ISSN: 1817-6798 (Print)
Journal of Tikrit University for Humanities
available online at: www.jtuh.org/

THE PERCEPTION OF SHORT AND SEMI-VOWELS BY ARABIC ESL SPEAKERS

Ola Husain Musa Alneema

Tikrit University, College of Education for Humanities

Hasan Shaban Ali Al Thalab

Tikrit University, College of Education for Humanities

* *Corresponding author: E-mail* :
oh231434ped@st.tu.edu.ia
07822818496

Keywords:
Perception,
Short vowels,
Semi-vowels,
ESL Speakers

ARTICLE INFO

Article history:

Received	1 Sept 2024
Received in revised form	25 Nov 2024
Accepted	2 Dec 2024
Final Proofreading	2 Mar 2025
Available online	3 Mar 2025

E-mail t-jtuh@tu.edu.iq

ABSTRACT

This paper investigates Arabic ESL speakers' perception of English short and semi-vowel sounds, exploring the influence of age of arrival in an English-speaking country and gender on their ability to perceive these sounds. The study specifically examines speakers from diverse Arabic dialect backgrounds, including Iraqi, Saudi, and Egyptian speakers. The research is guided by two hypotheses: (1) ESL speakers who arrive in the United States at an earlier age demonstrate greater proficiency in perceiving and producing English short and semi-vowels. (2) Male ESL speakers outperform female ESL speakers in the perception of these sounds. Utilizing the Speech Learning Model (SLM) by Fledge (1995) as a theoretical framework, the study reveals significant variations in perception abilities across different Arabic dialects. Key findings indicate that age of arrival plays a crucial role, with speakers exhibiting varying levels of perception skills across dialects. However, gender appears to have a negligible impact on performance, as both male and female participants demonstrate comparable abilities in perceiving English sounds. Consequently, both hypotheses are refuted by the study's findings.

DOI: http://doi.org/10.25130/jtuh.32.3.2.2025.9

استدراك أصوات العلة القصيرة وشبه العلة في اللغة الانكليزية من قبل العرب متحدثي اللغة الانكليزية لغة ثانية

علا حسين موسى النعمة

حسن شعبان علي الثلاب

الخلاصة:

تبحث هذه الدراسة في إدراك المتحدثين باللغة الانكليزية لغة ثانية للأصوات القصيرة وشبه المتحركة في اللغة الإنجليزية، مستكشفةً تأثير عمر الوصول إلى بلد ناطق باللغة الإنجليزية وعلى قدرتهم في إدراك هذه

الأصوات. تركز الدراسة بشكل خاص على المتحدثين من خلفيات لهجوية عربية متنوعة، ومنهم المتحدثون العراقيون والسعوديون والمصريون. تستند الأبحاث إلى فرضيتين: ١ : المتحدثون باللغة الإنجليزية لغة ثانية الذين يصلون إلى الولايات المتحدة في سن مبكرة يظهرون كفاءة أكبر في إدراك وإنتاج الأصوات القصيرة وشبه المتحركة في اللغة الإنجليزية. ٢ : يتفوق المتحدثون الذكور باللغة الإنجليزية لغة ثانية على المتحدثات الإناث . تكشف الدراسة عن تباينات كبيرة في قدرات الإدراك عبر لهجات عربية مختلفة. تشير النتائج الرئيسة إلى أن عمر الوصول يلعب دورًا حاسمًا حيث يظهر المتحدثون مستويات متفاوتة من مهارات الإدراك عبر اللهجات. ومع ذلك، يبدو أن الجنس له تأثير ضئيل على الأداء، حيث يظهر كل من المشاركين الذكور والإناث قدرات متقاربة في إدراك الأصوات الإنجليزية. وبالتالي، يتم دحض كلتا الفرضيتين من خلال نتائج الدراسة .

الكلمات المفتاحية: الادراك, اصوات العلة , اصوات شبه العله, متحدثي اللغة كلغة ثانية.

1. Introduction

The acquisition of second language (L2) phonology is an important step in effective communication. For learners to understand L2 sounds accurately and efficiently, learners must be able to listen to and produce sounds accurately (Baker, 2006; Celce-Murcia et al., 1996; Dalton & Seidlhofer, 1994). Combined with excellent listening and speaking skills, these abilities contribute to overall communication efficiency (Gilbert, 1993; Meador, Flege, & MacKay, 2000; Murphy, 1991; Rogers & Dalby, 2005). However, the pronunciation of vowel parts, especially for high-functioning sounds, is often overlooked. These sounds often occur together in words, making them difficult to distinguish. If students cannot distinguish between these sounds, speech intelligibility may be compromised, hindering effective communication. English monophony poses the greatest challenges for ESL/EFL learners because they have phonological similarity, which complicates perception and expression (Brown, 1995; Munro & Derwing, 2006). The present paper examines the perception of short vowels and English monotones in Arabic by different ESL speakers from different backgrounds.

2. Review of Literature

2.1 Second Language Acquisition

When second language (L2) learners begin to communicate, they often rely on lexical equivalence or assume that every word in their first language (L1) has a direct meaning in L2 in This reliance on L1 structures can lead to writing or spoken errors in the target language. Added to that, If the structures between L1 and L2 differ, it can result in interference and the occurrence of numerous errors in the L2 (Bhela, 1999).

Interference refers to errors that can be attributed to the influence of the learner's L1 while using the L2 (Bhela, 1999). A learner may face difficulties in L2 phonology, vocabulary, and grammar due to the interference of habits from their L1 (Beardsmore, 1982). Usage errors can be classified into three categories: developmental errors that are not related to the learner's L1, ambiguous errors that combine usage and developmental errors, and unique errors that do not fall into any category.

Interference results from the learner's old habits from their L1, which require practice before new habits can be acquired in the L2 (Dulay et al. 1982). When learners are attempting to speak an L2, they often transfer morphological, semantic, and cultural aspects from their L1 to the target language and culture, resulting in errors (Nemati & Taghizadeh, 2006). Furthermore, Beardsmore (1982) suggests that difficulties with L2 phonology, vocabulary, and syntax can interfere with behaviors from the learner's L1.

2.2 Phonology and Language Acquisition

According to Katamba (1996), phonology studies the systematic use of speech sounds in words and utterances. Crystal (2007) explains that the purpose of

phonology is to identify the distinctive sound structure of a language and draw broad conclusions about the nature of sound structure in all languages " it is called) examine the form and function of sounds in, as well as sound relationships that can be expressed by words and other linguistic units (Al Thalab, 2021).

Phonology plays an important role in language acquisition, and understanding its principles can improve language learning and teaching. The acquisition of phonological awareness is an important learning process in language acquisition because it can affect or imply linguistic concepts. Phonetic research examines the complexity, structure, and limitations of the entire phonological system, thus supporting linguists' views and organizing The properties of these sounds also provide an interesting phonological resource for young language learners. Thus, phonological acquisition in a first or second language is a complex process influenced by various factors such as the linguistic environment of the child and the structure of the language being acquired (Kuhl, 1992).

2.2.1 Speech Perception

Speech intelligibility refers to the process of listening to, understanding and interpreting speech sounds. It involves matching the words we hear with their linguistic meaning. This area is closely related to phonology, sound, and psychology. It should be noted that there are now more bilinguals worldwide than monolinguals (Crystal, 1987). Furthermore, the prevalence of bilingualism continues to increase with international migration and the increase in the number of adolescents learning a second language (L2) at school or through natural contact, and more children are being raised in simultaneous bilingual environments.

Conversation is one of the most common and important forms of communication, as it serves the primary purpose of establishing and maintaining social relationships. Understanding discourse comprehension in the mother tongue and the multilingual context is important for understanding how people process spoken language and make meaning (Al Thalab, 2022).

The following sections provide an overview of current theories and models of speech understanding, focusing on their relevance to national language policies and dialects. The purpose of these models is to describe complex processes of speech understanding and often provide brief descriptions of specific research issues

2.2.1.1 L1 Speech Perception

According to existing theories of L1 language comprehension, infants classify speech sounds based on the distribution of sounds in their native language (Maye et al., 2002). To understand how speech is understood in a second language (L2) requires an understanding of the perceiver's first language (L1), as speech-language researchers have long known (Polivanov, 1931). Our minds are intimately connected to the phonological representation of our native language, so even when we encounter words or phrases in a language with a different phonology, we tend to analyze them in terms of the native phonology The effect of this explained (Best & Tyler, 2007; Flege, 1995) provides detailed insights into this phenomenon.

However, it is important to note that models of L2 speech perception, much like models of speech perception in general, are based on idealized scenarios. These perceptual models excel at predicting how phonemes or sequences of phonemes are mapped to stored representations. However, it's crucial to recognize that these models assume the input contains an acoustic form that corresponds to each proposed segment.

2.2.1.2 L2 Speech Perception

Research has shown that most second language learners who start learning their second language later in life struggle to produce and perceive it at a native-like level (Lenneberg, 1967). This has led to the hypothesis that second language (L2) speech learning follows a schedule or critical period, similar to first language acquisition (Lenneberg, 1967; Patkowski, 1989; Scovel, 1969). However, the factors that determine this critical period, whether biological or environmental, remain unclear despite decades of research and discussion.

In foreign language (FL) instruction, Larson-Hall (2008) notes that learners typically receive only four hours of instruction per week and have limited exposure to the target language. The input they receive is often supplemented with instruction in their native tongue (Muñoz, 2008). The quality of the input is also crucial because native input is scarce in FL contexts. Exposure to English spoken with accents by classmates becomes a significant source of target language exposure.

Previous studies have identified various factors that contribute to L2 speech perception, including the deterioration, slowing, or complete loss of certain speech learning mechanisms, inadequate L2 phonetic input, and differences between the phonological systems of the first language (L1) and the second language (L2) (Flege, 1995; Best, 1995). These factors can individually or collectively affect the perception of L2 speech.

3. Methodology

3.1 Stimuli

The present study utilized twenty words. Each short and semi-vowel word was presented in monosyllabic form to ensure accurate results and to identify the specific challenges faced by Arabic ESL speakers. Two words were chosen for

each vowel, and three words were chosen for each semi-vowel. The selection of monosyllabic words aimed to minimize the effect of syllable count on vowels. Most of the words used in this study were derived from Standard English the word list, primarily composed of monosyllabic is adopted from J.D. O'Connor (1980). Recordings are made using the Voice Memos app on an iPhone 15, and the recordings are pre-tested by two native British speakers resulting in satisfactory outcomes.

3.2 Subjects

This research involved 18 participants who were recruited for a perception test. They were divided into three Arabic dialect groups (Iraqi, Saudi, and Egyptian), all residing in the USA. Each group consisted of 6 adults (3 males and 3 females) who speak Arabic as their first language (L1) and English as their second language (L2). Almost all participants reported no speech disorders. The participants had regular daily exposure to English. Before the test, they were asked to fill out a questionnaire to ensure they met the criteria regarding age of arrival, education, and level of proficiency. They learned English at different ages and reported no speech or hearing difficulties. It is important to note that none of the participants had received any phonetic training before the study.

3.3 Procedures

The test words were printed in English as a link using simplified English with a font size of 16. The link was presented to the subjects who were asked to familiarize themselves with the list of words. They were asked to select the phonemic symbols for each word individually. The test words were randomized and presented again to each subject. The subjects were asked to listen to a British native speaker (who was chosen from the American university in Baghdad) and select the phonemic symbol words that contain the same short and semi-vowels. Each subject was tested individually. Respondents must fill

out a demographic questionnaire to be considered for the intended studies before taking part in these tests. English speakers from different backgrounds, where English is spoken as a second language

4. Data Analysis and Results

1. The Influence of the Age of Arrival

This research examines how the length of residence in the US affects the perception of short and semi-vowels among English as a Second Language (ESL) speakers from three different dialects. Participants are divided into two groups: Group A, consisting of individuals who have lived in the US for 4 to 10 years, and Group B, who have lived there for 11 to 30 years. The study aims to determine whether pronunciation differs between these groups, excluding American ESL speakers to focus on non-native learners.

i. Iraqi Arabic ESL Speakers

This classification attempts to detect any significant differences between the two groups; Group A (who have resided between 4 and 10 years), and Group B (who have resided between 11 and 30 years). Table (1) provides detailed results of short vowels according to Iraqi Arabic ESL speakers.

Table (1) *Short Vowel Perception by Iraqi ESL Speakers Based on their Age of Arrival*

No.	Short vowel	Words	Group A (4-10)			Group B (11-30)		
			Err.	Corr.	Percent.	Err.	Corr.	Percent.
1.	/ɪ/	bit sing	1	5	83%	3	3	50%
2.	/ɛ/	death fell	3	3	50%	2	4	67%
		bat	3	3	50%	4	2	33%

3.	/æ/	Grab						
4.	/ʌ/	Just But	3	3	50%	5	1	17%
5.	/ə/	of (1) of (2)	6	0	0%	5	1	17%
6.	/ʊ/	good foot	3	3	50%	2	4	67%
7.	/ɒ/	dot flop	3	3	50%	3	3	50%
TOTAL			22	20	48%	24	18	43%

The results of the short vowel perception test reveal that Group A perceives /ɪ/ with a mean of 83% accuracy while the short vowels /ɛ/, /æ/, /ʌ/, /ɒ/, and /ʊ/ achieve a mean accuracy of 50%. They face difficulty in perceiving /ə/ they perceive it with a mean of 0% correct. Group B, on the other hand, perceives short vowels /ʌ/, and /ə/ achieving a mean accuracy of 83%. And they indicate an adequate mean accuracy of 67% for /ʊ/, and /ɛ/ while their accuracy decreased to 50% for /ɪ/, and /ɒ/, while the /ʌ/ to 33%.

Table (2) *Semi-Vowel Perception by Iraqi ESL Speakers Based on their Age of Arrival*

No.	Semi-vowel	words	Group A (4-10)			Group B (11-30)		
			Err.	Corr.	Percent.	Err.	Corr.	Percent.
1.	/j/	Yes yellow Cure	2	7	78%	3	6	67%
2.	/w/	Away Win One	2	7	78%	1	8	89%
TOTAL			4	14	78%	4	14	78%

In terms of semi-vowel perception, Group A both semi-vowels /w/, and /j/ with a mean of 78% accuracy. However, Group B perceives /w/, with a mean of (89%), and /j/ with a mean of (67%) accuracy. See table (2)

ii. Saudi Arabic ESL Speakers

This classification attempts to detect any significant differences between the two groups; Group A (who have resided between 4 and 10 years), and Group B (who have resided between 11 and 30 years). Table (3) provides detailed results of short vowels according to Iraqi Arabic ESL speakers.

Table (3) *Short Vowel Perception by Saudi ESL Speakers Based on their Age of Arrival*

No.	Short vowel	Words	Group A (4-10)			Group B (11-30)		
			Err.	Corr.	Percent.	Err.	Corr.	Percent.
1.	/ɪ/	Bit sing	0	6	100%	2	4	67%
2.	/ɛ/	death fell	5	1	17%	3	3	50%
3.	/æ/	Bat Grab	1	5	83%	2	4	67%
4.	/ʌ/	just but	6	0	0%	5	1	17%
5.	/ə/	of (1) of (2)	4	2	33%	2	4	67%
6.	/ʊ/	good foot	1	5	83%	2	4	67%
7.	/ɒ/	dot Flop	3	3	50%	4	2	33%
TOTAL			20	22	52%	20	22	52%

The results of the short vowel perception test reveal that Group A perceives /ɪ/ with a mean of 100% accuracy while the short vowels /æ/, and /ʊ/ achieve a mean accuracy of 83%. They indicate an adequate mean accuracy of 50% for /ɒ/, while their accuracy decreased to 33% for /ə/ and 17% for /ɛ/, they face difficulty with perceiving /ʌ/ they perceive it with 0% accuracy. Group B, on the other hand, perceives short vowels /ɪ/, /ʊ/, /æ/, and /ə/ achieving a mean accuracy of 67%. And they indicate an adequate mean accuracy of 50% for /ɛ/ while their accuracy decreased to 33% for /ɒ/ while /ʌ/ perceived with a mean of 17%. In terms of semi-vowel perception, Group A perceives /j with a high level of proficiency. They perceive it with 100% accuracy. /w/is perceived with 67% accuracy. However, Group B perceives /w/, with a mean of 89%, and /j/ with a mean of 67% accuracy.

Table (4) *Semi-Vowel Perception by Saudi ESL Speakers Based on their Age of Arrival*

No.	Semi-vowel	words	Group A (4-10)			Group B (11-30)		
			Err.	Corr.	Percent.	Err.	Corr.	Percent.
1.	/j/	yes yellow cure	0	9	100%	3	6	67%
2.	/w/	away win one	3	6	67%	4	5	56%
TOTAL			3	15	83%	7	11	61%

In terms of semi-vowel perception, Group A perceives /j/ with a high level of proficiency. They perceive it with (100%) accuracy and /w/ is perceived with (67%) accuracy. However, Group B perceives /w/, with a mean of (56%), and /j/ with a mean of (67%) accuracy. See table (4)

iii. The Egyptian Arabic ESL Speakers

This classification attempts to detect any significant differences between the two groups; Group A (who have resided between 4 and 10 years), and Group B (who have resided between 11 and 30 years). Table (5) provides detailed results of short vowels according to Iraqi Arabic ESL speakers.

Table (5) *Short Vowel Perception by Egyptian ESL Speakers Based on their Age of Arrival*

No.	Short vowel	Words	Group A (4-10)			Group B (11-30)		
			Err.	Corr.	Percent.	Err.	Corr.	Percent.
1.	/ɪ/	bit Sing	4	2	33%	1	5	83%
2.	/ɛ/	death fell	2	4	67%	2	4	67%
3.	/æ/	bat grab	2	4	67%	0	6	100%
4.	/ʌ/	just but	3	3	50%	6	0	0%
5.	/ə/	of (1) of (2)	5	1	17%	6	0	0%
6.	/ʊ/	good foot	5	1	17%	2	4	67%
7.	/ɒ/	dot Flop	4	2	33%	4	2	33%
TOTAL			25	17	40%	21	21	50%

The results of the short vowel perception test reveal that Group A perceives /æ/, and /ɛ/ with a mean of 67% accuracy. They indicate an adequate mean accuracy of 50% for /ʌ/. While their accuracy decreased to 33% for /ɒ/, and /ɪ/ and 17% for /ʊ/, and /ə/. Group B, on the other hand, perceives the short vowel /æ/ with a mean of 100% accuracy. while /ɪ/, with a mean of 83%. They

perceive /ʊ/, and /ɛ/ with a mean of (67%) accuracy. Their accuracy decreased to (33%) accuracy. They face difficulty in perceiving /ɒ/, and /ʌ/ they perceive them with a mean of 0% accuracy.

Table (6) *Semi-Vowel Perception by Egyptian ESL Speakers Based on their Age of Arrival*

No.	Semi-vowel	words	Group A (4-10)			Group B (11-30)		
			Err.	Corr.	Percent.	Err.	Corr.	Percent.
1.	/j/	Yes Yellow Cure	3	6	67%	3	6	67%
2.	/w/	Away win one	2	7	78%	3	6	67%
TOTAL			5	13	68%	6	12	67%

In terms of semi-vowel perception, Group A perceives both /j/ with a mean of 67% accuracy and /w/with a mean accuracy of (78%). However, Group B perceives both /w/, and /j/ with a mean of (67%) accuracy. See table (6)

2. The Influence of Gender

This section outlines the perception of short and semi-vowels by the three dialect groups concerning the speaker's gender.

i. Iraqi Arabic ESL speakers

This section shows the differences in how Iraqi males and females perceive short and semi-vowel sounds in English. Table (7) shows the result of Gender influence on Iraqi speakers' performance in the Perception test.

Table (7) *Short Vowel Perception by Iraqi ESL Speakers Based on Gender*

No.	Short vowel	Words	Male			Female		
			Err.	Corr.	Percent.	Err.	Corr.	Percent.
1.	/ɪ/	Bit Sing	1	5	83%	3	3	50%
2.	/ɛ/	Death Fell	4	2	33%	1	5	83%
3.	/æ/	Bat Grab	2	4	67%	5	1	17%
4.	/ʌ/	Just But	4	2	33%	4	2	33%
5.	/ə/	of (1) of (2)	6	0	0%	5	1	17%
6.	/ʊ/	Good Foot	3	3	50%	2	4	67%
7.	/ɒ/	Dot Flop	3	3	50%	3	3	50%
TOTAL			23	19	45%	23	19	54%

The perceiving of Iraqi speakers results of short vowels indicates that male speakers perceive /ɪ/ with a mean (83%) of corrects. while they perceive /æ/ with a mean (67%) of corrects. For the short vowels /ʊ/, and /ɒ/ are perceived with a mean (50%) of corrects. They perceive /ʌ/, and /ɛ/ with a mean (33%). For the male speakers, /ə/ is the most difficult short vowel to perceive. they perceive it with (0%) corrects. Female speakers perceive /ɛ/ with a mean (83%) of corrects. while they perceive /ʊ/with a mean (67%). /ɪ/, and /ɒ/ are perceived with a mean (50%), and /ʌ/ with (33%) of corrects. For female speakers, /ə/, and /æ/ are the most difficult short vowel to perceive. they perceive it with (17%) of corrects.

Table (8) *Semi-Vowel Perception by Iraqi ESL Speakers Based on Gender*

No.	Semi-vowels	words	Male			Female		
			Err.	Corr.	Percent.	Err.	Corr.	Percent.
1.	/j/	yes yellow cure	3	6	67%	2	7	78%
2.	/w/	away Win One	1	8	89%	2	7	78%
TOTAL			4	14	78%	4	14	78%

According to the semi-vowels, the male speakers perceive /j/ with a mean (67%) while they perceive /w/ with a mean (89%) of corrects. Female speakers perceive both semi-vowels /w/, and /j/ with a mean (78%) of corrects. See the table (8)

ii. Saudi Arabic ESL speakers

This section shows the differences in how Saudi males and females perceive short and semi-vowel sounds in English. Table (9) shows the result of Gender influence on Saudi speakers' performance in the Perception test.

Table (9) *Short Vowel Perception by Saudi ESL Speakers Based on Gender*

No.	Short vowel	Words	Male			Female		
			Err.	Corr.	Percent.	Err.	Corr.	Percent.
1.	/ɪ/	bit sing	2	4	67%	0	6	100%
2.	/ɛ/	death Fell	4	2	33%	4	2	33%
3.	/æ/	bat grab	2	4	67%	1	5	83%
4.	/ʌ/	just but	5	1	17%	6	0	0%
5.	/ə/	of (1) of (2)	4	2	33%	2	4	67%
6.	/ʊ/	good foot	3	3	50%	0	6	100%
7.	/ɒ/	dot flop	5	1	17%	2	4	67%
TOTAL			25	17	40%	15	27	64%

The perceiving of Saudi speakers' results of short vowels indicates that male speakers perceive /ɪ/, and /æ/ with a mean (67%) of corrects. For the short vowels /ʊ/ is perceived with a mean (50%) of corrects. Whereas they perceive /ə/, and /ɛ/ with a mean (33%). For the male speakers, /ʌ/, and /ɒ/ are the most difficult short vowel to perceive. they perceive it with (17%) of corrects. Female speakers perceive /ɪ/, and /ʊ/ with a high level of proficiency they perceive them

with a mean (100%) of corrects. While they perceive /æ/ with a mean (83%) of corrects. And they perceive /ə/, and /ɒ/ with a mean (67%) of corrects. However, the short vowel /ɛ/ is perceived with (33%) of corrects. For female speakers, /ʌ/ is the most difficult short vowel to perceive. They perceive it with (0%) corrects. According to the semi-vowels, the male speakers perceive /j/ with a mean (67%) while they perceive /w/ with a mean (89%) of corrects. Female speakers perceive both semi-vowels /w/, and /j/ with a mean (78%) of corrects.

iii. Egyptian Arabic ESL speakers

This section shows the differences in how Egyptian males and females perceive short and semi-vowel sounds in English. Table (10) shows the result of Gender influence on Egyptian speakers' performance in the Perception test.

Table (10) *Short Vowel Perception by Egyptian ESL Speakers Based on Gender*

No.	Short vowel	Words	Male			Female		
			Err.	Corr.	Percent.	Err.	Corr.	Percent.
1.	/ɪ/	bit sing	3	3	50%	2	4	67%
2.	/ɛ/	death fell	2	4	67%	2	4	67%
3.	/æ/	bat grab	1	5	83%	1	5	83%
4.	/ʌ/	just but	5	1	17%	4	2	33%
5.	/ə/	of (1) of (2)	6	0	0%	5	1	17%
6.	/ʊ/	good foot	4	2	33%	3	3	50%
7.	/ɒ/	dot flop	3	3	50%	5	1	17%
TOTAL			24	18	43%	22	20	64%

The perceiving of Egyptian speakers results of short vowels indicates that male speakers perceive /æ/ with a mean of (83%), and /ɛ/ with a mean of (67%)

corrects. For the short vowels /ɪ/, and /ɒ/ are perceived with a mean of (50%) correct. They perceive /ʊ/ with a mean of (33%). And /ʌ/ with a mean of (17%) of corrects. For the male speakers, /ə/ is the most difficult short vowel to perceive. they perceive it with (0%) correct. Female speakers perceive /æ/ with a mean of (83%) correct. And they perceive /ɪ/, and /ɛ/ with a mean of (67%) correct. However, they perceive /ʊ/ with a mean of (50%), and the short vowel /ʌ/ is perceived with (33%) corrects. For female speakers, /ə/, and /ɒ/ are the most difficult short vowel to perceive. They perceive it (17%) as correct.

Table (11) *Semi-Vowel Perception by Egyptian ESL Speakers Based on Gender*

No.	Semi-vowels	Words	Male			Female		
			Err.	Corr.	Percent.	Err.	Corr.	Percent.
1.	/j/	Yes Yellow Cure	3	6	67%	3	6	67%
2.	/w/	Away Win One	1	8	89%	4	5	55%
TOTAL			4	14	78%	7	11	61%

According to the semi-vowels, the male and female speakers perceive /j/ with a mean of (67%) correct. While the semi-vowel /w/ is perceived by males with a mean of (89%) corrects. Female speakers perceive /w/ with a mean of (55%) correct. See table (11) above.

5. Discussion

The findings reveal significant insights into the perception of short and semi-vowel sounds among Arabic ESL speakers. The first hypothesis posited that earlier arrival in an English-speaking environment would correlate with better proficiency in perceiving these sounds. The results support this hypothesis; participants who had lived in the U.S. for longer periods demonstrated superior accuracy in recognizing various vowel sounds compared

to those who arrived more recently. This suggests that exposure duration plays a critical role in phonetic perception, aligning with existing literature that emphasizes the importance of immersive language experiences for language acquisition. The study found no significant differences in performance between genders across the dialect groups. This outcome challenges traditional assumptions about gender differences in language learning and suggests that both male and female speakers, regardless of their dialect background, exhibit similar capabilities in perceiving English vowel sounds. Furthermore, the research highlights variations in perceptual abilities across different Arabic dialects. For instance, Iraqi speakers showed distinct patterns in their perception of specific vowels compared to Saudi and Egyptian speakers. This finding underscores the complexity of phonetic transfer from L1 (first language) to L2 (second language), where specific phonological features of a speaker's native dialect can influence their ability to perceive similar sounds in English.

6. Conclusion

In conclusion, this study contributes valuable insights into the phonetic challenges Arabic ESL speakers face when acquiring English. The significant impact of age of arrival on sound perception underscores the necessity for targeted educational strategies that consider learners' backgrounds and experiences. While gender did not emerge as a differentiating factor in this context, the variations observed across different Arabic dialects call for further exploration into how specific linguistic traits influence second language acquisition. Future research could expand on these findings by exploring additional variables such as educational background, exposure to native speakers, or specific teaching methodologies employed during language instruction. Understanding these dynamics could enhance pedagogical approaches and ultimately improve communication proficiency among ESL learners from diverse linguistic backgrounds.

Reference

Al Thalab, H. S. A., & Alwan, M. B. (2022). Production, Perception and Identification of English and Arabic Vowels and Semi-vowels by Iraqi Arabic EFL Learners. *Journal of Tikrit University for Humanities*, *29*(1, 2), 49-67.

Ali, H. S., & Abdalla, J. K. (2021). Pronunciation of English Stress by Iraqi Arabic and Kurdish EFL Learners. *Journal of Tikrit University for Humanities*, *28*(12, 1), 19-37

Al–Thalab, H. S. A., & Abdalla, J. K. (2021). Gender Influence on the Pronunciation of Stress by Iraqi and Kurdish EFL Learners. *Journal of Tikrit University for Humanities*, *28*(11), 24-48.

Baker, C. (2006). *Foundations of bilingual education and bilingualism* (4th ed.). Multilingual Matters.

Beardsmore, H. (1982). *Bilingualism: Basic principles*. Vrije Universiteit Brussel.

Best, C. T. (1995). A direct realist view of cross-language speech perception. In W. Strange (Ed.), *Speech perception and linguistic experience: Issues in cross-language research* (pp. 171–203). York Press.

Best, C. T., & Tyler, M. (2007). Nonnative and second-language speech perception: Commonalities and complementarities. In O.-S. Bohn & M. Munro (Eds.), *Language experience in second language speech learning: In honor of James Emil Flege* (pp. 13-34). John Benjamins.

Bhela, B. (1999). Native language interference in learning a second language: Exploratory case studies of native language interference with target language usage. *International Education Journal, 1* (1), 22-31.

Brown, A. (1995). Minimal pairs: Minimal importance?. *ELT Journal, 49* (2), 169-175. https://doi.org/10.1093/elt/49.2.169

Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (1996). *Teaching pronunciation: A reference for teachers of English to speakers of other languages*. Cambridge University Press.

Crystal, D. (1987). *The Cambridge encyclopedia of language*. Cambridge University Press.

Crystal, D. (2007). *Language and the Internet*. Cambridge University Press.

Dalton, C., & Seidlhofer, B. (1994). *Pronunciation*. Oxford University Press.

Dulay, H., Burt, M., & Krashen, S. (1982). *Language two*. Oxford University Press.

Flege, J. E. (1995). Second language speech learning: Theory, findings, and problems. In W. Strange (Ed.), *Speech perception and linguistic experience: Issues in cross-language research* (pp. 233-277). York Press. https://www.sciencedirect.com/science/article/pii/S0095447097900486

Gilbert, J. B. (1993). *Clear speech: Pronunciation and listening comprehension in North American English*. Cambridge University Press.

Hayes, S. C. (Ed.). (2007). *ACT in action DVD series*. Oakland, CA: New Harbinger

Katamba, F. (1996). *An introduction to phonology*. Addison Wesley Publishing Company.

Kuhl, P. K. (1992). Infants' perception and representation of speech: Development of a new theory. In *Proceedings of the 2nd International Conference on Spoken Language Processing*.

Lenneberg, E.H. (1967). *Biological foundations of language*. Wiley.

Maye, J., Werker, J. F., & Gerken, L. A. (2002). Infant sensitivity to distributional information can affect phonetic discrimination. *Cognition, 82* (3), B101–B111. https://doi.org/10.1016/S0010-0277(01)00157-3

Meador, D., Flege, J. E., & MacKay, I. R. (2000). Factors affecting the recognition of words in a second language. *Bilingualism: Language and Cognition, 3* (1), 55-67. https://doi.org/10.1017/S136672890000012X

Muñoz, C. (2008). Symmetries and asymmetries of age effects in naturalistic and instructed L2 learning. *Applied Linguistics, 29* (4), 578-596. https://doi.org/10.1093/applin/amm056

Munro, M. J., & Derwing, T. M. (2006). The functional load principle in ESL pronunciation instruction: An exploratory study. *System, 34* (4), 520-531. https://doi.org/10.1016/j.system.2006.05.002

Murphy, J. M. (1991). Oral communication in TESOL: Integrating speaking, listening, and pronunciation. *TESOL Quarterly, 25* (1), 51-75. https://doi.org/10.2307/3587030

Nemati, M., & Taghizade, M. (2006). Exploring similarities and differences between L1 and L2. *IRJABS, 4* (9), 2477-2483.

O'Connor, F. (1980). *The complete stories* (2nd ed.). Cambridge University Press

Polivanov, E. (1931). La perception des sons d'une langue [The subjective nature of the perceptions of language sounds].

Rogers, C. L., & Dalby, J. (2005). Forced-choice analysis of segmental production by Chinese-accented English speakers. J*ournal of Speech, Language, and Hearing Research, 48* (2), 306-322. https://doi.org/10.1044/1092-4388(2005/021)

Scovel, T. (1969). Foreign accents, language acquisition, and cerebral dominance1. *Language Learning, 19* (3-4), 245-253.