



**Sudan University of Science and Technology**

**College of language**



## **Investigating the Contrast between English and Sudanese Arabic Sounds**

**تقصى تباين الاصوات بين اللغتين الانجليزية والعربية السودانية**

**A thesis Submitted in Fulfillment of the Requirements for Degree of M.A in  
English Language (Applied Linguistics)**

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**2019**

## **DEDICATION**

This work is dedicated to my dear parents and to my beloved family. It is also dedicated to my friends specially Abdelazim Mohammed.

## **ACKNOWLEDGEMENTS**

I thank Allah the most compassionate who gave me the strength and determination to accomplish this study. My gratitude is also to the lecturers at Sudan University of Science and Technology for their precious and invaluable help in our course of learning. Also, my thanks to the librarian who facilitate our search for information .My deepest thanks and gratitude to the people who assist me accomplishing this work especially, Dr. Sami Balla Mohamed.

## **ABSTRACT**

The study aimed at investigating the contrast between English and Arabic speech sounds. The study hypothesized some sound which are found in English are not found in the Sudanese Arabic language and that the differences between Sudanese Arabic and English leads to interference and hence delaying the act of learning. The researcher analyzed the statement of the research by making comparison between the two languages in terms of speech sound systems. The researcher found out that Arabic sound system is different from English sound system in terms of phonology even though they are similar in some speech sound patterns. So, the researcher recommended the EFL Learners to concentrate on the basic differences by making contrastive studies to overcome the difficulties that might arouse in learning a second language.

## ABSTRACT (Arabic Version)

هدفت هذه الدراسة لتقصي التباين والإختلاف بين نظام الأصوات في اللغة العربية والإنجليزية. افترضت الدراسة أن هنالك بعض الأصوات في اللغة الإنجليزية ليست لها مقابلات صوتية في اللغة العربية وأن الأصوات العربية السودانية تؤدي إلى تداخل لغوي مما أخرج عملية اكتساب اللغة الثانية. قام الباحث بتحليل الدراسة في الفصل الثالث مقمدا مقارنة بيت نظام الأصوات في كل من اللغتين العربية والإنجليزية وتقديم أمثلة لذلك التباين الموجود بين اللغتين في نظام الأصوات. لذلك يوصي الباحث دارسي اللغة الإنجليزية كلغة أجنبية بالتركيز على الإختلافات الموجودة بين تلك اللغات وذلك باجراء دراسات مقارنة بين اللغتين لتخطي الصعوبات التي قد تنشأ عند اكتساب اللغة الثانية.

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# CHAPTER ONE

## INTRODUCTION

### 1.0 Background

The contrast between English speech sounds and their Sudanese Arabic counterpart can be viewed from within contrastive analysis dimension. According to Robert Lado (1957) contrastive analysis is defined as the comparison between two languages and cultures. Where the two languages and cultures are similar, learning difficulties will not be expected. The greater the degree of differences, learning difficulties are to be expected. In making such comparison, it is necessary to give examples from both languages and compare between them to identify the aspects of similarity and differences. For example, if we take the English sounds /b/ and /p/, we could say that there is no [p] in Arabic we just have the sound /ب/ which is close to the sound /b/. Therefore, we often pronounce all the English words that have /b/ or /p/ with one sound. This may result in interference of mother tongue of one language on the other. There are many other Sudanese Arabic examples of sounds that will be liable to comparison with their English counterparts. The study aims to make a close comparison between the sounds of both Sudanese Arabic sounds and the English sounds to show the effects of such differences and / or similarities in the process of acquiring each of them. The concern of this study is to highlight the aspects of similarities and differences between these two languages to show the negative side of such differences in the act of learning a second language.



## **1.1 Statement of the Problem**

It is noticed that some Sudanese Arabic students find difficulty in pronouncing some English speech sounds. Some of the English speech sounds make confusion to the Sudanese Arabic learner learning English as a second language. The problem is noticed when some of the university students mix between the [p] and [b] as well as [ʃ] and many other English sounds. This problem affects the learning process.

## **1.2 Questions of the Study**

The researcher poses the following questions:

- 1) What are the aspects of similarities and differences between Sudanese Arabic sounds and their English counterparts?
- 2) In what sense does such difference affect the learning process of a second language?
- 3) Does such contrast between these sounds lead to interference between these languages?

## **1.3 Hypotheses of the Study**

The study's hypotheses are:

- 1) Some sound which are found in English are not found in the Sudanese Arabic language
- 2) The differences between Sudanese Arabic and English leads to interference and hence delaying the act of learning
- 3) The similarities in terms of sounds between these languages leads to successful language learning

#### **1.4 Objectives of the Study**

The study aims to:

- 1) Show the extents to which Sudanese Arabic sounds differ from the English sounds.
- 2) Provide examples from the two languages that could verify and justify the statement of the research
- 3) Explain the causes and consequences of such a phenomenon on the learners of both languages

#### **1.5 Significance of the Study**

The study is very important in the domain of language acquisition. This is due to the necessity of being bilingual in a modern world that needs interaction with other nations. So, the difficulties of such a problem should be removed via conducting such studies to facilitate language learning. The study is also important in that it sheds light on the problematic areas that can create difficulties in learning a second language

#### **1.6 Methodology of the study**

The researcher uses a descriptive approach to analyze the statement of the problem .

#### **1.7 Limits of the Study**

The study is limited to the comparison between the Sudanese Arabic sounds and the English sounds in terms of phonological difference between Arabic and English. The study will bring a number of sounds from each language to be compared with one another.

## **1.8 Definitions of Terms**

ASOL: Analysis Studies Of Languages.

EFL : English as a Foreign Language.

ESL: English as a Second Language.

IPA: International Phonetics Alphabet.

Phonetics: the general study of the characteristics of speech sounds.

Articulator phonetics: The study of how speech sounds are made.

Phonemes: a phoneme is the smallest unit of sound.

L1 : the first language.

L2: the second language.

## CHAPTER TWO

### LITERATURE REVIEW AND PREVIOUS STUDIES

#### 2.0 Introduction

The chapter includes a theoretical review that covers the sound systems of both Arabic and English in terms of vowels and consonants. It also includes some definitions beginning with the definition of Contrastive Analysis (CA) and the hypotheses set in this concern. According to Richard (1992) in the Longman Dictionary of Language Teaching and Applied Linguistics, this term is defined as: the comparison of the linguistic systems of two languages, for example the sound system or the grammatical system. Lado (1957) claims that contrastive analysis was developed and practiced in the 1950s and 1960s, as an application of structural linguistics to language teaching, and is based on the main hypotheses can be summarized as: First language acquisition and foreign language learning differ fundamentally, especially in those cases where the foreign language is learnt later than a mother tongue and on the basis of the full mastery of that mother tongue. Every language has its own specific structure. Similarities between the two languages will cause no difficulties ('positive transfer'), but differences will, due to 'negative transfer' (or 'interference'). The student's learning task can therefore roughly be defined as the sum of the differences between the two languages. A systematic comparison between mother tongue and foreign language to be learnt will reveal both similarities and contrasts.

On the basis of such a comparison it will be possible to predict or even rank learning difficulties and to develop strategies (teaching materials, teaching techniques, etc.) for making foreign language teaching more efficient. Contrastive analysis was more successful in phonology than in other areas of language, and declined in the 1970s as interference was replaced by other explanations of learning difficulties. In recent years contrastive analysis has been applied to other areas of language, for example the discourse systems. One of the earliest attempts was Lado's (1957) Contrastive Analysis (CA) which investigated why L2 learners vary in their pronunciation. CA claims that L2 learners face difficulties while learning a new language. He suggests that if the newly acquired segments are similar to ones already available in L1, then their acquisition will be easier. On the other hand, if these segments are different, then their acquisition will be difficult. Contrastive analysis is a branch of historical linguistic studies. It deals with the comparison of the characteristics of different languages or different states of a language through history. It composes the various forms of related languages and utterance to reconstruct the mother language from which they were developed. It starts with the discovery of the similarities and differences as well between languages or within the same language. However, some linguists and pioneers in the field of "language pedagogy" were well aware of the pull of the mother tongue in leaning a target language; it was Charles Fries (1945) who firmly established contrastive linguistic analysis as an inter-component of the methodology of target language teaching. In his influential book *Linguistics Across Cultures*, Lado(1957 ) mentions that: individuals tend to transfer the forms and meanings, and the distribution of forms and meanings of their native language and culture to the foreign language and culture— both productively when attempting to speak the language and to act in the culture, and receptively

when attempting to grasp and understand the language and the culture as practiced by natives. Modern CA starts with Lado's linguistics Across Cultures `1957 so; Lado's book has become a classic field manual for practical contrastive studies. "In the heyday of structural linguistics nothing seemed of greater potential value to language teachers and learners than a cooperative and contrastive description of the learner's mother tongue and the target language.

## **2.1 Speech Sounds systems**

According to Ward (1971)it is necessary for the purpose of phonetics to be able to provide an account of all speech sounds of a language. There are certain methods of classification that can be adopted for doing so accurately. Speech sounds are generally divided into vowels and consonant. The main difference between these two categories: vowels are sounds which carry power. In ordinary speech, a vowel is a voiced sound in the pronunciation of which the air passes through the mouth in a continuous stream, there being no obstruction. A consonant, on the other hand, is a sound, accompanied or unaccompanied by voice, in the pronunciation of which there. It is either a partial or complete obstruction which prevents the air from issuing freely from the mouth. Consonants are classified according to the organs articulating them and according to the manner of their articulation is also possible to combine the movement of the vocal cords with the articulation of any consonant, i.e. , consonants can be either voiced or voiceless. " In most languages there occur numbers of pairs of consonants by lips, tongues, teeth, etc. in exactly the same way and differing in the presence and absence of voice / p b , f v ; or , s z, etc/.It should also be noticed that voiceless consonants require

more force of exhalation than voiced constants and are articulated with greater vigor; there is a tighter closure for plosive and a sharper release and for the fricatives a smaller opening. (Ward, 1972 ;Roach,).

### **2.1.1 Language Sounds System**

Fromkin(2008) mentioned that it is very important first to define the sounds of language. The sounds of all the languages of the world together constitute a class of sounds that the human vocal tract is designed to make. This section of the chapter handles the English sound system; the sounds of English whether consonants or vowels as stated below. The definitions of sounds and their examples below:

#### **2.1.1.1 English sounds system**

English language has 24 consonant sounds, and 12 vowels sounds represented by 26 letters. According to Roach the 24 consonants sounds represented by 21 letters and the 12 vowels sounds represented by 4 letters. Consonants sounds are /p/, /b/, /t/, /d/, /k/, /g/, /tʃ/, /dʒ/, /f/, /v/, /θ/, /ð/, /z/, /s/, /ʃ/, /ʒ/, /h/, /m/, /n/, /ŋ/, /l/, /r/, /j/, /w/. sometimes two letters combine to represent one sound, so that, ‘s’ + ‘h’ combine to represent the sound [ʃ] and ‘t’ + ‘h’ combine for [θ] or [ð]. vowels sounds are /i/, /i:/, /e/, /ɜ:/, /a/, /a:/, /o/, /o:/, /u/, /u:/, /ʌ/, /ə/. The English alphabet has twenty-six letters. Five letters are vowels and twenty-one are consonants. The English letters according to their alphabetical order in small and capital: a. b. c. d .e. f. g. h. i . j. k. l. m. n. o. p. q. r. s. t. u. v. w .x. y. z A B C D E F G H I J K L M N O P Q R S T

U V W X Y Z,. There are five vowel letters: a .e .i .o .While [y] is a semi vowel letter.

### 2.1.1.2 English Consonants

A consonant sound is a sound during the articulation of which the lung-air does not escape freely (i.e. there is a narrowing somewhere in the vocal tract). When describing a consonant, three aspects of articulation are given:

**The status of the vocal cords:** vibrating (producing a **voiced** sound) or not (producing a *voiceless* sound)

**The place of articulation,** which is based on anatomical structures where the narrowing or closure takes place in the vocal tract. In the production of most sounds, the active articulator (i.e. the one that moves) is either the lower lip or the tongue, and the passive articulator (the one that does not move) is either the upper lip or the roof of the mouth.

**The manner of articulation,** which refers to the way in which the sound is produced, and this is based on the relationship between the articulators.

### 2.1.1.3 Place of Articulation

Place and manner of articulation of English sound system are discussed in detailed by Victoria Fromkin et al (2009) in their book " Introduction to Language" tenth edition as follows:

**Bilabials**[p] [b] [m] When we produce a [p], [b], or [m], we articulate by bringing both lips together.

**Labiodentals** [f] [v] We also use our lips to form [f] and [v]. We articulate these sounds by touching the bottom lip to the upper teeth.

**Interdentals** [θ] [ð] These sounds, both spelled *th*, are pronounced by inserting the tip of the tongue between the teeth



**Alveolar** [t] [d] [n] [s] [z] [l] [r] All seven of these sounds are pronounced with the tongue raised in various ways to the alveolar ridge.

Examples:

[t], [d], and [n] the tongue tip is raised and touches the ridge, or slightly in front of it.

[s] and [z] the sides of the front of the tongue are raised, but the tip is lowered so that air escapes over it.

[l] the tongue tip is raised while the rest of the tongue remains down, permitting air to escape over its sides. Hence, [l] is called a lateral sound.

You can feel this in the l's of Lolita.

[r] (IPA [ɹ]), most English speakers either curl the tip of the tongue back behind the alveolar ridge, or bunch up the top of the tongue behind the ridge. As opposed to the articulation of [l], when [r] is articulated, air escapes through the central part of the mouth. It is a central liquid. [mɪʃən], measure [mɛʒər], cheap [tʃi:p], judge [dʒʌdʒ], and yoyo [jojo], the constriction occurs by raising the front part of the tongue to the palate.

**Velars** [k] [g] [ŋ] Another class of sounds is produced by raising the back of the tongue to the soft palate or velum. The initial and final sounds of the words kick [kɪk] and gig [gɪg] and the final sounds of the words back [bæk], bag [bæg], and bang [bæŋ] are all velar sounds.

**Uvulars** [R] [q] [ɢ] Uvular sounds are produced by raising the back of the tongue to the uvula, the fleshy protuberance that hangs down in the back of our throats. The r in French is often a uvular trill symbolized by [R]. The uvular sounds [q] and [ɢ] occur in Arabic. These sounds do not ordinarily occur in English.

**Glottals** [h] [ʔ] The sound of [h] is from the flow of air through the open glottis and past the tongue and lips as they prepare to pronounce a vowel sound, which always follows [h].

#### 2.1.1.4 Manner of Articulation

**Stops** [p] [b] [m] [t] [d] [n] [k] [g] [ŋ] [tʃ] [dʒ] [ʔ]: We are seeing finer and finer distinctions of speech sounds. However, both [t] and [s] are voiceless, alveolar, oral sounds. [p], [b], and [m] are *bilabial stops*, with the airstream stopped at the mouth by the complete closure of the lips. [t], [d], and [n] are *alveolar stops*; the airstream is stopped by the tongue, making a complete closure at the alveolar ridge. [k], [g], and [ŋ] are *velar stops*, with the complete closure at the velum. [tʃ] and [dʒ] are *palatal affricates* with complete stop closures. They will be further classified later. [ʔ] is a *glottal stop*; the air is completely stopped at the glottis.

**Fricatives** [f] [v] [θ] [ð] [s] [z] [ʃ] [ʒ] [x] [ç] [h]: In the production of some continuants, the airflow is so severely obstructed that it causes friction, and the sounds are therefore called fricatives. The first of each the following pairs of fricatives is voiceless; the second voiced. [f] and [v] are *labio-dental fricatives*; the friction is created at the lips and teeth, where a narrow passage permits the air to escape. [θ] and [ð] are *inter-dental fricatives*, represented by thin and then. The friction occurs at the opening between the tongue and teeth. [s] and [z] are *alveolar fricatives*, with the friction created at the alveolar ridge. [ʃ] and [ʒ] are *palatal fricatives*, and contrast in such pairs as mission [mɪʃən] and measure [mɛʒər]. They are produced with friction created as the air passes between the tongue and the part of the palate behind the alveolar ridge. In

English, the voiced palatal fricative never begins words except for foreign words such as *genre*. The voiceless palatal fricative begins the words *shoe* [ʃu] and *sure* [ʃur] and ends the words *rush*. [rʌʃ] and *push* [pʊʃ]. [x] and [ɣ] denote velar fricatives. They are produced by raising the back of the tongue toward, but not quite touching, the velum. The friction is created as air passes through that narrow passage, and the sound is not unlike clearing your throat. These sounds do not commonly occur in English, though in some forms of Scottish English the final sound of *loch* meaning ‘lake’ is [x]. In rapid speech the *g* in *wagon* may be pronounced [ɣ]. The final sound of the composer J. S. Bach’s name is also pronounced [x], which is a common sound in German. [h] is a glottal fricative. Its relatively weak sound comes from air passing through the open glottis and pharynx.

	<b>bilabial</b>	<b>Labio-dental</b>	<b>Inter-dental</b>	<b>alveolar</b>	<b>Plato alveolar</b>	<b>Palatal</b>	<b>velar</b>	<b>glottal</b>
<b>Stops</b>	P - b			t- d			K - g	
<b>Affricates</b>					tʃ-dʒ			
<b>Fricative</b>		f-v	θ - ð	s-z	ʃ-ʒ			h
<b>Nasals</b>	m			N			ŋ	
<b>Lateral/liquids</b>				L				
<b>Retroflexed liquid</b>				ɭ				
<b>Semi vowel</b>						Y	w	

**Table (2.1) English Consonants (IPA 2005)**

### 2.1.1.5 English Vowels

A vowel sound is a sound during the articulation of which the lung-air escapes freely and continuously (with neither blockage nor narrowing of the air passage). Vowels are the most sonorant and most audible speech sounds, and they usually function as the nucleus of a syllable.

Examples of vowels:

#### **Front vowels**

- 1) Kit /ɪ/ a short close vowel
- 2) dress /ɛ/ a short front vowel
- 3) trap /æ/ a short open vowel
- 4) fleece /i:/ a long front vowel
- 5) face /eɪ/ a diphthong

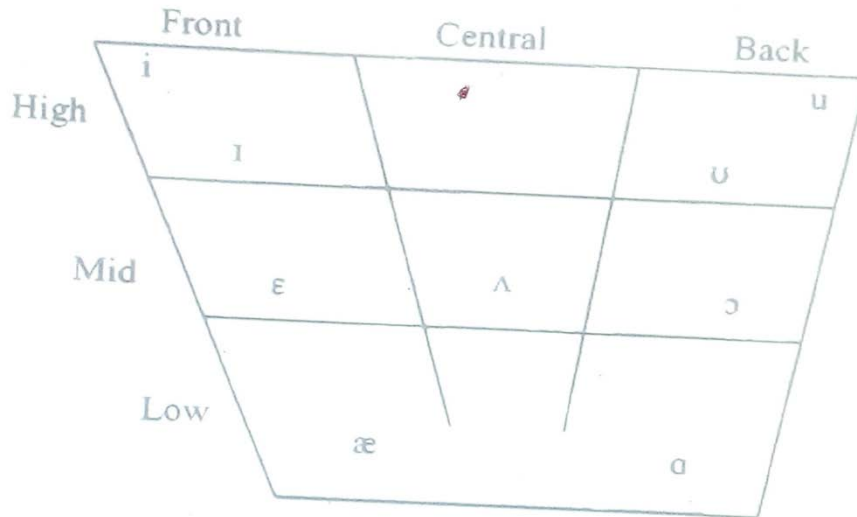
#### **Back vowels**

- 1) lot /ɒ/ a back rounded vowel
- 2) foot /ʊ/ a back short rounded vowel
- 3) palm /ɑ:/ a long central vowel
- 4) thought /ɔ:/ a long back vowel
- 5) goat /əʊ/ a diphthong
- 6) goose /u:/ a long rounded back vowel

#### **Central vowels**

- 1) about /ə/ a short central vowel which is said to be the weakest vowel
- 2) nurse /ɜ:/ a long central vowel
- 3) strut /ʊ/ front short vowel (April 2002)

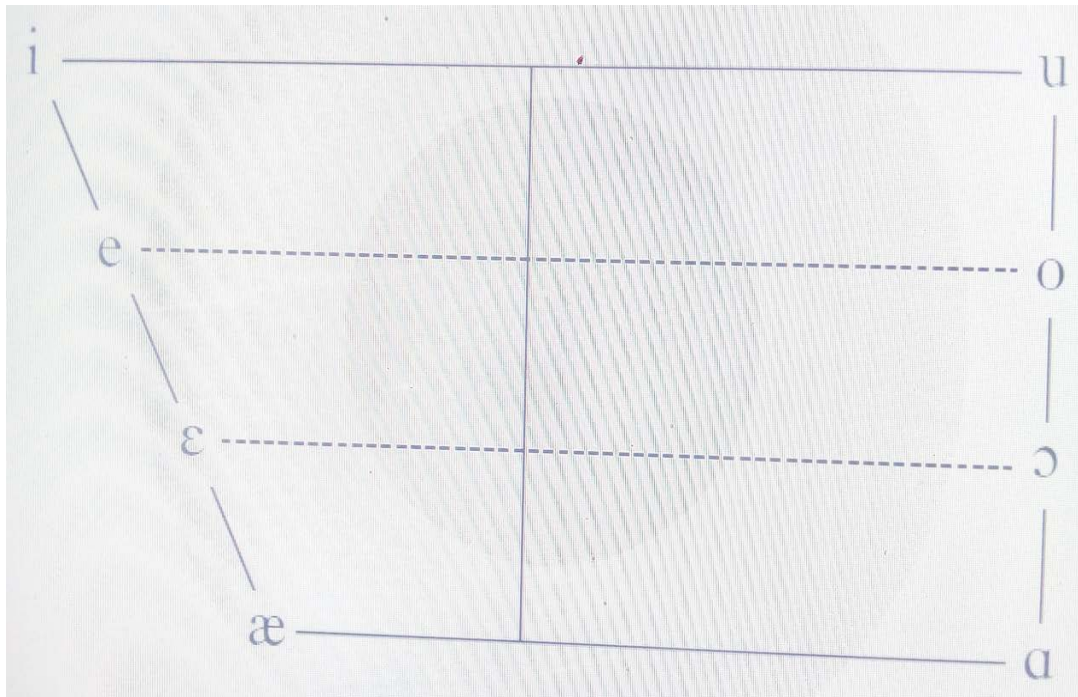
The monophthongs vowels are shown in the figure below:



**Figure (2.2) Monophthongs (from Peter Roach 2001)**

### 2.1.1.6 Cardinal Vowels

Cardinal Vowels properly, and ensuring can act as a fixed set of reference points as they were designed to do. They are shown in the figure below:



**Figure (2.3) Cardinal Vowels (from Peter Roach 2001)**

As they are by default voiced, the feature *voiced!* *voiceless* is redundant in the description of vowels. They are divided vowels into two kinds: monophthongs and diphthongs". Monophthongs are defined as vowels during the articulation of which the tongue maintains its position,

whereas diphthongs are defined as vowels during the articulation of which the tongue starts out in the position for a simple vowel and then moves towards the position for another simple vowel within one syllable. Most of the vowels we have considered so far have been monophthongs, in which the quality of the vowel stays fairly consistent from the beginning of its production to the end. However, there are also several diphthongs in English. Diphthongs change in quality during their production, and are typically transcribed with one starting point, and a quite different end point; as might be expected from this description, diphthongs are typically long vowels. April (2002)

In English, all diphthongs have the first element as longer and more prominent than the second, and are known as falling diphthongs. Three diphthongs are found very generally in accents of English, and are shown in.

- 1) [ iə ] as in beard – fierce
- 2) [ eə ] as in aired – scarce
- 3) [ʊə ] as in tour – moored
- 4) [ei] as in paid – pain
- 5) [ai] as in tide – time
- 6) [ ɔ i ] as in void – voice
- 7) [əʊ ] as in load – home – go
- 8) [ aʊ ] as in loud – house

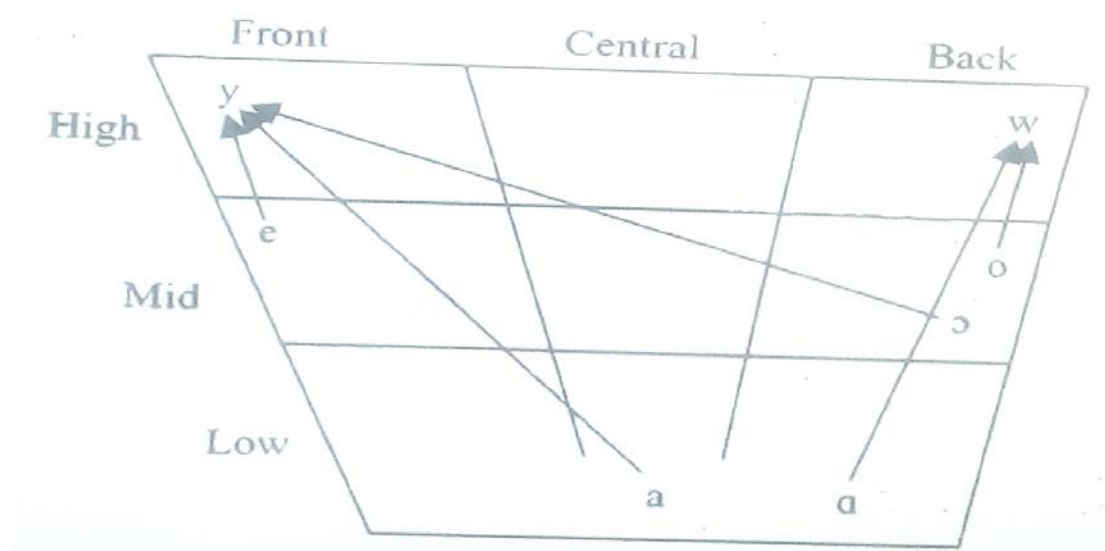
### **Table (2.4) English Vowels and Diphthongs**

The table and chart below illustrates the English vowel sounds and diphthongs:

No	Vowel	Description	Example
1	/i/	Front high unrounded tense	Beat
2	/ɪ /	Front high unrounded lax	Bit
3	/e/	Front mid unrounded lax	Bet
4	/æ /	Front low unrounded	bat

5	/u/	Back high rounded tense	Boot
6	/ʊ/	Back high rounded lax	Put
7	/ɔ/	Back mid rounded lax	Car
8	/ɑ/	Back low unrounded	dock
9	/ʌ/	Central mid unrounded	duck
10	/ei/	Centering diphthong	Name
11	/ai/	Centering diphthong	Night
12	/ɔi/	Centering diphthong	Boys
13	/əʊ/	Closing diphthong	About
14	/aʊ/	Closing diphthong	Shout

( from Introduction to language – RoamanFromkin 1998)



**Figure (2.4) Cardinal Vowels (from Peter Roach 2001)**

## 2.2 Modern Standard Arabic (MSA)

Modern Standard Arabic is the language of the media and education whereas multiple variants are used in the Arab World. Linguistic differences between the standard language and various dialects which vary geographically are found in terms of phonology, morphology, syntax, and lexical choice. In order to appreciate the extent of difference between the Arabic and English sound systems.

There is 28 consonants sounds / , /ذ , /د , /خ , /ح , /ج , /ث , /ت , /ب , / , /ر , /ز , /س , /ش , /ص , /ض , /ط , /ظ , /ع , /غ , /ف , /ق , /ك , /ل , /م , / , /ن , /ها , /و , /ي and 6 vowels sounds three short /i/, /u/, /a/, and three long (istitalah) /i:/, /uu/, /aa/, represented by واو/ ياء / , /الف/ .Arabic language alphabet according to( Al- Khalil) has twenty-eight Letters: ا ب ت ث ج ح خ د ذ ر ز س ش ص ض ط ظ ع غ ف ق ك ل م ن ه ا و ي There are three vowel letters: الف, واو, ياء. Some Arab linguists count twenty-nine Arabic letters by adding: [ لا ]. The letter [ ء ] is written in many different forms to stand for many different sounds: [أ, ء, ئ, ؤ, ة] Modern standard Arabic is the literary language used in most current, printed Arabic publications, spoken by the Arabic media across North Africa and the Middle East, and understood by most educated Arabic speakers. "Literary Arabic" and "Standard Arabic" are less strictly defined terms that may refer to Modern Standard Arabic and/or Classical Arabic.

### 2.2.1 Arabic Sound System

According to Fromkin (2009) Arabic language is said to be a Semitic language in which words are written with alphabets that consist only of consonants. Such an alphabet works for such a language because consonants form the root of most words. For example, the consonants *ktb* in Arabic form the root of words associated with ‘write.’ Thus *katab* means ‘to write,’ *aktib* means ‘I write,’ *kitab* means ‘a book,’ and so on. Inflectional and derivational processes can be expressed by different vowels inserted into the tri-consonantal roots. According to Simon and Schuster (2012) the Arabic alphabet dates back to pre-Islamic periods and has been adopted as well by neighboring countries whose language is not Arabic, such as Iran, Afghanistan, and Pakistan. The Arabic writing



system is easy to learn and master because the Arabic alphabet has a high correspondence between sound and symbol. This means that a letter is pronounced almost the same in every word position. The Arabic alphabet contains 28 letters in addition to the *hamza* (glottal stop) and two variants of existing letters (alif and taa'). A number of diacritical marks complement the alphabet and these are signs written above or below the letters. Here are two categories of Arabic letters. The first category contains “one-way connectors” because they connect only to the “preceding letters” or letters to the right. They do not connect to “following letters” or letters to the left. These are:

ءى و نرذدا

The remaining letters of the alphabet constitute the letters of the second category. They connect to both preceding letters (to the right) and follow. This section includes the Arabic sounds and their distribution and patterns with examples:

### 2.2.2 Arabic Consonants

Arabic has twenty-eight consonant phonemes. Each of these phonemes is represented by a letter of the alphabet, forming a one-to-one relationship between the Arabic letters and consonant phonemes. Velarization is phonemic in Arabic, in which four out of the twenty-eight phonemes are velarized. It is essential to realize that the primary place of articulation of these four phonemes is not the velum.

Standard Arabic consonant phonemes											
	<u>La</u> <u>bial</u>	<u>Inter-</u> <u>dental</u>		<u>Dental/Al</u> <u>veolar</u>		<u>Post</u> : <u>alve</u> <u>olar</u>	<u>Pal</u> <u>atal</u>	<u>Vel</u> <u>ar</u>	<u>Uvu</u> <u>lar</u>	<u>Phar</u> <u>yn-</u> <u>geal</u> <sup>3</sup>	<u>Glo</u> <u>ttal</u>
		pl ai n	<u>emph</u> <u>atic</u>	pla in	<u>emph</u> <u>atic</u>						

<b>Nasal</b>		m			n						
<b>Stop</b>	<b>voiceless</b>				t̤	t̤ʰ			k	q	ʔ
	<b>voiced</b>	b			d̤	d̤ʰ	ʒ~dʒ~g <sup>1</sup>				
<b>Fricative</b>	<b>voiceless</b>	f	θ		s	sʰ	ʃ		x~χ <sup>4</sup>		ħ
	<b>voiced</b>		ð	ðʰ~zʰ	z				ɣ~ʁ <sup>4</sup>		ʕ
<b>Approximant</b>					l <sup>2</sup>			j	w		
<b>Trill</b>					r						

(from Robin (2003), Arabic, "Handbook of the International Phonetic Association")

### 2.2.2.1 Plosives Stops

Plosive consonants are formed by completely stopping the flow of air at some point in the vocal tract. Air accumulates under pressure behind the stoppage, and when the stoppage is released, the air escapes with a noise called plosion. **/b/** voiced bilabial stop: During the articulation of this phoneme, the two lips are brought together making a complete closure is represented by the letter (ب) which is pronounced as /bæ?/ as in the examples :

[kalb] = dog

[salb] = crucified

**/t/** The vocal cords don't vibrate during the production of this phoneme. This phoneme is a voiceless denti-alveolar stop. This sound occurs initially, medially and finally in words. It is represented in the writing system by the letter (ت) /tæ?/ as in:

[tab] = repent

[taj] = crown

**/d/** voiced denti-alveolar stop: in the production of this Arabic sound, the articulation of /d/ the vocal cords vibrate. As in the examples:

[daraba]= hit

[adl] = justice

**/k/**voiceless velar stop: This phoneme is a **voiceless velar stop**. It occurs at the beginning, middle and end of words. it is represented by the letter (ك) /kæf/ as in the examples:

[katabh] = wrote

[sharak] = trap

**/q/**Voiceless – Uvular Plosive: no vibration of the vocal folds total occlusion of the flow of air formed by the back of the tongue being raised against the uvula

**/ʔ/** Voiceless Glottal plosive: no vibration of the vocal folds. total occlusion of the flow of air formed by the vocal folds being pressed together.

The following table illustrates the Arabic consonants:

**Table (2.5) Arabic Consonants**

?	الهمزة	ḍ	ض
B	ب	t	ط
T	ت	ṭ	ظ
Ṯ	ث	ʔ	ع
ʒ	ج	ɣ	غ
ħ	ح	F	ظ
X	خ	Q	ق
D	د	K	ك
Ḍ	ذ	L	ل
R	ر	M	م
Z	ز	N	ن
S	س	H	هـ
ʃ	ش	W	و

Ş	ص	J	ي
---	---	---	---

(fromRobin (2003), Arabic, "Handbook of the International Phonetic Association)

### 2.2.3 Arabic Vowels

Kara (1976) and Bakalla (1982) mentioned that English has a larger vowels containing about nine simple vowels and seven longer vowels, Arabic has just three short vowels known as '*Harakat*' and three long vowels and the Arabic vowels are voiced and produced with no obstruction or constriction in the mouth. According to FagihiIbnJinni(2012), these vowels are called "*hurufmaddwa ?istitalah*". They are served as the sounds of lengthening and prolongation and may be short (*harakat*) or long (*hurufmadd*). This idea of lengthening points to the fact that Arabic vowels being produced without obstruction in the mouth, and may further be lengthened, i.e. held, as long as the breath allows, and, a glottal stop begins wherever the vowels end. On the other hand, long vowels are also called the sounds of softness. When the point of articulation (*maxraj-ul-harf*) widens (i.e. the vocal tract is not restricted) so as to keep the sound ( i.e. the vowel) constantly enunciated and continued until it can no longer be prolonged, it will end by the articulation of the glottal stop (*hamza*). It will necessarily come to an end at this point... the sounds (*huruf*) which are produced with open stricture at the places of articulation are three; a, i, and u. However, a is more open (*?awsa* ) and softer (*?alyan*) than the others and for this reason it is auditorily different from both i and u, and vice versa.

Fagihi argues that in Arabic, a long vowel which its function is to slightly lengthen the short vowels, can be heard with further prolongation in three cases; if it is followed by a glottal stop (*hamza*), if

it followed by a geminate (*harfmushaddad*), and if it is paused upon for the purpose of recollection. On the other hand, long vowels are given alphabetical names, whereas the corresponding short vowels are actually given names that suggest phonetic distinctive features, they are called case markers. The three long vowels /i:/, /uu/ and /aa/ are represented by the letters:

(ياء) /yæ?/

(واو) j/wæw/

(ألف) /ʔa.lif/

On the other hand, the three short vowels /i/, /u/, and /a/ may be represented in Arabic script by diacritical marks, which are written above the preceding consonant letter. These vowels, i.e. /i/, /u/, and /a/, may be represented by the marks , [kas.rah] (كسرة) , [d^am.mah] (ضمة) , and [fat.Hah] (فتحة) , The presences of the diacritical mark [su.kun] as symbolized (0) above a consonant letter indicates that the consonant sound represented by that letter is not followed by a vowel. To Ibn Jinni al *harakat* can be seen as the element which if occurs between two identical consonants it may stop them from being doubled. He also adds that short vowels are inpar with consonants in that they are all regarded as elements of speech. To this researcher they are merely oral, and used only in teaching texts for guiding the learner. According to Abdul-Rauf( 1977) in English the full sound of consonant is done by the application of the vowel, but there are only three vowels in Arabic. One has the value of “a” in “bat”, or “u” in “but” another has the value of “i” in “fit”, and the third has the value of “u” in “put”, they are all short. These vowels are not acted by characters following the consonants; but are acted by signs written above or below the consonants; as in: /a/ /i/ /u/

The Arabic vowels are shown below for more clarification in the following table:

**Table (2.4) Arabic Vowels**

No	Vowel	Definition
1	/i:/	Front high unrounded long vowel
2	/i/	Front high unrounded short vowel
3	/uu/	Back high rounded long vowel
4	/ <sup>o</sup> u/	Back high rounded short vowel
5	/aa/	Front low unrounded long vowel
6	/a/	Front low unrounded short vowel

( from Peter Roach 2005)

### **2.2.4 Arabic Dialects Variations**

According to Robert (1997), varieties of Arabic spread throughout the Arab world and many parts of the world where Arabic is spoken. In some dialects, there may be more or fewer phonemes than those listed. For example, there is few modern Arabic dialects, such as Iraqi which is influenced by Persian and Turkish distinguish between [p] and [b]. however, some parts of the Arab world dealt differently with the Arabic consonants like the fricatives ([θ] and [ð]), which are rendered as stops [t] and [d] in some dialects such as Egyptian, Levantine, and much of the Maghreb.

Meanwhile, some of these dialects render them as [s] and [z] in "learned" words from the Standard language. The differences in the Arabic dialects can be reinforced by many other examples like the following: ق/q/ retains its original pronunciation in widely scattered regions such as Yemen, Morocco, and urban areas of the Maghreb. It is pronounced as a glottal stop[ʔ] in several prestige dialects, such as those spoken in Cairo, Beirut and Damascus. But it is rendered as a voiced velar stop [g] in Gulf Arabic, Iraqi Arabic, Upper Egypt, much of the Maghreb, and less urban parts of the Levant (e.g. Jordan). Some traditionally Christian villages in

rural areas of the Levant render the sound as [k], as do Shia Bahrainis. In some Gulf dialects, it is palatalized to [dʒ] or [ʒ]. It is pronounced as a voiced uvular constrictive [ʁ] in Sudanese Arabic. Many dialects with a modified pronunciation for /q/ maintain the [q] pronunciation in certain words (often with religious or educational overtones) borrowed from the Classical language. ق/دق/ retains its pronunciation in Iraq and much of the Arabian Peninsula, but is pronounced [g] in most of North Egypt and parts of Yemen, [ʒ] in Morocco and the Levant, and [j] in some words in much of Gulf Arabic. ك/k/ usually retains its original pronunciation, but is palatalized to [tʃ] in many words in Israel& the Palestinian Territories, Iraq and much of the Arabian Peninsula. Often a distinction is made between the suffixes /-ak/ (you, masc.) and /-ik/ (you, fem.), which become [-ak] and [-itʃ], respectively. In Sana Arabic, /-ik/ is pronounced [-iʃ].

Hence one could say that, Arabic is a language with immense variation. While Arabic speakers from Morocco to Iraq use the same written language, the spoken dialects that differ from country to country can be so dissimilar that oftentimes their speakers cannot understand each other.

### **2.2.5 Sudanese Arabic**

In Sudan, people speak more than 134 languages. These languages or dialects are spoken in in different parts of Sudan. However, with the project of Arabization , many of these languages are dying. Arabic is the country's official language and as the languages of many ethnic groups are being replaced with Arabic, the country's portion of native Arabic speakers is on the rise. Arabic is spoken as a first language by the majority of people living in the northern half of the country and it is a second or third language to many others. Several variants of Arabic are spoken in Sudan, but the dominant one is spoken by people in Khartoum,

known as Omdurman Arabic by many Sudanese. The other major variant that is spoken in the south of the country is called Juba Arabic. Deriving its name from the southern capital Juba, it is a lingua franca in southern Sudan spoken mainly in the Equatoria region. Despite its name, Juba Arabic is not actually a dialect of Arabic, but a pidgin language with simplified grammar and a considerable amount of vocabulary from local languages. There are other major variations include Western Sudanese Arabic, which is close to the dialect spoken in Chad, North Kordofan Arabic, Ja'ali, and Shukri Arabic. (adapted from the website ([http:// understanding Sudan. Org. 2008](http://understanding Sudan. Org. 2008)))

Language has long been a source of identity in Sudan. Since 2005, the constitution declared Arabic and English as the official languages, with Sudanese Arabic being the dominant lingua franca spoken by more than 78% of the population. The Sudanese dialect is not only a means of communication but also displays myriad cultures that have contributed to this unique vernacular. It is a depository of experiences that echoes Sudan's diverse historical and cultural timeline. Arabs first arrived in Sudan between the 14th and 15th century, introducing language and culture; greatly shaping Sudan's social structure and dynamics. Due to its proximity to the Arabian Peninsula, some Sudanese tribes have even retained a similar accent to the ones in the neighboring Gulf states, particularly Saudi Arabia. Migration of Arab tribes exposed Sudan directly to Arabic and Islamic influence which has maintained dominance till this day presence at the expense of local vernaculars. As a result, Arab speaking tribes introduced a 'pure but archaic' Arabic that eventually mixed with local languages. For instance, pronunciations of certain letters such as *qaf* ق and *jeem* ج (pronounced 'g' and 'j' respectively) indicate the similarity of Sudanese Arabic to that spoken in Arabia. However, the



further you move from Khartoum, the more chances you'll have at stumbling on another language.

There are other examples of Sudanese Arabic sited in the table below:

What?	شئو؟
How many? How much?	كم؟
How?	كيف؟
Why?	ليه؟
When?	بتين؟ أو متين؟
Who?	منو؟
Which?	ياتو؟ ياتا؟

From (<http://understandingsudan.org/>© 2008)

### 2.2.6 Comparison between Arabic and English Consonants

The study presents this phonological comparison between Arabic and English to clarify the points of the topic under discussion:

Both Arabic and English have the following consonant phonemes: /f/, /b/, /m/, /s/, /z/, /k/, /sh/, /j/, /th/, /t/. However, Arabic pronunciation is characterized by its vigor, and all consonants are pronounced with greater muscular tension than in English. In Arabic the hiss with which /s/, /z/ are pronounced is of higher frequency and is much more clear-cut than in English. Articulation of /sh/ and /j/ in Arabic is always clear, whereas in English /sh/ and /j/ are sometimes dark. There are no corresponding English phonemes to the following Arabic consonant phonemes: /ض/ - /ص/ - /ع/ - /ح/ - /ظ/ - /أ/ and /ء/.

Arabic has no corresponding for the following English consonant phonemes: /p/, /g/, /v/, /ch/, /z/, /ng/. Since the Arabic sound system does not have the phonemes /p/, /v/ and /t/; some Arabic speakers tend to pronounce English words containing those phonemes with /b/, /f/, /e.g., video as 'fideo', 'people' as 'beoble', pepsi as 'bebsi', chips as 'ships', chair as 'tchair'.

The following consonant phonemes exist in both Arabic and English but they differ in their place of articulation, manner of articulation, in their variants or in the distribution of variants: /t/, /d/ Arabic /t/ and /d/ are dento-alveolar involving simultaneous contact with teeth and alveolus, whereas English /t/ and /d/ are alveolar only. /r/ The first noticeable difference between Arabic and English /r/ is that Arabic /r/ is pronounced with a single tap as in {jaar} 'neighbour', or as a rapid succession of taps that make up a trill or roll when geminated or doubled as in {marr} 'he passed', {marran} 'he trained'. In American English /r/ is retroflex and in British RP English /r/ is a flap. (Agard & Di pietro1965 ).

### **2.3 Previous Studies**

**2.3.1 Study No .1** One of the similar studies conducted in the field of contrastive analysis is entitled as "Contrastive phonological analysis of Arabic and English" by KhaledHuthaily(2003) at the University of Montana. The study difficulties that adult native speakers of American English encounter while learning Modern Standard Arabic as a foreign language. The study focuses on describing the segmental phonemes of both Arabic and English and analyzes the Arabic speech of three American students of Arabic, in an attempt to track LI transfer. The study also investigates the extent to which the Contrastive Analysis Hypothesis (CAH) can help in predicting the pronunciation errors that American students of Arabic are likely to commit in their production of Arabic speech.

The study found that there is evidence that the subjects' first language has an effect on their production of speech sounds of the second language. The results also show that the subjects transferred some features and sounds from their LI to their L2, such as the aspiration feature and use of

the voiceless alveolar stop [t] instead of the voiceless denti-alveolar velarized stop [t<sup>h</sup>]. However, many examples showed that the subjects made some pronunciation errors that the CAH did not predict. The study recommended that the learners' age, sociolinguistic factors, developmental factors, etc., should be taken into account in order to better understand the sources of pronunciation errors in the speech of second language learners.

**2.3.2 Study No .2** Another study under the title "On Definiteness and Beyond : a Contrastive Analysis of Nominal Determination in English and Arabic" conducted by Yousra Sabra (2014). This thesis offers a contrastive analysis of the notion of definiteness as conveyed by the system of the article in English and Standard Arabic. Definiteness and other notions associated with it are investigated semantically and syntactically in an attempt to discover how these two languages approach such notions and when the two languages converge and diverge in this respect. The study found that the article the and the Arabic article al are used for seemingly the same purpose in the proportion of 76%. The occurrence of the article a/an is 96% consistent with indefiniteness in Arabic.

**2.3.3 Study No .3** A third study entitled as "a Contrastive Study of Relativization in English and Arabic with Reference to Translation Pedagogy" by Mohammed Juma M. Zagood (2012). The study investigated the problems encountered by fourth-year English department students of El-Mergib University in Libya in translating relative clauses from English into Arabic and vice versa. The findings of this study show that some Libyan university students at El-Mergib University encountered a degree of difficulty in translating relative clauses from English into Arabic and vice versa. In addition, the findings indicate that the students under investigation have a clear and obvious weakness in

both English and Arabic, which could be considered a negative indication of the level and quality of the teaching programmed in the university where this study was conducted. The study recommended that students should concentrate on the structure of relative clauses in both English and Arabic to learn how to use them properly in both languages and consequently translate them correctly. Also, the teachers of translation should clarify the differences between English and Arabic in terms of the structure of relative clauses and the use of the presumptive pronoun

## **CHAPTER THREE**

### **DATA ANALYSIS AND DISCUSSION**

#### **3.0 Introduction**

This chapter includes the analysis of the similarities and differences between Arabic speech sounds and English speech sounds. In other words, there are speech sounds that are similar or can be found in both Arabic and English sounds. The aim of finding such similarities and differences is to find solutions to the problems of learning a second language.

#### **3.1 English and SA in Contrast**

English is a language that contains many dialects and other varieties, however, the Sudanese Arabic (SA) is said to be the nearest variety of Arabic that is more close to the Standard Arabic. However, there are some shifts and changes from the original Arabic in terms of deletion to some parts of the sound or the word as the Sudanese Arabic speaker says

( قبل قليل ) meaning ( قبل شوية ) and ( داك ) for saying ( ذاك ). In the last example, the [ذ] is replaced by [د]. This is common in SA. The speakers of SA varieties have many examples as the previously mentioned.

In English the matter is a bit different. In that, the words in English can be completely changed with another one according to the dialects of the other English varieties.

The other examples of SA Arabic are cited below:

The SA speaker says:

[ ثلاثة أيام ] for [ ثلاثة أيام ] three days

[ ثور ] for [ ثور ] Thor

[ بنت ] for [ بنت ] girl

In all the above three examples, the initial speech sound is changed to have another form. However, the sound is completely deleted as the question in English when the phoneme is completely changed as in the words [elevator] and [lift]. This makes us recognize that the Sudanese Arabic vowel inventory has adopted the Modern Standard Arabic (MSA) inventory. In comparison to the Arabic vowel inventory, the Received Pronunciation (RP) English vowel system is complex. Moreover, in Sudanese Arabic (SA) the uvular /q/ is always replaced by /g/. as in [qabal - قابل] which is changed to [gabal - قابل]

### **3.2 Consonants in Contrast**

The analysis comprises all the sounds whether vowels of consonants. To begin with, the researcher started with the differences in consonants sounds. This differences between speech sound systems of both English and Arabic languages resulted in a great deal of spelling and

pronunciation error. For example, / ب / in Arabic is an equivalent for /b/ and /p/- Therefore, the Arab learners have always difficulty in differentiating, for instance, between (pray and bray) They also very often fail to discriminate between /f/ and /v/ in both pronunciation and spelling for there is only one equivalent in Arabic for these two letters, which is the /ف/. So, it is observed that an Arab student may mistakenly say, for instance:

- I half two brothers, for I have .....) or
- I came in a fan, for I came in a van)

Arabic has speech sounds that are not found in other languages, including English, such as ض. At the same time, Arabic lacks some of the English phonemes, such as /p/, /v/ and so on.

In comparing the consonants of these languages, the first language of the subjects is Arabic, a language with at least 28 consonantal sounds. These are the obstruent /b, t, d, k, f, s, z, n, m, ʃ, θ, ð and dʒ /, approximants /w, j/, trill /r/, and the back consonants glottal /ʔ, h/, velar /ɣ, x, k/, uvular /q/ and pharyngeal /ħ,ʕ/ Whereas English, the target language, has 24 consonants /p, b, t, d, k, g, f, s, z, n, m, ʃ, ð, l, w, v, dʒ, ʒ, ŋ/ and an approximant /r/. In principle, some kind of similarities exist between English and Arabic consonants where some sounds are shared

### **3.3 Vowels Speech Sounds in Contrast**

Although many of the vowel sounds in English and Arabic have similar points of Articulation, but the proper pronunciation of vowels is one of the most difficult aspects of English phonology for the Arabic speaker to learn. This is because English has more vowels, glide, and diphthongs

than Arabic, and because the vowels structures of the two languages are quite different.

English and Arabic are languages with phonological contrasts based on vowel quality and quantity, respectively. English is a 12-vowel system that contrasts tense long vowels and lax. Arabic is a 6-vowel system that contrasts long and short vowels.

The alphabet contains three long vowels:

- 1) ا-alif(/aa/)
- 2) ي-yaa'(/ii/)
- 3) و-waaw(/uu/)

The above are called

fatHa ( - )

kasra ( / )

Damma( ء )

They are six vowels shown as follows:

Short	long
i	i:
a	aa
u	uu

However, English has many long vowels. This is represented in the fact that all the short vowels take to the symbol [:] to be lengthened

### **3.4 Place and manner of articulation Contrast**

The place or point at which active articulator comes in contact or obstructs with passive articulator is referred as place or point of articulation. The manner of articulation specifies the kind of closure or narrowing involved in the production of a sound. In other words, it

specifies the kind of stricture (or constriction) involved in the articulation of a sound (Sethi&Dhamija 2010). A comparison between Arabic and English consonants is discussed below:

### **Bilabial—plosives**

The lower lip comes in contact with the upper lip and produces an obstruction in the production of it. The articulators are the two lips in the production of bilabial consonants. The point of articulation is lips. On the other hand, it involves a stricture of complete closure. The air passage is closed at some point in the vocal tract which builds the air pressure behind the closure. Finally the closure the closure is suddenly eliminated with sudden release of air with some explosive noise. The result of manner of articulation is a plosive consonant.

Examples: The distribution of the consonant [ب] [b] is found in all the three positions in Arabic as in [باسم] [ba:sim] ‘happy, a male’s name’ at initial position, [ابتداء] [ibtadaʔ] ‘beginning’ at medial position and [صعب] [sʕaʕb]

‘difficult’ at final position. Similarly in English, bit [bit] at initial, lable [leibəl] at medial and nib [nib] at final position is occurred.

The IPA Chart represents another bilabial plosive which is on the left side of [b] that is [p]. Both [p] and [b] are found in English while there is only [b] in Arabic. Arabic learners are found having difficulty in the pronunciation of it. The difference is of voicing; [p] is a voiceless bilabial plosive while [b] is a voiced bilabial plosive. [p] occurs in all the three positions in English words like; put [pʊt] at initial position, complete [kəmpli:t] at medial position and tip [tip] at final position.

### **Bilabial—Nasals**

The consonant [m] is found both in Arabic as well as in English. The point of articulation is lips. It is called as nasal because the basic characteristic of it is that the air escapes through the nose. In nasal consonants, however, air does not pass through the mouth; it is stopped by a complete closure somewhere in the mouth. In this case the soft palate is lowered and the path of nose remained open in the production of it. It is also found in all the three positions in Arabic and English. The examples are: [مكتب] [mæktəb] ‘office’ at initial position, [طماطم] [təmatəm]



[tʰəma:tʰəm] ‘tomato’ at medial position and [كم] [kəm] ‘how much’ at final position. In English man [mæn] at initial position, campus [kæmpəs] at medial position and come [kʌm] at final position occurred.

### **Labiodentals—fricatives**

The lower lip comes in contact with the upper teeth, thus the consonants are referred as labiodentals. For example [f] and [v] are bilabial fricatives but [f] found in Arabic and both [f] and [v] in English. The term fricative is referred because the air escapes through a narrow passage and makes a hissing sound. These are also termed as continuant fricative, because we can continuously produce friction by throwing air outside. [f] is a voiceless consonant while [v] is voiced.

[f] occurs in all three positions of the words in Arabic like; [فريق] [fəri:q] ‘team’ at initial position, [سفر] [səfər] ‘travel’ at medial and [خوف] [xəʊf] ‘fear’ at final position. This is also so in English like: face [feɪs] at initial, comfort [kʌmfət] at medial position and cuff [kʌf] at the final position. The consonant [v] also occurs in all three positions in English like; very [veri:] at initial position, ever [evə] at medial position and thrive [θra:ɪv] at final position.

### **Dental—plosives**

The active articulator is the tip of the tongue and the passive articulator is the upper teeth in the production of dental consonants. The closure in the mouth is released suddenly and air escapes with some explosive noise. These are four in all [ت] voiceless, [د] voiced, [ط] voiceless and [ض] voiced. These all occurs in all the three positions. Examples are: initial- [تاج] [ta:dʒ] ‘crown’, medial- [كتاب] [kɪta:b] ‘book’ and final- [بيت] [beɪt] ‘house’ [د] occurs at initial- [دب] [dʊb] ‘bear’, [هدف] [hədəf] ‘goal, target’ and [يد] [jəd] ‘hand’, [ط] occurs at initial- [طفل] [tʰɪfl] ‘child’, -medial- [قطر] [qətər] ‘Qatar country’ and -final [نפט] [nəftʰ] ‘oil’ and [ض] occurs at initial- [ضعيف] [dʰəʃi:f] ‘weak’, ‘old’, -medial- [أخضر] [əxdʰər] ‘green’ and -final [أرض] [ərdʰ] ‘land’, ‘ground’.

English has one voiceless [t] and one voiced [d] dental plosives and they occurs all the three positions. [t] occurs at initial- tap [tæp], -medial- stop [stɒp] and –final pit [pɪt] while [d] at initial- dog [dɒg], -medial- model [mɒdl] and –final good [gʊd].

## Dental—fricatives

Tip of the tongue comes in contact with lower and upper teeth so these sounds are called dentals. It involves a stricture of close approximation; there is a narrow gap through which air comes with an audible friction and the term given to these consonants is fricative. In Arabic these are [θ], [ð] [ð<sup>h</sup>] while English has two of them [θ] and [ð] where one is voiceless and the other is voiced. The examples with their distribution in Arabic are; at initial- [ثعلب] [θəʕləb] ‘fox’, -medial- [أنثى] [ʊnθə] ‘female’ and -final [حديث] [ħədi:θ] ‘talk’. While [ð] at initial- position as in [ذكر] [ðəkər] ‘male’, -medial- [إذا] [ɪðə] ‘if’ and -final [لذيذ] [ləði:ð] delicious. The consonant [ð<sup>h</sup>] initially occurs in [ظل] [ð<sup>h</sup>ələ] ‘shadow’, -medially- [نظيف] [nəð<sup>h</sup>i:f] ‘clean’ and -finally [حفظ] [ħəfəð<sup>h</sup>] ‘save’. In English [θ] also occurs initially- in three [θri:], -medially- mathematics [mæθəmætiks] and -finally in tooth [tu:θ] and the consonant [ð] in English occurs initially- in this [ðis], -medially- in other [ʌðə].

## Alveolar—nasal

In the production of these consonants, the active articulator is the blade or tip of the tongue and the passive articulator is the teeth ridge or alveolar ridge. That is why these consonants are called as alveolar consonants. The air releases through the nose because the soft palate is lowered and the air path to the mouth is blocked, so the term is referred as nasal. This consonant is [n] which is found both in Arabic as well as in English. The examples from Arabic are;

initially- [نمر] [nəmr] ‘tiger’ –medially- [أنت] [əntə] ‘you’ and -finally [لسان] [lɪsɑ:n] ‘tongue’. In English it is found at initial position- night [na:ɪt], -medially- connect [kənekt] and -finally gone [gɔ:n].

## Alveolar—fricatives

The tongue comes in contact with alveolar ridge and air escapes with friction through a narrow gap from the oral cavity. In Arabic these are [s] voiceless, [z] voiced and [s<sup>h</sup>] voiceless but in English [s] and [z], voiced and unvoiced, are found. The examples from Arabic are; [s] initial- [ساعة] [sa:ʕa] ‘hour’, -medial- [عسل] [ʕəsəl] ‘honey’ and -final [رأس] [ra:s] ‘head’, [z] initial- [زرافه] [zəra:fə] ‘giraffe’ –medial- [وزير] [wəzi:r]

‘minister’ and -final [موز] [moz] ‘banana’. [s<sup>ʕ</sup>] initial- [صديق] [s<sup>ʕ</sup>ədi:q] ‘friend’, -medial- [حصان] [ħis<sup>ʕ</sup>a:n] ‘horse’ and -final [نص] [nəs<sup>ʕ</sup>] ‘text’.

From English, examples include [s] at initial- spice [spa:ɪs], -medial- disagree [dɪsəɡri:] and at –final position ice [a:ɪs]. The alveolar fricative [z] occurs at initial- in zoo [zu:], -medial- design [dɪza:m] and at –final position please [pli:z].

### **Alveolar—tap**

The tongue touches the alveolar ridge and in the production of a tap, tongue moves towards alveolar ridge, makes a momentary contact, and immediately withdraws to its position of rest. The consonant produced is alveolar-tap [ɾ] in Arabic and [ɾ] in English. The examples of this consonant in Arabic are; initially- [ربيع] [rəbi:ʕ] ‘spring’, -medially- [برق] [bərɔq] ‘lightning’ and –finally [صغير] [s<sup>ʕ</sup>əɣi:r] ‘small’. In English it occurs initially- in risk [rɪsk], -medially- harm [hɑ:ɾm] and –finally matter [mætər]. The [ɾ] sound often found in British English when the letter r occurs between vowels as in very (Sethi&Dhamija, 2010).

### **Alveolar—lateral**

The tongue touches alveolar ridge, it involves a stricture of partial closure. There is a partial at some point in the mouth, so that the airstream can escape on one or both sides of the contact. There is a contact between the tip of the tongue and the centre of the teeth ridge; but there is no such contact, at least on one side, between the rim of the tongue and the upper side teeth. The consonant [l] found in all three positions in Arabic; at initial- position [لحم] [ləħm] ‘meat’, at –medial- position [قلب] [qəlb] ‘heart’ and at –final position [حبل] [ħəbəl] ‘rope’. In English it is found at initially in the word like lie [la:ɪ], -medially- only [oʊnli:] and -finally in kill [kɪl].

It should be noted that the realization of [l] in the word lie is different from the realization of [l] in the word kill. The sound in lie is what we called a ‘clear l’ while the sound in kill is what we called a ‘dark l’. The phonetic symbol for this sound is [ɫ].

### **Palatal—affricate**

The front of the tongue comes in contact with hard palate of the roof of the mouth, so the sounds are produced with this obstruction called palatal. The production of affricates is similar to that of plosives. There are three stages called; closing, compression and release. But, the release is sudden in case of plosives while it is gradual in production of affricates. The closure part of the affricate is represented by a plosive, and the release part, fricative is produced at the same point. Thus, the affricate is represented by two letters used in phonetic transcription.

There are two affricates in English those are voiceless palatal-alveolar affricate [tʃ] and voiced palatal-alveolar affricate [dʒ] while Arabic has only one that is voiced palatal-alveolar affricate [ج] [dʒ].

In Arabic [dʒ] occurs in all the three positions in words like; at initial position [جنوب] [dʒɒnu:b] ‘south’, at –medial- position [شجرة] [ʃədʒərəh] ‘tree’ and at –final position [علاج] [ʕɪla:dʒ] ‘treatment’. The voiceless palatal-alveolar affricate [tʃ] also occurs in all the three positions in English in the words like; chair [tʃeə] at initial, achieve [ətʃi:v] at medial and march [mɑ:tʃ] at final position. The voiced palatal-alveolar affricate also occurs in all the three position in words of English like; jump [dʒʌmp] at initial position, soldier [səʊldʒə] at medial position and village [vɪlɪdʒ] at final position.

### **Palatal—approximant**

The front of the tongue comes close to the hard palate, the roof of the mouth. But, the tongue is not as close to the roof of the mouth as in case of fricatives. In this case the narrowing is of a lesser degree. The articulators do not come so close together so that no audible friction is there in the production of this sound. This sound is also referred as frictionless continuant and more often called approximant. The sound is [j] in English and [ي] in Arabic. It is also called a semi-vowel, which is essentially very short approximant. It is very rapid glide towards, or from, a vowel of greater stable duration. It differs from both approximants and vowels in that it is momentary in nature, and cannot be lengthened (Sethi&Dhamija, 2010).

[j] sound occurs at initial and medial position only, it doesn't occur at final position both in Arabic as well in English. The examples are; [j] at

initial position [يد] [jəd] ‘hand’, at medial position [جيد] [dʒəɪjəd] ‘good’. In English it is found in words like; yes [jes] initially and lawyer [lɔːjər].

### **Velar—plosive**

The active articulator, back of the tongue, comes in contact with passive articulator soft palate or velum and produce obstruction in the production of these sounds, so they are called as velar consonants. The air which is blocked at some point in the oral cavity, releases suddenly with some explosive noise and we hear a plosive consonant. Arabic has one velar-plosive that is [ك] [k] which is voiceless. But, English has one more sound which voiced in nature that is [g].

The examples from Arabic are; [كبير] [kəbi:r] ‘big, large’ at initial position, [حكومة] [ħuku:mah] ‘government’ at medial position and [ملك] [məlɪk] ‘king’ at final position. In English it occurs word initially in cool [ku:l], word medially in maker [meɪkər] and word finally in bake [beɪk]. The voiced velar-plosive [g] occur word initially in good [gʊd], word medially bigger [bɪgə] and word finally in mug [mʌg].

### **Uvular—plosive**

The active articulator, back of the tongue, comes in contact with passive articulator uvula and produce obstruction in the production of this sound, so it is called as uvular consonant. The air releases with an explosive noise and the term is referred to it is plosive. Uvular plosive [ق] [q] is not found in English but it is common sound in Arabic and found in all the three positions of words. It is found at word initially in [قلم] [qələm] ‘pen’, word medially in [بقرة] [bəqərəh] ‘cow’ and word finally in [طريق] [tʰəri:q] ‘road’.

### **Uvular—fricative**

In the production of these sounds the active articulator, back of the tongue, comes in contact with the passive articulator uvula, but the air escapes with friction, so the term is referred to them is uvular-fricative. These are also not found in English but very natural in Arabic. These sounds are voiceless [خ] [x] and voiced [غ] [ɣ] in Arabic. The voiceless uvular-fricative [x] occurs at word initially in [خبز] [xɒbʊz] ‘bread’, word medially in [مختلف] [mʊxtəlɪf] ‘different’ and word finally in [نسخ] [nəsəx] ‘copy’. The voiced uvular-fricative also occurs at word initially in

[غاز] [ɣa:s] ‘gas’, word medially in [يغسل] [jəʁsəl] ‘wash’ and word finally in [فراغ] [fira:ɣ] ‘empty’.

### **Pharyngeal—fricative**

With regard to the point of articulation, this consonant is articulated with the tongue root against the back of the throat (the pharynx), thus known as pharyngeal. Its manner of articulation is fricative, which means it is produced by constricting air flow through a narrow channel at the place of articulation, causing turbulence. This pharyngeal fricative is voiceless and found in Arabic but not in English, which is [ح] [ħ]. It occurs in all the three positions in Arabic words. The example of it at word initially is [حريق] [ħəri:q] ‘fire’, word medially in [صحة] [sʰəħah] ‘health’ and word finally in [تفاح] [təffəħ] ‘apple’.

### **Pharyngeal—frictionless continuant**

Its manner of articulation varies between approximant and fricative, which means it is produced by narrowing the vocal tract at the place of articulation, but generally not enough to produce much turbulence in the airstream. The place of articulation of this consonant is pharyngeal, which means it is articulated with the tongue root against the back of the throat (the pharynx). It not found in English but natural in Arabic. The letter in Arabic is [ح] and the phonetic symbol of it is [ʁ]. It is found in all the three positions in Arabic words as in [علم] [ʁilm] ‘knowledge’ word initially, [معلم] [mʊʁəllim] ‘teacher’ word medially and [سمع] [səmʊʁ] ‘hear’ word finally.

### **Glottal—plosive**

The glottal plosive is produced by obstructing airflow in the vocal tract or the glottis. This consonant is plosive because the air is stopped entirely at some point and released suddenly. It is found in all the three positions in Arabic words like; word initially in [أب] [ʔəb] ‘father’, word medially in [فئة] [fiʔə] ‘category’ and word finally in [سماء] [səmaʔ] ‘sky’. In English, the glottal stop is represented, for example, by the hyphen in uh-oh!. For most United States English speakers, a glottal stop is used as an allophone of /t/ between a vowel and a syllabic "n", as in button [ˈbʊʔn̩] except when talking slowly.

### **Glottal—fricative**

The articulators for the glottal sounds are the vocal cords. This type of sound is produced by an obstruction, or a narrowing causing friction, but not by vibration between the vocal cords. Thus the air escapes from the lungs with an audible friction through a narrow glottis. The soft palate in this case is raised. This consonant is found in Arabic represented by [ه] and in English by [h]. The phonetic symbol for this sound is [h]. It is found in all the three positions in Arabic words like; [هاتف] [ha:təf] 'phone' at initial position, [نهر] [nəhər] 'river' at medial [وجه] [wədʒəh] 'face' at final position. In English it occurs at initial position as in half [ha:f] and at medial position in behave [biheiv]. It does not occur word finally.

### **Labiovelar—approximant**

In the production of this consonant the back part of the tongue is raised toward the velum while rounding the lips. It is produced by narrowing the vocal tract at the place of articulation, but not enough to produce a turbulence.

The type of approximant is glide or semivowel. The term glide emphasizes the characteristic of movement (or 'glide') of [w] from the [u] vowel position to a following vowel position. It is found in all the three positions in Arabic like; [وزن] [wəzən] 'weight' at word initially, [دواء] [dəwəʔ] 'medicine' and word finally in [هو] [həwə] 'he'. In English it occurs at word initially in west [west] and word medially in sweet [swi:t]. It does not occur word finally.

### **3.5 Discussion and Results**

It could be clear that the speech sounds existed in Arabic language, were easier to read, while the absent sounds in Arabic and exist in English caused some confusion for the students, what made them tended to pronounce the nearest sound from the Arabic phonemes to the English phonemes. That is to say, the differences between Arabic and English in

such speech sounds are so clear. This means that the more differences in sounds between the two languages the more errors of interference will occur. When we encounter a foreign language, our natural tendency is to hear it in terms of the sounds of our own language. We actually perceive it rather differently from the way native speakers do. Equally, when we speak a foreign language we tend to attempt to do so using the familiar speech sounds and sound patterns of our mother tongue. One could also say that the Arabic speakers had difficulties in pronouncing certain English consonant sounds, such as: /p/, /d/, /v/, /tʃ/, /ʒ/, and /ŋ/. As well as some vowels that are not found in Arabic such as the triphthongs and some of the diphthongs. One could say that Arabic language is fundamentally different from English in terms of speech sounds production and patterns though there are some similar aspects that could be seen. These differences in the sound system create some sort of difficulties in terms of speech sounds production.

### **3.5 Testing the Hypotheses**

In testing the hypotheses with the discussion, one could say that "Some sound which are found in English are not found in the Sudanese Arabic language" is achieved by the fact that sounds like [ ] is not found in English and the sounds [ t ] , [ ŋ ] and [ v ] and others are not found in Arabic language.

Such differences cause difficulties in learning these languages. This prove the second hypothesis which states that "the differences between Sudanese Arabic and English leads to interference and hence delaying the act of learning"



Finally, the third hypothesis is verified to be true in the sense that" The similarities in terms of sounds between these languages leads to successful language learning". This is clearly seen in that a speaker of Arabic when encountered by a sound that is included in the inventory of his mother tongue language, he/she can easily learn it.

## **CHAPTER FOUR**

### **RESULTS, CONCLUSION, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER STUDIES**

#### **4.0 Introduction**

This chapter includes the results of the study found by the researcher concerning the contrast between Arabic speech sounds and English speech sounds. The study is concluded in this chapter which combined two chapters; four and five in one chapter. The researcher presents a list of the results as well as some recommendations and suggestions for further studies.

#### **4.1 Results**

The study investigated the contrast between the Sudanese Arabic (SA) and English language in terms of speech sounds. Based on the analysis

and the discussion conducted in the previous chapter, the researcher found out the following:

1-Sudanese Arabic speech sounds differ fundamentally from English speech sounds in the number of the alphabet; consonants and vowels in terms of number

2-The number of vowels in English is more than that in the Sudanese Arabic speech sounds.

3-Some of the speech sounds which are found in Arabic are not found in English language inventory. This presence or absence of such sounds creates difficulties in the learning process of the two languages.

4-The structure of the speech sounds is different in terms of phonological processes.

5-Such differences between the speech sounds of both Sudanese Arabic and English language speech sounds causes some sort of interference when learning English as a target language by the Sudanese EFL learners.

## **4.2 Conclusion**

The overall study concentrates on the differences between Sudanese Arabic speech sounds and English speech sounds in terms of vowels and consonants. At the time Sudanese Arabic has only six vowels sounds, English has more than twenty speech sounds. Even the consonants of the two languages alongside with their dialects differ fundamentally.

The study analyzed and discussed the differences between these language with the aim of finding solutions to the problems that might arouse when learning these languages by learners. Some of the speech sounds are

similar between these languages. This similarity makes it easy for the learning process.

The investigation of such a topic paves the road for the contrastive studies that could make learning a second or a foreign language an interesting thing that might help the EFL learners to overcome the difficulties that might encounter the learners in dealing with a second language.

### **4.3 Recommendations**

The importance of such a study makes it urgent for the researcher to present some recommendations to the EFL learners in the following points:

1-Learners should stick to contrastive studies to know the differences and similarities between languages.

2-Teachers should help their students to overcome the difficulties that might encounter them in learning these languages.

3-Syllabuses designers should include the differences between Sudanese Arabic and English language sound systems.

### **4.4 Suggestions for Further Studies**

EFL learners should further increase their knowledge about this topic by investigating the previous studies concerning contrastive studies between Arabic and English like the works conducted by Robert Lado 1957 and many other linguists in this concern.

## References

- April, M** (2002) *An Introduction to English Phonology*. Edinburgh University Press
- Abdul-Rauf, M.** (1977). *Arabic for English speaking students*. Chicago Kazi publications.
- Ibn Jinni, Abulfath .** (2007). In A. Gharaibeh, *JuhuudMakki bin AbiTalib Al-QaisiAssawtiyya*.
- Kara, R.** 1976. *The problems encountered by English speakers in learning Arabic*. Unpublished doctoral dissertation, University of California, Berkeley.
- Fries, Charles C.** *Teaching and Learning English as a Foreign Language*. Ann Arbor, MI: The University of Michigan Press, 1945.
- Richard, Jack** (1992) *in the Longman Dictionary of Language Teaching and Applied Linguistics*

**Lado, R.** (1957). *Linguistics across cultures*. Ann Arbor: University of Michigan Press.

**Agard, F. Di Pietro.** (1965) *The Sounds of English and Italian*. Chicago: The University of Chicago Press.

**Alosh , Mahdi** (2012) *Modern Standard Arabic*. Simon & Schuster Studios, Concord, MA

**Other sources:**

<http://understandingsudan.org/> © 2008 UC Regents, All Rights Reserved

*500 Words Magazine's Top Ten Stories of 2018: The Evolution of Sudanese Arabic*

**Adetunji, B., Waheed, R.O.** (2010). Phonetic and Phonology in Comparative analysis of Arabic and English Language. Nigerian Journal of Research and Production 17(2).

**Al-Hattami, A.A.** (2010). A Phonetic and Phonological Study of the Consonants of English and Arabic. *Language in India*, 10.

**Al-Saqqaf, A.H., Vaddapalli, M.K. (2012).** Teaching English Vowels to Arab Students: A Search for A Model and Pedagogical Implications. *International Journal of Educational Science and Research*, 2.

**Cannor, J.D.O.** (1967). *Better English pronunciation*. New York: Cambridge University Press.

**Ekundare F.** (1993). *Phonetics: An introductory handbook*. Ibadan: Commercial Printing Works.

**Ramamurthi, L.** (2004). *A History of English Language and Elements of Phonetics*. Chennai: Macmillan India Limited.

**Roach, P.** (2009). *English Phonetics and Phonology: A Practical Course*. Cambridge: Cambridge University Press.

Sethi, J., Dhamija, P.V. (2010). *A Course in Phonetics and Spoken English*. New Delhi: PHI Learning Pvt. Ltd.

**Simpon J.M.** (1972). *Notes on phonology: Ordinary class in linguistics and Phonetics*, Scotland: University of Glasgrow Press.

**Syal, P., Jindal, D.V.** (2013). *An Introduction to Linguistics*. New Delhi: PHI Learning Pvt. Ltd

**Varshney, R L.** (1995). *An Introductory Textbook of Linguistics and Phonetics*. Bareilly: Student Store

**CHAPTER ONE**  
**INTRODUCTION**

**CHAPTER TWO**

**LITERATURE REVIEW AND PREVIOUS**

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**CHAPTER THREE**  
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**CHAPTER FOUR**

**RESULTS, CONCLUSION,  
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STUDIES**

# **CHAPTER FIVE**

## **Findings, Conclusion & Recommendations**

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# **Appendix**