



UNIVERSITI PUTRA MALAYSIA

***PERCEPTION AND PRODUCTION OF ENGLISH VOWELS BY NATIVE
IRAQI ARABIC LEARNERS***

AMMAR ABDUL-WAHAB ABD

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By

AMMAR ABDUL-WAHAB ABD

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfillment of the Requirements for the Degree of Doctor of Philosophy**

August 2016

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DEDICATIONS

THIS WORK IS DEDICATED TO THE MEMORIES OF

MY FATHER

&

MY BROTHER

AND TO THOSE WHO KEPT ME GOING ON

WHEN I WANTED TO GIVE UP



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Doctor of Philosophy

PERCEPTION AND PRODUCTION OF ENGLISH VOWELS BY NATIVE IRAQI ARABIC LEARNERS

By

AMMAR ABDUL-WAHAB ABD

August 2016

Chairman : Associate Professor Yap Ngee Thai, PhD
Faculty : Modern Languages and Communication

A crucial step in learning to communicate in a second language is to acquire its phonetic system. Accurate perception and production of the L2 phonemes set the groundwork for effective communication. However, speaking with accented-free pronunciation is difficult for EFL learners as everyone has a particular accent. No formal investigation, to the best knowledge of the researcher, investigated problems faced by Iraqi EFL learners. Moreover, L1 (Iraqi Arabic) influence on facilitating or complicating the acquisition of certain L2 (English) segments and how far L2 experience affects perception and production skills have not been investigated with this group of learners. There is also an ongoing debate on the relationship between perceptual abilities and production accuracy, and this study will fill these gaps in the literature. This study aims to investigate the perception and production of English vowels by Iraqi EFL learners to identify L1 influence and proficiency effects on these processes. The study also investigates the perception-production relationship. To achieve these aims, a word identification task and a reading task were conducted. Eighty-five Iraqi EFL learners participated in this study. They were divided into four groups based on their proficiency level. The results obtained from the word identification task and the results obtained from rating for the production task were analysed using various statistical tests. The results revealed that Iraqi EFL learners faced considerable difficulties in the perception and production of most vowels. Patterns of errors made by learners also indicated considerable similarities among the four groups, which suggests a systematic underlying influence on their perceptual and production behaviour. L1 influence was found to be a major factor in accounting for the results of this study. The L2 vowel space was also helpful in resolving inconsistent results. The learners' performance revealed significant proficiency effects offering support to the experience effects hypothesized in the Speech Learning Model. However, proficiency effects were not identified among all groups or among all vowels suggesting that the acquisition of certain L2 phones did not improve due to perceptual reasons and/or L1 influence. The results showed that speech perception and production are significantly different from one another, indicating an asymmetrical relationship between them where speech production can

be better developed than speech perception, particularly for the elementary group. The study concluded that the assumption that inaccurate perception should result in inaccurate production is not well supported in this study, especially among beginners. Current L2 speech learning models are generally successful in predicting and interpreting most of the difficulties encountered by Iraqi EFL learners; yet none of them can independently account for the all the data.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**PERSEPSI DAN PENGHASILAN VOKAL BAHASA INGGERIS OLEH
PELAJAR EFL ARAB IRAQ NATIF**

Oleh

AMMAR ABDUL-WAHAB ABD

Ogos 2016

Pengerusi : Profesor Madya Yap Ngee Thai, PhD
Fakulti : Bahasa Moden dan Komunikasi

Langkah yang amat penting dalam pembelajaran untuk berkomunikasi dalam bahasa kedua adalah untuk menguasai sistem fonetik bahasa tersebut. Persepsi dan penghasilan fonem bahasa kedua yang tepat merupakan persediaan asas bagi komunikasi yang efektif. Walau bagaimanapun, bertutur dengan sebutan tanpa aksen adalah sukar bagi pelajar EFL, disebabkan setiap orang mempunyai aksennya yang tersendiri. Tiada penyelidikan formal, setakat yang diketahui oleh penyelidik, mengkaji masalah yang dihadapi oleh pelajar EFL Iraq. Lebih-lebih lagi, pengaruh L1 (Arab Iraq) ke atas penggalakan atau penyukaran pemerolehan beberapa segmen L2 (bahasa Inggeris) dan sejauh mana pengalaman L2 menjejaskan persepsi dan kemahiran menghasilkan belum lagi dikaji bagi kumpulan pelajar ini. Terdapat juga perbincangan yang berlaku kini mengenai hubungan antara kebolehan perseptual dan ketepatan penghasilan dan kajian ini berharap dapat memenuhi jurang yang terdapat dalam sorotan. Kajian ini bertujuan untuk menyelidiki persepsi dan penghasilan vokal bahasa Inggeris oleh pelajar EFL Iraq bagi mengenal pasti pengaruh L1 dan kesan kecekapan ke atas proses tersebut. Kajian ini juga menyelidiki hubungan persepsi-penghasilan. Bagi mencapai tujuan tersebut, tugas pengenaltastian perkataan dan tugas bacaan telah dijalankan. Lapan puluh lima pelajar EFL Iraq telah mengambil bahagian dalam kajian ini. Mereka telah dibahagi kepada empat kumpulan berdasarkan tahap kecekapan mereka. Keputusan yang didapati daripada pengenaltastian perkataan dan keputusan diperolehi daripada rating bagi tugas penghasilan telah dianalisis menggunakan pelbagai ujian statistik. Dapatan kajian menunjukkan bahawa pelajar EFL Iraq menghadapi kesukaran yang agak banyak dalam persepsi dan penghasilan kebanyakan vokal. Pola kesalahan yang dilakukan oleh pelajar tersebut juga menunjukkan persamaan yang agak banyak dalam kalangan empat kumpulan. Hal ini menandakan bahawa terdapat pengaruh dasar yang sistematik ke atas tingkah laku perseptual dan penghasilan. Pengaruh L1 didapati merupakan faktor utama ketika memperkatakan tentang dapatan kajian ini. Ruang vokal L2 juga membantu penyelidik dalam menyelesaikan ketidaktekalan dapatan kajian. Prestasi pelajar menunjukkan kesan kecekapan signifikan yang memberikan sokongan pada kesan pengalaman yang dihipotesiskan dalam Model

Pembelajaran Pertuturan. Walau bagaimanapun, kesan kecekapan yang tidak dikenal pasti dalam semua kumpulan atau dalam semua vokal menandakan bahawa pemerolehan beberapa fon L2 tidak bertambah baik disebabkan alasan perseptual dan/atau pengaruh L1. Dapatan menunjukkan bahawa persepsi pertuturan dan penghasilan adalah berbeza secara signifikan antara satu sama lain yang menunjukkan bahawa hubungan yang asimetrikal antara mereka. Penghasilan pertuturan dapat dikembangkan dengan lebih baik daripada persepsi pertuturan, terutama bagi kumpulan elementari. Kajian ini merumuskan bahawa asumsi yang menyatakan bahawa persepsi yang tidak tepat akan menyebabkan penghasilan yang tidak tepat tidak dapat dibuktikan dalam kajian ini, terutama dalam kalangan pelajar permulaan. Model pembelajaran pertuturan L2 kini secara umumnya berjaya dalam meramal dan menginterpretasi kebanyakan kesukaran yang dihadapi oleh pelajar EFL Iraq; namun tiada antara model tersebut secara berasingan dapat menjelaskan semua data.

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While a completed dissertation bears the single name of the student, the process that leads to its completion is always accomplished in combination with the dedicated work of other people. Hence, this thesis owes its existence to the help, support and inspiration of several people.

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Yap Ngee Thai, PhD

Associate Professor

Faculty of Modern languages and Communication

Universiti Putra Malaysia

(Chairman)

Che An Binti Abdul Ghani, PhD

Senior Lecturer

Faculty of Modern languages and Communication

Universiti Putra Malaysia

(Member)

Ilyana Binti Jalaluddin, PhD

Senior Lecturer

Faculty of Modern languages and Communication

Universiti Putra Malaysia

(Member)

BUJANG BIN KIM HUAT, PhD

Professor and Dean

School of Graduate Studies

Universiti Putra Malaysia

Date:

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CHAPTER 1

INTRODUCTION

This chapter presents the background and states the problem of the study. It also provides the research questions to be answered and the research objectives to be achieved in the study. In addition to explaining the scope and the significance of the study, the chapter also provides operational definitions of most important terms frequently referred to in the study.

1.1 Background of the study

A crucial step in learning to communicate in a second language (L2) is to acquire its phonetic system. Accurate perception and production of the L2 phonemes set the groundwork for successful pronunciation (e.g., Baker, 2006; Celce-Murcia, Brinton, & Goodwin, 1996; Dalton & Seidlhofer, 1994) and efficient listening and speaking skills (Gilbert, 1993; Meador, Flege & MacKay, 2000; Murphy, 1991; Rogers & Dalby, 2005), which result in effective overall communication proficiency. Normally, segmental pronunciation is not seriously considered, particularly for segments with high functional load (Brown, 1988, 1995; Munro & Derwing, 2006).

These segments occur recurrently, and form a great number of confusing words to L2 learners (Brown, 1988, 1995). Consequently, failure to differentiate them can badly affect speech intelligibility leading to communication failure. English monophthongs are among the most functionally loaded segments as they form many confusable minimal pairs which are of high frequency in everyday language (Brown, 1988). Furthermore, these vowels are phonetically so close to each other that they pose exceptional perceptual and articulatory problems for second language (ESL)/foreign language (EFL) learners of English. According to Ho (2009), this area requires researching efforts to explore the difficulties encountered by speakers from different L1s in different learning settings and at different learning stages. The assumption that ESL/EFL learners encounter difficulties with both perception and production of L2 phonemes has been extensively discussed in the literature. The difficulties learners encounter in the acquisition of L2 phonemes are clearly demonstrated in their foreign accented pronunciation.

Until recently, nativelike pronunciation was thought to be a precondition to successful communicating in English, and the native speaker model is frequently perceived as the standard norm irrespective of the teaching context. In this sense, Jenkins (2006) states, English is considered a foreign language rather than a *lingua franca* where variation from the native norms is perceived in terms of errors. According to Mahboob (2010), the use of native models as the only correct way of using English language started to be questioned, and the concept of 'World Englishes' emerged. Within the framework of world Englishes, Mahboob elaborated, the use or the purpose of the text is more important than the identity of

the user. As a matter of fact, communication goes beyond nativelike pronunciation as interlocutors use various strategies to make themselves understood and to understand others. Thus, the term nativelike or nativelikeness is used in this study to refer to accurate pronunciation of the L2 language learned by various learners in various contexts. Moreover, the study does not adopt the assumption that nativelike pronunciation is a prerequisite for successful communication.

It follows that nativelikeness should not be an obsession for ESL/EFL learners of English; hence, all foreign accents are acceptable but they are not equally intelligible. Being the lingua franca in this global village, English according to Jenkins (2000, 2002) should be spoken with a level of intelligibility that ensures mutual understandability among interlocutors. Speaking the L2 without a reasonable degree of accuracy may lower intelligibility and comprehensibility and hinder effective communication. Perceiving or producing *bit* as *beat* or *bat* as *bait* will extremely impede comprehension. In a study of the correlation between segmental accuracy and sentence intelligibility of Mandarin ESL learners, Rogers and Dalby (2005) found a strong correlation between the scores of word discrimination and sentence comprehension by native-speaking listeners and concluded that accuracy in segmental articulation adds significantly to speech intelligibility.

Teachers as well as textbook designers should be aware of the factors that influence the accuracy of L2 segmental perception and production and to improve effective teaching methods accordingly. Non-native teachers' success in teaching English is not conditioned by having an accent free pronunciation of the L2 as stated in studies such as Liu (1999); Mahboob (2004) and Medgyes (1992). Mahboob (2004) reported that ESL learners think that non-native teachers are better than native teachers in teaching literacy skills and grammar. Non-native teachers were perceived to have the ability to employ suitable teaching practices. They were also perceived as hard working teachers who can offer emotional support. However, students expressed the need for a native teacher in order to acquire correct pronunciation.

Foreign accented vowels have been widely observed in the speech of various ESL/EFL learners such as Mandarin (Rogers & Dalby, 2005), Korean and Spanish (Flege, Bohn & Jang, 1997), German (Bohn & Flege, 1992; Flege et al., 1997), and Arabic (Nikolova, 2010; Almbark, 2012). These studies have explored the issue of accented speech in terms of several factors such as age effects (Flege, MacKay & Meador, 1999; Munro, Flege & MacKay, 1996), the function of experience with the second language (Cebrian, 2006; Flege, 1987; Flege et al. 1997; Munro, 1993; Munro & Derwing, 2008; Tsukada, Birdsong, Bialystok, Mack, Sung & Flege, 2005), or the influence of the first language (L1) assimilation (Cebrian, 2006; Ingram & Park, 1997; Strange, Akahane-Yamada, Fitzgerald & Kubo, 1996). Due to space and time limitation, only L1 influence and proficiency in L2 effect will be investigated in the present study.

1.1.1 L1 Influence on Speech Acquisition

The influence of L1 on the acquisition of L2 phonology has been extensively investigated in the literature. Several theories and models have been proposed to explain this influence such as the Contrastive Analysis Hypothesis (CAH) (Lado, 1957), the Speech Learning Model (SLM) (Flege, 1995), and the Perceptual Assimilation Model (PAM) (Best, 1994, 1995) and the Perception Assimilation Model for L2 (PAM-L2) (Best & Tyler, 2007). Rauber, Escudero, Bion and Baptista (2005) stated that comparing L1 and L2 vowel systems can predict and explain the difficulties learners may encounter in the perception of vowels. Such comparison, they elaborated, may include perceived similarity and difference between L1 and L2 vowels, the various spectral and durational cues that identify vowel contrasts, differences in vowel inventories of L1 and L2, and the differences in the size of the vowel spaces of L1 and L2.

All these aspects are potential sources of difficulties in the acquisition of L2 sounds. Thus, they have attracted the efforts of many researchers who have investigated them with regard to different languages. Actually, studies have revealed that speech perception and production are influenced markedly by the phonemic inventory of the languages spoken. According to Kuhl, Williams, Lacerda, Stevens and Lindblom (1992), learners who lack familiarity with a certain phonological contrast used in L2 may link both members of this contrast with a single L1 sound. Boomershteyn (2013) affirmed that languages vary in the number of vowels used to contrast meaning. Differences among these vowels provide inferences for how listeners perceive these vowels.

Learners whose L1 system is smaller than that of the L2 are expected to perceive some L2 vowels as instances of the same L1 category, frequently resulting in poor discrimination precision. Nevertheless, this may also depend on the specific acoustic features of L1 vowels. According to Nikolova (2010), ESL learners from different linguistic backgrounds encounter difficulties in the acquisition of English vowels because most languages have a smaller, five-vowel, vowel system than the complicated English phonemic system. Hence, negative language transfer is expected to happen. Wells (2005) stated that English phonetics is idiosyncratic, comprising various features that are unusual from a universal standpoint. English has a large and detailed vowel system which includes complex processes of length variation and weakening.

Thus, the present study is an endeavor to account for L1 transfer in the perception of English monophthongs by Iraqi EFL learners based on the assumptions of related models. In addition to the relationship between the segmental inventory of the L1 and L2 which was a well-documented factor in the literature (e.g. Flege, 1995; Best, 1995) and Kuhl, 2000), factors such as age of learning an L2 (e.g. Flege et al., 1999), the length of residence in an L2 setting (e.g. Flege et al., 1997) and the degree of ongoing L1 use (e.g. Flege & Mackay, 2004) have also been well-documented to be influential.

1.1.2 L2 Experience and Speech Acquisition

Experience is commonly measured based on the number of years a learner spends in the natural target language setting. However, this applies to L2 learners who are exposed to the target language (TL) in a natural setting over an extensive period of time. Best and Tayler (2007) stated that EFL learners have their exposure to the L2 chiefly through formal instruction in a controlled context with limited or unsystematic conversational experience with native speakers. EFL learners lack the exposure to native speakers of the target language in their foreign language contexts. Kuo (2003) reported that for EFL learners, experience can be measured in terms of years of learning. Kuhl, Conboy, Coffey-Corina, Padden, Rivera-Gaxiola & Nelson (2008) suggested that it is not simply time that matters in the examination of age effects on L2 learning, experience is rather the critical factor driving phonetic learning and perception of a second language. Moreover, valid and standardized placement tests can be also utilized to classify learners into groups based on their general proficiency level in the L2 (Ho, 2009).

Both SLM and PAM claim that with increased experience in perceiving and using the L2, the possibility of approaching nativelike pronunciation is increased. Nonetheless, empirical studies examining the experience effect have brought in inconsistent results. The role of L2 experience or proficiency level has been investigated in the perception and production of various learners with various L1 backgrounds. Some of these investigations have reported a positive effect of L2 experience on L2 sounds acquisition such as Flege (1987), Flege et al. (1997) and Yamada and Tohkura (1990). Whereas, several other investigations such as Munro (1993), Flege, Munro and Fox (1994) and Cebrian (2006) have not identified any positive effects of L2 experience on L2 sounds acquisition.

On the other hand, several other studies such as Baker and Trofimovich (2006) and Tsukada et al. (2005) have reported mixed results where L2 experience is influential in the acquisition of certain L2 phones but neutral in the acquisition of others. The role experience can play in the perception and production of English monophthongs by Iraqi EFL learners has not been investigated before, thus one of the aims of the present study is to identify this role. As in many countries, Iraqi EFL learners are not provided with sufficient natural exposure to the TL; hence, whether their vowel perception and production performance improves with more L2 experience, as demonstrated in proficiency levels in this study, is a topic that requires investigation. More details about Iraqi EFL learners, who are the learners targeted in this study, and their native language are provided in chapter two.

1.1.3 The Perception-production Relationship

To account for the acquisition of second language speech, the perception-production relationship should be taken into consideration. This relationship was examined in terms of various L2s, yet results tend to be inconsistent. Some studies found a very close link between speech perception and speech production, while some others have shown the contrary. Theoretical postulations such as Flege (1995); Liberman,

Cooper, Shankweiler and Studdert-Kennedy (1967) and Liberman and Mattingly (1985) and empirical studies such as Baker and Trofimovich, (2006); Flege et al. (1997) and Flege et al. (1999) have both indicated a close connection between the two processes. Nonetheless, the nature of the relationship is still disputable and subjected to lots of debate. Better understanding of the nature of the relationship can shed light on how L2 sounds are acquired. An effective way to examine the perception-production relationship is to concentrate on the issue of whether perception and production are correlated.

Numerous investigations that studied bilinguals have shown that a moderate correlation exists between the perception and the production of sound contrasts. Data collected in these studies are in line with data obtained from L1 processing which similarly indicate a correlation between perception and production in the accents young adults use. Past laboratory studies such as Flege (1988); Flege and Schmidt (1995); Miyawaki, Strange, Verbrugge, Liberman, Jenkins and Fujimura (1975) and Schmidt and Flege (1995), tackled the issue of the relationship between L2 perception and production inspecting mainly consonantal contrasts. Jacewicz (2000), for instance, examined the relationship between perceptual sharpness and productive ability, in addition to age-related variables and the differences between L1 and L2 vowel systems. The present study seeks to identify this relationship with regard to Iraqi EFL learners' perception and production of English monophthongs.

1.1.4 ELT Situation in Iraq

Iraq has a long tradition of teaching English as a foreign language (FL). All schools in Iraq offer English courses because English has obtained a privileged status in the education system for many decades (Al-Akraa, 2013). English was first taught in Iraq in a few schools in 1873. Later, the primary education of English was extended to include all Iraqi towns during the first year of the British occupation of Iraq after the First World War (Kareem, 2009). The status of English language in Iraq is that of a foreign language. The linguistic situation in Iraq did not require English to be the language accepted all over the country as it is the case in India, for example, where English is a second language. Both Iraq and India had been British colonies for a long time; however, the linguistic variation in India where so many languages are accepted nationally triggered the need for a link language to be accepted at all levels in the Indian life. On the other hand, there are also linguistic minorities in Iraq, like the Kurds and the Turks, but they all accept Arabic as the national language principally because of religious reasons, as Arabic is the language of Islam.

Owing to the great interest in science and technology whose medium of expression is English, it is generally believed that students at various levels of education in Iraq must learn English. Consequently, English language in Iraq was taught from grade five at primary schools since the 50s. This means that exposure to English started at the age of eleven. For eight years of learning in primary and secondary schools, English was taught as a major compulsory subject with a minimum of six hours per week. Yet for the primary two years, it was not seriously taken as it was confined to teaching the English alphabet and very few words. At the secondary level of

education, which consists of six years, English language teaching textbooks include various language skills such as reading comprehension, grammar, vocabulary but there is very little emphasis on pronunciation.

At university level, English teaching has to be absolutely purpose-oriented to meet the needs of learners who are majoring in various fields of knowledge other than English language. For the departments of English language in Iraqi universities, there are four basic branches of study based on which the syllabuses adopted could vary. These basic branches are English Linguistics, English Literature, Translation and Methodology. This classification is also adopted in postgraduate studies in Iraq. Al-Hamash (1973) reported that high level of dissatisfaction with the outputs of teaching English in Iraq is ascribed to the textbooks and methods used in teaching English. Hence, continuous improvement is made in teaching English in Iraq in terms of textbooks used and methods of teaching adopted. One of the reasons behind this dissatisfaction is perhaps related to the problems Iraqi EFL learners encounter in pronunciation.

According to Al-Akraa (2013), the syllabuses of English used in Iraqi schools passed through two historical stages. The first one is where the syllabuses used were imported and were used from 1873 until 1970s. The second one is the stage when locally produced syllabuses were adopted from 1970s until now. The use of these local syllabuses marked the beginning of a new era in the history of the Iraqi educational system. This era is commonly called the Era of Nationalizing the Syllabuses of English in Iraq. Authors of this series as well as the advisory board are all Iraqis. In May, 1970, the Ministry of Education in Iraq formed a committee to draft the basic objectives of a new English programme. The committee stressed that the items in the textbooks to be adopted must be graded in terms of value and difficulty. Based on the recommendations of the committee, priority should be given to value over difficulty. Difficulty is to be specified in terms of the possibility of L1 influence and the level of deviation from the conventional patterns of English. In 1972, another committee reexamined the situation and submitted several recommendation about the new syllabus and the Education Board officially approved the new series of English textbooks (Al-Hamash, 1973). The new series called "The New English Course For Iraq" consisted of eight books. They were designed based on the structural approach and suggested a new method of teaching, which is The Audiolingual Method. Standard British English is used throughout the series as it was thought to be the speech of educated people (Al-Jumaily, 2002).

In 2005, English started to be taught from grade three in the primary school. Accordingly, children have their first institutional exposure to English at the age of nine. At the same time a new approach of English language teaching was adopted. Before 2005, the English language texts were basically based on the Grammar Translation Approach and the Structural Approach, however the year 2005 marked a significant change in English education in Iraq when a new set of English textbooks, which are based on the communicative approach was adopted. The series of English textbooks used now in Iraq is called "English for Iraq". These textbooks are originally imported but modified to suit the culture and the traditions of Arabs in

general and Iraqis in particular. Nonetheless, the outcomes of the new approach need to be measured over a considerable period of time to evaluate its effects on English language proficiency. Learners included in this study were all taught via the old approach and started their contact with English at the age of 11. It is worth noting that the official medium of instruction in all Iraqi schools is Arabic; however, at the university level a limited number of faculties/departments use English as their official medium of instruction.

1.2 Problem Statement

Learners of L2 are usually classified into three main groups. The first group comprises L2 learners who have the chance to acquire the language in a natural setting over a considerable time such as immigrants, while the second group comprises foreign learners who have no experience with L2. The third group includes foreign learners who are exposed to L2 in an institutional setting where local teachers are their only models. The majority of L2 learners in general and English in particular fall under the third group. Millions of foreign learners of English, including the informants of this study, are taught in their home country by non-native teachers where the L1 dominates the environment and the L2 is available mostly inside the class only. According to Almbark (2012), the third group is the least researched in terms of speech perception and production.

Arabic learners of English encounter various problems in their endeavor to acquire the phonetic system of English including the acquisition of vowels. Vowels of English, according to a study conducted by the California State Department of Education in 1987, are thought to be the most difficult sounds for learners to produce. This can be phonetically explicated, since the phonetic distance between these vowels is usually not big enough for correct identification. Marković (2009) stated that L2 sounds may overlap within the vowel space of learners, as they are so close to each other. This represents great perceptual and articulatory challenges for EFL/ESL learners. Moreover, vowels are functionally loaded segments that form a great number of confusable words, and thus distinguishing among these words is another challenge. Accuracy in the articulation of English is strictly required as, according to Brown (1988), the failure to distinguish among vowels will affect intelligibility and may result in communication breakdown.

It is commonly thought that the attainment of intelligible pronunciation in general and a intelligible pronunciation of English monophthongs in particular is a tough task for Iraqi EFL learners, a task in which these learners face difficulty to improve despite their constant exposure to English. Problems Iraqi EFL learners face in the perception and production of vowels are emphasized in the present study by a questionnaire submitted to a sample of Iraqi learners and English language teachers (see appendix A). Teachers believe that their students encounter difficulties in the perception and production of these vowels and students also acknowledge encountering such difficulties indicating to various monophthongs as problematic to them.

Though this issue has been previously detected by most teachers, no formal description or scientific analysis has been attempted to explain the factors that influence it or to put forward feasible solutions to the complications that obstruct the acquisition of intelligible pronunciation of the L2. This triggers such a study to be conducted to investigate how vowel perception and production skills develop and the role of L1 influence and L2 experience in facilitating or complicating the acquisition of certain L2 segments. Perceptual reasons are of consideration here assuming that Iraqi learners misperceive English vowels and consequently mispronounce them. However, the study is not interested in issues related to texts and methods adopted in teaching pronunciation at Iraqi schools and universities.

Ferris (1988), (as cited in Nikolova, 2010), stated that although most listening and speaking textbooks which are used to teach English language learners at the university focus on oral presentations, note-taking and pronunciation, most of the learners are almost unable to achieve a nativelike pronunciation. Various learners of English face various problems with regard to English pronunciation. This could be partly ascribed to the different sound system English has as an L2 compared to that of the L1. English is thought to have a somewhat complicated vowel system that comprises twelve monophthongs, five diphthongs and three triphthongs, while for Modern Standard Arabic (MSA), for example, the vowel system has six pure vowels only and two diphthongs (/aw/ and /aj/) which result from a combination of a vowel plus a semivowel (Hassanein, 2006).

According to Saadah (2011), learning a language with a smaller vowel system than English is predicted to be beneficial to the acquisition of L2 vowels. In opposition, acquiring an L2 with a larger vowel system would have required learners to cope with more vowels, which may have allophones, and then they need to deal with many variants. L2 vowel acquisition will be harder for learners. Additionally, the learning process might be much more complicated by other differences between the L1 and the L2 such as: the absence of tense-lax distinction, the absence of certain vowels, the phonemic role of vowel length, the different rules of stress, and the different syllable templates, which may lead to L1 negative transfer.

The vowel system of Received Pronunciation English (RPE) includes twelve monophthongs while the vowel system of Iraqi Arabic (IA) includes nine vowels only. Only three English monophthongs are not found in Iraqi Arabic, hence few problems are expected. But, unfortunately this is not the case, as Iraqi learners of English still encounter problems in the acquisition of these vowels though the majority of them exist in some form in their L1 vowel inventory. Intra-analysis can be of interest here as it may explain cases where L1 positive transfer does not make acquisition easy.

Perception and production are two processes of language acquisition which have attracted a great amount of researchers' efforts, with regard to both L1 and L2 acquisition. While in the case of L1 acquisition there exists agreement about the fact that perception precedes production, researchers have different views when it comes

to L2 acquisition. Flege (1995); Best (1995) and Best, McRoberts and Goodell (2001) claim that perception precedes production. Their opinions seem to be in contrast with research performed by Sheldon and Strange (1982), whose results strengthen the hypothesis that production may also precede perception in relation to L2 acquisition. Accordingly, some major questions such as: is accurate perception a prerequisite for accurate articulation, or do articulatory gestures of a phoneme make it possible to perceive the L2 sound characteristics? are still not fully answered. The other issue is whether learning in one domain of speech competence can be transferred to the other. That is, does learning in perception automatically lead to correct production and does learning in production contribute directly to correct perception? Better understanding of the nature of the relationship can shed light on how L2 sounds are acquired and what sorts of L2 training is going to be more effective in enhancing both L2 perception and production abilities (Baker & Trofimovich, 2006). The present study is interested in this debate and thus intends to examine this relationship with regard to Iraqi learners' perception and production of English monophthongs.

Theoretically, available models of speech perception and production have not been, to the best of the researcher's knowledge, tested with regard to vowel perception and production by Iraqi EFL learners of English and the relationship between them. Nevertheless, due to the nature of perception and production tasks conducted in this study, the analysis of data obtained will be basically done based on SLM which is concerned with both speech perception and production. Other models will be referred to throughout the study. As for the perception-production relationship, proposals suggested by Fox, Jacewicz, Eckman, Iverson, and Lee (2009) and Baker and Trofimovich (2006) will be also employed to account for results of perception and production comparison and correlation.

The nature of exposure Iraqi learners have is not ideal for a learner to attain a highly intelligible pronunciation. Listening skills are largely neglected inside the class either to the lack of appropriate sound labs or to the methodologies adopted by teachers which do not seem to believe in the importance of listening to L2 as an essential step towards speaking fluently. Moreover, some of the L2 models (teachers) available for these learners are also not ideal as they themselves show accented pronunciation or speak with English accents different from the target RP accent. On the applied aspect, examining Arabic and English vowels allows us to compare the vowel space as a whole and identify differences between the two vowel systems. This is a valuable asset for teaching foreign languages and correcting L2 learner's errors. This, in turn, aids in evaluating students' achievements of correct pronunciation skills in L2.

Another pedagogical advantage of investigating different vowel systems is to envisage the amount and nature of difficulty L2 learners may face when they try to master the TL (Saadah, 2011). Derwing and Munro (2005) claim that to better understand the nature of accented pronunciation and its impacts on communication, more research in the field of speech perception and production is urgently required. Research in speech perception and production can provide teachers and learners with

effective tools that enable them identify learning ends, set fitting pedagogical aims for the class, and adopt the most efficient methods of teaching. This study, therefore seeks to investigate the perception and production of English monophthongs by Iraqi EFL learners, due to the importance of speech perception and production in the process of learning an L2, and the lack of literature related to this topic.

1.3 Research Objectives

The study aims to achieve the following basic objectives.

1. To investigate the perception of English monophthongs by Iraqi EFL learners.
2. To investigate the production of English monophthongs by Iraqi EFL learners.
3. To describe the relationship between the perception and production of English monophthongs by Iraqi EFL learners.

1.4 Research Questions

To achieve the above aims, the following questions are put forward:

1. How does L1 influence the perception of English monophthongs by Iraqi EFL learners?
2. Does more experience with L2 result in better perception of English monophthongs?
3. How does L1 influence the production of English monophthongs by Iraqi EFL learners?
4. Does more experience with L2 result in better production of English monophthongs?
5. Is there any significant difference between the perception and production of English monophthongs by Iraqi EFL learners?
6. Is there any correlation between the perception and production of English monophthongs by Iraqi EFL learners?

1.5 Scope of the study

The study is limited to dealing with the perception and production of English vowels by Iraqi learners. No attempt is made here to deal with the perception and production of consonants or with the suprasegmental features of English like stress, rhythm or intonation. Though these aspects have not been tackled before from a perception and production point of view, they are beyond the scope of the present study. The study targets foreign learners of English at undergraduate and postgraduate level, as they are expected to have a reasonable level of English proficiency. So, learners of English at school level are excluded from this study. The stimuli selected in this study include words that have the consonants found in Iraqi Arabic. The words that show consonants that are not found in Arabic are excluded to eliminate any possible negative effect of these consonants. The questions raised in this study primarily seek

to identify the influence of L1 vowel system on the perception and production of English vowels, the influence of L2 experience on the perception and production of vowels by Iraqi EFL learners and consequently to determine the perception-production relationship.

1.6 Significance of the study

The importance of the study springs from the fact that there is a shortage or a lack of literature on this topic; ESL and EFL teachers at various levels do not have a resource to refer to when teaching pronunciation to Arabic learners. The study targets a group of learners usually called EFL learners who are taught the TL in class only and by local teachers. They lack the chance to have any native exposure except for some audio materials they hear in listening sessions. This group is the least investigated with regard to L2 perception and production research compared to other groups of ESL learners who are exposed to considerable native exposure in the second language speaking country or the group of learners who have little or no L2 experience (Almbark, 2012).

The study is interested in two languages with quantitatively and qualitatively different vowel systems; thus, the results of such a study can be of value to other learners whose languages, especially Arabic languages, have phonetic systems which are different from that of English. The study is of importance to English language teachers and pronunciation textbook writers that target Iraqi EFL learners. They might find guidance in this study on the aspects of the vowel system that cause many problems for learners and thus require more attention. Similarly, teachers and pronunciation text book writers need not spend much time and effort teaching what is easy to perceive and produce. After all, the study adds to the literature on the perception-production relationship that is still a debated issue.

The study of the relationship between the perception and production of vowels is not as frequent as the study of consonants, especially, when considering languages that have vowel systems that are limited to few vowels and lack the distinction between lax and tense vowels. English has more vowels (monophthongs, diphthongs, triphthongs) and distinguishes between lax and tense vowels. Arabic, the language under consideration, focuses on temporal relations between vowels where vowel length is phonemic. All these differences between the vowel systems of Arabic and English increase the possibility of negative transfer and make the present study necessary. Thus, the present study will hopefully add to the field of contrastive analysis of English and Arabic as well as gaining new insights into perception and production of English vowels by Arabic learners.

1.7 Definition of Operational terms

- 1. Speech Perception:** Speech perception in this study refers to the ability of Iraqi EFL learners to identify English monophthongs. It is measured in an identification task in which learners listen to words and identify them from

among three other alternative words based on their vowel. Thus, it is more related to perceptual mapping or categorization (Holt & Lotto, 2010).

2. **Speech Production:** Speech production in this study refers to the ability of Iraqi EFL learners to produce English monophthongs. It is measured through a reading task in which learners pronounce the words they see on the computer screen. Their pronunciation is then measured for intelligibility by experienced raters who will also identify the vowels produced instead of the target ones.
3. **First language (L1) influence:** The term is used in this study to refer to the influence the mother tongue of learners (Iraqi Arabic) can exert on the acquisition of the foreign language (English). This influence can be negative or positive.
4. **Experience:** This term is used in this study to refer to the general level of proficiency learners have in the L2. For foreign learners, experience is either measured by the number of years a learner spends learning the L2, or by a general language proficiency test (Ho, 2009). Experience in the current study is measured by a general language proficiency test according to which learners are divided into four groups.
5. **Proficiency Levels:** Learners in this study are divided into four levels of proficiency based on their scores in the Oxford Placement Test which follows the European Framework for language proficiency (2001).

1.8 Summary

The chapter introduced the background and stated the problem of the study, in addition to presenting the research questions and objectives attempted. The chapter explained the scope and the significance of the study together with the operational definitions of key terms adopted in this study.

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