ZAC Conference Series: Social Sciences and Humanities
(ZACCS: SSH)
https://conf.zenithacademic.co.uk/index.php/zacsssh
ISSN (Print): 3049-7760 ISSN (Online): 3049-7779
3rd International Humanitarian Conference, Baghdad 2024
Volume 001, Issue 01, 2024, pp. 001-41
https://doi.org/10.70516/zaccsssh.v1i1.22

The Pronunciation Problems Encounter EFL Learners in Spoken English at University

Raad Ali Hameed[1, a)]

[1] Department of English, Al Hikma University College, Baghdad, Iraq

[a)] Corresponding author: Raed.ali@hiuc.edu.iq

Abstract. This research examines the pronunciation difficulties of EFL undergraduate learners at universities when pronouncing English phonemes. It collects data using recorded speech samples, pronunciation tests and questionnaires as part of a research method for collecting data. The instruments used for this study are collecting data and analyzing them. The test materials are prepared in speech levels. Therefore, the observations of these were based on auditory impressions. The results suggest that the participants had a pronunciation challenge with the phonemes in English. This research gives insights and supports ESL teachers in developing teaching techniques that will lessen or eliminate future issues with Arabic speakers' pronunciation of English phonemes.

Keywords: Pronouncing English phonemes, learners at university, Arabic speakers.

INTRODUCTION

Pronunciation is the most important factor in acquiring English as a second language. Perception and pronunciation play crucial roles in effectively utilizing and acquiring English language proficiency, [3]. As a result, analyzing English pronunciation mistakes is a helpful opportunity to know about learners' mistakes. This interesting concern enables teachers to correct mistakes, and pronunciation teaching would be effective.

The Issue

The challenges encountered by Arabic scholars upon learning English pronunciation derive from the inherent differences between the language systems of English and Arabic across various categories.

English phonemes vary in terms of their number, manner, and place of articulation, as well as their pronunciations. Specific English consonant phonemes, especially /p/, /v/, and /ŋ/, are absent in the Arabic sound system. Additionally, consonants that may seem similar to certain Arabic consonants, such as /t/ or /k/, are actually equivalent. However, there are differences in how these consonants are articulated regarding their place and manner. The Arabic phoneme /t/ is dental rather than aspirated in the initial position, as seen by the word /ti:n/ meaning 'fig'. Contrary to English, where the /t/ phoneme is produced when the tongue is in contact with the alveolar ridge and accompanied by a burst of air in the same word position as a vowel, as exemplified by the word 'two' /tu:/, as stated by Abdulwahab (2015)[6].

According to Val Barros (2003)[9], Arab English learners face difficulty pronouncing the English phoneme /r/ due to its presence in Arabic, where it is consistently spoken as a vowel.

L2 learners have challenges when attempting to articulate phonemes with the same level of proficiency as native speakers. This study investigates the difficulties encountered by a specific set of college learners while

pronouncing the English sound /r/. Additionally, the aim is to identify the underlying causes and explore suitable strategies to enhance learners' English pronunciation.

Study Objectives

The primary aim of the study is to encourage Arab undergraduate students learning English as a foreign language in improving their pronunciation by providing practical teaching methods for teaching English phonemes and encouraging students to create and acquire these phonemes appropriately. This study intends to investigate the improvement of English pronunciation among Arab undergraduate EFL learners by practicing pronunciation examinations and phonemic inventory through repetition and imitation. Another goal could be to enhance the sense of pronunciation proficiency for every Arab undergraduate English as a Foreign Language (EFL) student.

Literature Review

The phonetic systems of Arabic and English

The most challenging aspect of acquiring pronunciation is the distinction between first and second languages (Bell,1995). As a result, one of the challenges that Arab learners may face in achieving good English pronunciation is knowing the distinctions in phoneme structure between English and Arabic. There are 36 phonemes in Modern Standard Arabic (MSA), with 28 consonants, six vowel phonemes (three short and three long), /a, i, u, a:, i:, u:/, and two diphthongs [1]. "The English language has twenty vowel phonemes and twenty-four consonant phonemes".

Arabic exhibits phonemic vowel duration (Ajami & Hussain, 2010). Arabic has a higher number of consonant phonemes and a fewer number of vowel phonemes compared to English, making it a language that emphasizes consonant phonemes. AbdulHadi, in 2015. As stated by Majeed (1999), “Arabic is a consonant-heavy language compared to English. Even though Arabic is a consonant-heavy language, English use many more consonant clusters to form words”.

Many English phonemes, including /p/, /ʧ/, /ŋ/, and /v/, are absent in the Modern Standard Arabic (MSA) sound system but present in Iraqi Arabic. In addition, although /t/ and /k/ may seem similar to certain Arabic consonants, they are actually different in terms of how they are pronounced and where they are articulated (Majeed, 1999). In word initial position, the Arabic phoneme /t/ is dental rather than aspirated. An example is the word /ti:n/, which means 'fig'. The /t/ sound in English is both alveolar and aspirated when it occurs before a vowel in the same word position, as exemplified by the word 'tea' /ti:/ [6].

Furthermore, the Arabic consonants /t/ and /d/ have phonemic pharyngealization value, which requires a secondary articulation of consonants or vowels by which the pharynx or epiglottis is constricted during the articulation of the sound. These consonants are considered emphatic consonants because they are emphatic (Waengler, 2009).

Several studies have been conducted to determine if these phonemes are classed as pharyngeal or epiglottal. According to Ladefoged (1975)[8], based on recent studies of epiglottal activity in the laryngeal region. The analyses of phonotactics, however, have been considered in Arabic; the light /l/ is used in different word positions, and considered /l/ is considerably varied.

Despite the presence of the phoneme /r/ in Arabic, the vast majority of Arabs pronounce it as a trill. The Arabic speakers are unfamiliar with English approximant, and they also have a strong tendency to articulate this phoneme in Arabic. Egyptian English speakers are having trouble using /ð/ and /ʤ/. In contemporary Egyptian spoken Arabic, the phoneme /ʤ/ is commonly substituted with /ʒ/. Consequently, words like 'jam' and 'job' are pronounced as [ʒæm] and [ʒæb] respectively.

Another issue that Egyptian speakers face is the consonant phoneme /ð/, which is replaced with the plosive phoneme /d/. Accordingly, words such as 'then', ‘they’, 'though', and 'their' would respectively have phonemes such as 'den,' 'day,' 'dough' and ‘dare,’ [9].

English frequently employs three-segment consonant clusters, but Arabic does not. Unlike English, Arabic does not have three- and four-segment clusters at words final position. Additional consonant clusters, such as /spl/, /sp/, /str/, and /gr/, are either absent from the Arabic consonant inventory or have alternate pronunciations (Eide, 2012: 25-31).

Vowels

Obviously, Arabic is the most important Semitic language, in terms of the number of speakers, [12]. MSA is the written language of all Arab nations today, as well as the language of public education institutions, and is used in newspapers, television, and radio. In the Arabic world, many varieties are used. Linguistic distinctions between standard languages and dialects might be seen in phonology, syntax, morphology, and lexical choice. Vowels are generated from a laryngeal sound source, meaning that the air flows out of the mouth without any obstruction or closure caused by the tongue, teeth, lips, etc., in the oral cavity. Vowels could be distinguished from consonants in their behavior. As it is known, the five Roman alphabet letters, 'a, e, i, o, and u', are not sufficient to represent all vowel phonemes; English has many more vowel phonemes than these (Small, 2012). Three short vowels (/i/, /u/, and /a/) and three long vowels (/i:/, /u:/, and /a:/) make up the alphabet. There are two diphthongs in Arabic: /aj/ and /aw/. (Fathi, 2001). Vowels according to (Saadah, 2011)[15] in similar research, explains that vowel systems can be characterized by "two phonetic parameters: vowel quality and vowel quantity. Quality pertains to variations in the articulation location of the vowel, including the tongue's position in the vocal tract, the size of the stricture, the shape of the lips, and whether the vowel is nasalized or not". Variations in the acoustic signal manifest as distinct spectral patterns for different vowels, indicating variances in quality. On the other hand, vowel quantity pertains to the length of the phonetic unit (such as the vowel), which is regarded as a crucial component of its phonemic identity.

The Arabic vowel system is divided into two categories: short and long vowels. Fatha, kasra, and damma are the three types of short vowels. Fatha is always written above the consonantal speech sound that comes before. Kasra is a little diagonal line placed below a consonantal speaking sound. Damma is a diacritic mark that is positioned above the consonantal speech sound that comes before it. The reference to (Fatihi, 2001) may be found in the publication of Salameh and Abu-Melhim (2014)[14].

English vowels are made up of twelve basic vowel phonemes that contrast the tense long vowels and the lax short vowels, whereas Arabic vowels are made up of six vowel phonemes that contrast the long and short vowels.

The number of vowel systems in Arabic and English is varied, as is the phonetic quality of the vowels (Power 2003).

Figure 1 illustrates the whole set of six Arabic vowels in a vowel space, while Figure 2 illustrates the English vowels. The purpose of these graphs is to compare the vowel inventory of the two systems.

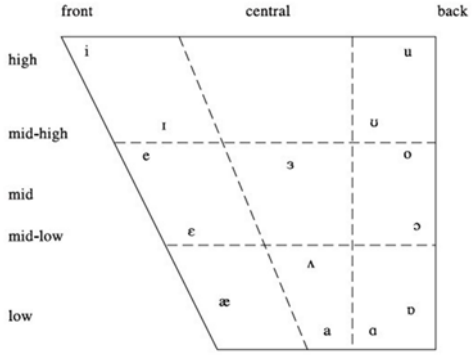


Figure 1: Vowels chart: adopted from Ladefoged and Johnson (2010. P: 44)

Consonant Difficulties

There has not been much research done on the challenges Arabic speakers experience learning English pronunciation. [20]; His study is among the limited number of studies that attempt to tackle the problem. He conducted a study to examine the challenges encountered by Saudi Arabian learners in the process of studying English and achieving proper articulation. The participants in his study started their English language studies at the age of thirteen and exclusively pursued their education within their own country. In order to collect data, Altaha collected recorded and examined participant spoken English across a range of different contexts and situations. Some pairs of consonant phonemes (e.g. phonemes /ʧ/ and /ʃ/ as in 'chop' and 'shop'; /f/ and/v/ as an example 'very' and 'ferry'; /p/ and /b/ as in 'pie' and 'buy') were problematic for his participants.

Avery and Ehrlich (1992) identified several challenges Arabic speakers face while pronouncing English consonants. These include issues with the consonant phonemes /θ/, /ð/, /ʧ/, /ŋ/, /ʤ/ and /r/, as well as consonant clusters. The challenges, however, were suitable for Arabic learners of all proficiency levels.

(Val Barros, 2003)[9] studied the pronunciation challenges in the Arabic consonant system when learning English in her study.

There are twenty-nine consonants in Arabic and twenty-four in English. Most consonants are common to both languages; nevertheless, there are a few that exist in one language but not the other. Arabic speakers may encounter pronunciation difficulties in this situation, particularly with consonants that are not present in Standard Arabic. Val Barros states that Standard Arabic possesses emphatic consonants, but the phoneme inventory of Standard Arabic does not include the English consonants /p/ and /v/. Other consonants, such as the Arabic /r/ being an alveolar trill and the English /r/ being a velar trill, may have different phonetic realisations.

Some of the pronunciation issues, according to Tushyeh (1996)[19], can be related to students' misunderstanding that English consonant phonemes have Arabic counterparts. As a result of this misunderstanding, they substitute Arabic consonant phonemes for English consonant phonemes.

METHODS

Our research study included thirty-two B.A. first-year undergraduate students. They filled out a self-reporting questionnaire regarding their experiences in learning English and their pronunciation habits before taking part in the study. Previous experience of the researcher as an undergraduate B.A. student at Educational College was the main reason for choosing to concentrate on undergraduate students. The proposed research was to learn more about the significance of articulation instruction in the EFL classroom. This research investigated the participant's ability to pronounce words using qualitative and quantitative methods. The researcher used audio recordings to conduct periodic assessments to test the learners' pronunciation skills.

PROCEDURE

The research was carried out during a single semester by undergraduate students utilizing the Zoom application. Throughout the semester, a total of six credit hours were instructed weekly for fourteen weeks. The entire group of twenty first-year B.A. students actively participated in the lectures conducted on throughout the entire semester.

RESEARCH STUDY

The research used preliminary and primary investigation, with both qualitative and quantitative research methods.

PRELIMINARY INVESTIGATION

A preliminary study will be performed first to concentrate on and investigate the many aspects related to teaching and enhancing pronunciation skills. The objective is to gain insight into the participant's proficiency in accurately articulating words. The baseline data was considered beneficial for the second stage of the investigation. The preliminary investigation is crucial for the current research as it is anticipated to yield fundamental data, including background information, articulation proficiency, and learners' capacity to concentrate on separate letters and phonemes, as well as their proficiency in employing suitable strategies at this stage. The first phase of inquiry was conducted via a questionnaire consisting of sixteen utterances to identify pronunciation difficulties.

Primary Investigation

For one semester, pronunciation instruction was followed by several Zoom-based online pronunciation tests. The researcher put this investigation in operation for four months. The primary purpose was to assess the English pronunciation and language proficiency of EFL learners with limited skills. This was achieved by analysing the twenty replies obtained from the questionnaire. Researchers will be able to better organise interactive sessions and examinations to assist students in comprehending their word-pronunciation abilities with the help of these essential insights. In order to achieve this objective, the researcher has employed the following research instruments: The research benefits from doing an initial pronunciation test, analysing phonemic inventories of consonant and vowel phonemes, and providing final articulation tests, as these measures enhance comprehension. Participants were encouraged to explain any reservations they had about their ability to pronounce words correctly after each articulation test.

As part of our primary research, we found the following steps: First, participants' ability to pronounce words was assessed using (Sony Voice Recorder) recordings. Second, articulation difficulties of participants were identified and analysed during lecture attendance. Third, an analysis of the strategies followed by participants during articulation drills. Fourth, an inventory of the pronouncing abilities of each participant.

To help learners improve their perception of phonemes, particularly pronunciation, they were instructed to pronounce them with their teacher using examples. With the help of a microphone, the researcher introduced English phonemes and provided articulatory descriptions. To initiate our inquiry, we selected a basic-level articulation proficiency examination from Unit two of the recommended syllabus for first-year B.A. students. The participants were directed to articulate a series of four brief vowel phonemes, specifically "/æ/, /ʌ/, /ɪ/, /e/", in addition to uttering eight words, such as "bread, rough, foot, hymn, pull, cough, mat, and friend", Roach (2009, p.15).

This test was used to evaluate the participants' proficiency in pronouncing various English words and phonemes at the start of the study. All twenty participants took the first pronunciation exam; their voices were recorded, then analyzed.

A phonemic word square articulation assessment was performed in order to enhance the articulation of English words (Jahara & Abdelrady, 2021)[21]. In order to produce complete and meaningful words, the examination required the identification of missing phonemes and their arrangement in phonemic word squares. The participants were given five instances of "English vowels" and told to identify words with diphthongs, long vowels, and short vowels such as "/iː/ teach, /aɪ/ rhyme, /ɔː/ hot, /ɒ/ top, /e/ tell, /æ/ tap, /ʌ/ cut, /ʊ/ push, /eɪ/ rain and /əʊ/ stone" , Hancock(2012, p. 136). Participants were given instructions to complete the absent phonemes in the phonemic word squares to form four intelligible words. Their answers were then documented with a Sony voice recorder.

An assessment of phonemic word square pronunciation was conducted in an effort to improve English pronunciation. This test involved identifying and adding missing phonemes to phonemic word squares in order to form meaningful words. The participants were presented with ten examples of "English vowels" and were instructed to identify the corresponding words associated with monophthongs and diphthongs. The examples included words such as "reach" for the long vowel /iː/, "type" for the diphthong /aɪ/, "ball" for the long vowel /ɔː/, "top" for the short vowel /ɒ/, "bell" for the short vowel /e/, "tab" for the short vowel /æ/, "but" for the short vowel /ʌ/, "pull" for the short vowel /ʊ/, "train" for the diphthong /eɪ/, and "go" for the diphthong /əʊ/ (Hancock, 2012, p. 136). The researcher instructed the participants to complete the phonemic word squares by filling in the missing phonemes and generating four coherent words. The participants' replies were then recorded on Blackboard LMS.

Vowels and consonants in the phonemic inventory: The English phonemes were familiar to the participants in our study. They got auditory instruction on sound perception and recognition, as well as examples. A total of forty-four phonemes were given to the students. "This study focuses on the examination of twelve monophthongs, eight diphthongs, and twenty-four consonant phonemes" (Roach, 2009). The researcher recorded speech samples of phonemes after providing sufficient sound ear training to our participants. During the recording sessions, every effort was made to keep internal disturbances to a minimum. All participants in our study participated in learning English phonemes. The researcher evaluated the participant's pronunciation by using their microphone to pronounce a set of vowels and consonant phonemes. The phonemic inventory test was completed by each participant in the study, and the outcomes were assessed through voice recordings and articulation evaluations.

Final articulation proficiency test: The researcher chose simple Situational Dialogues conversations that covered a wide range of phonemes Regarding the last pronunciation proficiency test. This exam featured six conversations form real life using English vowel and consonant phonemes. Conversations from the course were chosen (Ockenden, 1986)[2]. The aim of the task was to focus and examine the learner's attention to various English phonemes, their challenges with pronunciation, their accuracy in recognising letters and phonemes, their ability to distinguish phonemes in combination, and their abilities for distinguishing sound variations during conversations. All of the participants in our research were asked to listen to the conversations and provide their opinions for the final articulation test. After the researcher studied the participants' answers, the findings were evaluated.

THE PRELIMINARY INVESTIGATION

The study provides discussion, analysis, and explanation of the data acquired via a survey administered to twenty students studying English as a Foreign Language (EFL) at Al-Hikma University College. The researchers prepared tables representing the data collected after distributing the questionnaire to the participants. This step involved the converting of qualitative (nominal) variables (strongly agree, agree, neutral, disagree, strongly disagree) to quantitative variables (1,2,3,4,5). The researcher analysed the questionnaire utterances in terms of their frequency and percentages.

The researcher calculated the median to determine the participants' attitudes towards each utterance in the questionnaire. The median is a statistical measure of central tendency that represents the middle value of a data set after arranging them in ascending or descending order.

Findings of the Questionnaire

Utterance 1: I did not acquire the skill to distinguish between /p/ and /b/ phonemes correctly at school. In the study's sample, (53.1%) of the learners strongly agreed that they did not learn how to correctly recognize the phonemes /p/ and /b/. (Table 1). Just two participant (6.3%) expressed uncertainty regarding the utterance, whereas five participants (15.6%) agreed. It has been found that the Arabic language only has the /b/ phoneme and lacks the /p/ phoneme. This could pose a considerable difficulty for Arab learners distinguishing between the /p/ and /b/ phonemes. Utterance 2: I frequently get confused with the /ʃ/ and /tʃ/ phonemes. It was meant to obtain participants' opinions on words articulation, such as schedule, chicanery, shabby, and chat. Utterance 3: I frequently get confused and mispronounce the/e/ and /ɪ/ phonemes. This utterance (Table 1) was designed to learn about learners' perceptions of the short vowel /e/ phoneme and how to pronounce phrases like try and restart.

Utterance 4: I often confuse the /ɪ/ short vowel and /i:/ long vowel phonemes. The purpose of this utterance, found in Table 1 was to assess students' perceptions of the articulation of the short vowel /ɪ/ and long vowel /i:/ phonemes. Many students were seen mixing these phonemes when reading or pronouncing words such as hybrid, sine, and peace. Utterance 5: I am unable to distinguish between /tʃ/ and /dʒ/ phonemes. The sentence from Table 1 above was meant to obtain participants' thoughts on the /tʃ / phoneme. Utterance 6: I am unable to distinguish between /æ/ and /a:/ phonemes. The preceding data (Table 1) shows that the majority of learners are unable to differentiate between these phonemes. The participants are experiencing confusion due to the absence of the phoneme /æ/ in the Arabic language, as well as the presence of the phoneme /a:/, which leads to a mistake in spelling. Utterance 7: I struggle with pronouncing the minimum pairs "beet" and "beat". The utterance provided in Table 1 clearly demonstrates that a significant number of students encounter difficulties in appropriately pronouncing minimal pairings. The preceding utterance, as presented in (Table 1), definitely demonstrates that a significant number of learners encounter challenges when it comes to accurately pronouncing minimum pairings. Utterance 8: I frequently confuse the /s/ and /θ/ phonemes when acquiring new information, such as in words like "thousand" and "south". This utterance (Table 1) demonstrates that the majority of learners combine /s/ and / θ/ phonemes. Utterance 9: I am challenged with word pronunciation because of the variations between English and Arabic. This utterance (Table 1) shows that there are significant differences between the grammar and sound systems of Arabic and English, causing a large number of students to make mistakes regarding transfer, interference, and overgeneralization.

Utterance 10: I have difficulty pronouncing the words "sieve" and "wonderful". The data presented in (Table 1) indicates that learners experience difficulty in expressing pure vowels and diphthongs and confusion. As a result, proper pronunciation allows for successful communication. Utterance 11: I find it challenging to utter /r/ as in tractor and header. This utterance (Table 1) shows that learners have difficulties pronouncing/r/ at the initial or final position of the word, resulting in mispronunciation of this phoneme. Utterance 12: I am unable to distinguish between weak and strong forms of words such as do, you, and has. According to the preceding utterance (Table 1), many learners are unfamiliar with weak and strong forms. Syllables are a distinguishing aspect of English pronunciation, and EFL learners must be familiar with their distribution and pronunciation. Utterance 13: I often alternate between the /dʒ/ and /g/ phonemes. Based on the information provided in Table 1, it is observed that a significant number of Arabic speakers have difficulty with articulating the /dʒ/ phoneme, leading them to substitute it with the /g/ phoneme. It attracted the learners' interest in how to pronounce the /dʒ/ and /g/ phonemes. Utterance 14: I find it difficult to articulate the /ʒ/ phoneme as in "vision", "treasure", and "measure". This utterance (Table 1) shows that find the pronunciation of the /ʒ/ phoneme confusing because it does not exist in Arabic.

However, this utterance (Table 1) does not seem an easy task for the majority of Arab learners as they seem to face several articulation difficulties, especially in the articulation of the /ʒ/ phoneme as it is not found in Arabic.

Utterance 15: I have challenge with differentiating between the articulation of /s/ and /ʃ/ phonemes. The utterance (Table 1) shows that the majority of students have difficulty distinguishing between /s/ and /ʃ/ consonants and make mistakes in articulation.

Utterance 16: I am frequently confused with articulating the /r/ phoneme. This utterance (Table 1) clearly shows that most learners confuse articulation the /s/ phoneme in the middle or final position of a word, such as in art and clear resulting in pronunciation mistakes. In order to achieve a level of fluency similar to that of native speakers, EFL learners should avoid pronouncing the /r/ phoneme that often corresponds to certain spellings.

Table 1. Summary of participants' answers to the utterances of questionnaire preliminary investigation stage I

S. No.	Utterances	Answers				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1.	I did not acquire the skill to distinguish between /p/ and /b/ phonemes correctly at school.	17 (53.1%)	5 (15.6%)	2 (6.3%)	6 (18.8%)	2 (6.3%)
2.	I frequently get confused with the /ʃ/ and /tʃ/ phonemes	16 (50%)	5 (15.6%)	5 (15.6%)	2 (6.3%)	4 (12.5%)
3.	I frequently get confused and mispronounce the/e/ and /ɪ/ phonemes.	18 (56.3%)	6 (18.8%)	2 (6.3%)	1 (3.1%)	5 (15.6%)
4.	I often confuse the /ɪ/ short vowel and /i:/ long vowel phonemes	16 (50%)	7 (21.9%)	5 (15.6%)	4 (12.5%)	3 (9.4%)
5.	I am unable to distinguish between /tʃ/ and /dʒ/ phonemes	9 (28.1%)	4 (12.5%)	3 (9.4%)	8 (25.0%)	8 (25.0%)
6.	I am unable to distinguish between /æ/ and /a:/ phonemes.	15 (46.9%)	5 (25.0%)	4 (12.5%)	1 (3.1%)	4 (12.5%)
7.	I struggle with pronouncing the minimum pairs beet and beat	17 (53.1%)	8(25.0%)	5 (15.6%)	1 (3.1%)	1 (3.1%)
8.	I frequently confuse the /s/ and /θ/ phonemes when acquiring new information, such as in words like " bathe " and " through "	14 (43.8%)	8 (25%)	3 (9.4%)	3 (9.4%)	4 (12.5%)
9.	I am challenged with word pronunciation because of the variations between English and Arabic	14 (43.8%)	10 (31.3%)	4 (12.5%)	3 (9.4%)	1 (3.1%)
10.	I have difficulty pronouncing the words " loud " and " load " (diphthongs).	15 (46.9%)	8 (25.0%)	3 (9.4%)	4 (12.5%)	2 (6.3%)
11.	I find it challenging to utter /r/ as in burn and learner.	16 (50.0%)	9 (28.1%)	2 (6.3.1%)	2 (6.3%)	3 (9.4%)
12.	I am unable to distinguish between weak and strong forms of words such as do, you, and has.	17 (53.1%)	9 (28.1%)	3 (9.4%)	2 (6.3%)	1 (3.1%)
13.	I often alternate between the /dʒ/ and /g/ phonemes.	10 (31.1%)	5 (15.6%)	6 (18.8%)	6(18.8%)	5 (15.6%)
14.	As a learner, I get confused with the pronunciation of /ʒ/ sound as in vision, treasure, and measure	15 (46.9%)	5 (15.6%)	3 (9.4%)	5 (15.6%)	4 (12.5%)
15.	I have challenge with differentiating between the pronunciation of /s/ and /ʃ/ phonemes.	14 (43.8%)	8 (25.0%)	3 (9.4%)	4 (12.85%)	3 (9.4%)
16.	I am frequently confused with articulating the /r/ phoneme as in art and clear	15 (46.9%)	8(25.1%)	1 (3.1%)	6 (18.8%)	2 (6.3%)

PRONUNCIATION TEST FINDINGS

The pronunciation assessment in terms of English vowel and consonant phonemes includes six everyday conversations. The learners exhibited significant progress and enhancement. The participants were given specific instructions to carefully read the topic, accurately articulate the correct sound, and complete the missing information in the provided gaps. A final examination was conducted for the students in order to evaluate their Concentrate on speech sounds that vary in fundamental aspects of the phonological system, such as possible

arrangements of consonant and vowel phonemes, and their ability to determine which combinations of speech sounds are possible and which are not. In order to enhance their pronunciation and listening skills, participants must accurately perceive and articulate the appropriate sound to complete the gaps. According to Troike (2006, p. 143)[24], having a high level of skill in understanding and producing sounds is crucial for effective spoken communication.

Table 2. Initial answers regarding pronunciation Stage II of the Primary Investigation Test

Participants' answers	Phonemes scored	Percentage %
C	96	3.0
IC	23	0.7
D	9	0.3
Total	128	4.0

C = correct, IC = incorrect, D = divergences

The table above illustrates the participant's accuracy in identifying between correct and incorrect answers while recognizing the four short vowel phonemes and eight example words.. We employed a measurement scale consisting of C to denote correct answers, IC to denote wrong answers, and D to denote divergences. The data revealed that most participants provided favorable feedback on the articulation of short vowel phonemes. The participants enhanced their perception of phonemes through the deliberate practice of sound production, namely by repeatedly and diligently rehearsing phonemes with appropriate exemplars. The results of the initial pronunciation exam include 96 accurate answers, 23 wrong answers, and 9 instances of divergent pronunciation of phonemes.

Table 3. Initial pronunciation test - primary investigation of the stage II

Participants' answers	Phonemes scored	Percentage %
C	134	4.2
IC	104	3.3
D	18	0.6
Total	256	08

C = correct, IC = incorrect, D = divergences

As shown in the table above, most participants showed less proficiency in articulating sample words than their initial pronunciation test scores indicated. Acquiring new vocabulary is an ongoing process, and students studying English as a foreign language should continuously refresh and expand their lexicon. Acquiring vocabulary requires careful and systematic learning, with no definitive technique for rapid improvement. Continual improvement and passion for learning unfamiliar terms are essential for mastering spelling and pronunciation.

RESULTS OF PHONEMIC WORD SQUARE ANALYSIS

Phonemic word squares assist in the development of pronunciation by directing attention, predicting phonemes, and deducing the phonemes within the word squares. Following extensive instruction through Blackboard LMS, the majority of participants achieved comprehension of both native and near-native English speaking. They enhanced their ability to identify English phonetic sounds in order to complete the phonemic word squares, such as /i:/ with words like teach, seen, cheer, and dean, and /æ/ with words like sat, nap, van, and sad. The words "sell," "tell," "set," and "yet" all include the vowel phoneme /e/. /ɔ:/ is a vowel phoneme that is found in words like tall, talk, call, laws, and others. The activity is flexible and can be customized to teach any vocabulary. Additionally, it is an effective method for enhancing English pronunciation with greater clarity and distinction. Following the initial pronunciation exam, the participants are then given open-ended assignments with the purpose of improving students' articulation and listening skills, as well as to develop their ability to make accurate predictions and improve their performance.

Table 4. phonemic awareness of word squares- primary investigation stage II

Participants' answers	Phonemes scored	Percentage %
C	203	6.3
IC	98	3.1
D	19	0.6
Total	320	10.0

C = correct, IC = incorrect, D = divergences

The performance of the participants was assessed by comparing their accurate and inaccurate pronouncing of ten phonemic squares in the table above. We adopted a scale with C for accurate answers, IC for incorrect answers,

and D for divergences. Most participants exhibited favorable answers and successfully completed the phonemic word squares who produced 203 accurate replies, 98 inaccurate answers, and 19 divergences.

Results of the Consonant Phonemic Inventory

The first discussion focused on bilabial plosives, specifically the phonemes /p/ and /b/ (Hancock, 2012). The majority of learners had previous experience with the /p/ and /b/ phonemes. "They enjoyed participating in the conversation assessment and showed proficiency in identifying appropriate phonemes". The second discussion focused on the alveolar fricative phonemes /s/ and /z/ (Hancock, 2012)[23]. While most learners were acquainted with the /s/ and /z/ phonemes, only a small number showed difficulty with the /s/ phoneme and mistakenly replaced it with the /z/ phoneme during the conversation. The third debate focused on the velar plosive phonemes /g/ and /k/ as described by Hancock (2012). Most learners had prior experience with the phonemes /g/ and /k/ and enjoyed participating in the pronunciation test, an experimental activity. They demonstrated proficiency in identifying the relevant phonemes. The fourth discussion focused on the phonemes /ʃ/ (palato alveolar fricative) and /dʒ / and /tʃ/ (palato alveolar affricates) (Hancock, 2012)[23]. Due to the fact that the majority of students had prior knowledge of the affricates /dʒ/ and /tʃ/, a minority of them incorrectly identified the palato alveolar fricative σ/ with /tʃ/.

Table 5. phonemic awareness of consonants -primary investigation stage II

Participants' answers	Phonemes scored	Percentage %
C	203	6.3
IC	98	3.1
D	19	0.6
Total	320	10.0

C = correct, IC = incorrect, D = divergences

The data above presents the participant's performance with consonant phonemes, categorized as C for correct answers, IC for erroneous answers, and D for divergences. The majority of participants exhibited favorable reactions in terms of the articulation of consonant phonemes, with 655 answers being accurate, 109 answers being incorrect, and 37 answers showing divergence.

Results of the Vowels Phonemic Inventory

Some participants had difficulty distinguishing between the close front vowel /ɪ/ and the close-mid front vowel phoneme /e/. Some students, specifically S10 and S22, had difficulty distinguishing between the short vowel phoneme /ɪ/ and the long vowel phoneme /iː/. Some students were unable to differentiate between the short vowel phoneme /æ/ and the long vowel /ɑː/ phonemes which produced by students S1, S3, S11, S19, S23, S25, S28, S29, and S30, S3, S5, S6, S19, S27 failed to produce the intended sound patterns. Most students (S1, S3, S5, S6, S7, S11, S12, S13, S14, S15, S19, S23, S25, S27, S31) were unable to differentiate between the short vowel phonemes /ʌ/, /ɒ/, and /ə. These phonemes were not identified by participants (S3, S5, S6, S7, S12, S13, S15, S19, S23). A few participants (S3, S5, S6, S19, S27) struggled to differentiate between the long vowel phoneme /ɑː/ and the diphthong phoneme /eə/, while others (S4, S6, S8, S13, S14, S16, S17, S19, S22, S23, S24, S27, S29) were unable to produce correct sound patterns accurately. Arabic learners find it challenging to master short and long vowel phonemes without consistent practice. The distinction between English and Arabic orthography presents a challenge for Arab learners in recognizing and understanding sound patterns and alphabets. Arabic learners are often confused by the numerous silent letters in English, as Arabic has fewer silent characters in comparison.

In general, the majority of participants appeared to have monophthongs in their inventory. Some students (S3, S5, S9, S14, S15, S18, S19, S24, S26, S28, S29) did not include the phonemes /əʊ, aʊ, eə / while producing centering and closing diphthongs, and there were variations in the way other participants produced diphthongs. Participants S4, S5, S7, S13, S15, S17, S19 exchanged the diphthong /ɪə/ 'hear' with /eə/ while participants S3, S5, S7, S9, S14, S15, S17, S19 replaced /əʊ/ with /ɔː/ as in 'go'. All participants in this study completed the phonemic inventory of vowel phonemes and had favorable reactions.

Table 6. Primary investigation stage II (vowels)

Participants' answers	Phonemes scored	Percentage %
C	483	15.1
IC	154	4.8
D	20	0.6
Total	656	20.5

C = correct, IC = incorrect, D = divergences

The performance of the participants with respect to vowel phonemes is presented in this table on a C for correct answers, IC for erroneous answers, and D for divergences. The majority of participants correctly pronounced vowel phonemes with 483 accurate replies, 154 inaccurate answers, and 20 deviations.

Results of Final Pronunciation Test

The initial discussion focused on the bilabial plosive phonemes /p/ and /b/ as reported by Hancock in 2012. The majority of participants had prior experience with the /p/ and /b/ consonants based on their experience. They participated actively in the discussion test and showed favorable reactions to identify the correct phoneme. The second topic focused on alveolar fricative consonants /s/ and /z/, as observed by Hancock in 2012. While most participants had experience with the /s/ and /z/ consonants, only a small number mistakenly interchanged the /s/ phoneme with the /z/ phoneme throughout the conversation. The third discussion focused on velar plosive phonemes /g/ and /k/, according to Hancock (2012)[23]. Most participants had some experience with the /g/ and /k/ consonants and eagerly took part in the pronunciation test, which was experimental. They had good answers in recognizing the correct phoneme. The fourth discussion focused on the palato-alveolar fricative /ʃ/ and palato-alveolar affricates /dʒ/ and /tʃ/ phoneme, as reported by Hancock in 2012. The affricates /dʒ/ and /tʃ/ were familiar to most participants. Some confused the palato alveolar fricative /ʃ/ with /tʃ/.

The primary emphasis of the fifth debate was on the vowel phonemes /ɑː/ and /eə/. (Hancock, 2012). Most learners experienced difficulties with the vowel phonemes /ɑː/ and /eə/ and were unable to articulate syntactically correct patterns.

Additionally, the previous discussion focused on the vowel phonemes /aɪ/ and /ɪ/. (Hancock, 2012). Most learners responded well to recognizing the relevant phonemes, and their scores demonstrated exceptional improvement in their performance.

Table 7. answers on final pronunciation test primary investigation stage II

	Grade	Participants` grade numbers	Percentage %
A	+90	17	53.1
B	+80	10	31.3
C	+70	2	6.3
D	+60	3	9.4
	Total	32	100

A = excellent. B = good. C = average. D = needs improvement.

The performance of each participant on the final pronunciation examination is detailed in the table above. We adopted a grading scheme where A for scores above 90 was exceptional, B for scores above 80 was good, C for above 70 was average, and D for scores above 60 needed improvements. The final pronunciation test showed that most of the 32 participants achieved an excellent grade. Nine participants had a good performance (B grade), one had an average performance (C grade), and four needed improvements in their pronunciation skills (D grade).

Discussion

Active interaction between teachers and students improves pronunciation, listening, and speaking abilities. Pronunciation of the English language is an essential part of teaching and learning a foreign language, as it influences students' communication skills and performance.

Inadequate pronunciation skills have a negative impact on learners' confidence and limit their ability to engage in interactions with others. EFL instructors can motivate their students to develop the necessary pronunciation skills for effective communication (Gilakjani & Sabouri, as cited in Jahara & Abdelrady, 2021)[21].

Engaging in the act of listening to a diverse range of phonemes and words helps in the recognition of the specific phoneme of words, the perception of sound, accents, and the detection of tonal variations, all of which contribute to the ability to differentiate between the spoken phonemes of different words. According to Table 1, the curriculum included teaching listening and pronunciation from level one onwards. However, it did not take into account the specific needs of the learners. The objective of this study is to enhance B.A. listening and speech skills. An undergraduate programme designed to develop reading and speaking skills includes various listening and articulation examinations. These tests are intended to assist learners in improving their ability to listen and pronounce accurately, hence enabling ineffective students to articulate more effectively.

The researchers first analyzed each sound in the Received Pronunciation (R.P) phonemic inventory, including both vowels and consonants, within the Blackboard Collaborate Ultra LMS. The participants were instructed to record their voices while articulating the vowel and consonant phonemes using a microphone. If a phoneme is omitted or mispronounced, it is identified as lacking in the listener's inventory and classified as a mistake.

The researchers provided the learners with frequent practice sessions. It was observed that strengthening attentive listening skills can enhance participants' pronunciation. Chang Derwing (2005)[25] defines pronunciation practice as "an approach for EFL teachers who need more training in phonetics or phonology and those who need expansion in their lesson repertoire. The participants were told that learning English phonemes would encourage them to develop their pronunciation and communication skills".

Arab students lacked sufficient English pronunciation instruction in school and had limited exposure to the language outside of class. According to Troike (2006)[24], in most educational contexts, L2 learners must be

skilled in phonological perception. Using the appropriate curriculum, English language instructors must be taught listening and articulation skills at various levels. The majority of our participants were excited to improve their English pronunciation skills. Participants in pronunciation must practice their skills to be developed and make them a habit. So, a learner needs expert assistance initially, then regular practice with a selection of sample words.

Limitations

The current study explored the difficulties that EFL undergraduates face in the areas of pronunciation and listening comprehension when learning English as a second language. Quantitative and qualitative research methods, including questionnaires, recorded speech samples, and pronunciation tests, were employed to assess the oral proficiency of Blackboard LMS users in English pronunciation. This research study's approach and resources will address learners' perspectives on articulation skills.

CONCLUSION

Globally, including Iraq, the English language is presently undergoing a significant spike in usage. English's significance in the contemporary world cannot be ignored, given that it functions as the global language of business, technology, science, and worldwide communication. In order to interact with others appropriately, it is imperative that everyone has the ability to pronounce words accurately. The objective of this research was to investigate the challenges that Arab undergraduate English as a Foreign Language (EFL) learners at Al-Hikma University College faced with regard to pronunciation. The program included surveys, recorded speech samples, and pronunciation tests to assess the learners' oral performance. It consisted of repeated exercises to assist students in correctly pronouncing English phonemes. The Blackboard Learning Management System was employed for this purpose. Most of the participants showed increased proficiency in their pronunciation skills.

Throughout the whole process, students' pronunciation skills exhibited significant improvement, from the initial articulation assessment to the final assessment. The research attempted to enhance students' ability to articulate English words and phrases using articulation tests and a phonemic inventory, using methods like repetition and imitation. According to the findings of the study, our EFL undergraduates' articulation improved as a result of their consistent motivation and readiness to engage in the specified examinations using Blackboard Collaborate Ultra LMS. Through the intention of overcoming their difficulties with mispronunciation, the EFL undergraduates were enthusiastic about getting better at pronouncing words. They wanted to enhance their hearing and pronunciation abilities, so they were excited to learn the phonemes of English. Findings from the study demonstrated that articulation skills require initial guidance from an expert, consistently practicing on a regular period with a limited number of example words. Finally, the researcher believed that the outcomes of this research would improve pronunciation instruction and, thus, solve the pronunciation issues faced by Arab learners of English as a foreign language.

REFERENCES

1. AlJomaely, R. (2018). The Pronunciation of English Diphthongs by Iraqi Learners of English. PROFESSIONAL COMMUNICATION AND TRANSLATION STUDIES, 11, 67–72. Retrieved 2022, from https://sc.upt.ro/attachments/article/206/08_EN_Raad.pdf.
2. Ockenden, M. (1986). Situational dialogues. London, Harlow: Longman
3. Gussenhoven, C., & Jacobs, H. (1998). Understanding Phonology.Co-published in the United States of America by Oxford University Press.Inc., 198 Madison Avenue, New York, NY 10016.
4. Bell, J. S. (1995). The relationship between L1 & L2 Literacy: Some complicating factors. TESOL Quarterly, 29(4), 687-704. http://dx.doi.org/10.2307/3588170
5. Majeed, Z. (1999). English Phonetics and Phonology for Arab Students, (Leeds, UK).
6. Abdulwahab, H. A. (2015). Difficulties of English Pronunciation Encountered by Saudi Learners, Unpublished M.A. Thesis, Open University of Sudan, Khartoum, Sudan.
7. Bauman-Waengler, J. (2000). Articulatory and phonological Impairments: A clinical Focus. Boston: Allan and Bacon.
8. Ladefoged, P. (1975). Course in Phonetics. Library of Congress Catalog Card Number: 74-9390. Printed in the United States of America.
9. Val Barros, A. (2003). Pronunciation Difficulties In The Consonant System Experienced By
10. Arabic Speakers When Learning English After The Age of Puberty. M A Thesis, Morgantown, West Virginia.
11. Eide, D. (2012). Uncovering the Logic of English. Pedia Learning Inc. Minneapolis, MN 55420 USA

12. Bader, S. S. I. (2010). Issues in the Characterisation of Phonological Speech Impairment vs. Delayed Acquisition in Jordanian Arabic-Speaking Children. Universitat Bielefeld Fakultat fur Linguistik und Literaturwissenschaft. Unpublished Thesis.
13. Small, L. H. (2012). Fundamentals of phonetics, a practical guide for students. Library of Congress Cataloging-in- Publication Data.
14. Salameh, M. Y. B., & Abdel-Rahman, A. (2014). The Phonetic Nature of Vowels in Modern Standard Arabic 60-67. Advances in Language and Literary Studies.
15. Saadah, E. (2011). The Production of Arabic Vowels by English L2 Learners and Heritage Speakers of Arabic. Dissertation, University of Illinois at Urbana-Champaign.
16. Power, T. (2003). Practice for Arabic Language Background. Retrieved September 15, 2022, from http:// www.btinternet. com.
17. Kharma, N., & Hajjaj, A. (1989). Errors of English among Arabic speakers. Alfred Place, London.
18. Avery, P., & Ehrlich, S. (1992). Teaching American English pronunciation.
19. Tushyeh, H. (1996). Linguistic problems facing Arab learners of English. ITL: Review of applied linguistics, 109-117.
20. Altaha, F. M. (1995). Pronunciation Errors Made by Saudi University Students Learning English: Analysis and Remedy. Review of Applied Linguistics, 109-110, 110- 123.
21. Jahara, S. F., & Abdelrady, A. H. (2021). Pronunciation Problems Encountered by EFL Learners: An Empirical Study. Arab World English Journal, 12 (4) DOI: https://dx.doi.org/10.24093/awej/vol12no4.14
22. Roach, P. (2009). English Phonetics and Phonology. A Practical Course. (4th ed). Cambridge University Press.
23. Hancock, M. (2012). English Pronunciation in Use. Cambridge University Press.
24. Troike, M. S. (2006). Introducing Second Language Acquisition. Cambridge University Press.
25. Chang, M. (2005). Pronunciation practice activities: A resource book for teaching English pronunciation. The Canadian Modern Language Review/La revue canadienne des langues vivantes, 61(3), 436-439.