 ), and the defective teaching of these segments ( Wells, ibid.).

As an ELT teacher to Arab learners for around twenty eight years, it is noticed that these learners encounter crucial problems with RP English vowels, among other learning challenges. They face great difficulty in the perception, production, and description of these vowels. Experience showed that negative transfer from Arabic, lack of attention to learn and teach RP English vowels at the elementary stages and defective teaching contribute significantly to this issue. A survey of secondary school textbooks of English in Oman gives a clear evidence that the pronunciation مجا

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component is neglected to a great degree. Freshers who join the English department have no background about English phonemes. Therefore, the professor of linguistics or phonetics has to start from scratch.

Most noticeably, AOLs of English mispronounce a number of RP English short monophthongs like /i/, / e/ , / æ/, and $/ \Lambda /$. Vowel substitution in this regard is highly predicted. Non- existing diphthongs, particularly, / iə/, / eә/, and / əひ/ are difficult to be discriminated or articulated. In most cases, the diphthong / $\partial \sigma /$, for example, is replaced by the long vowel / $0: /$. As such, words like "home" and "no" are usually pronounced as / ho:m/ and /go:/, respectively. Similarly, recognition and production of vowel opposition is hardly attained. This is again attributed to the effect of the native dialect, lack of attention to these problems, lack of ear training, limited language exposure, and little practicing in English. This work has been carried out to shed more light on these facts and the like.

The paper is mainly designed to test two basic hypotheses; (i) non-existing vowels in Omani Arabic are the most problematic ones, and (ii) vowel production difficulty is closely related to the size of the vowel, viz, diphthongs are assumed to be more difficult than monophthongs.

## 2- Literature Review

Vowels as acquired by NNSs have been approached thoroughly by a great number of researchers. In the wider sense, these studies seek the source (s) of difficulties that is (are) diagnosed by a variety of methods suggesting solutions

to eliminate these difficulties. Some studies focus on the phonological and acoustic variability between L1 and L2 vowels. Others investigate the inconsistency of English spelling and its impact on the perception and production of English vowels. The role of learners' experience and age are also examined. Among other areas of interest are the relation between vowel position and vowel stress and their acoustic correlates. Scholars also studied the strategies adopted by NNSs while manifesting the foreign language phonological input. That is, they came across foreign learners' competence when they deal with perceptive foreign language data. In what follows, there is a brief review of some of these contributions.

Hashi and Westbury ( 1994) carried out an articulatory and acoustic study of vowels variability in the Japanese and English. They made measures of formant frequencies and xray microbeam representations of mid-tongue contours during the productions of five English isolated vowels / i, e, $æ, ~\lrcorner, ~ v /$. The main objectives of the study were (i) to realize the relationship between articulatory positions of these vowels and their acoustic correlates, and (ii) to identify the extent of articulatory and acoustic differences and their effects on vowel production in these languages.

In ( 1997), Fledge et.al. investigated the significance of experience on NNSs' production and perception of English vowels. Eighty speakers of German, Spanish, Mandarin, and Korean, as well as 10 control group of native English speakers participated in this study. NNSs were classified into


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relatively experienced or non-experienced depending on their residence in the United States.

The subjects' accuracy in the production of the English monophthongs / i,æ/ was assessed by native Englishspeaking listeners in addition to acoustic measurements. The same subjects were also asked to identify and produce the English vowels contrasts / i:, $\mathrm{i} /$, / æ, e/ via the minimal pairs "beet-bit"," bat-bet".The results were (i) the experienced non-native speakers perceive and produce English vowels more accurately than the inexperienced non-native speakers, (ii) there is a correlation between vowel perception and vowel production, and (iii) the accuracy of vowel perception and production is determined by the similarities and differences Between L1 and L2 vowel inventory.

Bond (2001) studied pronunciation problems encountered by Brazilian learners of English. The technique used was the analysis of three Brazilian students' transcriptions and recordings. The findings were supported by related literature. The major problem, he pointed out, is represented by the difficulty in reading an English text. This was justified in terms of the irregularity of English spelling as compared to Portuguese spelling.

With reference to the difficulties in English vowels, the study concluded that Brazilian speakers face a number of articulatory challenges due to differences in spelling and number of vowel sounds. These challenges are: (i) the change of the long schwa /a:/into /i:/ followed by /r/ as in /i:rli/ for / $\partial: l \mathrm{l} /$, (ii) the change of $/ \rho /$ into the long / $\rho: /$ as in / po:t/ for / pot/, (iii) the change of /ei/ into / ai/ as in /wait/ for

/ weit/, (iv) the change of / $\partial v /$ into / $\rho /$ as in / go/ for / gəv/, the change of / av/ into / $\mathrm{s} / \mathrm{as}$ in / kont/ for / kavnt/, and (v) the non -use of the schwa due to its absence in Portuguese which in turn leads to the non-use of weak forms.

In (2001), an acoustic study was conducted by Ryoo. The main objective of the study was to find out if acoustic differences between Korean vowels and English vowels affect the production of final lenis stop in English. The study showed that the most significant frequency difference is that the Korean /a:/ is much higher than its English counterpart. As a result, most Korean subjects failed to pronounce final English lenis stops accurately. Another finding was that even the vowel quality in both languages is similar, this affects the perception and production of an accurate sound that is judged by a native speaker. A noteworthy result elicited in this study was sex variation in vowel frequency. Unlike male speakers, female Korean speakers of English registered similarity to frequency of English vowels.

Ryoo recommends that a comparative study of vowel qualities in L1 and L2 is necessary in EFL teaching and in correcting learners' errors. He suggests that this involves certain requirements for the techniques used in teaching English pronunciation.

Piske et.al ( 2002) compared the production of English vowels by children and adult Italian-English bilinguals living in Canada. Bilingual children were divided into early-low and early-high depending on their continuation of their L1 use. English vowels production by these subjects was rated


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by native-English listeners.The first experiment showed that adult bilinguals scored lower rating as compared with children bilinguals concerning English vowels production. The second experiment revealed that some of the elicited errors were the result of the influence of English spelling.

In (2003), Morrison examined the perception and production of Spanish vowels as spoken by native Spanish speakers and Canadian English learners of Spanish.The English learners also identified the five Spanish vowels in terms of English vowels. The five Spanish vowels were presented in utterance final syllables of the pattern /sv/; viz, utterance finally following /s/.

The major conclusions of the study were: (i) English learners recognize Spanish/i/, /e/, and /o/ as the same English vowels, and they perceive Spanish /a:/ and / u:/ as multiplecategory to English $/ \mathfrak{æ} /$ and $/ \Lambda /, / \rho /$ and $/$ e/ , /v/ and $/ \mathrm{u}: /$, respectively. (ii) in production, English speakers substituted English /i/, /e/, / æ/, /o/,/u:/ for Spanish /i/, / e/, /a:/, / o/, and $/ \mathrm{u}: /$, respectively. He recommends a further study that includes statistical modelling to determine relative locations of perceptual boundaries for Spanish and English listeners to be compared with production data. He also suggests for future investigation to study the effect of vowel position and stress on its perception and production by foreign learners.

Paul (2003) conducted a contrastive study of receptive and productive phonological interlanguage of twenty Korean adults studying in higher education in the United Kingdom. The aim was to investigate the strategies adopted by NNSs

when they process phonological input. The target was British English vowel and consonant phonology. The subjects showed major difficulties in perceiving some vowels and consonants as compared to their production. He interprets this problem in terms of the insufficiency of receptive phonological data, i,e., language exposure. He is in favour of adequate phonological competence and the significance of adequately designed teaching materials.

In (2004), Bert adopted computer generated feedback that facilitates the production of second language vowel sounds using PRAAT Programme. The patterns which result from this programme offers graphs and formats that reflect articulatory changes during articulation. On the other hand, these patterns function as reminder of traditional vowel chart. This application provides a feedback on both monophthongs and diphthongs.

Levey (2004), studied the discrimination and production of English vowel contrast by bilingual American speakers of Spanish and English. The broad purposes of this study were twofold; (i) to decide if these speakers have difficulty in the discrimination of English vowel contrast, and (ii) to identify the degree of correlation between discrimination and production of English vowels as spoken by these speakers. She concluded the following: (i) discrimination difficulty was greater for bilingual participants than for monolingual native English participants, (ii) bilingual subjects showed significant production errors of English vowels, and (iii) the


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non-existing vowels in Spanish are the most difficult ones for these speakers.

Another study that tackled phonological differences between L1 and L2 was that of Ohato (2004). He examined the differences in the phonology of Japanese and English. He states that identifying pronunciation difficulties by Japanese learners serve as a prerequisite for effective teaching activities. These results, he pointed out, should be translated as practical steps in the teaching material and teaching techniques. In the area of vowels, the study revealed that English and Japanese differ in their vowel systems. While English shows 12 vowel sounds, Japanese has only 5 vowels. The other point of difference is embodied in tense/lax distinctions. He elaborated that the tense /lax vowels pairs of English /i/ vs. /i:/, / ə/ vs. / ə:/ , /v/ vs. /u:/ do not exist in the five-vowel system of Japanese.

Yi Li (2004) compared the acoustic features of English vowels as produced by Mandarin Chinese and English NSs. He concluded that the problems inherited in pronouncing English vowels by these speakers is due to the differences in vowels acoustic properties. He summarized these problems as follows: (i) difficulties in the English long vowels / i:/, /ə:/, / $\quad / /$ and /u:/because of negative language transfer, (ii) similarity in producing identical vowel patterns, and (iii) female subjects' performance was more similar to that of NSs while male subjects' performance is greatly interfered by L1.

In (2005) Tsukda et.al. carried out experimental studies on the perception and production of English vowels by native Korean learners (NKLs). Three experiments were conducted

by the researchers where the subjects were tested on two periods separated by one year. In the preliminary experiment, it was found that NKLs adults classified some pairs of contrastive English vowels using two different Korean vowels while other groups showed classification overlap. In the second experiment, NK children discriminate English vowels more than NK adults, but less accurately than native English speakers. The technique used in the third experiment was picture-naming task where the vowels contrast /i, i:,e, $\mathfrak{æ}$, and $\mathfrak{æ}, \Lambda /$ is targeted. It was found again that native Korean children pronounce these contrasts significantly more than native Korean adults. However, acoustic analyses revealed that although NK children succeeded in learning the phonetic properties of English vowels more than NK adults, their performance continues to be different in certain respects as compared with the age-matched native speakers.

Wells (2005) outlined some difficulties encountered by NNSs when they approach English vowels. One problem, he stated, is embodied in the vowel oppositions / e-æ, æ- $\Lambda$, and $\rho$ :, əv/. This is due to the differences in the number of vowel sounds some languages have such as Polish, Russian, Hungarian, Japanese, Spanish. For him, certain vowels distinctions bear higher functional load than others. This is because, he elaborated, no NS accent merge certain distinctions as compared with others. For example, there is no native speaker of English who merges /e/ with /æ/ as compared with the merging of $/ \Lambda /$ with $/ \mathrm{v} /$ where they are pronounced similarly in an area like north of England. He


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suggests that only distinctions of high functional load should be insisted on.

Recently (2008), the Callier Library has presented a study on learning English vowels by individuals with different first-language vowel systems. Precisely, the study aims at deciding whether learners of a wide-range vowel systems (g. German and Norwegian) acquire English vowels in a better way than learners of a narrow-range vowel system (e.g. Spanish and French). The results showed that the former individuals are more accurate at recognizing English vowels than the latter individuals. However, the study proved that all learners learned new aspects of the English vowel system rather than simply assimilating vowels into the existing firstlanguage categories. The study concludes that there is a surprising degree of uniformity in the ways the individuals with different backgrounds perceive second languagevowels.

## 3-Vowels in English and Omani Arabic

RP English phonology consists of 20 vowel sound units. Twelve of these are monophthongs and the other eight are diphthongs. In terms of tongue part, monophthongs are classified as front, central and back. Front vowels are / i:/, / ı/, /e/, and / æ/. Central vowels are / $/$, / з: /, and / $\kappa /$. Back vowels are five. They are / a:/, / o/, / o:/, / v/ , and / u:/. In terms of the last vowel with which they terminate RP English diphthongs are classified as closing or centering. Closing diphthongs are /ei/ , / ai/, / j /, / әঠ/, and /av/. Centering diphthongs are / iə/, / eә/, and /шə/ (Roach, 2000 ).


RP English vowel sounds are generally characterized by a great variety of spelling. The short monophthong / e/, for example, is represented in spelling by "e","ea","a","ai',and,"ie". This can be exemplified be lexemes like " get, head, any, said, friends". The schwa/ə/ has greater inconsistency in spelling as compared to other vowels. It can be spelled as " er, a, or, e, ou, o, and io". Words chosen as case in point are " mother, away, actor, cinema, the, colour, offend, and station". The irregularity of English orthography leads to inappropriate inference to pronunciation (Wells, op.cit.:4).

Standard Arabic shows six monophthongs. Three of these monophthongs are short and the other three are long. The short ones are $/ \mathrm{i} /$, / a/ and $/ \mathrm{v} /$. They are represented in spelling by "kasrah","fatha" and "dhammah". The long vowels are /i:/, /a:/ and / u:/. They are represented in spelling by "Yaa?","Alif", and "Waaw". Diphthongs are only two. They are / ei/ and / av/ (cf. Al-Khuli, 1999).

Vowels in various Arabic dialects vary to some extent due to the phonological variation elicited in these dialects. Unfortunately, very little literature has been written on the variety of Omani Arabic under study. To identify the vowel inventory, the researcher elicited the pronunciation of six informants speaking the same dialect. They are six BA students joining a course of phonetics with the researcher. Elicitation process reveals that Batina Omani Arabic has eight monophthongs. Three of these monophthongs are short and the other five are long ones. Short vowels are /i, a, v/.


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Examples representing these vowels are / bint/ "daughter", / taww/ " now" and /duwa/ " drug". Long monophthongs are /i:, , ee, a:, $ァ:$, u:/.These vowels can be found in words like /yidi:d/," new", / xaðeet/ " I took", /dija:j/ " hens, chickens", / lo:n/ " colour", and / xu:z/ " Clear the way( singular masculine addressee.)".The non-existing RP English monophthongs are/e,æ,ə, $\Lambda, \supset, /$. All other monophthongs exist in this variety as they do in RP English.

The elicitation of the informants also demonstrates that Batina Omani Arabic uses three diphthongs only. However, these diphthongs are found in very few words. That is, they are used very rarely. They are / oi/ as in / Hoi/ " you, addressee", / iə/ as in / xa:ltiə/ " my mother's sister" , and / €amtia/ " my father's sister", / шə/ as in /fvə/ "meat barbecued underground served on special occasions like Eid", and / lua/ "a district name". ${ }^{1}$ Based on this, most diphthongs are assumed to cause serious problems to AOLs.

## 4- The Test

### 4.1 Significance of the Test

In order to examine the predictions concerned with the potential areas of difficulties outlined in section (1), and to verify the hypotheses already stated in this study, a diagnostic test has been designed. Precisely the test aims at; (i) finding which vowels are more difficult to be produced by AOLs, (ii) deciding whether the non-existing vowels and the size of the vowel are the most problematic areas faced by such learners. The test will also point out the mean value and percentages of errors committed by the informants.


### 4.2 Test Description

The tokens included in the test are forty representing RP English monophthongs and diphthongs. They are distributed over three categories. The first category presents the seventh short RP English vowels. The second includes the fifth long RP English vowels. The third demonstrates the eighth RP English diphthongs. All the tokens are adapted from Roach ( 1991). Each category starts with four dummy items. These items are selected randomly for certain research purposes. They are intended to familiarize the subjects with the test and to minimize the tension and hesitation the subjects might have when they start reading the tokens. These dummy items are not included in the final calculations and results. To secure more reliable results, each vowel is repeated twice ( see appendix 1).

### 4.3 The Subjects

The subjects selected as the sample group in this study are twenty Omani female college students ranging in age between (18-27). This sample group was selected out of ( 183) students representing first semester foundation programme students. That is, they are freshers who have recently joined a university college to study at different majors after passing the one-year general foundation programme (GFP). Departmental students were excluded to avoid any effect of the special courses and drilling they took in English pronunciation.

The informants form roughly a homogenous group having the same characteristics. All of them have studied English for

an average period of nine years. ${ }^{2}$ Besides they all speak the same dialect, namely, Batina Omani Arabic. This has been decided to eliminate any variable that is caused by dialectal variation since "speakers of the same language may speak with different accents" ( James, 1980: 72). No informant speaks other languages at home; viz, they are all monolingual speakers. None of them has been to an English speaking country or has studied English with a private tutor. All informants do not claim any sort of speech or hearing defects

### 4.4 Test Administration

The test was administered at the Language Centre, AlZahra College for Women, Muscat, Oman. The subjects who took part in the experiment were twenty unpaid (GFP) students. ${ }^{3}$ Their English proficiency in all cases was fair allowing them to pursue diploma and bachelor academic programmes. All had demonstrated English proficiency by passing a public examination ,administered by the Ministry of Education, and a placement test carried out for college entry purpose.

The test was conducted by two teaching staff members. ${ }^{4}$ They both teach English skills courses at the same centre. After deciding on the sample group that took part in the experiment, the lecturers briefed the participants about the objectives and the procedures of the test. They were informed that the test is carried out for purely academic and research purposes. It had nothing to do with their evaluation in English. Details about the recording procedures were also provided.


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### 4.5 Recording Procedures

The testees' responses were recorded in one of the Language Centre lecture's rooms. Due to the limit of the lesson period, the test was carried out in five sessions. In each session, the testees were instructed to read the tokens carefully and to leave a gap between one token and another to give the researcher a better chance to discriminate their performance. Before reading each group of tokens, an average time of three minutes was given for silent reading. The subjects were also given a break to be prepared to reading the next group. The subjects' reading was recorded on a tape recorder ( type: Sanyo- model Big-300k). The cassette used was Normal Position Type 1 ( TDK B-60). The same recording procedures were adopted in the five recording sessions.

### 4.6 Scoring Scheme

The subjects' responses were analyzed on radio-cassette recorder ( type: Panasonic- Japan, model: Rx-M70M3) by using a headphone ( type, China, model Cv-H56-COBY). The analysis started by examining the responses of the first category followed by the responses of the second and third categories. In all cases, the focus was on the correct pronunciation of the intended vowel. When the pronunciation was not clear, the researcher had to stop the recording as many times as possible till a complete satisfaction of the exact pronunciation was obtained. While analyzing the responses, we had found that four informants had shown poor reading of the whole items. This might affect the


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validity and reliability of our results. As such, these responses were excluded.

The test items were scored one by one on the basis of a right-wrong criterion. Each item pronounced correctly was given one point, whereas zero point was given to incorrect item. Having scored all test items, correct as well as incorrect responses were tabulated pointing out their frequency of occurrence and percentages ( appendix 3). ${ }^{6}$

### 4.7 Data Analysis

## Table ( 1 )

Mean Value and Percentages of Vowel Production Errors

| The Vowel | No. of <br> Errors <br> Scored in <br> the First <br> Token | No. of <br> Errors <br> Scored in <br> the Second <br> Token | Total | Mean <br> Value | Percentage |
| :--- | :---: | :---: | :---: | :---: | :---: |
| I | 3 | 1 | 4 | 2 | 12.5 |
| E | 13 | 16 | 29 | 14.5 | 90.62 |
| E | 1 | 0 | 1 | 1 | 6.25 |
| $\Lambda$ | 8 | 13 | 21 | 10.5 | 65.62 |
| O | 16 | 14 | 30 | 15 | 93.75 |
| O | 9 | 2 | 11 | 5.5 | 34.37 |
| u | 4 | 11 | 15 | 7.5 | 46.87 |
| i: | 6 | 0 | 6 | 3 | 18.75 |
| 3: | 1 | 0 | 1 | .5 | 3.12 |
| a: | 0 | 2 | 2 | 1 | 6.25 |
| 0: | 0 | 3 | 3 | 1.5 | 9.73 |
| u: | 0 | 1 | 1 | .5 | 3.12 |
| ei | 16 | 16 | 32 | 16 | 100 |



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| ai | 2 | 7 | 9 | 4.5 | 28.12 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| oi | 2 | 4 | 6 | 3 | 18.75 |
| əu | 15 | 15 | 30 | 15 | 93.75 |
| au | 14 | 2 | 16 | 8 | 50 |
| iə | 16 | 15 | 31 | 15.5 | 96.87 |
| eə | 16 | 16 | 32 | 16 | 100 |
| uə | 16 | 16 | 32 | 16 | 100 |

Table (1) shows the frequency of occurrence of vowel production errors scored in the first and the second tokens where the same vowel is repeated. It also outlines the mean value and percentages of vowel errors. The highest rates of errors are scored in the production of the non- existing RP English diphthongs ( $93 \%$ - 100\%), followed by the nonexisting short monophthongs ( $90.62 \%-93.75 \%$ ), followed by the existing long monophthongs ( $9.73 \%-18.75 \%$ ). This can be read from the average percentages of the errors of the three categories of RP English vowels. They are ( 73.43\%), ( $49.99 \%$ ), and ( $8.19 \%$ ), in the order mentioned.

As stated earlier, the diphthongs registered the highest percentages of errors, followed by short vowels and then by long vowels. With regard to diphthongs, the closing diphthong /ei/ and the centering diphthongs / eə / and / uə / were on the top. They scored $100 \%$ each. The centering diphthong / io/ registered $96.87 \%$ while the closing diphthong / $\partial \mathrm{u} / \mathrm{read} 93.75 \%$. The closing diphthongs / au/, /


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ai/ and / oi/ scored $50 \%, 28.12 \%$, and $18.75 \%$, in the order mentioned.

The highest percentage of errors in short monophthongs is taken by the schwa / $\partial$ ( $93.75 \% 0$ ). The front vowel / e / reads $90.62 \%$ and the central vowel / $\Lambda /$ reads $65.62 \%$. The back vowels / $\delta /$ and / $/$ score $46.87 \%$ and $34.37 \%$, respectively. The front vowels / i/ and / æ/ register $12.5 \%$ and $6.25 \%$, in the order mentioned.

As compared with short vowels and diphthongs, RP English long vowels reveal the lowest rates of production errors. This may be interpreted in terms of the familiarity of the subjects with these vowels. In point of fact, all these vowels exist in most Arabic dialects including Omani Arabic. The highest percentage is found in the close front vowel /i:/ (18.75\%) followed by the back vowel / 0:/ ( 9.73\%). The remaining long vowels / a:/ , / ə: / , and / u:/ score 6.25\%, $3.12 \%$, and $3.12 \%$, in the order mentioned.

### 4.8 Discussion

Based on the analysis of results, one can conclude that the major area of difficulty faced by non-native speakers of English regarding the production of RP English vowels is embodied in the production of diphthongs. This result supports our two hypotheses which claim that the nonexisting vowel and the size of the vowel constitute the main problem in the production of RP English vowels. This is very much expected due to the difficulty in pronouncing these

types of vowels. Articulatorily speaking, their production requires gliding the tongue from one vowel position into another. This demands more training and drilling on the part of foreign learners. The most difficult diphthongs are the non-existing ones ,i,e, /ei/, /iə/, /ea/, /və/and /əv/.The remaining diphthongs do not form more problems since they exist in the learners' source language. In most cases, the testees replaced English diphthongs by non-diphthongal ones, namely, by long vowels . This is clearly elicited in the informants' pronunciation where the above mentioned diphthongs are replaced by the long vowels /ə:/, /i:/, / ə:/, / $\mathrm{u}: \mid$, and $/ 0: \mid$, respectively. This finding comes in agreement with O'Connor 's (1980) conclusion. ${ }^{6}$

The highest percentage in short monophthongs is registered by the schwa $/ \partial /$. It reads $93.75 \%$. This is due to the non-existence of this vowel in the sound system of the informants' native dialect. Broadly speaking, errors in short vowels are mainly represented by substituting them by other short or long vowels. All the errors scored in the schwa are caused by pronouncing the /r/ which follows this vowel. The short vowel /e/ registers the second rank of errors ( $90.62 \%$ ). This is again interpreted in terms of the non-existence of the vowel in Omani Arabic Phonology. Some informants change this vowel either into $/ \Lambda /$ or into/i:/. The central vowel $/ \Lambda /$ reads $65.62 \%$. In most cases it is replaced by the short back vowel / v/. Few informants substitute it with the long back vowel/u:/. This is perhaps because of the negative
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interference the informants show while producing the nonexistent vowels. The short back vowels / $/ \mathrm{/}$ and $/ \mathrm{s} /$ score $46.87 \%$ and $34.37 \%$, respectively. The former is pronounced either as the long back vowel /u:/ or as the short front vowel /i/. The latter is uttered either as the short back vowel /v/ or as the long back vowel /u:/. This points in the direction that a case of confusion and inaccuracy do exist in the production of RP English vowels. While the short back vowel exists in the phonology of the informants' dialect, the short back vowel does not exist.

The short front vowels /i/ and / æ/ reveal the lowest rates of errors. They read $12.5 \%$ and $6.25 \%$, in the order mentioned. Although the first is used in Omani Arabic, some informants do not produce it properly. It is recognized either as /e/ or /u:/.Few informants read it as /i:/. The second is used in Omani Arabic; however, it scores some errors. It is confused with other short vowels like $/ \Lambda /$.

RP English long vowels do not constitute more troubles to non- native speakers. These monophthongs are found in the sound system of the subjects' dialect. That is why the average percentage of these vowels reads $8.19 \%$. The major problem elicited is that these vowels are replaced by other long vowels, although rarely. The greatest rate is found in the production of the long front close vowel /i:/ ( $18.75 \%$ ). Some informants pronounce it as long schwa / ə:/ while others recosnize it as the closing diphthong /ai/. The second rate of


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errors is elicited in the long back vowel /o:/ (9.73\%). While two informants recognize it as the short central vowel $/ \Lambda /$, one informant pronounces it as the long central vowel / $\partial: /$ The next rate of errors is found in the production of the long back vowel /a:/ ( $6.25 \%$ ). It is uttered wrongly as the short front vowel/e/ together with the substitution of /p/ by /b/ or as the short central vowel / $\Lambda$ / together with the replacement of /p/ by /b/.The central back long vowel/ə:/ and the back long vowel / a:/ score the lowest percentages; (3.12\%) each. This clearly indicates that the informants are more familiar with these two monophthongs.

Among the incidental results revealed by this work are: the substitution of the voiceless bilabial plosive / p/ by the voiced bilabial plosive /b/ in all the tokens beginning with $/ \mathrm{p} /$, pronouncing the final schwa $/ \mathrm{\rho} /$ with a following $/ \mathrm{r} /$, and pronouncing the silent /r/ that follows the long schwa/a:/;i.e. this long vowel is pronounced with a following $/ \mathrm{r} /$.

## 5- The Questionnaire

### 5.1 Aims and Design

To support the findings revealed by the experiment and to arrive at a clearer picture of causes of errors which are made by non-native speakers in the production of RP English vowels, a questionnaire has been designed. Despite the fact that learners might be unaware of the problems they face in


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the course of learning, the questionnaire aims at examining the learners attitudes towards the course of phonetics they have already passed. It also intends to elicit the participants' reactions regarding the effectiveness of the techniques adopted in the teaching of this course. ${ }^{7}$ Some suggested techniques are also included. The feedback obtained from the questionnaire will be of value to the final findings of this work.

The questionnaire is a three-option type; agree, undecided, disagree. It presents twenty two questions. Broadly speaking, the questions included in the questionnaire fall into two categories; (i) questions relevant to the difficulties the participants find when they produce RP English vowels (question $1,4,5,6,7,8,9,10$ ), and (ii) questions that elicit the participants' feed back about the techniques used in teaching English phonetics course and their opinion on other suggested techniques (question $11,12,13,14,15,16,17,18,19,20,21)$. Questions 2 and 3 are general ones asking about the significance of using different techniques in teaching English sounds in general and the necessity of an experienced and professional teacher. Question 22 seeks to find feedback about the gravity of the errors relevant to RP English Vowels(identification, production, classification, and description errors).



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### 5.2 Analysis of Results

Table (2)
Options about the Difficulties Inherent in the Production of RP English Vowels


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| 5- The major source of difficulty in RP English vowels is attributed to the difference between L1 \& L2 sound systems. | 25 | 54.34\% | 10 | 21.73\% | 11 | 23.91\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6- Difficulty in uttering RP English vowels is a part of weakness in phonological skills in general. | 29 | 63.04\% | 12 | 26.08\% | 5 | 10.86\% |
| 7- Inaccuracy in pronouncing RP English vowels by non-native speakers is attributed to the inconsistency of English spelling. | 31 | 67.39\% | 5 | 10.86\% | 10 | 21.73\% |
| 8- Difficulty in pronouncing RP English vowels result from weakness in speaking skill only. | 27 | 58..69\% | 8 | 17.39\% | 11 | 23.91\% |
| 9- Defluency in RP English vowels is due to the lack of training in pronouncing these vowels. | 21 | 45.65\% | 12 | 26.08\% | 13 | 28.26\% |
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| 10- Gradation in vowel difficulty is closely related to the size of the vowel; monophthongs, diphthongs, triphthongs. | 23 | 50\% | 12 | 26.08\% | 11 | 23.91\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11- Improving pronouncing RP English vowels needs constant listening to native speakers or to native speakers-like. | 34 | 73.91\% | 4 | 8.69\% | 8 | 17.39\% |
| 12- Vowels Identification Drills are the most useful ones to facilitate pronouncing RP English vowels. | 29 | 63.04\% | 14 | 30.43\% | 3 | 6.52\% |
| 13- RP <br> English  <br> vowels are <br> better learned <br> via teaching <br> them at a at <br> sequence;  <br> monophthongs,  <br> diphthongs,  <br> triphthongs.  | 34 | 63.04\% | 10 | 21.73\% | 2 | 4.34\% |
| 14- <br> Transcription exercises contribute significantly to the mastery of RP English |  |  |  |  |  |  |
| $\langle 7$ |  | $=r \cdot 1$ |  | جلد(Y \& |  |  |

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| vowels. | 35 | 76.08\% | 6 | 13.04\% | 5 | 10.86\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15- Better teaching of RP English vowels is conducted through practicing them within context. | 27 | 58.69\% | 12 | 26.08\% | 7 | 15.21\% |
| $16-\quad$ Minimal  <br> pairs are <br> beneficial very <br> teaching RP <br> English vowels  | 31 | 67.39\% | 12 | 26.08\% | 3 | 6..52\% |
| 17- Special drills should be designed to teach RP English vowels depending on the diagnosis of the difficulties of a special group of learners | 31 | 67.39\% | 12 | 26.08\% | 3 | 6.52\% |
| 18- Full mastery of RP English vowels requires intensive ear training. | 37 | 80.43\% | 7 | 15.21\% | 2 | 4.34\% |
| 19- Training <br> through the <br> cardinal vowel <br> diagram is very <br> helpful to <br> improve  <br> pronouncing RP  <br> English vowels.  | 20 | 43.47\% | 16 | 34.78\% | 10 | 21.73\% |



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| 20- Production of RP English vowels can be easier via adopting an articulatory vowel system ( diagram) suggested for this purpose. | 17 | 36.95\% | 23 | 50\% | 6 | 13.04\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21- Mastering RP <br> English vowels is attained gradually hand by hand with the mastery of other communicative skills. | 35 | 76.08\% | 7 | 15.21\% | 4 | 8.69\% |
| 22- Errors relevant to RP English vowels (identification, production classification, description) have different levels of gravity ( seriousness). | 21 | 45.65\% | 19 | 41.30\% | 6 | 13.04\% |

Table (2) indicates the number of options of the questionnaire items together with their percentages. In response to question 1, the majority of respondents ( $76 \%$ ) agreed that RP English vowels are more difficult than RP English consonants in terms of their production and description. While $15.21 \%$ of the participants showed


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disagreement on the same point, $8.69 \%$ of them showed reservation.

Question 2 explored students' opinion about the variation of the techniques required to teaching RP English vowels and consonants. Most participants ( $73.91 \%$ ) showed agreement on this variation. Only one respondent ( $2.17 \%$ ) disagreed on this idea, and eleven respondents ( $23.91 \%$ ) declared reservation. In reply to question 3, which asked for the need of an experienced and a professional instructor, the majority of the participants ( $82.60 \%$ ) agreed on this suggestion. Five respondents( $10.86 \%$ ) revealed response with reservation, and three of them ( $6.52 \%$ ) showed disagreement.

Question 4 was intended to know if RP English diphthongs are more difficult than RP English monophthongs. This is relevant to the second hypothesis undertaken in this research. Less than half of the respondents ( $45.65 \%$ ) agreed on this difficulty. While $40.43 \%$ showed neutral point of view, $23.91 \%$ rejected this idea.

Question 5 investigated the respondents' realization about the major source of difficulty in vowel production. Precisely, The researcher wanted to know whether negative interference constitutes the major cause for this difficulty. This supports the verification or falsification of the our first hypothesis. More than half of the learners' ( $54.34 \%$ ) supported this view. The percentage scored in the disagreement option was

$23.91 \%$. The responses that revealed reservation registered 21.73\%.

With reference to question 6, which explained the difficulty of RP English vowels in terms of the weakness in phonological skills in general, $63.04 \%$ agreed on this assumption. The students who showed reservation were 12 (26.08\%), and students who showed disagreement were 5 (10.86\%).

Question 7 elicited feedback about the relevance of the inconsistency of English spelling to the vowels production difficulties. The majority of the respondents (67.39\%) supported this relevance. The percentage that showed disagreement on this relevance was (21.73\%), and the percentage that pointed out reservation was $10.86 \%$.

In question 8 , the respondents were asked if the problem in producing vowels results from weakness in speaking skills only. More than half of the respondents (58.69\%) gave positive responses. The percentage that revealed negative response was ( $23.91 \%$ ). The percentage that indicated reservation was ( $17.39 \%$ ).

Regarding question 9, which elicited feedback about the effect of lack of training on vowel production, less than half of the subjects ( $45.65 \%$ ) gave positive responses. While 13


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subjects ( $28.26 \%$ ) rejected this idea, 12 subjects ( $26.08 \%$ ) showed neutral attitude.

Question 10 is intended to support the validity of the second hypothesis to see if the size of the vowel is more effective. In technical language, the researcher wanted to get feedback about the correlation between the gradation of vowel difficulty and the size of the vowel. Half of the respondents ( $50 \%$ ) were in agreement with this correlation. Responses with reservation were higher than responses with disagreement ( $26.8 \%$ as compared with $23.91 \%$ ).

In the previous section, we have stated that questions (1121) investigated the subjects' reaction regarding the effectiveness of vowels teaching techniques. Question 11 placed importance on the constant listening to native speakers or native speakers-like. That is, the mastery of RP English vowels can be attained via constant exposure to the foreign language accent via different teaching materials.Most of the participants ( $73.91 \%$ ) supported this technique. The subjects who disfavoured this technique were 8 ( $17.39 \%$ ), and the subjects who held reserved views were 4 ( $8.69 \%$ ).

In response to question 12, which focused on the vowels identification drills as a means to facilitating the production of RP English vowels, most of the respondents (63.04\%) were in support of this technique. Options that read neutral

attitudes were 14 ( $30.43 \%$ ). Options that indicated negative attitudes were 3 only ( $6.52 \%$ ).

Question 13 elicited students' point of view regarding teaching RP English vowels in sequence; monophthongs, diphthongs, and triphthongs. The majority of the subjects ( $63.04 \%$ ) were in line with this idea. While $21.73 \%$ had no decision, $4.34 \%$ held negative views.

Item 14 investigated the respondents' attitude regarding the significance of transcription exercises. Options that read positive reaction were 35 ( $76.08 \%$ ). Neutral responses were 6 ( $13.04 \%$ ), and negative responses were 5 ( $10.86 \%$ ).

Question 15 presented the idea of teaching vowels within contexts, viz, through sentences and discourse. The suggestion was accepted by more than half of the subjects ( $58.69 \%$ ). Responses with reservation were more than negative responses ( $26.08 \%$ in comparison with $15.21 \%$ ).

The significance of minimal pairs in vowel teaching was examined via question 16. This significance was accepted by $67.39 \%$ of the respondents. Neutral responses registered $26.08 \%$, and rejection responses scored $6.52 \%$.

Item 17 suggested using special drills based on diagnosing learners' difficulties in the area of vowels. The suggestion was accepted by the majority of the subjects( $67.39 \%$ ). مجل

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Options that showed neutral attitudes were 12 while options that demonstrated disagreement were 3 only( $26.08 \%$ against $6.52 \%)$.

The role of intensive ear training was elicited through item 18. The majority of the subjects ( $80.43 \%$ ) registered positive attitude. Responses with reservation were 7 ( $15.21 \%$ ), and negative responses were 2 only ( $4.34 \%$ ).

Question 19 placed significance on the training through the cardinal vowel diagram. Less than half of the participants ( $43.47 \%$ ) accepted this view. Neutral attitudes were more than the negative ones ( $34.78 \%$ against $21.73 \%$ ).

The next item ( question 20) elicited information about the contribution of using an articulatory vowel diagram suggested for teaching difficult vowels. This diagram is designed on purely articulatory basis. The suggestion was not strongly accepted by the subjects. Half of the respondents(50\%) showed reservation. Positive options were 17 ( $36.95 \%$ ), while negative ones were 6 ( $13.04 \%$ ).

Question 21 asked about the positive correlation between the mastery of RP English vowels with the mastery of other communicative skills. The majority of the subjects (76.08\%) were in agreement with this correlation. Responses with reservation were $7(15.21 \%)$, while negative responses were four only ( $8.69 \%$ ).


The questionnaire was concluded by an item relevant to the gravity of vowel errors. Less than half of the students ( $45.65 \%$ ) agreed that these errors, as all types of errors, have different grades of seriousness. Students who pointed neutral attitudes were 19 (41.30\%), while students who held positive attitudes were 6 only (13.04\%).

### 5.3 Discussion

The analysis carried out in the pervious section revealed many facts that support the results obtained by the test. The two hypotheses raised in the current study were verified by the respondents when they approached items 4,5 ,and, 10 . The feedback we got from the questionnaire pointed in the direction that the major source of difficulty in RP English vowels is attributed to negative interference. In other words, the non-existing vowels were the most difficult ones for the respondents. The size of the vowel, on the other hand, played a significant role in the ease or difficulty of vowel production. The responses of item 4 and item 10 clearly supported this assumption.

Except items 4,9,19,20, and 22, where positive responses read less than $50 \%$, the remaining items scored $50 \%$ plus ( $50 \%-82.60 \%$ ) in the same options. This gives a good indication that the respondents are in favour of the ideas suggested in these
items. Broadly speaking, the responses evidently showed that NNSs feel that RP English vowels are more difficult than RP



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English consonants in terms of their production and description. They admit that teaching the production of these vowels do need an experienced teacher and special techniques.

Items concerned with the difficulty inherited in RP English vowels revealed a number of facts: (i) RP English diphthongs are more difficult than RP English monophthongs in terms of production and description (ii) the major source of difficulty comes from the negative interference between L1 and L2 sound systems, and (iii) problems in vowel articulation result from weakness in the speaking skill, inaccuracy in the pronunciation of vowels are due to inappropriate inference from spelling, the bigger the size of the vowel is, the more difficult it is.

With regard the techniques used to teach RP English vowels, the analysis demonstrated so far indicated the following points; (i) enhancement in the production of RP English vowels can be attained via constant listening to NSs or NSs-like, and (ii) the most useful techniques relevant to teaching RP English vowels are: identification drills, transcription drills, practicing vowels through context, minimal pair drilling, and intensive ear training.

Among other results, teaching RP English vowels should be graded. That is, vowels have to be taught in sequence, monophthongs, diphthongs, and triphthongs. The majority of


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subjects ( $76.08 \%$ ) admitted that the mastery of RP English vowels goes hand by hand with the mastery of other communicative skills.

Low rates were scored in points relevant to the negative effect of lack of training on these vowels, the effectiveness of drilling on the cardinal vowel diagram, the effectiveness of drilling on special articulatory diagram designed for this purpose, and the gravity given to different types of vowels errors. Despite the fact that training on the cardinal vowel diagram is of immense value, the respondents did not give it much significance.

## 6- Conclusions

The results of the experiment and the questionnaire were consistent with the following statements which are offered as the potential conclusions pending further analysis and research:
1- The major problem in RP English vowel production is embodied in the production of the non-existing diphthongs; / ei/, / iə/, / eə/, / шə/, and / ə兀/.

2-The strategy adopted by NNSs of English in producing these diphthongs is by replacing them by long vowels.

3- Negative interference caused by the native dialect's sound system and the size of the vowel represent the main source of difficulty in the production of RP English vowels by NNSs.


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4- The most difficult short monophthongs are the non-
 difficult ones are the existing short monophthongs / i /, and $/ æ /$.

5- Long vowels do not cause more troubles than short vowels to NNSs since they are found in the sound system of their native dialects.

6- RP English long vowels that showed little difficulty to NNSs are /i:/, / っ:/, and /a:/.

7- Phonemic substitution of the voiced bilabial /b/for the voiceless bilabial /p/ is one of the incidental findings of this study.
8- Teaching RP English vowels needs a professional and an experienced teacher.

9- The most effective techniques that might contribute to the mastery of RP English vowels are: constant listening to native speakers or native speakers -like, ear training, vowel identification drills, transcription drills, and minimal pairs drills.

10- RP English vowels have to be taught in sequence, monophthongs, diphthongs, and triphthongs.

## 7- Recommendations

In view of the findings of the current study, the following recommendations are suggested:



1- Due emphasis should be given to the speaking skill in general and pronunciation in particular since the elementary stage of learning English.
2- Primary and high schools programmes should give an important portion to English pronunciation including the teaching of English phonemes and their phonemic symbols.

3- It is quite necessary that English pronunciation has to be taught by experienced and professional teachers, and by those who speak English with perfect or near perfect accent, especially at the elementary stages.
4- Students at the elementary stages have to be exposed to English as much as possible so as to improve their performance.
5- Emphasis is to be given to language lab use where learners are given better chance for listening and practicing English.
6- GFPs have to put due emphasis on listening and speaking skill courses including the teaching of English sound system.
7- Teachers of English should be acquainted with the findings of contrastive analysis, particularly with the similarities and differences between the sound systems of L1 and L2.

8- Students' pronunciation errors should be immediately corrected and proper feedback is offered.


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9- At the elementary level, teachers of English should teach the pronunciation of each word as well as its spelling.
10- Pronunciation courses and methodology at the college level should be constantly revised where new techniques are adopted. The number of these courses should also be increased. Speaking personally, one pronunciation course is not sufficient particularly for bachelor students.

11-College language labs should be activated and updated as much as possible.
12-Teaching RP English vowels should be carried out via various techniques like training through the cardinal vowel diagram, minimal pair drills, identification drills, repeating after a model, etc.

13-Transcription exercises should be given sufficient time and care due to their significance to master the pronunciation of the English phonemes including vowels.

14-Much drilling to the perception and production of RP English vowels should be taken seriously.

15-Special drills have to be designed in the light of the problems faced by the groups of learners taking pronunciation courses.
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## 8. Suggestions for Further Study

The current study can be expanded to a broader study , to be a postgraduate thesis, for example. The number of the testees and respondents can be increased. Investigating the techniques referred to necessitates further research work. This can be achieved by adopting T-test technique where a control group is chosen for this purpose.

The correlation between vowel perception and production is worth investigating. Precisely, the negative effect of vowel perception on vowel production is of high research significance.

Other areas relevant to vowel problems can also be investigated. This includes discrepancies in vowels identification, description, classification, etc.

The gravity of vowel errors is a nice topic to be approached. Within this area, a model for vowel errors gravity can be designed. This will be useful for teachers of English in general, and for those interested in error analysis and textbook designing .

Experimental study can be undertaken to examine the articulatory and acoustic differences between RP English vowels and vowels in Arabic dialects. The results مva\} مجلة الخليج العربي المجلا

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obtained in this concern could shed more light on the problems elicited in learning these vowels.

Gender variation in vowel production is also of attention. Enhancing and improving the production of RP English vowels via computerized phonics learning is a good area of research. Within this area the correlation between articulatory feedback and acoustic feedback to vowel production can be examined.

## Notes

1
Due to the great rarity of the second and the third diphthongs, they are treated as non-existing ones. The great majority of AOLs find them very uncommon.

2
The informants reported that they have studied English since Grade 4 ( elementary school) ( see appendix 2 )

3
The actual number of the informants was twenty. Four of them were excluded in the final calculations and results' analysis due to their poor reading which was obviously noticed while listening to the cassettes.

4
I would like to register my deep thanks and gratitude to Mrs. Ameena Mohammed Ali and Mrs. Dhanya Panthalingal, the

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## 5

Recording material and drafts for data analysis are all available. They can be provided upon request.

## 6

As stated by O'Conner ( 1980: 143), the diphthongs / əঠ/ and / ei/ are replaced by the German long vowels/o:/ and / i:/, for example.

7
The participants are forty six Diploma and Bachelor students who passed a course of phonetics according to their study plan. These students were familiar with the problems they had while they dealt with RP English vowels. They also got an impression about the techniques used in teaching English prontmciation in general and RP English vowels in particular.


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Appendix (1)
The Experiment
Please, read each group of the following words silently, then pronounce it as clear as possible. Take a break between one group and another.

Group 1
1- student
2- doctor
3- magazine
4- write
5- bit
6- bet
7- bat
8- but
9- colour
10- pot
11- put
12-him
13-hen
14-hat
15-hut
16- perhaps
17-hot
18- pull

Group 2
1- car
2- go
3- here
4- father
5- beat


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6- bird
7- card
8- horse
9- food
10- piece
11-shirt
12-pass
13- short
14-soon
Group 3
1- head
2- bad
3- box
4- but
5- fail
6- white
7- toy
8- low
9- loud
10-ear
11-hair
12-poor
13-trade
14-file
15- voice
16- boat
17-now
18-fear
19- share
20-sure
Thank you for your participation



The Production of RP English Vowels by
Native Omani Adults:A Quantitative Analysis
Appendix (2)
Bill of Information

Please fill in with the required information:
1- Name:
2- Age :
3- Sex :
4- Mother Tongue :
5- Permanent Residence:
6- Other Languages Spoken at Home:
7- Have you been to an English speaking country? If yes, please mention the duration:
8- Have you taken extra courses in English? If yes, please mention the number and the duration of these courses:

9- Have you studied English with a private tutor?
10-How long have you been studying English?
11-Do you have any speech and | or hearing defect? If yes, please mention it/ them:

Thank you for your Participation
We assure that the information provided will be confidential



The Production of RP English Vowels by Native Omani Adults:A Quantitative Analysis



## Appendix (4)

The Questionnaire

## Dear Participant

The aim of this questionnaire is to identify areas of difficulty faced by Arab learners when they approach RP English vowels. The researcher mainly intends to allocate the sources of difficulty in pronouncing these vowels and to elicit the effectiveness of some adopted techniques that contribute to the accuracy of pronouncing these vowels.

You are kindly requested to reply to the items provided in the questionnaire honestly and seriously. We confirm that the information you provide will remain confidential.
(Please mark your choice ( agree, disagree and undecided). We are very grateful for your participation.

| Department | English Language \& Literature |
| :--- | :--- |
| Degree Sought | Diploma ( ) Bachelor ( ) |
| Semester of Study |  |



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| Item | Agree | Undecided | Disagree |
| :---: | :---: | :---: | :---: |
| 1- RP English vowels are more difficult than RP English consonants in terms of production and description. |  |  |  |
| 2-Teaching the production of RP English vowels and consonants requires different techniques. |  |  |  |
| 3- Teaching the production of RP English vowels needs an experienced and a professional instructor. |  |  |  |
| 4- RP English diphthongs are more difficult than RP English monophthongs( pure vowels) regarding their articulation and description. |  |  |  |
| 5-The major source of difficulty in RP English vowels is attributed to the difference between L1 \& L2 sound systems. |  |  |  |
| 6- Difficulty in uttering RP English vowels is a part of weakness in phonological skills in general. |  |  |  |
| 7- Inaccuracy in pronouncing RP English vowels by non-native speakers is attributed to the inconsistency of English spelling. |  |  |  |
| 8- Difficulty in pronouncing RP English vowels result from weakness in speaking skill. |  |  |  |

The Production of RP English Vowels by Native Omani Adults:A Quantitative Analysis

| 9- Defluency in RP English vowels <br> is due to the lack of training in <br> pronouncing these vowels. |  |  |  |
| :--- | :--- | :--- | :--- |
| 10- Gradation in vowel difficulty is <br> closely related to the size of the <br> vowel; monophthongs, diphthongs, <br> triphthongs. |  |  |  |
| 11- Improving pronouncing RP <br> English vowels needs constant <br> listening to native speakers or to <br> native speakers-like. |  |  |  |
| 12- Vowels Identification Drills are <br> the most useful ones to facilitate <br> pronouncing RP English vowels. |  |  |  |
| 13- RP English vowels are better <br> learned via teaching them at a <br> sequence; monophthongs, <br> diphthongs, triphthongs. |  |  |  |
| 14- Transcription exercises <br> contribute significantly to the <br> mastery of RP English vowels. |  |  |  |
| 15- Better teaching of RP English <br> vowels is conducted through <br> practicing them within context. |  |  |  |
| 16- Minimal pairs are very beneficial <br> in teaching RP English vowels |  |  |  |
| 17-Special drills should be designed <br> to teach RP English vowels <br> depending on the diagnosis of the <br> difficulties of a special group of |  |  |  |



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| learners |  |  |  |
| :--- | :--- | :--- | :--- |
| 18- Full mastery of RP English <br> vowels requires intensive ear <br> training. |  |  |  |
| 19- Training through the <br> cardinal vowel diagram is very <br> helpful to improve pronouncing RP |  |  |  |
| English vowels. |  |  |  |
| 20- Production of RP English vowels <br> can be easier via adopting an <br> articulatory vowel system ( diagram) <br> suggested for this purpose. |  |  |  |
| 21- Mastering RP English vowels is <br> attained gradually hand by hand with <br> the mastery of other communicative <br> skills. |  |  |  |
| 22- Errors relevant to RP English <br> vowels( identification, production, <br> classification, description) have <br> different levels of gravity <br> (seriousness). |  |  |  |



