PHONOLOGICAL VARIATIONS AT SEGMENTAL AND SUPRA-SEGMENTAL LEVEL IN NON-NATIVE ENGLISH SPEECH: A CASE STUDY OF DISTRICT MIANWALI

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Candidate of **Master of Philosophy** at the National University of Modern Languages do hereby declare that the thesis **Phonological Variations at Segmental and Supra-segmental Level in Non-Native English Speech: A Case Study of District Mianwali** submitted by me in partial fulfillment of MPhil degree, is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution.

I also understand that if evidence of plagiarism is found in my thesis/dissertation at any stage, even after the award of a degree, the work may be cancelled and the degree revoked.

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ABSTRACT

Title: Phonological Variations at Segmental and Supra-Segmental Level in Non-Native English Speech

The present study is conducted to explore the variations in the English speech of its non-native learners. The study aims to examine the segmental and supra segmental features in the English speech of students with a Saraiki background in the northern region of Punjab. The current study specifically explores the variations present in English speakers with Saraiki as their mother tongue in the district, Mianwali. Many remarkable works have been carried out in the central variety of Saraiki language, but linguistically, the present work is the first study of the phonological and phonetic aspects of variations in the English speech of students in the public sector colleges in the city. The primary objective of the current research is to identify different linguistic variations produced by Saraiki speaking students in their English pronunciation; moreover, the study is designed to evaluate the impacts of gender has on the variations. The secondary objective of the study is to introduce the northern variety of Saraiki to the linguistic world for further study. All the data were collected in a formal setting. For phonological level evaluation, the data was transcribed, and all the deviations were carefully marked by the researcher in the pronunciation. For analyzing the phonetic features, the PRAAT software version 6.2.1 is used. The variations were evaluated by comparing the collected data with Standard British English (RP) through the application of Contrastive Analysis (CA). The only two consonant sounds analyzed in the study were /t/ and /r/. The findings, after data analysis, showed a mostly strong and occasionally medium relationship between variations in the RP. As far as the factor of gender was concerned, the results show a weak relationship. The researcher tried to counter all possible reasons behind the variations found in the speech of Saraiki speaking students of English. Eventually, possible ideas to counter these variations and areas of possible future research were also discussed.

Keywords*: phonetics, phonology, Received Pronunciation (RP), Saraiki, contrastive analysis*

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LIST OF ABBREVIATIONS

L1	First Language
L2	Second Language
CA	Contrastive Analysis
CAH	Contrastive Analysis Hypothesis
RP	Received Pronunciation
PBS	Pakistan Bureau of Statistics
ELF	English as a Lingua Franca
EA	Error Analysis
GAE	General American Accent

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DEDICATION

This thesis is dedicated to my beloved parents for their prayers, endless support and encouragement. I also dedicated my work to my dearest brother, who always stands by me in every step of life.

CHAPTER 1

INTRODUCTION

This is the first chapter of the thesis, which covers the general introduction of the study. This chapter explains the global significance of English, including its use in Pakistan. It also discusses the perspectives of numerous researchers on the English language. This chapter contains research questions, objectives and significance of the research.

1.1 Introduction

Language undoubtedly serves as a means of communication. There are many languages in the world that people use to interact with one another, and English is one of them. Today, as technology advances, the world has become a global village, and English is the most widely used medium of communication. According to Mauranen & Ranta (2009), English is considered an international lingua franca. Historical reasons include the power and status of English rulers, as well as their history. Furthermore, British rulers have colonized nearly half of the world for centuries. They continue to play an important role in the international community, so does their language.

Nations that were previously confined to their own languages, such as China, Russia, Malaysia and Japan have begun to open up linguistically to the outside world. Furthermore, nations find it easy to communicate with one another using one globally understood lingua franca, which is none other than English. According to Hewings (2007), numerous states, including China, Russia and Thailand have recognized the critical role of English as an international language for communication and have begun to promote English education at the academic level. As a result, English is now used for oral communication on a much larger scale by both native and non-native users than it was a few decades ago when it was primarily used in English-speaking countries.

Millions of people around the world use English as their primary, secondary, foreign or international language. English is widely used as a means of communication around the world, and as a result, there are likely more speakers of English as a second language than native speakers. According to Crystal (2000),

> English is now used by over 60 countries as an official or semi-official language. There are over 400 million people who speak English as a mother-tongue, and another 400 million or so who use it as a second language; at least information a further 500 million use it with some competence as a foreign language. It is also the medium of auxiliary (restricted) languages, such as those used by international airline pilots and seafarer for intercommunication. It is the main world language of book and newspaper publication, of science and technology, of advertising and pop music, and of computer storage. (p. 382)

English is the official language of Pakistan and is the medium of instruction in many institutions. Pakistan is a multilingual country. Urdu is the national language, but there are numerous regional languages spoken in different regions with different accents. According to Khoklova (2014), Pakistan has six major languages and fifty-nine minor languages (Pakistan Census, 1998). These are spoken in each of Pakistan's four provinces. According to the 2017, Pakistan Bureau of Statistics' (PBS) census results, the majorly spoken primary languages are Punjabi, Pashto, Sindhi, Saraiki, Urdu, and Balochi; thus, 25.9 million Pakistanis speak Saraiki. Rehman (2004) concludes the same that most widely spoken languages in Pakistan are Urdu, Punjabi, Sindhi, Pashto, Balochi, Brahvi and Saraiki. Saraiki is one of Pakistan's major languages.

Saraiki is an Indo-Aryan language spoken in different regions of Pakistan; additionally, it has six major varieties, with the majority of speakers in the province of southern Punjab (Atta *et al*., 2022). It has its distinct features, particularly in phonology. The language's consonant inventory includes phonetically distinct implosive consonants, which are uncommon among Indo-European languages. According to Awan *et al.* (2012), Saraiki is a language that is syllable timed while English is a stress timed language. Because English is the official language of the state, many Pakistani speakers who speak Saraiki as their native language also use it. This could be one of the reasons, and because English is the language of science, technology, education and development, it is critical to learn it properly.

Many aspects of a language can be studied, including lexicology, grammar, semantics, pragmatics, phonetics, phonology and many more. The current study focuses solely on phonetics and phonology. Both features are equally important when

learning a second or foreign language. The English language has a complex system of connections between its letters and sounds. Stress is also complex because there are no fixed rules in English, which is a stress-timed language. Some languages have fixed rules for their language's stress system, such as French, which usually stresses the last syllable, Polish, which usually stresses the syllable before the last - the penultimate syllable, and Czech, which usually stresses the first syllable. The present study focuses on two phonemes, /r/ and /t/, as well as prosodic features such as stress. The research has focused also on phonological variations based on gender and how male and female students vary in their English speech in terms of segmental and supra-segmental features.

Learning a second or foreign language requires proper pronunciation. It is an essential tool for ensuring that the message is delivered smoothly and correctly. As a result, English words pronounced with the interference of the speaker's mother tongue are the possible thread to communication. For example, if a Pakistani English speaker pronounces the words "ba'lance" as "balan'ce" and "prese'nt" as "'present", the listener will most likely find it difficult to understand. According to Morley (1991), the correct pronunciation is now recognized as an essential factor for meaningful communication, and its significance is undeniable. Furthermore, one of the primary goals of learning a language is to become proficient in that language's communication skills, rather than simply becoming a flawless writer. In our country, i.e. Pakistan, L2 pronunciation is not taken seriously in our institutions. There is also the possibility of mother tongue interference. The vocal cords of students are tuned to the sounds of their mother tongue. As a result, when learning a second language, they rely heavily on prior knowledge of their native language. Mispronunciation in non-native varieties can be caused by a variety of factors, including spelling and pronunciation differences. The focus of second/foreign language learning is typically on reading and writing, and students are unaware of the distinction between spelling and pronunciation.

Gender is also thought to play an important role in pronunciation. For learning, second language speech differs on the basis of gender, too. They use hedges, tag questions, intensifiers, emphatic stress, and other speech features that men do not. In terms of phonology, women are generally considered to be more careful language users than men. According to Lakoff (1973), women have a specific type of sentence-

intonation pattern in English. Another linguist such as Pan (2011) explored that women use rising intonation, higher pitch and standard pronunciation when compared to male speakers.

Another important consideration is selecting a standard English dialect. There should be a model dialect that is internationally recognized. A standard dialect is essential for language learning and teaching. Moreover, according to Ali (2019), standard varieties of English are more positively rated in Pakistan than nonnative ones, such as the Pakistani accent. As the dialect of southeast England is recognized as standard and is regarded as having the best accent, it is used as the reference tool for this research. It is the most recommended model by linguists and phoneticians, known as Received Pronunciation (RP). The BBC channels, as well as pronunciation dictionaries and textbooks, use this accent. RP is used as a reference tool for the analysis of current research. The main focus of this research was on the RP accent, but the General American Accent (GAE) was also taken into consideration because it was realized in the speech of the sample. To elaborate, phonological features are manually analyzed by the researcher, while phonetics is handled by PRAAT software (version 6.2.1).

To conclude, considering the use of English by millions of Pakistani people with varied linguistic backgrounds, much more focused research in the area of pronunciation is still required. According to Abbas (2011), pronunciation is the most often overlooked aspect of English language teaching and learning in Pakistan. Another study by Hashmi (2011) confirms that there is not enough research work done in the field of phonology of English in Pakistan. It is hoped that the current study will make a significant contribution to the country's existing body of knowledge because it examines Pakistani learners' phonological problems from a new and unique perspective. The study was carried out in the Mianwali district. In Mianwali, the majority of people speak Saraiki as their mother tongue or L1. This study concentrated on the segmental and supra-segmental characteristics of intermediate-level students. The study concluded with recommendations for reducing the interference of native languages when speaking English. There has been a plenty of work on the Punjabi, Sindhi, and Potohari languages. However, very little work has been done on the Saraiki language, particularly in the field of phonology. This is an area where a plenty of research can be done.

1.2 Problem Statement

In English language learning, pronunciation is an important factor. Whenever one is mispronouncing a word, one must be reading it in the same way. After learning English language for many years, students fail to show proficiency in their speech. To improve English language pronunciation, phonics should be taught, so learners may learn and identify English sounds. Improving language production may enhance language perception. The dialects of Saraiki language, such as Multani, Derawali and Riasti have been explored by some of the researchers; Mianwali dialect is still unexplored. Now, the current research explores it. To conclude, the study opens up a way for future researchers to explore the dialect with some other perspective.

1.3 Objectives of the Study

The study had the following objectives:

- To find out segmental level phonological variations in the speech of Saraiki speaking students while speaking English language.
- To identify the stress patterns of Saraiki speaking students that vary from Standard English (RP).
- To investigate the influence of gender on the phonological variations present in the English speech of Saraiki speakers.

1.4 Research Questions

1. What are the phonological variations at segmental level faced by Saraiki speaking students in their English speech?
2. How do the stress patterns of Saraiki speaking students vary from Standard English Received Pronunciation (RP)?
3. How does gender affect the phonological variations in English speech of Saraiki speakers?

1.5 Research Methodology

The researcher used a mixed-methods approach. Both the qualitative method and the quantitative method were applied to conduct the research. Using the theory of contrastive analysis, qualitative method was applied to the thesis. Selection of

material, holding comparison, tracing differences, and fixing deviation, all these steps involved the qualitative method. Audio recordings were listened and interpreted manually for segmental features. Phonemic data for the selected phonemes /t/ and /r/ was analyzed manually, and the analysis tool, SPSS (version 22) was used to quantitatively evaluate the same.

On the other hand, the acoustic analysis was done by using spectrograms for prosodic feature analysis. The variations have been observed using Saraiki's inventory. The prosodic feature such as lexical stress was analyzed through spectrograms done by PRAAT version 6.2.1.

To highlight further, it is a pure descriptive study although some suggestions are given in the Chapter 5. They may help a great deal to minimize the interference of the mother tongue.

1.5.1 Data Collection Techniques

1.5.1.1 Participant's Information Form

Participants were asked to sign a consent form, committing to their availability and providing the necessary information about themselves for the analysis phase of the work. The information form asked them to provide their full name, mother tongue, qualification, place of birth and education, the medium their teachers used to teach and communicate with them, languages known, the duration of stay in their native town, place of stay other than the hometown and the duration there, frequency of exposure to English channels, and the nature of interaction with non-Saraiki-speaking people among other things. The information obtained from this Participants' Information Form is important for the interpretation and analysis of the research data.

1.5.1.2 Population

The population of the current research is all the residents of district Mianwali, the Province of Punjab, Pakistan, where Saraiki is widely spoken as the native language.

1.5.1.3 Sample

The sample of the current research consisted of 30 students that was collected from convenient sampling technique from the population. In this district, two public-sector colleges for women and two public-sector colleges for boys were chosen for

participation in the research. The thirty students of sample were fifteen males and fifteen females. The participants were intermediate students from part II.

1.5.1.4 Tools

The researcher, as a first tool, used a list of 120 words for auditory analysis at the segmental level with selected sounds /t/ and /r/, respectively. Simple and daily used words were selected to avoid any difficulty for the target readers. The word list was contained all 44 phonemes of the English language. The second tool of the research was a word list of twenty words that contains bi- and polysyllabic words; the list is used for acoustic analysis at the supra-segmental level. The focus was only on the stress at the lexical level. The third instrument consisted of a passage also containing words from the English language used in our daily routine, and variations of selected phonemes were also analyzed from the passage.

1.6 Significance of the Study

The primary goal of this research is to uncover the phonemic differences between the Standard British English (RP) and the English speech of students with Saraiki (the Mianwali dialect) as L1. RP was used as the main reference tool for present research, but General American Accent (GAE) features were also considered during the analysis phase at segmental level because they were realized during the speech analysis. Furthermore, this study focused on interpreting speech variations caused by mispronounced or incorrectly stressed words. To add further, the researcher used both word lists and a paragraph. These tools used to present lexical variations in a more coherent way particularly through passages. Similarly, when the data was collected using carefully selected words and coherent text in the form of paragraph, the outcome of this study becomes more authentic and practical. This also improved the accuracy and naturalness of the results. Students with a high level of phonological variation are unable to convey their second language smoothly. The goal of learning a language is to communicate effectively, and the research assists students in realizing the variations in their English speech. Additionally, the current study investigated the effects of these variations in terms of gender. To summarize, this study is extremely useful in the field of phonetics and phonology in relation to the regional sub-variety of the English spoken in the district, Mianwali.

1.7 Delimitation of the Study

The delimitations of this study are listed below:

- This research was the case study of English language influenced by Saraiki language spoken in the district Mianwali.
- The segmental features of this study were delimited to two consonant sounds (/t/ and /r/).
- This study's supra-segmental features were delimited to lexical stress patterns.
- The sample for this study consisted of intermediate-part 2 students.
- The current study's research sample consisted of students from public sector colleges only.

1.8 Limitations of the Research

The data was collected from primary sources, which had several hindrances. First, the factor of hesitation was there as the sample contained both male and female learners. Because of shyness and vacillation, many participants refused to take part in the research. One of the main reasons was the recording as participants would have to read the research tools aloud. So, many male and female students did not show a willingness to be a part of the study. Second, a noise-free environment is conducive to these types of studies. Recordings were usually done in labs, but the lack of this facility was a constraint in this research. A comfortable environment is essential for high-quality recordings. The recordings were made in the libraries of the respective colleges. In addition, the researcher made every effort to make the students feel at ease while recording. Third, the proper scientific tools should have been used to achieve better results for these types of studies, but this is not possible with a single person's effort. A mobile recorder was used to record, and a headset was used to listen, analyze and interpret the recordings. Due to these limitations, these demanding research projects are extremely difficult to complete on one's own, practically they should be conducted at the institutional level to reduce the challenges. The same is true of the study's recommendation, which is included in the final chapter.

1.9 Organization of the Study

An overview of the research topic is provided in chapter 1, the English language and its variations. Dialectal impacts on foreign languages are also discussed. The objectives and research questions are also part of this chapter.

All key terms regarding the thesis topic are defined and exemplified. The topic is wholly clarified. Previous researches are summarized and included in the chapter.

This chapter contains the research methodology used in the study. It explains the approach of current research. This chapter also elaborates the methods of analysis used in this research. The theoretical framework, tools, data analysis process, and instruments are also described in detail in the chapter.

Chapter 4 explains data presentation, analysis and interpretation. In the first part, auditory analysis of the selected sounds /t/ and /r/ is presented. Additionally, it also presents acoustic analysis through a spectrogram analysis.

The last chapter of the thesis summarized the data analysis results. The concluding remarks in the form of suggestions are part of the respective chapter, and future research areas are included as well.

CHAPTER 2

LITERATURE REVIEW

This chapter sheds light on English phonetics and phonology, as well as Saraiki's phonetics and phonology. These included both segmental and supra-segmental English pronunciation issues encountered by second or foreign-language students. As a matter of fact, consonant sounds were the study's primary focus, so this chapter contains detailed descriptions of them. It also includes the influence of mother tongue, English as a lingua franca, variables of the present research, and the effect of gender on second or foreign language learning.

2.1 English Phonetics and Phonology

Phonetics and phonology are the two significant fields of linguistics. They are both independent but interlinked. The study of human speech sounds in a language is called phonology. It discusses a language's sound system along with the way its constituent sounds interact to form a phonological system of the language that is coherent in nature. Systematically, it is a way human speech sounds are arranged. According to Odden (2005), phonology is an investigation of a language's sound structure. It is a study of the linguistically important sound systems (Kaye, 1989). Sole, Beddor & Ohala (2007) believe that this field of study examines how the sounds of a language are arranged in phonological patterning. According to Pennington (2007), the discipline of phonology is concerned with the rules and regulations that the sounds of a specific language adhere to within its phonological framework. Linguists around the world acknowledged the fact that no two languages have the same phonemic inventory, and consonantal, vocalic, and allophonic variations that set them apart from one another. In the views of Crystal (1999, p. 24), "each language can be shown to operate with a relatively small number of phonemes, some languages have as few as fifteen phonemes; others as many as eighty".

Phonetics deals with the articulatory and acoustic features of language; on the other hand, phonology focuses on the functional aspects of language. According to Kusuma (1993), phonetics is basically the production of speech sounds, transmission, and reception. Phonetics teaches us the way a language's sounds are produced and assists us in identifying and addressing mistakes we and others have made. The only

feature to take into consideration is the speech sounds of a language. Speech sounds are peculiar auditory effects that the speech organs produce on their own; hence, these effects are the outcome of certain actions performed by these organs. According to Nurhayati (2018), it investigates the features that distinguish each individual's human voice and focuses on the sounds prevailing in all languages. Phonology, or supra-segmental features, consists of stress, tone, intonation, and pitch. The primary focus of supra-segmental phonology is on non-segmental and pluri-segmental sounds that surpass the segmental level.

2.2 Consonant Sounds and their Importance in English language

The sounds produced with the partial or complete closure of articulators are called consonants. They are generated in close articulation, ranging from completely together to only roughly approximating. These sound segments are /p/, /b/, /k/, /v/, /t/, /r/, etc. They are classified into three dimensions:

1. Voicing
2. Place of articulation
3. Manner of Articulation

2.2.1 Voicing

A voiced consonant is a sound made when the vocal cords vibrate. A consonant that comes out without the vocal cords vibrating is commonly referred to as a breathed or voiceless consonant. It is a general assumption that voiced consonants are always weak and the breathed ones are stronger.

2.2.2 Place of Articulation

It describes the area of resonant cavities, which includes the mouth and the larynx. It is a place where obstruction of the vocal track takes place. Bilabial, labiodental, velar, etc. are the places where articulation occurs.

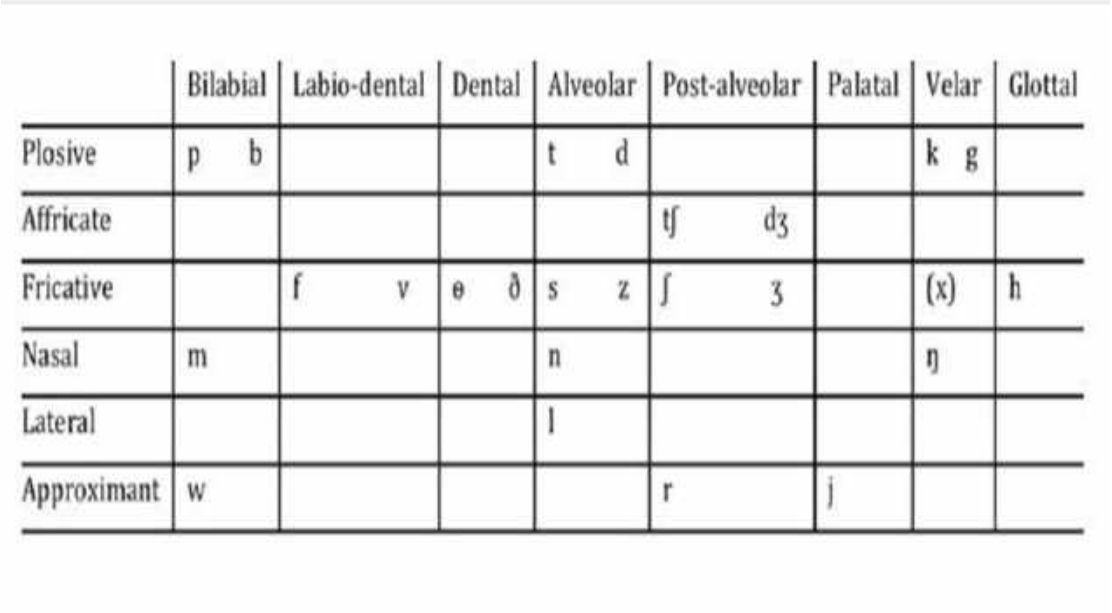
2.2.3 Manner of Articulation

It focused on making sounds in a "how" manner. It is the systematic settlement of articulators that causes the possible resonance effect; for example, stops involve complete articulator closure, which prevents air from entering the lungs. Furthermore, pressure builds up in the airstream, which is then released by separating

the articulators. Stop sounds are also known as plosives, and there are six manner of articulation. Plosive sounds include /p/, /b/, /t/, /k/, /g/, and /d/ among others.

Figure 1:

Phonemic Chart of Standard British English



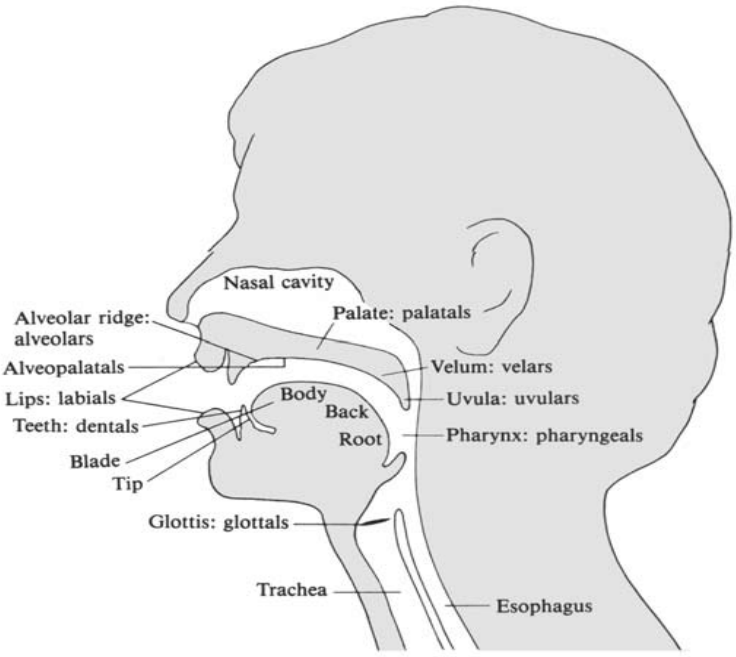
	Bilabial	Labio-dental	Dental	Alveolar	Post-alveolar	Palatal	Velar	Glottal
Plosive	p b			t d			k g	
Affricate					tʃ dʒ			
Fricative		f v	θ ð	s z	ʃ ʒ		(x)	h
Nasal	m			n			ŋ	
Lateral				l				
Approximant	w				r	j		

Note: A phonetic variationist study on Chilean speakers of English as a foreign language -- Scientific Figure on Research Gate. Available from: https://www.researchgate.net/figure/33-Phonetic-chart---English-consonants-RP-137_tbl8_280094481 [accessed 19 Feb, 2024]

The top horizontal column in the figure above represents the place of articulation, while the first vertical column represents the manner of articulation. The following figure clearly illustrates the location of consonant sounds. The illustrated image helps students locate the position of their tongue during speech.

Figure 2:

Place of articulation



Note: The coherent perception of speech within Cognitive Science -- Scientific Figure on Research Gate. Available from: https://www.researchgate.net/figure/Possible-places-of-articulation-are-listed-followed-by-the-term-used-to-describe-sounds_fig3_41886373 [accessed 24 Apr, 2024]

The figure above clearly illustrates the position of phonemes in the vocal cavity. Different sounds are produced by placing the tongue in various positions. A clear understanding of articulators, their importance and the position of a specific phoneme improves second and foreign language learning and comprehension. Positive steps can make the process of learning smoother, and the positive transfer of L1 structures into L2 learning puts the learner on the safe side.

2.3 Prosodic Features

Prosodic features are just as important as phonology in English. They are also an important component of a successful language-learning process. A sound realization is necessary for effective communication. Prosodic features, also known as supra-segmental features, are important in learning a second language just like segmental features. Magen (1998) proposed the notion that incorrect segmental feature execution is less important in producing foreign accents than incorrect production of L2 supra-segmental features.

Second and foreign learners find it difficult to learn English phonology and phonetics. However, because supra-segmental elements cannot be studied or taught in the same way that segmental features can, they present a greater challenge to students. English has certain sounds that can be learned and practiced to make interaction more understandable, but the prosodic features do not have specific rules. Furthermore, their nature is rather unpredictable, so speakers cannot master the skill such as syntax and grammar through rote learning.

Speakers need to focus on both segmental and supra-segmental features for smooth learning and understanding. The supra-segmental features are based on intonation, pitch and stress, but many linguists consider stress as most crucial element. According to the opinion of Abercrombie (1967), English is a heavily stressed-time language, so out of all the supra-segmental features, lexical stress appears to be more challenging. Stress is described as the important technique, a speaker used, applied on particular syllables in a word to differentiate between the meaning of words. The meaning recognition during coherent speech is the stress; inflection, or an increase in a syllable's loudness, duration, and pitch, is also how stress is expressed. Stress is interpreted distinctly by different linguists. It is defined by Ou (2004) as syllabic loudness and prominence.

The current study aimed to identify differences from the RP in the speech of English speakers' non-native variety. The speech was meant to differentiate based on the basis of gender as well. Some linguists believe that male and female use language significantly differently. In this regard, Lakoff (1973) proposed a concept. He proposes eleven distinct speech characteristics that distinguish women from men. These traits include hedging, tag questions, emphatic stress, empty adjectives, specialized vocabulary, intensifiers, hypercorrect grammar, extremely polite forms, rising intonations on declarative and intensifiers. Another linguist proposed a more detailed study and discovered that one distinct way to distinguish between men's and women's speech is through pronunciation, with women having a higher pitch in their voices than men (Elgin, 1993). So, the purpose of this study is to compare and contrast the differences between Standard British English and a sub-variety of English used by students with the northern variety of Saraiki as L1 as well as the gender-based effects of these variations.

2.4 Saraiki Language

Saraiki is an Indo-Aryan language from the Landha group. Saraiki language dominates the southern region of Pakistani Punjab, which includes the cities of Multan, Muzaffargarh, Mianwali, Bhakhar, Rahimyar Khan and Bahawalpur as well as the district of Dera Ismail Khan. According to Haq (1985), it is the mother tongue of the people that reside in central Pakistan. According to the Pakistan Bureau of Statistics (PBS) 2017 census report, Pakistan has 207.68 million people of whom 12.19% speak Saraiki as their mother tongue.

The Saraiki language has significant speakers in Pakistan, especially in the northern region of Punjab. The research has been conducted in the district of Mianwali, and according to the 2017 census report, it is the native language of almost 76.05% of the population in the district. The English language spoken by them has been influenced by their mother tongue. It shows the features of the local varieties spoken by the population in particular areas. There is a table below that particularly describes the facts and figures of the district where the study has been conducted. It is important to explain the number of speakers of the Saraiki language in the area where the study has been carried out. So, the influence of the mother tongue can become clearer as it is also the medium of communication for informal interactions as well.

Figure: 3

TABLE 11 - POPULATION BY MOTHER TONGUE, SEX AND RURAL/ URBAN

AREA/SEX	POPULATION BY MOTHER TONGUE										
	TOTAL	URDU	PUNJABI	SINDHI	PUSHTO	BALOCHI	KASHMIRI	SARAIKI	HINDKO	BRAHVI	OTHERS
1	2	3	4	5	6	7	8	9	10	11	12
MIANWALI DISTRICT											
OVERALL											
ALL SEXES	1,542,601	42,570	144,212	2,405	177,807	506	94	1,173,213	283	771	740
MALE	771,969	21,942	73,000	1,244	86,852	228	51	587,735	144	392	381
FEMALE	770,502	20,618	71,198	1,161	90,941	278	43	585,386	139	379	359
TRANSGENDER	130	10	14	-	14	-	-	92	-	-	-
RURAL											
ALL SEXES	1,214,789	17,707	138,938	1,479	163,523	418	81	891,612	220	570	241
MALE	605,990	9,019	69,743	768	79,506	194	41	446,169	117	296	137
FEMALE	608,718	8,680	69,182	711	84,012	224	40	445,388	103	274	104
TRANSGENDER	81	8	13	-	5	-	-	55	-	-	-
URBAN											
ALL SEXES	327,812	24,863	5,274	926	14,284	88	13	281,601	63	201	499
MALE	165,979	12,923	3,257	476	7,346	34	10	141,566	27	96	244
FEMALE	161,784	11,938	2,016	450	6,929	54	3	139,998	36	105	255
TRANSGENDER	49	2	1	-	9	-	-	37	-	-	-

Note: Population of District Mianwali Based on Mother Tongue and Gender
https://www.pbs.gov.pk/sites/default/files/population/2017/results/04611.pdf

2.4.1 Dialects of Saraiki

Saraiki has been spoken in different regions of Pakistan since the centuries, so it has developed many dialects. According to Shackle (1976) and Atta *et al*. (2022), Saraiki has developed into six distinct dialects.

2.4.1.1 Southern Saraiki

This dialect of Saraiki is spoken in the district of Rahim Yar Khan, as well as in Bahawalpur and Muzaffargarh. The same is also spoken in the southern part of Dera Ghazi Khan (DG Khan). As compared to the central variety, this variety covers a smaller area comparatively. Bahawalpur was a princely state before partition; contrarily, it is now acting as a border between southern variety and central variety. The Punjabi language has a strong influence on the variety; the variety is also considered an amalgam of these two dialects.

2.4.1.2 Northern Saraiki

The northern variety is close to the central variety as it shares some characteristics with it. It encompasses the districts of Mianwali, Bhakhar and Dera Ismail Khan (DI Khan). In DI Khan, Pashto is the dominant language, so it shares some features with the Pashto language.

2.4.1.3 Sindhi Saraiki

The dialect is used in Sindh province. It shares features of the Sindhi language with the Saraiki language.

2.4.1.4 Jhangi Saraiki

Jhang, a district of Punjab, is the home of this variety. It has unique phonological characteristics, including dental and retroflex implosives, making it distinct from other varieties (Shackle 1976). Moreover, the variety exhibits an extensive use of implosives, but the phonemic comparison between plain stops and dental implosives fails to be incorporated into it.

2.4.1.5 Shahpuri Saraiki

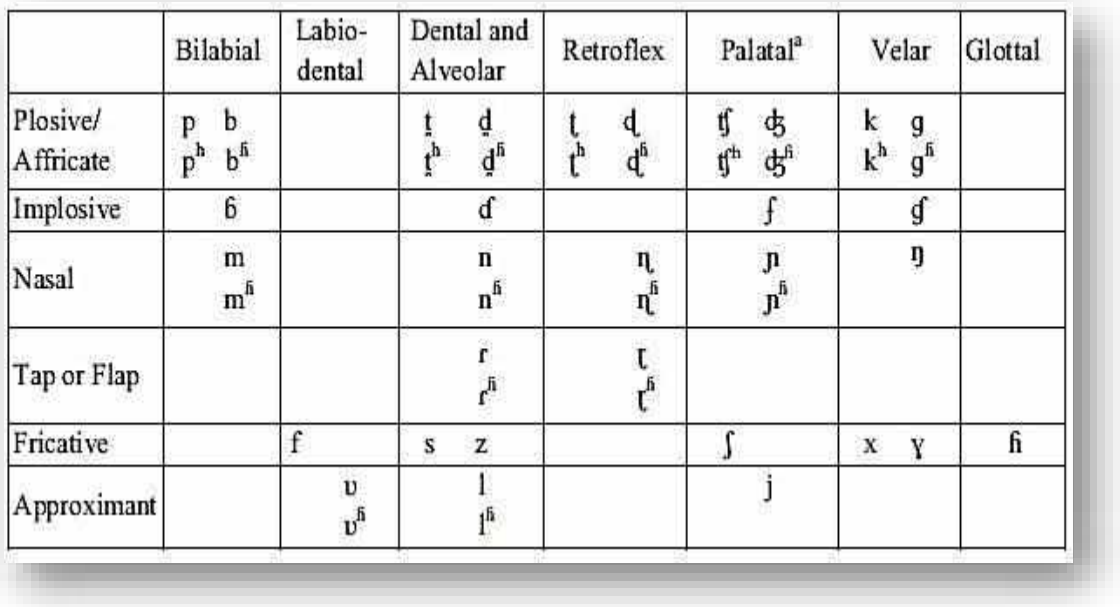
The Shahpuri dialect is spoken in particular parts of Jhang and Sargodha districts in Punjab. Additionally, it has some common characteristics with the central variety, but it has profound connections to the Punjabi language. More often, it is regarded as a Punjabi dialect with some characteristics of Saraiki (Shackle, 1976; Atta *et al*., 2022).

2.4.1.6 Central Saraiki

This is the main and largest area that has Saraiki as its mother tongue. It covers the districts of Multan, Muzaffargarh, Bahawalpur and the northern parts of Dera Ghazi Khan.

Saraiki has drawn the interest of numerous national and international researchers, such as George Grierson, E. O. Brian, Christopher Shackle, Jatinder Kumar R. Saini, Trump, Wilson and Jukes. All of these linguists confined themselves to lexicology and grammatical patterns and hardly touched the phonological features. Elena Bashir & Thomas J. Conners (2019) and Firdous Atta (2022) give remarkable works on segmental and, to some extent, supra-segmental features of Saraiki. The work in the field of phonetics and phonology restrained to the central variety. To the knowledge of the researcher, no work has been done in the northern variety, especially in district Mianwali. The focus of the research is on the variations in consonant sounds in the dialect. Here are the consonants of Saraiki in the table below.

Figure: 4



	Bilabial	Labio-dental	Dental and Alveolar	Retroflex	Palatal[a]	Velar	Glottal
Plosive/ Affricate	p b pʰ bʱ		t̪ d̪ t̪ʰ d̪ʱ	ʈ ɖ ʈʰ ɖʱ	ʧ ʤ ʧʰ ʤʱ	k g kʰ gʱ	
Implosive	ɓ		ɗ		ʄ	ɠ	
Nasal	m mʱ		n nʱ	ɳ ɳʱ	ɲ ɲʱ	ŋ	
Tap or Flap			ɾ ɾʱ	ɽ ɽʱ			
Fricative		f	s z		ʃ	x ɣ	ɦ
Approximant		ʋ ʋʱ	l lʱ		j		

Consonant Sounds Chart of Saraiki language by Firdos, Jeroen & Lei: Saraiki (2022)

2.5 Saraiki Consonants Differences

Saraiki consonants have significantly more unique features than the phonologies of other languages (Bashir *et al.*, 2019). Some of the main features are discussed below.

1. In Saraiki, there are four voiced implosives, including bilabial /ɓ/, alveolar /ɗ/, palatal /ʄ/, and velar /ɠ/. Four steps are involved in the utterance. The pronunciation of implosives involves four steps, including lowering the larynx, producing negative pressure in the mouth, briefly drawing in the breath, and finally releasing the breath.
2. Retroflex /ɭ/ sound is not found in Saraiki phonology.
3. Aspiration of voiced consonants is another significant feature of Saraiki; furthermore, nasals, laterals and semi-vowels have aspirated and unaspirated pairs.
4. /n/ phoneme, which is a retroflex, has many phones on the basis of orthography, disagreeing with its nature.

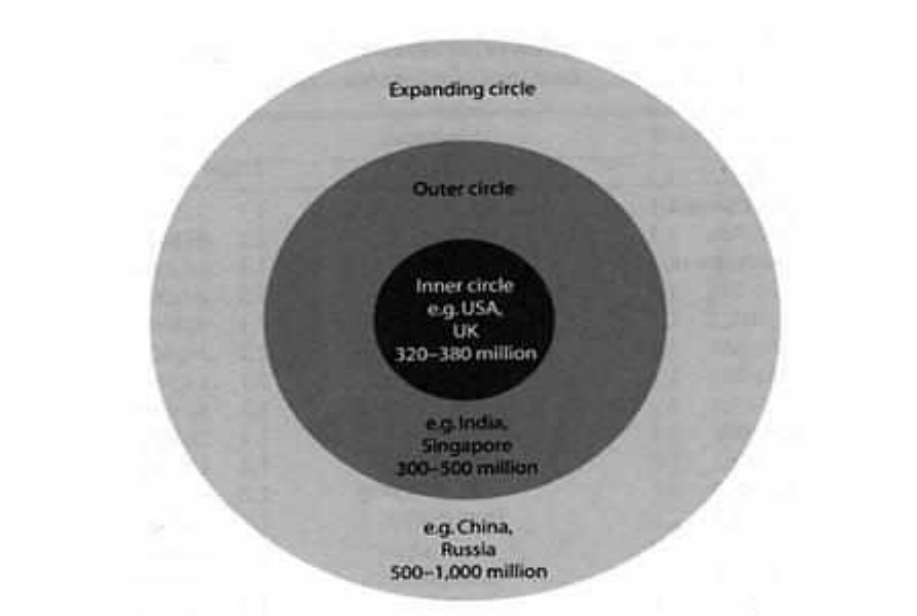
2.6 English as a Lingua Franca

English has been used as a lingua franca by millions of people internationally, including native speakers. The main purpose is communication between people who do not share the same native language. Consequently, Hülmbauer *et al.* (2008, p. 26) said that we need to "find a common voice in order to bridge language barriers". The use of English as a lingua franca (ELF) has deep roots in history. English has remained an influential language since the late 16th century as it was the language of powerful people, the British Empire. Historically, almost half of the world's geographical area remained their colonies. They swiftly excelled in the fields of technology and business in the 20th and 21st centuries. Also, the rise of English globally made it a de facto lingua franca; the phenomenon has a number of social, cultural and political reasons. In fact, "English has been successfully promoted, and has been eagerly adopted in the global linguistic marketplace" (Phillipson, 1992, p. 7).

It is essential to identify ELF speakers for linguistic perspective. The number of non-native English speakers has boosted, resulting in the language's prevalent internationalization. Globally, English speakers and English dialects, due to widespread adaptation, are categorized using Kachru's (1985) three-circle model of World Englishes.

Figure 5

Circles of English



Note: Kachru's three circles of English (1985), taken from Crystal (2003, p. 61)

2.6.1 Inner Circle

English speakers, who use it as their mother tongue make up the inner circle. The nations include countries such as the United States, the United Kingdom and Australia; hence, they are the countries using English as their primary language.

2.6.2 Outer Circle

Speakers who acquired English as a second language in addition to their native tongue make up the “Outer Circle”. To add further, these are the countries that experienced colonization, like Singapore and India. English has been an official or secondary language in them.

2.6.3 Expanding Circle

The speakers in this circle learned English as a second or foreign language. These countries do not designate English as a primary language, but they heavily rely on it for international communication. China, Russia and the Czech Republic are the most prominent expanding-circle countries.

The above three circles cover the whole community of people who use English for any purpose and for any condition. Different communities use the language according to the need and purpose associated with it, but somehow it is related to the current need of the world’s nations to develop and to progress in every field of life.

2.7 English as a Second Language in Pakistan

There is no doubt that Pakistan has linguistic diversity. People in Pakistan are capable of speaking multiple languages at once. Pakistan is undoubtedly a multilingual country. It is not uncommon for people to speak multiple languages at the same time. In our country, children are exposed to a multilingual environment from a very young age. Many people have the same language structure, but their accents are not the same. Their language varies on many levels, including education, exposure, social class and so on. The learning of a second language provides deep insights into the world around them. According to Paradowski (2011), knowing a second language gives a person awareness that the aesthetic beauty of another language would be another life for them. The person with multilingualism develops such personality traits, making him flexible. It enhances the ability to think and to analyze with an analytical approach.

2.8 Importance of Pronunciation

Pronunciation that is both clear as well as understandable is essential for interpersonal performance. In English language learning, pronunciation should be essentially catered to. Without proper pronunciation, the abilities of learners to communicate become severely limited, which is not beneficial to the students for practical use. Celce-Murcia (1987) states that even with enough knowledge of English grammar and vocabulary, a nonnative speaker cannot effectively communicate orally if their pronunciation of the language is less than the appropriate level of proficiency. To avoid the ambiguous use of language, the practical application of learning pronunciation should not be ignored. According to Morley (1992), it would be extremely bad to disregard students' pronunciation when it comes to professional responsibility. However, there are multiple ways to help students pronounce words correctly, for example, stressing pronunciation through oral communication, changing from segmental to supra-segmental instruction, meeting each student's needs through task-based communicative practices, creating new teaching strategies, and using peer correction and group communication. So, verbal embodiment of a language in a social setting is required for a language. That is the reason it should be a key subject in language teaching.

2.9 Variables of the Present Research

The researcher described the linguistic variables in this part of the Chapter. The research has focused on the linguistic variations in non-native English speech and the effect of gender on these variations. In this study, the phonetic variables /r/ and /t/ were selected for the analysis of production. The in-depth analysis of the data determined how speakers make them in different phonological positions—initial, medial and final. The word list contains words with selected sounds in different positions. The current study examined how /t/ is varied by English speakers with Saraiki backgrounds in different positions to see whether they produce an alveolar/canonical [t], a flap [ɾ] or a retroflex [ʈ]. Additionally, the researcher looked at how different environments affected the production of /r/ and whether the sample produced or omitted it. Moreover, the sound showed which types of variations at initial, medial and final positions were also investigated. They also looked at how the

/r/ was articulated, determining if it was an approximant or changed its manner of articulation.

The reason for choosing these specific features is to provide a range of options for the American, British and Pakistani accents of English. A major feature of the English dialect in Pakistan is the retro-flexion of /t/, which is closely associated with Urdu. Therefore, the stop /t/ was chosen. In general, American English /t/ is often flapped in intervocalic positions, whereas in RP, it is alveolar and plosive (Wells, 1982). Depending on how /t/ is produced due to its location and articulation, the stop consonant /t/ can be divided into several categories. When speaking between vowels, the /t/ sound can be pronounced as a tap [ɾ] as in GA, either within a word or beyond word boundaries. The tongue makes a single tap against the alveolar ridge during the articulation of taps (Ladefoged & Johnstone, 2009). The /t/ can also be pronounced as a glottal in certain circumstances, or it can be dropped and elided in certain positions. According to Wells (1982), the way that /t/ is produced in British English differs based on the origin and background of the speakers. Several aspects such as glottalization have been the subject of various investigations (Foulkes & Docherty, 1999; Wells, 1982) and affrication (Buizza & Plug, 2012). In most English accents, including RP, /t/ is perceived as a voiceless alveolar plosive. One of the distinctive characteristics of Canadian English (De Wolf, 1990; Woods, 1991) and American English (Wells, 1982) is tapping, which typically occurs in unstressed positions in phrases such as “better”, “waiting”, and “water”. The alveolar stop /t/ is produced as a tap [ɾ] in these words. As to Wells’ (1982) findings, tapping is a phenomenon that impacts both /t/ and /d/ in standard American English. It can occur both inside a word like in the case of “getting” /gɛɾɪŋ/, and outside a word like in the case of “get it in”/gɛɾɪɾ ɪn/ (p. 248). Alveolar stops must be followed by a vowel or syllabic [l] and preceded by a sonorant (vowel, liquid, or nasal) in order for tapping to occur. Certain English dialects, such as Indian and Pakistani English, show retroflex /t/ (Mahboob ,2004; Wells, 1982). The location of the /t/ articulation in Pakistani English distinguishes it from other /t/s from both British and American English. In contrast to Standard English, which has an aspirated and alveolar /t/ sound, Pakistani speakers typically generate a more retroflex type of /t/ (although the degree of retroflexion may vary).

The range of diversity offered by /r/ across the three accents is similar. RP is a non-rhotic English accent, while the accents of Americans and Pakistanis are rhotic. Additionally, the final and medial places of the three accents have distinct ways of uttering the /r/ sound. The pre-consonantal, post-vocalic and absolute final positions in Received Pronunciation, for instance, do not produce /r/. The sound /r/ is produced as a trill in English spoken in Pakistan (Ali, 2019). On the other hand, /r/ is produced as an approximant in the American dialect. Research on English dialects in native and non-native contexts has placed a high value on the way the /r/ phoneme is articulated. Certain variations, such as RP are referred to as non-rhotic, while others, such as General American English are classified as rhotic (Wells, 1982). Around the world, RP and general American English are both regarded as extremely respectable varieties of English. Pre-consonantal, post-vocalic, and absolute final positions of /r/ are not spoken in English dialects that are not rhotic. For example, in non-rhotic varieties of English, "park" is pronounced as /pa:k/ and "car" as /ka:/. The majority of England, Australia, New Zealand, and South Africa use non-rhotic varieties of the English language (Wells 1982). Conversely, in English rhotic accents, /r/ is articulated in all phonological contexts, such as absolute final positions, post-vocalic positions, and pre-consonantal positions. For example, "park" is pronounced as /pa:rk/ and "car" as /ka:r/. Rhotic English dialects are commonly spoken in the majority of the United States, Canada, England, Scotland, Ireland, India and Pakistan. Pakistani English, according to Mahboob and Ahmar (2008), is mostly a rhotic variation of English. The study was based on the recordings of six educated Pakistani speakers, two of whom were male and four of whom were female, ages between 22 to 37. The “North Wind” reading passage and the “Sheffield word list” were used to gather these audio samples. The results indicate that while /r/ is deleted in the word “force”, it is produced in all positions, including "start", "care" and "letter". This implies that in Pakistani English, the phoneme /r/ in postvocalic position is a dynamic characteristic. According to Mahboob and Ahmar (2008), there is a dire need to explore this deviation further. Rahman (1991) observed that /r/ is realized in all words in all contexts in both the Mesolect and Basilect types of Pakistani English. He also proposes that rhoticity in Pakistani English is socially conditioned. Word list recordings from ten Pakistani speakers who resided in the UK are the sample for his study. This study examines the production of /r/ in different vocalic positions, adding to the existing studies on /r/ variation (Chand, 2010; Labov, 1972; Sharma, 2005).

In the context of Pakistan, this study is especially significant because it focused on a sub-variety of English spoken in the northern region of Punjab. To my knowledge, no studies on the production of /t/ and /r/ have been conducted on the Saraiki variety of English in the District Mianwali. Additionally, it looks at how /r/-variants are produced differently to determine if /r/ is uttered as an approximant as in the General American accent, or as a trill as in the Pakistani accent (Wells 1982). The word list for /r/ in this study has the sound in initial, medial and final positions.

CHAPTER 3

RESEARCH METHODOLOGY

The third chapter provides a comprehensive overview of the methodology used to conduct the current research. To conduct the research in the most efficient manner, both qualitative and quantitative methods of inquiry were used, depending on the nature of the study. The authentic facts of phonetics and phonology had been explored, identified, and critically analyzed within their context, resulting in descriptive research. An information form was created to select the samples, and audio recordings were used to collect the data. The data interpretation was done both manually and using a spectrogram. As a result, the chapter provided a detailed explanation of the entire research process.

3.1 Research Procedure

There was an essential requirement to create an instrument for data collection in order to conduct the research. First, they were given an information-based form to fill in; this provided a complete background record, which was useful in the sample selection. With this backdrop material, it became easier to analyze data. The participants were then given the first instrument, wordlists one and two, and the second instrument, a passage to assess their ability to pronounce words in sentences. Both instruments were supposed to be read aloud and recorded. The researcher used the research instrument “Participants’ Information Form” as described below.

3.1.1 Participants’ Information Form

The participants were asked to fill out a consent form; subsequently they were asked to commit their availability and provide necessary information about themselves. The facts and figures were used during the analysis phase of the work. The form is named ‘Participants’ Information Form’ which asked them to provide their full name, mother tongue, qualification, place of birth and education, the medium their teachers used to teach and communicate with them, languages known, the duration of stay in their native town, place of stay other than the hometown along with the duration there, exposure to English channels with frequency, and frequency along with the nature of interaction with non-Saraiki speaking people and so on. The acquired data, through the form, was significant during the description and analysis of

the research data. It shed light on the possible reasons for deviation in the phonology and phonetics of the participants. For instance, if a learner did not have any exposure to English channels and faced a lack of practical application, it definitely affected the proficiency of the participant's language.

The research participants were both male and female. Because of shyness and hesitation, many students refused to be a part of the research; their main concern was recording. It was a difficult task to convince female students, especially to be a part of the research; hence, the social context was a major constraint. However, females were proven to be better speakers of the target language than males in some of the cases. In short, this step added a great deal to not only the data collection, analysis and interpretation but also making a concluding recommendation as well.

3.1.2 Word list for Segmental Features

The researcher used a list of 120 words for the segmental level analysis with selected sounds /t/ and /r/ as a first tool. The simple and easy words were used to avoid any difficulty. The simple, easy, and daily life-used words were selected, and they contained all 44 phonemes of the English language. The researcher wanted to facilitate the participants by using these words because it was difficult to pronounce phonemes in isolation for them. Students were not taught sounds but letters. Sixty words for each sound, /t/ and /r/, were selected. A total of 120 words, including mono, bi and polysyllabic, were included as an instrument because it remained helpful to identify and concentrate on the variations that occur during the non-native English speech of Saraiki speakers.

3.1.3 Word List for Stress

The researcher used another word list as a second instrument. The list consisted of carefully selected 20 words that were used to identify stress patterns, and the whole list consisted of bi and polysyllabic words—words with at least two syllables. These words were appropriately helpful in giving a valid analysis. The list was also read aloud and recorded. The list was used to note down variations found in the stress patterns of students with Saraiki as L1. During the data gathering and analysis process, the researcher found a variety of stress patterns, which are addressed thoroughly in the data presentation and interpretation chapter. In stress, the intensity, pitch and duration of stressed syllables are focused mainly on locating variations.

3.1.4 Passage

The third instrument consisted of a passage also containing words from the English language used in our daily routine. It was ensured that a simple and easy reading was given to the participants, so they did not face any trouble pronouncing each word in the passage. The reason for giving them a simple passage was to note the phonological deviations accurately. The tools also included polysyllabic words; these words give a huge margin for locating variations in the English speech of students with a Saraiki background. The researcher asked the students to read the paragraph and list of words aloud, and the same was recorded.

3.1.5 Recordings

All three instruments -- wordlist for segmental features, word list for stress and passage -- were provided to the participants so they could read them aloud. The same was recorded as it was the need of the study. The recordings were done in the libraries of the colleges that were selected. The purpose behind this was to reduce noise during the recording as much as possible. To add further, this also reduced disturbance and made the quality of sound more reliable and accurate**.** The recordings were done by the Android mobile Infinix X 655. First, a word list for segmental features was given to them for reading and recording, followed by a word list for stress and passage.

3.1.6 Transcriptions

Standard British English was considered a reference tool and Received Pronunciation (RP) available on Cambridge University's official website, was considered for comparison. The gathered data was transcribed into two categories, including British Standard English and interpretation of participants' recordings. All respected variations of the consonant sounds /t/ and /r/ in the Saraiki variety of English were noted down on sheets, suiting the analysis step. This step was done manually as the researcher listened and analyzed the segmental deviations. Furthermore, in prosodic features, stress was the focused area. For supra-segmental features, the data was analyzed through a spectrogram using PRAAT software (version 6.2.1). Some other features were also prominent in the participant's speech, such as rhoticity (the utterance of the silent letter /r/ in some words) and the absence

of some consonant sounds. This was useful to mark different trends of deviation in the speech of Pakistani English learners with Saraiki backgrounds.

3.2 Validity and Reliability of Research Tools

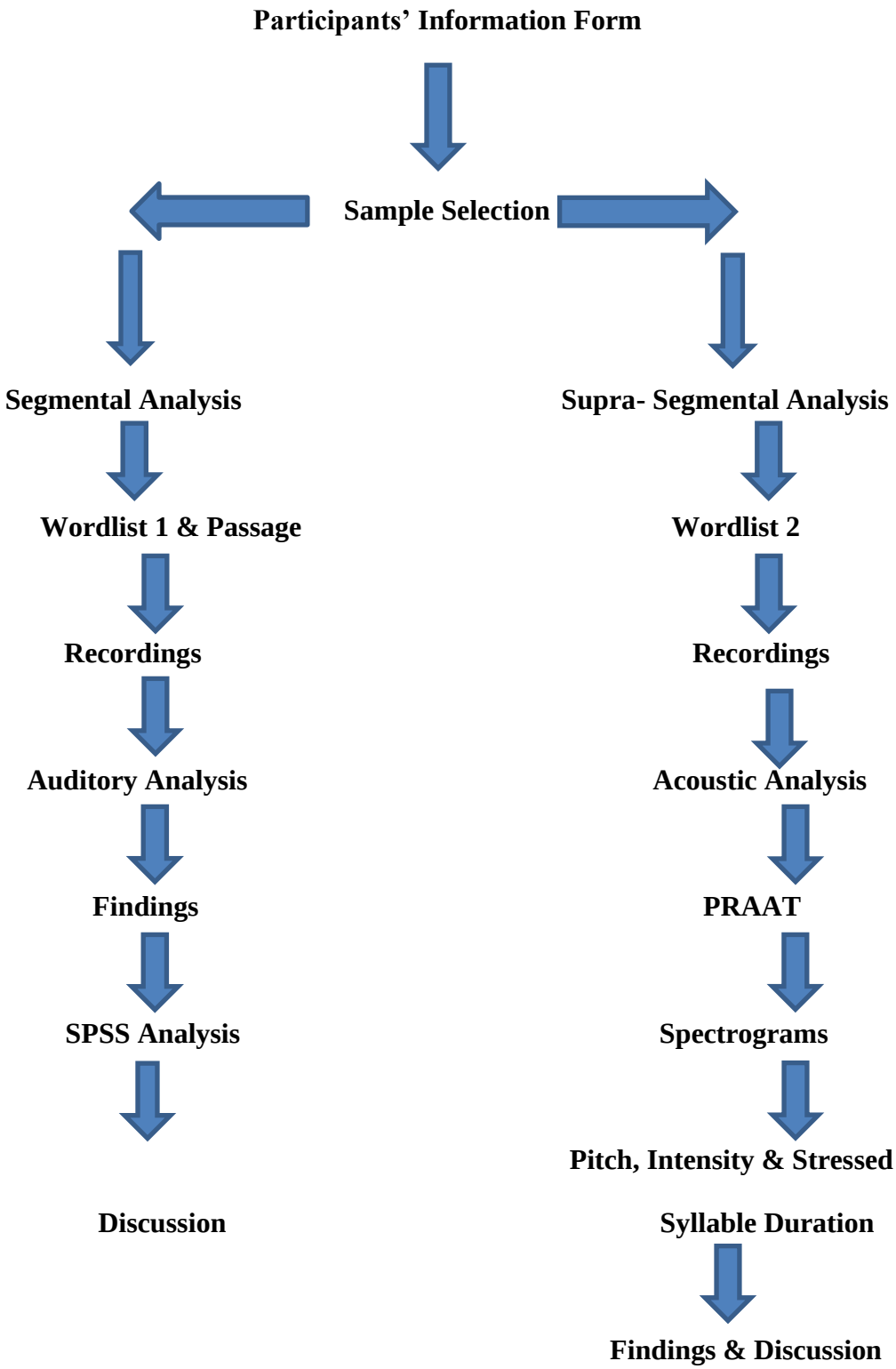
Research tools were selected with due care, and the selected passage has easy and convenient language that is easily comprehensible to a layman. Both lists and passage contained Bi, tri, and poly syllabic words; also, all 44 phonemes were part of it to identify variations more precisely. Second language learners can be easily recognized through their speech influenced by their first language. Moreover, the researcher belongs to the same place and has an in-depth relationship with the target language. So, the tools for data collection were designed according to the problems of the target speakers. To add further, RP (BBC accent) was taken as standard, acting as an officially accepted and standard form of the English language. In the whole world, RP is followed as a standard for users and learners. By using them, validity and reliability were maintained, and it would be easier to understand and analyze the variations in the Saraiki variety of English in relation to the standard form.

3.3 Steps for Data Description and Analysis

The data was analyzed at both the segmental and supra-segmental levels. For segmental-level analysis, the auditory method was used. The data was listened to carefully and analyzed manually by making a comparison sheet of features of both languages. The sheet was comprised of transcription of recorded data of English speakers with Saraiki backgrounds, IPA transcription, variation, change in stress for the second word list, rhotic or non-rhotic, and percentage of deviation (slight, moderate or acute). For this purpose, the contrastive analysis hypothesis was followed, and the data was analyzed with respect to selection of material, comparison, finding differences and marking deviations. The whole process was done using the qualitative method. On the other hand, the data was also described in the form of numbers and tabulations using SPSS software. This was helpful in presenting data in the form of frequencies, percentages, and graphs to maintain its technicality and end up with a conclusion.

The supra-segmental analysis of the data was done using PRAAT (6.2.1) software. This was used to elaborate the features of language with respect to the pitch, intensity, and duration of the stressed syllables. By putting a sound in it, a

spectrogram analysis has shown the depictions that feature through lines in different colours. Stress was the focused area of the research. This software was used for the purpose of analyzing the data for acoustic features. There may be different possible reasons behind these variations of sounds, so they, along with deviations, were also discussed in detail in Chapter 4. The Saraiki inventory was used to see the deviations. To highlight further, there is a step-by-step description of the research procedure below, so the whole research method can be easily and clearly understood.


Participants' Information Form
Sample Selection
Segmental Analysis
Supra- Segmental Analysis
Wordlist 1 & Passage
Wordlist 2
Recordings
Recordings
Auditory Analysis
Acoustic Analysis
Findings
PRAAT
SPSS Analysis
Spectrograms
Pitch, Intensity & Stressed
Discussion
Syllable Duration
Findings & Discussion

3.3.1 Population

The population of the present study consisted of all the residents of district Mianwali, the province of Punjab, Pakistan. Saraiki language is extensively used in this district.

3.3.2 Sample

There were thirty participants who were selected to represent the population. Both male and female participants were included in the sample, and the researcher gave them equal representation to deeply analyze the third question of this research. There were fifteen male students from two colleges in the district of Mianwali -- the Government Graduate College for boys in Mianwali and the Government Graduate College for boys in tehsil Piplan district Mianwali. There were fifteen female students selected as research participants, including Government Graduate College for Women Mianwali and the Government Liaquatabad Degree College for Women tehsil Piplan district Mianwali. A total of thirty intermediate students in Part II were selected as a research sample. For the research sample, the students were selected from public sector colleges only.

3.3.3 Sampling Technique

The focus of the study was on a particular section of the population of district Mianwali, the province of Punjab, Pakistan, and the researcher belongs to the same place. The colleges selected for this research are easy to access for the researcher. That is why a convenient sampling technique was used in order to accurately represent the target population of the research in the sample. Convenient sampling was the most appropriate technique to select the sample for this research. It is a type of non-probability sampling technique in which the researcher chooses individuals from the community who have a willingness to participate and certain characteristics or knowledge that can shed light on the research subject. Furthermore, the goal of adopting this sampling strategy was to focus on specific characteristics of the population that were of interest in order to best answer the research questions. First, a focused group was selected, keeping in mind the needs and purpose of the study by using the ‘Participants’ Information Form’. Then, with due care, a sample of thirty students was selected.

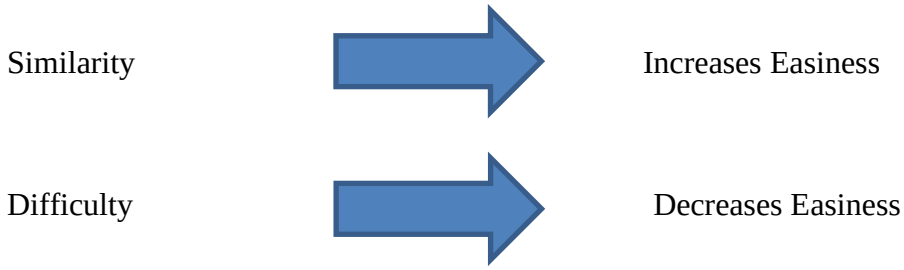
3.3.4 Criteria for Sample Selection

All research participants were native Saraiki speakers using English as L2. They were all required to be from the same educational and social background. Contrarily, their educational background was considered a key element as they have studied English for eleven years. Moreover, the time is enough to learn any language with the required proficiency and competency. Learners should have shown up to the mark in comprehensibility in the target language. They have had enough exposure and have acquired the English language since their early school years. It was an essential requirement for the participants to stay in the same district since birth, and their whole education must be from there, too. The selected sample was deemed most suitable for the phonological and acoustic study of the Saraiki variety of English language spoken in the district, Mianwali.

3.4 Theoretical Framework

The contrastive analysis hypothesis was used to conduct the research. It indicated all possible connections and variations between the Saraiki and the English language. They were taken into account in order to identify the phonological features that create challenges for them. The salient characteristics of hypothesis and different aspects of theory are explained in the following:

Contrastive analysis hypotheses originated from the ‘Linguistics Across Cultures’ given by Lado in 1957. According to the theory, the structure of the mother tongue influences the acquisition of a second language. Lado discusses the processes of comparing vocabulary, grammar and phonology; he also argues to make language testing, methodology, and the design of curricula and resources more significant. Moreover, he also carries out a basic contrastive analysis of cultures. His approaches were more effective in the field of phonology than in other areas. The study concluded that the ease or difficulty between a foreign and native language depends on the similarities and differences.



According to Weinreich (1953) and Haugen (1956), the idea of comparison was based on diachronic study because, at that time, the United States of America had faced massive immigration. As a result, there was a crucial need for a diachronic study; the language change over generations needed to be studied. Moreover, they associate CAH with 'langue', which is the study of language speech. It is the precise utterances and spoken language experienced every day. To add further, they investigate the potential reasons, the procedures that influence these developments, and the ways in which they assimilate (permanently) into a second or foreign language.

James gave his approach to the contrastive analysis hypothesis in 1985. His approach was different from Weinreich and Haugen. His concept was based on the synchronic study of language, which is the study of a language in a particular time frame. The time period of this study may be either present or particular in history. In his view, the native language, or L1, deeply impacts the target language over a certain period of time. It is the abstract, systematic principle of the language that is an essential item to produce any utterance. His study was based on the interference of L1 in the performance of L2, but he did not consider the possible reasons behind it, forming the behavior as part of their language habits diachronically.

The notion of ‘transfer’ means “carrying over the habits of his mother-tongue into the second language” (Corder, 1971, p. 158). Learning a second language is usually based on the perception of mother tongue structures, and the transfer affects foreign language learning badly. Brown (1989) also suggested a weak version of the Contrastive Analysis Hypothesis (CAH) that is related to Error Analysis (EA). The main focus of the approach is the description of sources of error in language learning (posteriori explanation) instead of an a priori prediction of linguistic difficulties. He also reveals that many errors in language acquisition can be attributed to the negative transfer of L1; as a result, a speaker can be easily identified by his mother tongue and

his accent as to which area they belong to. The present research unearths the groundwork for all the above mentioned approaches to CAH, including Lado 1957, Corder 1971, Whitman 1970 and Brown 1987. These are the significant studies conducted on this hypothesis or theory. The current study primarily employs Brown's approach to CAH to find a posteriori explanation of the deviations instead of an a priori prediction of the problems. The research is limited to the speaking features of the English language used by people with Saraiki backgrounds who have Mianwali dialect as the main purpose was to prove it is a sub-variety of Pakistani English. Therefore, the main focus was strictly constrained to the performance characteristics of the variety of English spoken by the study's sample. Thus, the theoretical framework for this research is based on the idea of a posteriori explanation of L2 features under the influence of L1. He observes three distinct perspectives on the L1 influence of L2 following CAH. They were categorized as positive transfers, negative transfers and zero transfers. He claims that the first takes place when the L1 features overlap with the L2; the second occurs when they conflict with the L2, and the third occurs when neither of the two circumstances arises.

For analyzing the data, Whitman's (1970) approach to CAH was used. The selection and description of the content for the two languages that are to be evaluated for CA is the first phase in this process. Moreover, contrastive analysis is done on the basis of forms gathered from the descriptions of first and second languages. To add further, making contrast is the third step. In the fourth step, explain or interpret the information to identify possible difficulties for a second or foreign learner.

3.5 Application of the Theoretical Framework

The theoretical framework of this research is based on the approaches to contrastive analysis hypothesis CAH that have been mentioned above. The current study mainly relied on the weak version of CAH given by Brown in 1987 because the approach was most relevant to the aims of the study. Additionally, the research was also mainly concerned with Whitman's approach, which consisted of the identification, description and interpretation of the influence of the Mianwali dialect of Saraiki (as L1) on the features of English (as L2). This is how it differs from the other approaches to CAH and provides justification for this study. The adaptation of the four-step approach by Whitman for CA, along with Brown's and Stockwell's (1965) three types of transfer, is explained here.

Whitman's Steps for Analysis:

Step 1

I. Selection of the inventory of the English phonemes
II. Data selected from the recordings

At this first step, the material was selected from both target languages, which were to be contrasted (English and Saraiki). The data were selected in the form of recordings for both languages. For English, the Cambridge Dictionary was used for the features of RP, and the other one was gotten from the recordings of participants for contrastive analysis.

Step 2

I. To mark a sound or stress deviation

Recordings were transcribed at this step for phonological features. Moreover, they were contrasted to the characteristics of the dictionary's items, so the variation in phonemes and stress patterns was marked in the recordings of the data.

Step 3

I. To analyze and contrast the chosen or selected forms with each other.

Through the deviations marked in step two, attributions were based on the similarities and differences of both languages' phonologies. The potential causes of variations due to L1 influence were investigated and discussed with remarkable results.

Step 4

I. To make a prediction of difficulty through contrasting techniques

This involved a critical discussion of the findings of the last three steps. The possible reasons behind any kind of transfer, such as positive, negative or zero, were revealed for the L2 features.

CHAPTER 4

DATA PRESENTATION AND ANALYSIS

The data presentation and analysis phases of the study are discussed in this chapter. The data for the research has been gathered in the form of audio recordings. The data was gathered from thirty participants, and the criteria for the selection of participants are discussed in detail in Chapter 3, the research methodology. Participants read the reading material aloud. The auditory analysis is presented in the form of tables. The data for segmental features is also analyzed using different parameters of SPSS software (version 22) through frequencies, histograms and high-low graphs. It presented the data in a more precise and clear way. To explore further, a transcription sheet was made with features including rhoticity, gender, aspiration and phones of selected sounds when pronounced. For supra-segmental features, the recordings were analyzed through PRAAT (version 6.2.1), and the spectrogram analysis is presented in this chapter. Along with these respected features, the researcher tried to highlight the possible reasons in the background causing variations in the speech of students of the English language with a Saraiki background.

4.1 Segmental Variations Analysis

As discussed earlier, two consonant sounds, /t/ and /r/ were selected for the study. First, the deviations found in the word list and in the passage for the selected sounds are discussed in detail. The high-proficiency words that vary from standard British accents the most are discussed here in the following section.

4.2 Data Presentation of Consonant Sound /t/ in Different Words from the Word List

For the phoneme /t/, there are distinct phonological variations for each word in the English speech of native Saraiki speakers. This aspect is thoroughly discussed and analyzed in this section.

4.2.1 The Phoneme /t/ in “Teacher”

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. After analysis, it was found that the whole sample pronounced it with variations from the RP accent. The consonant /t/ is alveolar in the

RP accent. However, all the participants produced the phoneme /t/ as retroflex. The data has been shown in the form of a table to represent the variations.

Table 1:

Analysis of /t/ sound in 'Teacher'

Varieties	Saraiki (Retroflex [ʈ])	American (Alveolar flap [ɾ])	RP (Alveolar /t/)
Participants (N=30)	30		

4.2.2 The Phoneme /t/ in "Battle"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. Analysis revealed that every student mispronounced the word, varying from the RP accent. The consonant /t/ is alveolar in RP; however, the majority of the participants produced it as retroflex. Additionally, two participants produced the alveolar flap sound, which is common in the general American accent, and only one participant uttered the /t/ phoneme, the same as RP. The data has been shown in the form of a table to represent the variations.

Table 2:

Analysis of /t/ sound in 'Battle'

Varieties	Saraiki (Retroflex [ʈ])	American (Alveolar flap [ɾ])	RP (Alveolar /t/)
Participants (N=30)	27	2	1

4.2.3 The Phoneme /t/ in "President"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. After analysis, it was found that all of them uttered

the word with variations from the RP accent, except one student. The sample produced the plosive phoneme /t/ as retroflex, and only one of them uttered the word the same as RP. The data has been shown in the form of a table to represent the variations.

Table 3:

Analysis of /t/ sound in 'President'

Varieties	Saraiki (Retroflex [ʈ])	American (Alveolar flap [ɾ])	RP (Alveolar /t/)
Participants (N=30)	29		1

4.2.4 The Phoneme /t/ in "Traditionalist"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. The analysis showed that the majority of the sample varied in their speech from the RP accent. The consonant /t/ is alveolar in the RP accent, but most of the participants produced the sound as retroflex for initial and medial positions. However, two participants pronounced the phoneme with alveolar place, which is a feature of RP. The data has been shown in the form of a table to represent the variations.

Table 4:

Analysis of /t/ sound in 'Traditionalist'

Varieties	Saraiki (Retroflex [ʈ])	American (Alveolar flap [ɾ]))	RP (Alveolar /t/)
Participants N=30			
Participants for initial /t/	28		2
Participants for final /t/	30		

4.2.5 The Phoneme /t/ in "Translate"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. It was revealed that every student spoke the word with a variation of the RP accent for the initial and final positions, but only one of them uttered the word in the RP manner for the initial position. The data has been shown in the form of a table to clearly represent the variations.

Table 5:

Analysis of /t/ sound in 'Translate'

Varieties	Saraiki (Retroflex [ʈ])	American (Alveolar flap [ɾ]))	RP (Alveolar /t/)
Participants N=30			
Participants for Initial position	29		1
Participants for final position	30		

4.2.6 The Phoneme /t/ in "District"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. The word was pronounced differently from the standard variety by each student, according to the analysis. It is an alveolar plosive sound in the RP accent. However, all the participants produced the sound as retroflex. The data has been shown in the form of a table to represent the variations.

Table 6:

Analysis of /t/ sound in 'District'

Varieties	Saraiki (Retroflex [ʈ])	American (Alveolar flap [ɾ])	RP (Alveolar /t/)
Participants N=30			
Participants for medial position	30		
Participants for final position	Unpronounced		

4.2.7 The Phoneme /t/ in "Stationary"

The word list was distributed to the research participants, and it was pronounced by all thirty students in the sample. The analysis turned out that twenty-nine students articulated the word in a way that differed from the RP accent. The sample produced the plosive phoneme /t/ as a retroflex. One participant pronounced the phoneme as alveolar like RP. The data has been presented in the form of a table to represent variations.

Table 7:

Analysis of /t/ sound in 'Stationary'

Varieties	Saraiki (Retroflex [ʈ])	American (Alveolar flap [ɾ])	RP (Alveolar /t/)
Participants (N=30)	29		1

4.2.8 The Phoneme /t/ in "Treatment"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. All of them varied in their speech from the RP accent. Moreover, the sample produced it as retroflex for the initial position, medial position, and final position. However, one participant in the initial position produced the sound similar to the RP accent. The data has been shown in the form of a table to represent the variations.

Table 8:

Analysis of /t/ sound in 'Treatment'

Varieties	Saraiki (retroflex [ʈ])	American (Alveolar Flap [ɾ])	RP (Alveolar /t/)
Participants N=30			
Participants for initial position	29		1
Participants for medial position	30		
Participants for final position	30		

4.2.9 The Phoneme /t/ in "Street"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. The pronunciation of the sample differed from the RP accent in terms of place of articulation. The sound is alveolar in Standard British English, and four participants pronounced the phoneme the same as RP. However,

twenty-six participants pronounced the sound as retroflex for the medial position. Moreover, all of them uttered the phoneme /t/ as retroflex for the final position. The data has been shown in the form of a table to clearly represent the variations.

Table 9:

Analysis of /t/ sound in 'Street'

Varieties	Saraiki (Retroflex [ʈ])	American (Alveolar flap [ɾ]))	RP (Alveolar /t/)
Participants N=30			
Participants for medial position	26		4
Participants for final position	30		

4.2.10 The Phoneme /t/ in "Carton"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. After analysis, it was found that the majority of the sample uttered the sound with variations from the RP accent. The sample produced the plosive phoneme /t/ as retroflex in medial position, except for one participant who uttered the word the same as RP. The data has been shown in the form of a table to represent the variations.

Table 10:

Analysis of /t/ sound in 'Carton'

Varieties	Saraiki (Retroflex [ʈ])	American (Alveolar flap [ɾ])	RP (Alveolar /t/)
Participants (N=30)	29		1

4.3 Data Presentation of Consonant Sound /r/ in Different Words from the Word List

The variations at the segmental level in the speech of research participants were analyzed manually by the researcher through listening and interpreting. There were 60 words in the word list to explore the deviations of the /r/ sound in the speech of students with Saraiki as their native language. Some of the words that vary the most from the RP are discussed below.

4.3.1 The Phoneme /r/ in "Recycle"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. The overall analysis showed a 100% deviation from the standard British English. The sample produced the phoneme /r/ as retroflex for the initial position. The data has been shown in the form of a table to represent the variations.

Table 11:

Analysis of /r/ sound in 'Recycle'

Varieties	Saraiki (Flap)		RP (Approximant)	Pakistani (Trill)	Rhoticity
	Retroflex [ɽ]	Alveolar [ɾ]			
Participants N=30	30				+ive

4.3.2 The Phoneme /r/ in "Record"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. The evaluation resulted in a strong trend of variation from the RP accent. The whole sample produced the phoneme /r/ as retroflex for the initial position, except for one student who showed an RP accent. To highlight further, the whole sample produced alveolar variety for the medial position.

Moreover, the word was produced as rhotic by all participants. The data has been shown in the form of a table to clearly represent the variations.

Table 12:

Analysis of /t/ sound in 'Record'

Varieties	Saraiki (Flap)		RP (Approximant)	Pakistani (Trill)	Rhoticity
	Retroflex [ɽ]	Alveolar [ɾ]			
Participants N=30					+ive
Participants for initial /r/	29		1		
Participants for medial /r/		30			

4.3.3 The Phoneme /r/ in "Recommend"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. Analysis revealed that each student mispronounced the word, varying from the RP accent to the Pakistani variety. The sample produced the phoneme /r/ as retroflex for the initial position. The data has been shown in the form of a table to clearly represent the variations.

Table 13:

Analysis of /r/ sound in 'Recommend'

Varieties	Saraiki (Flap)		RP (Approximant)	Pakistani (Trill)	Rhoticity
	Retroflex [ɽ]	Alveolar [ɾ]			
Participants N=30	29			1	+ive

4.3.4 The Phoneme /r/ in “Approve”

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. After analysis, it was found that the majority of them uttered ‘approve’ with variations from the RP accent. The sample produced the phoneme /r/ as retroflex for the medial position. However, one participant uttered the word in an RP accent, and one of them is like a Pakistani variety of English. The data has been shown in the form of a table to represent the variations.

Table 14:

Analysis of /r/ sound in ‘Approve’

Varieties	Saraiki (Flap)		RP (Approximant)	Pakistani (Trill)	Rhoticity
	Retroflex [ɽ]	Alveolar [ɾ]			
Participants N=30	28		1	1	+ive

4.3.5 The Phoneme /r/ in “Reformer”

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. Following analysis, each student spoke the word with variation from standard British English, accepting one for the initial position. The sample produced the phoneme /r/ as retroflex for the initial position. For the medial position, six students uttered it as retroflex, and twenty-four of them produced the alveolar variety. At the final position, the whole sample produced the phoneme /r/ as alveolar. The data has been shown in the form of a table to represent the variations.

Table 15:

Analysis of /r/ sound in 'Reformer'

Varieties	Saraiki (Flap)		RP (Approximant)	Pakistani (Trill)	Rhoticity
	Retroflex [ɽ]	Alveolar [ɾ]			
Participants N=30					+ive
Participants for initial /r/	29		1		
Participants for medial /r/	6	24			
Participants for final /r/		30			

4.3.6 The Phoneme /r/ in "Register"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. The interpretation of the data showed a strong variation in the sample from the RP accent in the word. The sample produced the phoneme /r/ as retroflex by twenty-five students and alveolar for the initial position by five students, but it was displayed alveolar for the final position by the whole sample. The data has been shown in the form of a table to represent the variations.

Table 16:

Analysis of /r/ sound in 'Register'

Varieties	Saraiki (Flap)		RP (Approximant)	Pakistani (Trill)	Rhoticity
	Retroflex [ɽ]	Alveolar [ɾ]			
Participants N=30					+ive
Participants for initial /r/	25	5			
Participants for final /r/		30			

4.3.7 The Phoneme /r/ in "Reminder"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. All of the students, with the exception of two who produced the phoneme with a typical British accent and Pakistani variety on initial positions, spoke the word 'reminder' with variations from the RP accent. The majority of the sample produced the phoneme /r/ as retroflex for the initial position. Moreover, the whole sample produced alveolar /t/ for the final position. The data has been shown in the form of a table to represent the variations.

Table 17:

Analysis of /r/ sound in 'Reminder'

Varieties	Saraiki (Flap)		RP (Approximant)	Pakistani (Trill)	Rhoticity
	Retroflex [ɽ]	Alveolar [ɾ]			
Participants N=30					+ive
Participants for initial /r/	28		1	1	
Participants for final /r/		30			

4.3.8 The Phoneme /r/ in "Rhyme"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. The data analysis showed mispronunciation of the word by the majority of the sample in comparison to the RP accent. Twenty-seven participants from the sample produced the phoneme /r/ as retroflex for the initial position. However, one of them uttered the word with an RP accent, and two of them showed a Pakistani English accent. The data has been shown in the form of a table to represent the variations.

Table 18:

Analysis of /r/ sound in 'Rhyme'

Varieties	Saraiki (Flap)		RP (Approximant)	Pakistani (Trill)	Rhoticity
	Retroflex [ɽ]	Alveolar [ɾ]			
Participants N=30	27		1	2	+ive

4.3.9 The Phoneme /r/ in "Laboratory"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. The data analysis revealed that the majority of the participants spoke the word differently from the RP accent. Twenty-five students from the sample produced the phoneme /r/ as retroflex for the medial position, and five participants uttered the sound in an RP accent. For the second medial position, the majority of students show alveolar variety, and two of them uttered it as retroflex. However, another two students produced the second medial /r/ just like RP accent. The data has been shown in the form of a table to clearly represent the variations. Please have a look at Table 19.

Table 19:

Analysis of /r/ sound in 'Laboratory'

Varieties	Saraiki (Flap)		RP (Approximant)	Pakistani (Trill)	Rhoticity
	Retroflex [ɽ]	Alveolar [ɾ]			
Participants N=30					+ive
Participants for medial /r/	25		5		
Participants for 2nd medial /r/	2	26	2		

4.3.10 The Phoneme /r/ in "Ruler"

The word list was given to the research participants, and it was pronounced by all thirty students from the sample. The data interpretation revealed that every participant spoke the word 'ruler' differently from the RP accent except one student,

who pronounced it just like Pakistani variety for initial position. The majority of the sample produced the phoneme /r/ as retroflex for the initial position, and the whole sample produced alveolar for the final position. The data has been shown in the form of a table to represent the variations.

Table 20:

Analysis of /r/ sound in 'Ruler'

Varieties	Saraiki (Flap)		RP (Approximant)	Pakistani (Trill)	Rhoticity
	Retroflex [ɽ]	Alveolar [ɾ]			
Participants N=30					+ive
Participants for initial /r/	29			1	
Participants for final /r/		30			

4.4 Data Presentation of Words with Selected Sounds from Paragraph

One paragraph was also used as a research tool in the present study to collect data. The words with the selected sounds /t/ and /r/ from the paragraph were analyzed, and students' performance was evaluated on an individual basis. The data is presented in the section below.

4.4.1 The Phoneme /t/ in "Market"

The research participants read aloud the passage given to them, and the word 'market' was part of that passage. The word was pronounced by all thirty participants, and all of them pronounced the word with variation, except the one student who

uttered the word with an RP accent. The sample produced the phoneme /t/ as retroflex for the respected word. The data has been shown in the form of a table to represent the variations.

Table 21:

Analysis of /t/ sound in 'Market'

Varieties	Saraiki (Retroflex [ʈ])	American (Alveolar flap [ɾ])	RP (Alveolar /t/)
Participants (N=30)	29		1

4.4.2 The Phoneme /t/ in "Faster"

The research participants read aloud the passage given to them, and the word 'Faster' was part of that passage. The word was pronounced by all thirty participants, and all of them pronounced the word with variations from the RP accent. The sample produced the phoneme /t/ retroflex for the respected word. The data has been shown in the form of a table to represent the variations.

Table 22:

Analysis of /t/ sound in 'Faster'

Varieties	Saraiki (Retroflex [ʈ])	American (Alveolar flap [ɾ])	RP (Alveolar /t/)
Participants (N=30)	30		

4.4.3 The Phoneme /t/ in "Tomatoes"

The research participants read aloud the passage given to them, and the word 'tomatoes' was part of that passage. The word was pronounced by all thirty participants, and the majority of them pronounced the word with variations from the

RP accent. Twenty-eight participants uttered it in a retroflex manner for initial position, and two participants uttered the same in RP accent. Moreover, twenty-six students pronounced the medial /t/ sound as retroflex, but three of them pronounced the word with an American accent and one of them just like RP. The data has been shown in the form of a table to represent the variations. Please see Table 23.

Table 23:

Analysis of /t/ sound in 'Tomatoes'

Varieties	Saraiki (Retroflex [ʈ])	American (Alveolar flap [ɾ]))	RP (Alveolar /t/)
Participants N=30			
Participants for initial position	28		2
Participants for medial position	26	3	1

4.4.5 The Phoneme /r/ in "Garden"

The research participants read aloud the passage given to them, and the word 'garden' was part of that passage. The word was pronounced by all thirty participants, and all of them pronounced the word with variation, except the one student who uttered the word with an RP accent. The majority of the sample produced the phoneme /r/ as retroflex for the medial position. The data has been shown in the form of a table to represent the variations.

Table 24:

Analysis of /r/ sound in 'Garden'

Varieties	Saraiki (Flap)		RP (Approximant)	Pakistani (Trill)	Rhoticity
	Retroflex [ɽ]	Alveolar [ɾ]			
Participants N=30	29		1		+ive

4.4.5 The Phoneme /r/ in "Frozen"

The research participants read aloud the passage given to them, and the word 'frozen' was part of that passage. The word was pronounced by all thirty participants, and all of them pronounced the word with variation, except one who uttered the word with Pakistani variety. Twenty-three of them produced the phoneme /r/ as retroflex, and six of them produced it as alveolar for the medial position. The data has been shown in the form of a table to clearly represent the variations.

Table 25:

Analysis of /r/ sound in 'Frozen'

Varieties	Saraiki (Flap)		RP (Approximant)	Pakistani (Trill)	Rhoticity
	Retroflex [ɽ]	Alveolar [ɾ]			
Participants N=30	23	6		1	+ive

4.4.6 The Phoneme /r/ in "Arrive"

The research participants read aloud the passage given to them, and the word 'arrive' was part of the passage. The word was pronounced by all thirty participants, and majority of them pronounced the word with variations from the RP accent. The phoneme /r/ is produced as retroflex by two participants and as alveolar by twenty-

five participants. However, three of them uttered it in the standard British English. The data has been shown in the form of a table to represent the variations.

Table 26:

Analysis of /r/ sound in 'Arrive'

Varieties	Saraiki (Flap)		RP (Approximant)	Pakistani (Trill)	Rhoticity
	Retroflex [ɽ]	Alveolar [ɾ]			
Participants N=30	2	25	3		+ive

4.5 Discussion and Analysis

The results above of data analysis have shown a strong influence of native language on the English speech of learners. Second-language learning needs proper attention, especially in the area of phonology. Each language has its own rules and patterns, and language learning should be based on them. In Pakistan, English-language learners usually use the structures of their first language. That is why they lack fluency; there is a major difference in the number of sounds in the Saraiki and in the English language. When they lack a sound, they go for a substitute one from their first language as the single sound was supposed to cover multiple sounds of the native language of learners.

The /t/ sound utterance by the research participants showed a strong variation. The phoneme was expected to vary for multiple reasons as discussed above. The pronunciation of /t/ phoneme in different positions within a lexical unit posed variations from the reference accent. Some of the participants uttered the respective sound in general American accent as it is also a prestigious accent globally. The influence of American and British accent can be seen due to exposure of English channels and social media.

Moreover, it did not pose variations on the basis of position within a word in place of articulation. For the initial, medial and final position, the sample showed the utterances as retroflex on average. Hence, the sound shows variation from the

standard British English at all positions in the form of retroflex variety on average. When it comes to an overall trend, the whole sample produced a plosive sound in retroflex manner, with or without aspiration. Aspiration is another important factor in the Saraiki variety of English because it is common in the native language of learners. Overall, on the whole, a few participants produced Pakistani variety as well as an RP accent in some words.

The sound /r/ is uttered by the sample of the present study, showing a strong influence of the mother tongue in the speech of English learners with a Saraiki background. The variations also occurred within words for the same sound, as shown in the data above. The words with the initial position of /r/ show an overall trend of variation in the form of retroflex. At the medial position, it shows both retroflex and alveolar articulation, but more participants produced it as alveolar. To add further, the sound /r/ at the final position shows variation from the Received Pronunciation (RP) of English in the form of alveolar. The overall trend of the variations shows that the whole sample produced the sound /r/ as retroflex and alveolar. The approximant sound also changes its manner of articulation and is uttered as a flap sound. Aspiration is not a feature of the approximant /r/ in Standard British English. However, it is evaluated from the analysis phase that it is a common feature in the Saraiki variety of English. On the whole, a few participants produced the Pakistani variety as well as RP accents in many words.

The data analysis on the basis of gender was also explored by selecting, comparing and identifying the variations. Through analysis, it was revealed that women are careful speakers of the English language as compared to the male speakers. The women show more trends towards British, American and Pakistani varieties than men do in their speech. However, they also show a strong trend of variation in their speech, and they produced the same variations as male participants posed.

There is another feature analyzed from the data, i.e. rhoticity. The standard variety is non-rhotic, and /r/ is only pronounced when followed by a vowel sound. After the data analysis, it was identified that the Saraiki variety of English is rhotic in nature. As a result, the whole sample produced a rhotic accent. Wherever the letter r is present in the word, whether it is followed by a vowel or a consonant, the research participants pronounced it (Rehman, 1991).

There are multiple reasons for the variation from the standard accent in the speech of students with a Saraiki background. Mother tongue influence is the most drastic hurdle in the learning of a second language. Teachers of the English language are not properly trained to teach, and they themselves are non-native speakers. Students just learn the target language in the classroom, and there is no way for the practical application of classroom learning. Moreover, the sounds of a language need proper teaching and learning. Mispronunciation can come from a lack of practice, and speaking skills are the most ignorant ones in the learning of the English language.

4.6 Quantitative Analysis of Sample for Segmental Features

The data was analyzed in the previous section qualitatively by following the contrastive analysis approach. In this section, the data is analyzed using SPSS software to get quantitative results as well. Here, all words from word list one for both consonant sounds were analyzed in an aggregate form through frequencies and bar graphs.

4.6.1 Overall Variations of the Sample

The research participants produced sounds that vary from the standard British English. The variations of the sample (N = 30) were analyzed through a frequency test. It has shown the average trend of variations in the speech of research participants.

Table 27: Frequencies of phonological variations of whole sample in the selected sounds

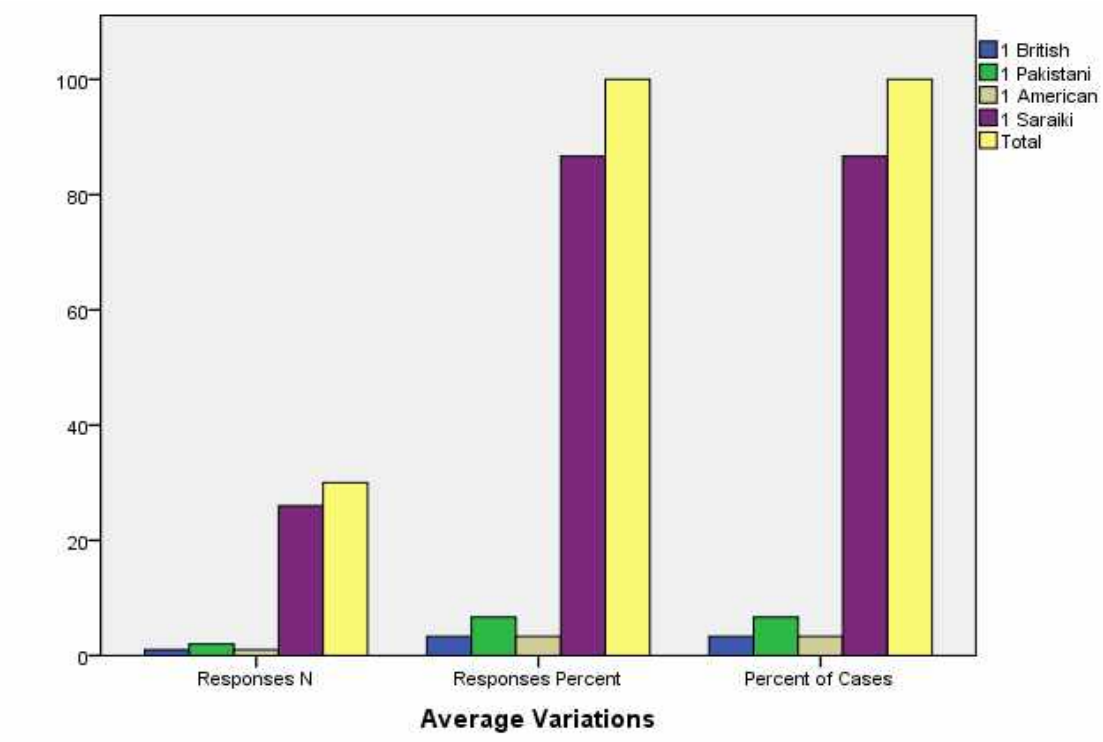
Average Variations

		Responses		Percent of Cases
		N	Percent	
1	British	1	3.3%	3.3%
	Pakistani	2	6.7%	6.7%
	American	1	3.3%	3.3%
	Saraiki	26	86.7%	86.7%
Total		30	100.0%	100.0%

Table 27 above shows average variations in the speech of research participants. The first horizontal column shows the responses of the sample and the

percentage cases of variations. On the other hand, the first vertical column shows the varieties of accents the sample produced in their utterances from the word list and paragraph. The second and third columns show the average variety of responses and their value in percentage. The table shows the performance of all participants in the study as the response rate is 100%. In 3.3% of cases, the sample produced an RP accent of respected sounds. Moreover, only 6.7% of cases possess the utterance of the Pakistani variety in their speech on aggregate. Some students also showed general American Accent in their speech of 3.3%, yet the majority of the sample pronounces /t/ and /r/ phonemes with acute variation from the RP. The students demonstrate a Saraiki influence of about 86.7% in their speech. The variations found in the English Speech of students with Saraiki background has showed through Bar Graph given below to make it more understandable and clear.

Figure 6: Bar Graph showing overall average variations in whole sample



The bar graph above shows the relationship between the types of variations that the sample produced in their speech. The graph shows the frequency of variations in the whole sample. The total participants (N = 30) responded to the data collection. There are zero missing values in the collected data.

Table 28:

Average Frequencies in the Whole sample for selected sounds

Average Frequencies (Statistics)

		British	Pakistani	Saraiki	American
N	Valid	30	30	30	30
	Missing	0	0	0	0
Mean		.03	.07	.87	1.9667
Median		.00	.00	1.00	2.0000
Mode		0	0	1	2.00
Std. Deviation		.183	.254	.346	.18257
Variance		.033	.064	.120	.033
Minimum		0	0	0	1.00
Maximum		1	1	1	2.00

Table 28 above shows the quantitative analysis of the whole sample's average performance. The first vertical column shows the types of frequencies that were given by the frequency statistics test. The mean value of pronounced words from the word list for the Pakistani variety is 0.07 and for American variety is1.9667. Moreover, the mean value for RP is 0.03 and the mean value for the Saraiki variety is 0.87. The data collected from the sample of the study has shown std. deviation, including Pakistani = 0.254, RP = 0.183, American = 0.18257, and Saraiki = 0.346. Additionally, the variance value for the British Accent is 0.33 and for the Pakistani accent is 0.064. On the other hand, the variance value for the Saraiki sub-variety of English is 0.120 and for the American is 0.033. The minimum value is 0 for each defined variable, and the maximum value is 2 for each defined variable in the test.

4.6.2 Overall Performance of Sample in the Selected Sounds

The results of the overall performance of the whole sample have shown a strong variation from the standard variety of English. It proves that the pronunciation of consonant sounds is a difficult area for the Pakistani learners, pertaining to their articulation. By analyzing the data carefully, the performance of the sample related to the area of English consonants has not gone well as they committed a number of mistakes. A phonology-based analysis of English consonants is discussed here. The discussion is based on the overall analysis of the sample's mistakes.

The first consonant sound that was selected for analysis was the /t/ sound; it is an alveolar stop sound in the RP accent. While considering voicing, it is voiceless. The second selected consonant sound was /r/; it is an approximant in the RP and the general American accent. The participants faced problems with pronunciation as they changed their place of articulation and manner of articulation as per their ease. The students were not aware of the procedure of sound production in learning English as L2; as a result, they in most cases produced a voiced and unaspirated consonant /t/ with the tip of the tongue that makes it retroflex in most of the cases. They changed the place of articulation of /r/ sound of standard variety into retroflex and alveolar but also they changed its manner of articulation from approximant to flap.

They changed the /t/ sound in the word “traditionalist”. In the initial position and the finale position, the /t/ sound is pronounced as retroflex. In the word “roar”, the /r/ sound at the initial position changed to [ɽ] and at the final position changed to [ɾ].

In terms of rhoticity, the whole sample pronounces the words with the /r/ sound wherever it is present in the words. In the word *garden*, it is transcribed and pronounced without the phoneme /r/ in the RP as the sound is silent in the word, but all participants uttered the word with the flap alveolar [ɽ]. By analyzing the data, the sub-variety of English which is spoken in the district Mianwali has shown 100% rhoticity in students’ speech. They pronounce /r/ sound wherever it is present in the lexical unite of data collection tools.

When the data was analyzed on the basis of gender, the results showed better pronunciation by females than male participants in some cases. Some female participants pronounced them with an RP accent, but it is not that remarkable. They posed the same variations as compared to male participants. Overall, results show that gender is not a crucial element of pronunciation. The sample is from the same background, sharing social context, so they are usually trapped by the sounds and spelling of language. However, the most influencing factor of variation is their mother tongue interference.

4.7 Analysis of Segmental Variations on the Basis of Gender

The research participants produced sounds that significantly varied from the standard British English. The variations of the sample (N = 30) were analyzed through a frequency test. There were 15 male and 15 female participants in the research

sample. The test has shown the average trend of variations in the speech of research participants.

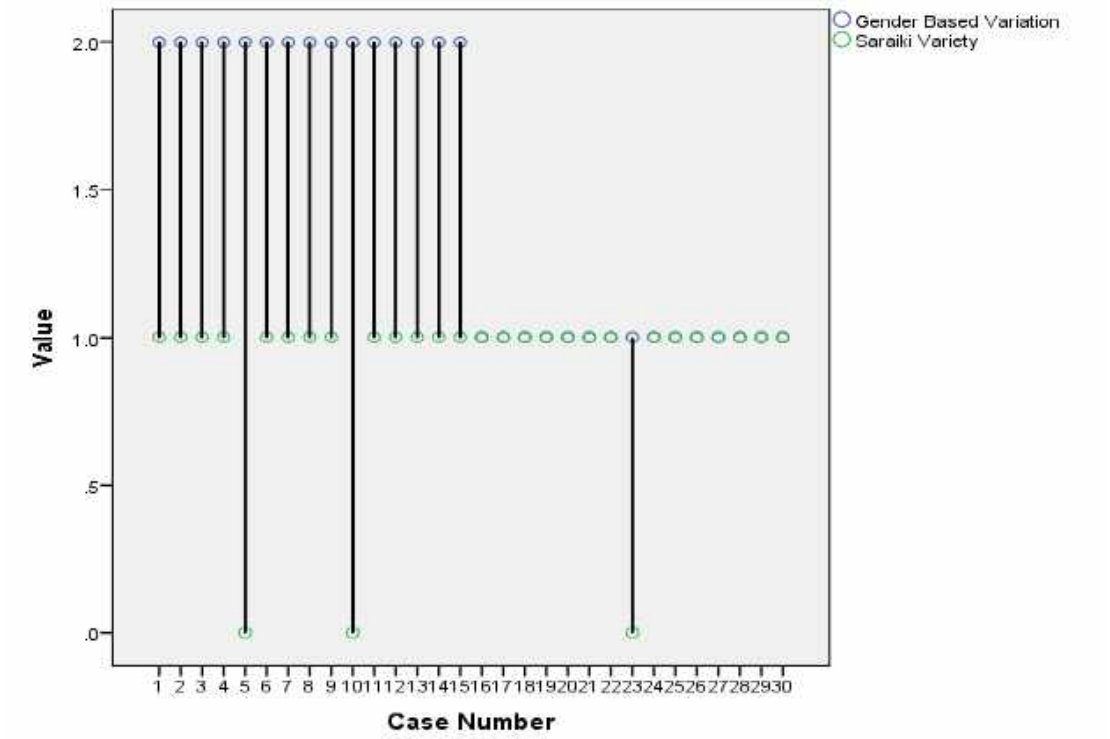
Table 29: Table of Gender Based Variation's Frequencies

		Gender Based Variation	British /t/	Pakistani /t/	Saraiki /t/
N	Valid	30	30	30	30
	Missing	0	0	0	0
Mean		1.50	.03	.07	.90
Median		1.50	.00	.00	1.00
Std. Deviation		.509	.183	.254	.305
Variance		.259	.033	.064	.093
Range		1	1	1	1
Minimum		1	0	0	0
Maximum		2	1	1	1
Percentiles	25	1.00	.00	.00	1.00
	50	1.50	.00	.00	1.00
	75	2.00	.00	.00	1.00

Table 29 above shows the relationship between the varieties produced by the sample of the study on the basis of gender. The female participants produced a better quality of speech than the male participants, with a mean value of 1.50. Moreover, the participants have showed Std. deviation of 0.509. The variance value is =.259, which shows the deviation in the male and female participants of the research resulting from the collected data. The minimum value of frequency variables is one for gender-based variations, and the maximum value is 2. The range for the frequencies is 1.

Average Gender Based variations through Graph

Figure 7: High-Low Graph Shows relationship of gender and Saraiki Variety



The graph shows how many students speak a Saraiki variety of English out of the whole sample on average. Value 0 is the RP, and value 1 is the Saraiki variety of the pronunciation produced by the study's sample. It means only 3 students from the sample produced accents other than the Saraiki variety of English, which are one male and two females. To add further, value 2 is for the female sample of the study, and value 1 is for the male sample of the study. The graph represents the relationship between gender and deviation from the standard variety.

4.7.1 Overall Analysis of Segmental Variations on the Basis of Gender

The results from the collected data show that women are not significantly different in their speech from male participants in terms of pronunciation. The sample was selected from the public sector colleges, and all of them have the same background. The whole sample shows weak pronunciation in terms of selected consonant phonemes, and they produced the variety that was influenced by their first language.

The aggregate pronunciation of their English speech by both the participants is weak; unfortunately, they have no idea of English sounds. Nevertheless, they are not aware of the difference between sounds and letters in the English language, which is itself complex and unclear. It is a major constraint for foreign-language learners of the English language. Teaching and learning the English language in Pakistan does not include phonology. Most of the time, students are not aware of the difference between sounds and letters, so they pronounce the words according to letters.

The consonant phonemes /t/ and /r/ are pronounced with a strong influence of the mother tongue of the speakers. It is a crucial factor; this follows a negative transfer of L1 features into the learning process of L2. There are 54 sounds in the Saraiki language when they learn English without the phonological realizations of its sounds, substituting them with their native sounds. They vary in their utterances on the basis of context as in different words they produce different articulations of the same phoneme. Both males and females produced retroflex variety of the plosive phoneme /t/ in an almost equal ratio. It is an unaspirated sound in the standard British English, but the English speakers with a Saraiki background produce them in aspirated and unaspirated pairs. The phoneme /r/ is produced as a flap sound in the speech of the sample, yet the same is produced as an approximant in the standard British accent, so they also changed the manner of articulation in their speech. They articulate the phoneme /r/ as an alveolar and retroflex variety according to the context. Hence, the English speech of the research participants, who are the native speakers of Saraiki with a northern variety, differs strongly from the RP accent, and gender did not create discrimination in their speech on the basis of phonology.

4.8 Supra-Segmental Variations Analysis

Stress has undeniable importance in the English language. The stress patterns of English speakers with Saraiki as their mother tongue were analyzed in this part of the research. The study was only focused on the lexical level. A list of 20 words was given to the research participants to read aloud. Polysyllabic words were included in the list, making the analysis output more reliable. The research focused on the primary stress only. All the selected words are high in frequency. They are most commonly used in day-to-day communication. PRAAT software version (6.2.1) was used to analyze the data for stress analysis. Identifying pitch through values is the main focus of this research; duration was also considered. The first window shows the waveform analysis of the recorded word with vertical lines in blue that are pulses; dense pulses represent stressed syllables in the word. The second window shows a spectrogram analysis of the recorded word. It has lines and dotes of different colours to represent different features. The blue horizontal lines show the pitch of the analyzed word, and the yellow lines portray the intensity of the recorded word. Red dotes in the spectrogram part of the window are used to denote vowel formants. The time duration is displayed below the text grid, and time is shown in milliseconds. The focus of the present research is only the pitch, intensity and duration of the articulated words. All 20 words produced by 30 participants were analyzed using the software. The spectrogram analysis of the four words was displayed in the form of windows, which were uttered by two males and two females. The separate pitch analysis of the words is also presented by using the PRAAT picture. It is a clearer way to show syllabic differences on the basis of pitch. The stress deviations are elaborated through tables as well. The data has been presented using tables and pie charts. The analysis has been given below.

4.8.1 The Word “Rocket”

The word list No. 2 was given to the research participants to read aloud. The word rocket was read aloud by all thirty participants in the sample. The word has two syllables: **roc**.kit. The stress is on the first syllable in the RP. The sample of the research puts stress on the second syllable. The spectrogram analysis has been given below:

Figure 8:

Spectrogram and waveform analysis with text grid of "rocket" produced by a male participant from the sample

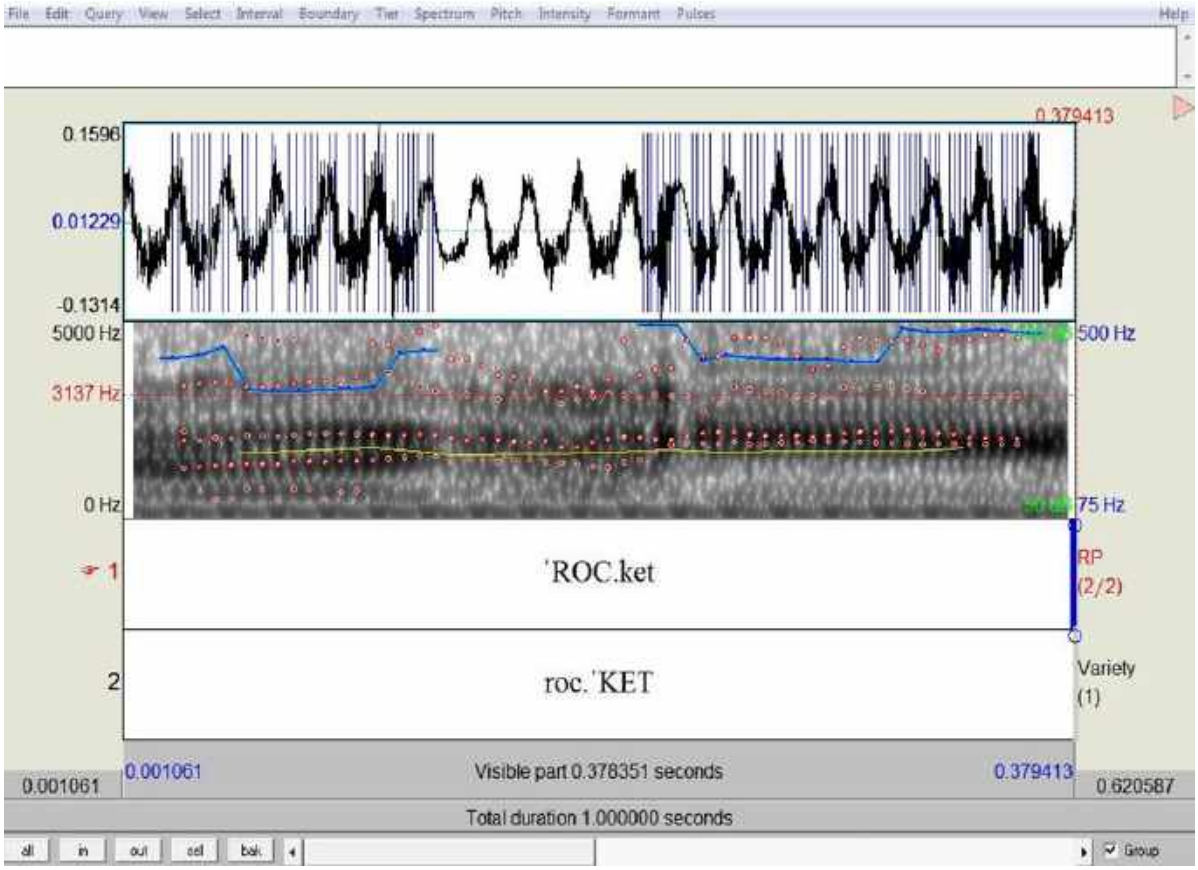


Figure 8 above shows a waveform and spectrogram analysis of the word *rocket* that was produced by a male participant in the research sample. The first window shows waveform analysis with vertical lines of pulses in blue. The second syllable has a longer duration than the first one, showing through the waveform. The second window of Figure 9 above shows a spectrogram analysis of the uttered word by a male participant in the study. The pitch with horizontal blue lines can be easily recognized because the second syllable has a higher pitch and a longer duration. In the last window, the upper part shows the standard stress pattern with the title "RP", and the lower part shows the stress pattern with the title "variety" produced by a male participant in the sample.

4.8.1.1 Analysis through PRAAT Picture

Figure 9:

Pitch analysis of "rocket" produced by a male participant

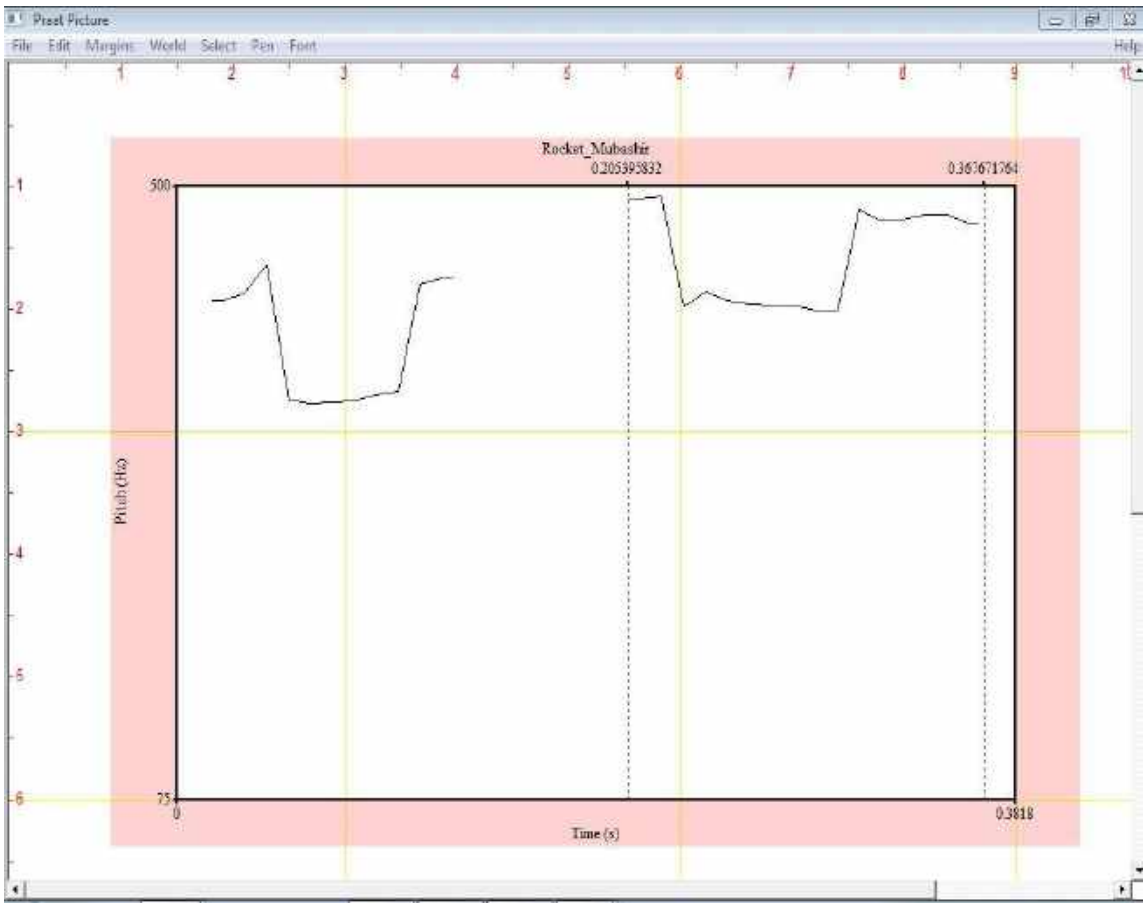


Figure 9 above shows an analysis of the word produced by a male participant in the sample in the picture window of the PRAAT software. The total duration of the uttered word is 0.3818 as can be clearly seen in Figure 10 above. The pitch in the first part of the syllable is lower and shorter in duration, while the second syllable has a higher pitch and longer duration. The use of a separate picture window makes the analysis clearer. The second syllable is stressed in the word because the stressed ones have a higher pitch and duration than the unstressed ones.

Figure 10:

Spectrogram and waveform analysis of "rocket" with text grid produced by a female participant

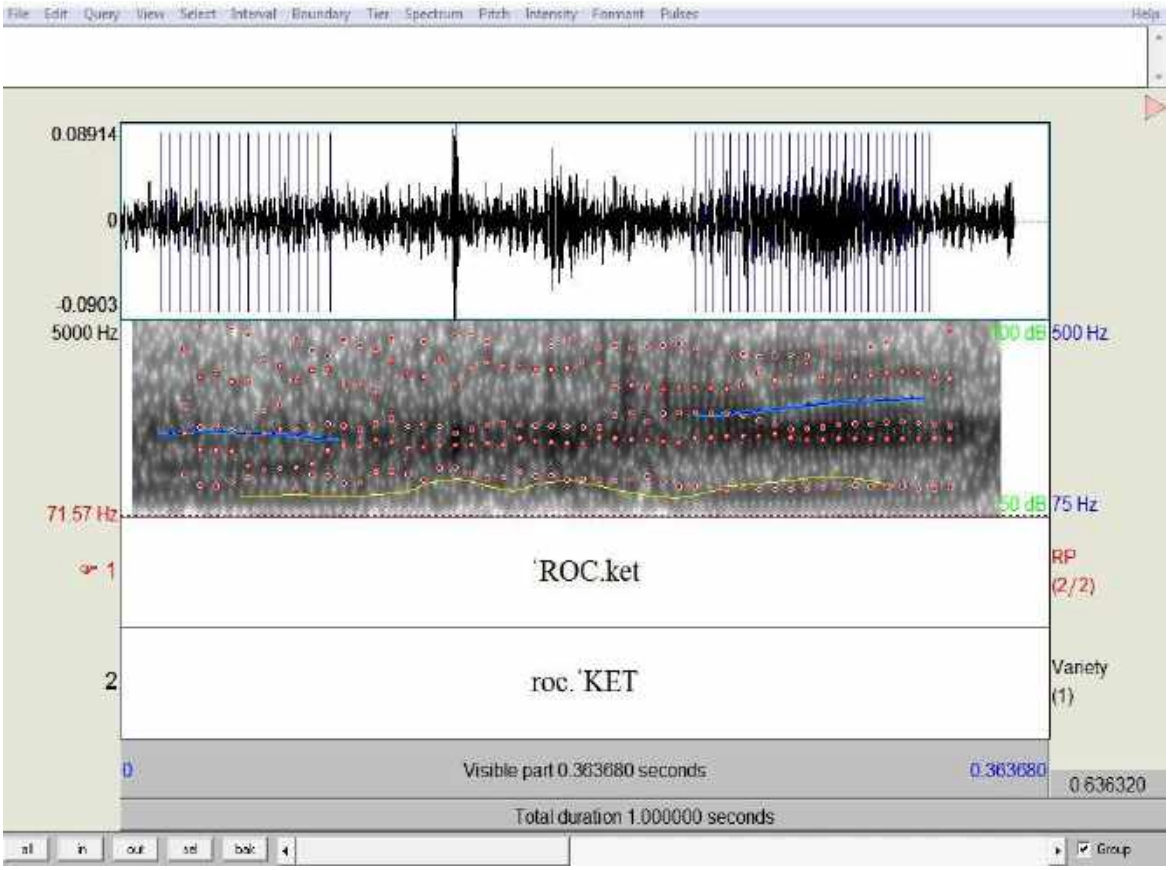


Figure 10 above shows the waveform analysis of the word in the first window produced by a female participant in the research sample. In Figure 11 above, the two syllables of the word can be compared effortlessly. The blue vertical lines, which are pulses, are denser in the second syllable. In the second window of Figure 11, a spectrogram analysis of the same word is given. The blue horizontal lines show the pith of the syllables. The analysis of both syllables shows that the second syllable has a higher pitch than the first syllable.

Table 30:

Intensity, pitch and duration of "rocket" produced by male and female participants from the sample of study

	Intensity		Pitch		Duration	Stress
	Minimum	Maximum	Syllable 1	Syllable 2	Stressed Syllable	
			Cho	Colate		
M1	66.139 dB	78.975 dB	349.234 Hz to 364.203 Hz	356.563 Hz to 409.719 Hz	0.1622 seconds	Wrong
M2	51.491 dB	75.219 dB	155.416 Hz to 178.026 Hz	191.982 Hz to 213.546 Hz	0.1435 seconds	Wrong
M3	69.386 dB	83.235 dB	190.431 Hz to 201.602 Hz	220.128 Hz to 290.098 Hz	0.1503 seconds	Wrong
F1	65.189 dB	70.130 dB	251.478 Hz to 257.564 Hz	297.112 Hz to 331.632 Hz	0.1024 seconds	Wrong
F2	59.505 dB	67.121 dB	263.092 Hz to 284.106 Hz	322.293 Hz to 459.161 Hz	0.1359 seconds	Wrong
F3	68.185 dB	72.347 dB	255.337 Hz to 275.301 Hz	380.804 Hz to 417.902 Hz	0.1456 seconds	Wrong

Table 30 above shows utterances of the word by three male participants and three female participants who are part of the present research. The letters M and F in the first column denote male and female members of the sample. To highlight further, the horizontal line of Table 30 shows the maximum and minimum values of intensity in two separate columns and the pitch for both syllables in the next two separate columns. The duration of stressed syllables in the word has been shown in a separate column of research participants. The last column of Table 30 shows whether stress was put on the right syllable or not by the sample. The intensity values presented in Table 30 above show that all the productions of male participant have a higher intensity in their voice than female participants. As far as the intensity is concerned, the highest value for male participants is 83.235 dB, and the lowest value for male participants is 51.491 dB. For the female participants, the highest value of intensity is 72.347 dB, and the lowest value is 59.505 dB. When the pitch values were analyzed, the results showed 409.719 Hz as the highest pitch in the male participants; moreover, the lowest pitch values in the male participants of the study sample ranged between 155.416 Hz. In the females, the highest pitch value is 459.161 Hz. On the other hand, the lowest value in the pitch that resulted during evaluation, as presented in Table 30 is 255.337 Hz. The duration of syllables also differed between the male and female participants in the sample. Almost all the participants put stress on the second syllable. The duration is longer for the male participants as compared to the female participants. As far as the duration of the male students in the sample is concerned, the longest one for the stressed syllable in ‘rocket’ is 0.1622 seconds, and the minimum is 0.1435 seconds. The maximum duration for the female participants in the stressed syllable is 0.1456 seconds, and the minimum duration for the stressed syllable is 0.1024 seconds. On the contrary, the female participants produced stressed syllables with a shorter duration than the male participants in the selected word. When lexical stress for the word is considered, the entire research sample produced the wrong stress patterns for the word rocket. The whole sample (N = 30) puts stress on the second syllable, while the stress is on the first syllable in the Received Pronunciation. As a result, 100% deviations from the standard English are recorded from the analysis of the data by using PRAAT software. In terms of gender, both the male and female students show the wrong stress pattern. To add further, the male research participants have more intensity in their speech as compared to the females,

but the pitch values are higher for the female students of English with a Saraiki background.

4.8.2 The Word "Chocolate"

Another word from the wordlist is also analyzed which has high frequency. It has two syllables: **cho**.colate. The stress is on the first syllable in the RP accent. An analysis of a male participant has been given below:

Figure 11:

Waveform and spectrogram analysis of "chocolate" with text grid produced by a male participant of the sample

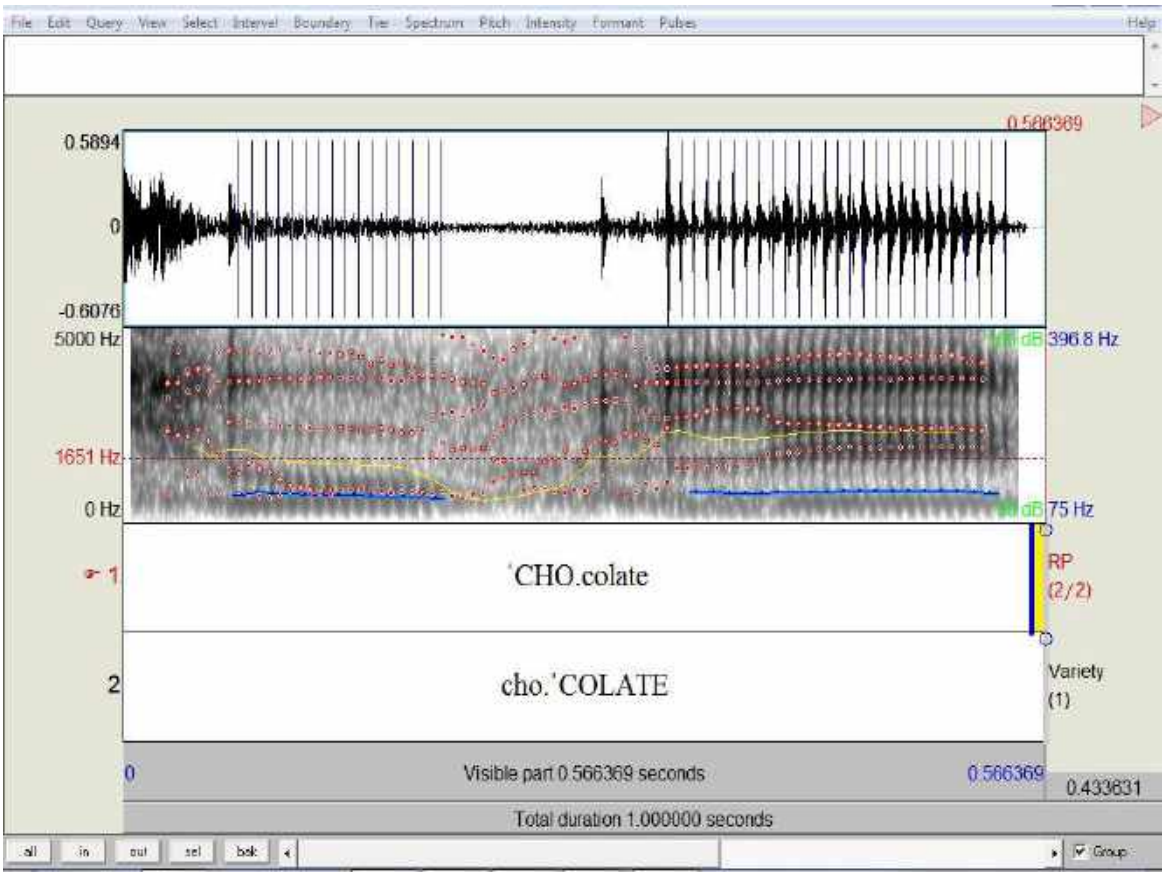


Figure 11 above in the first part shows a waveform analysis of the uttered word from a male participant in the research. The density of vertical lines in blue shows that the second syllable is stressed in the variety produced by the male participant in the sample. The second part of Figure 12 shows a spectrogram analysis of the word; the comparison between blue horizontal lines of pitch shows the second syllable is stressed on the basis of pitch and duration. The last part of Figure 12 shows the text

grid of the standard accent (RP) and the one produced by the research participants of the present study.

4.8.2.1 Analysis through PRAAT Picture

Figure 12:

Pitch analysis of "chocolate" produced by a male participant

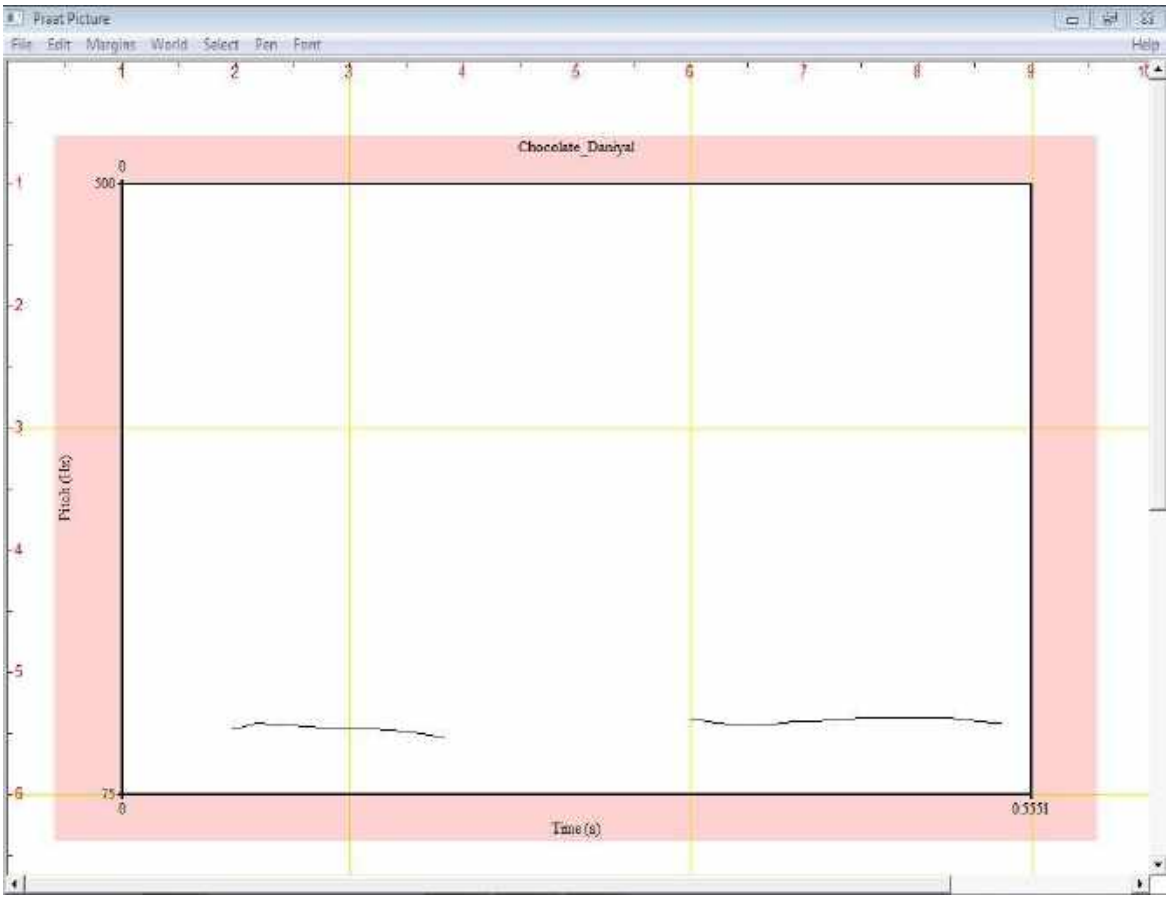
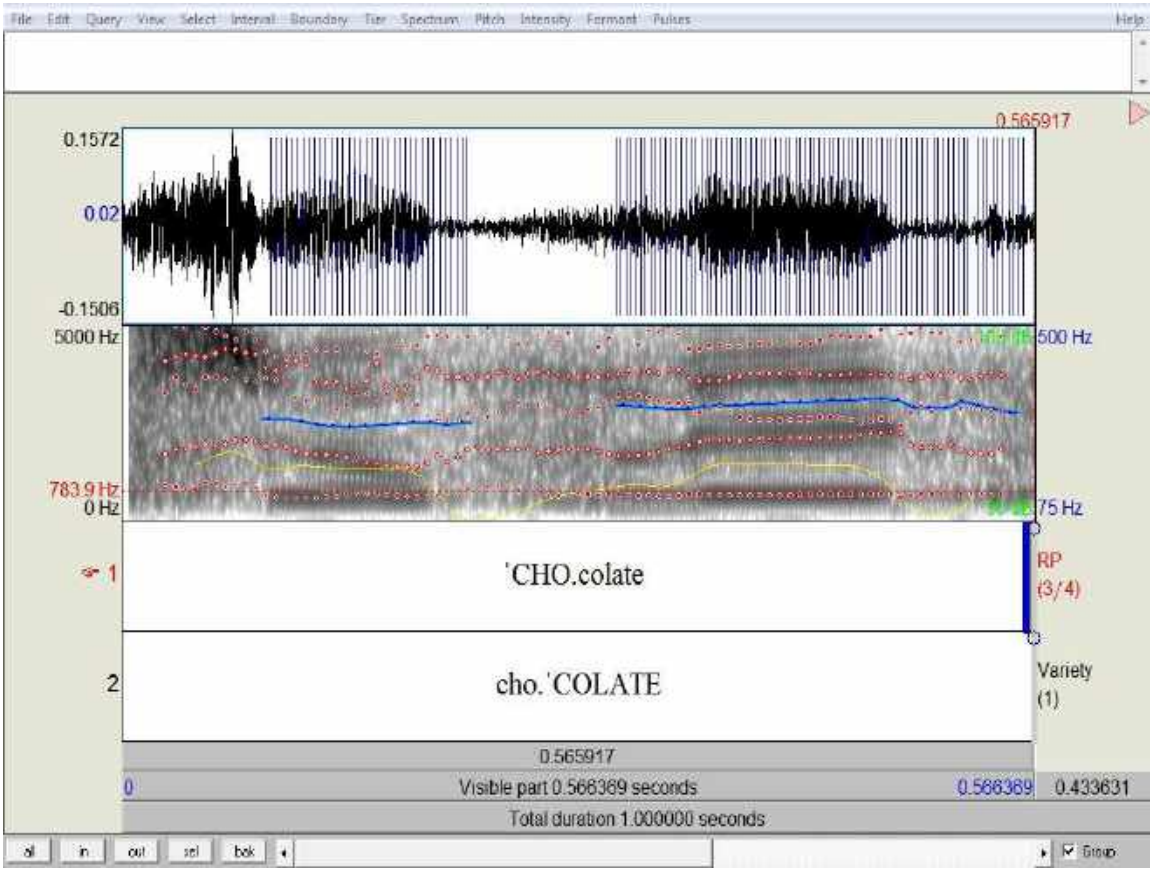


Figure 12 above shows an analysis of the word produced by a male participant in the sample in the picture window of the PRAAT software. The total duration of the uttered word is 0.5551 seconds, as can be clearly seen in Figure 13 above. The pitch in the first part of the syllable is lower and shorter in duration, while the second syllable has a higher pitch and longer duration. The use of a separate picture window makes the analysis clearer. The second syllable is stressed in the word because stressed ones have a higher pitch and duration than unstressed ones.

Figure 13:

Waveform and spectrogram analysis of the word 'chocolate' with text grid produced by a female participant



The topmost window of Figure 13 above shows the waveform analysis with more dense pulses in the second syllable, which can easily be recognized as a stressed syllable. The middle window of Figure 14 shows a spectrogram analysis of the word "chocolate". By analyzing the pitch and duration of the uttered word, it is easy to recognize that the second syllable is longer and higher in pitch than the first one, making it a stressed syllable. The last part of the above window shows the text grid. Bar 1 with the title "RP" contains a standard stressed pattern, and Bar 2 with the title "variety" contains the uttered word by English speakers with a Saraiki background.

Table 31:

Intensity, pitch, and duration values of "chocolate" of male and female participants of the research sample

	Intensity		Pitch		Duration	Stress
	Minimum	Maximum	Syllable 1	Syllable 2	Stressed Syllable	
			Cho	Colate		
M1	55.948 dB	73.774 dB	115.247 Hz to 125.211Hz	122.624 Hz to 128.128 Hz	0.1938 seconds	Wrong
M2	57.843 dB	77.124 dB	110.438 Hz to 126.198 Hz	116.826 Hz to 132.433 Hz	0.2501 seconds	Wrong
M3	59.647 dB	71.019 dB	116.978 Hz to 124.990 Hz	127.767 Hz to 138.689 Hz	0.2541 seconds	Wrong
F1	49.602 dB	67.969 dB	279.175 Hz to 297.776 Hz	310.377 Hz to 339.738 Hz	0.2126 seconds	Wrong
F2	47.836dB	69.258 dB	284.745 Hz to 298.678 Hz	309.138 Hz to 335.589 Hz	0.2201 seconds	Wrong
F3	50.098 dB	65. 889 dB	276.498 Hz to 290.571 Hz	314.336 Hz to 342.287 Hz	0.1868 seconds	Wrong

Table 31 above shows the utterances of the word by three male participants and three female participants who are part of the present research. To highlight further, the horizontal line of Table 31 shows the maximum and minimum values of intensity in the two separate values and the pitch for both syllables in the next two separate columns. The letters M and F in the first column denote male and female members of the sample. The duration of stressed syllables in the word has been shown in a separate column of research participants. The last column of the Table 31 shows whether stress was put on the right syllable or not by the participants in the research sample. The intensity values given in Table 31 above shows in all the productions, the male participants have a higher intensity in their voice the than female participants. The highest intensity value produced by the male participant from the research sample is 77.124 dB, and the lowest intensity value from the male participant is 55.948 dB. On the other hand, the maximum intensity value uttered by one of the female participants is 65.889 dB. The minimum value of intensity produced by the female from the sample is 49.602 dB. In addition to intensity, the pitch values also differ on the basis of gender. The maximum pitch value produced by one of the male participants is 138.689 Hz. On the other hand, the minimum pitch value produced by the male participant from the sample is 110.438 Hz. The maximum pitch value for the female participants is 342.287 Hz, which is higher than that of males. In females, the lowest pitch value is 276.498 Hz. To analyze further, another focused feature is the duration of the stressed syllable. For male participants in the sample, the maximum duration for the stressed syllable is 0.2542 seconds. The minimum duration of the stressed syllable for the male learners in the sample is 0.1938 seconds. The duration of the second syllable, which is stressed, is quite longer than the duration of the first syllable.

Furthermore, the maximum duration of the stressed syllable for the female participants in the sample is 0.2201 seconds. The minimum duration for the female participants for the stressed syllable in the word *chocolate* is 0.1868 seconds. Conversely, the female participants produced the stressed syllable with a shorter duration than the male participants in the selected word. When lexical stress for the word is considered, the twenty-eight participants in the research sample produced the wrong stress patterns for the word *chocolate*. They put stress on the second syllable while the stress is on the first syllable in the Received Pronunciation; as a result, 93%

deviations from the Standard English are recorded from the analysis of the data by using PRAAT software. In terms of gender, both male and female students show the wrong stress pattern. To add further, male research participants have more intensity in their speech as compared to females, but the pitch values are higher for female students of English with a Saraiki background.

4.8.3 The word "Administration"

The word "administration" was also present in the word list for stress analysis. There are five syllables in the word ad-min-is-tra-tion, and the stress is on the fourth syllable, "tra" in RP. The sample produced the word with a number of variations as it is a polysyllabic word.

Figure 14:

Spectrogram and waveform analysis with text grid of the word "administration" produced by a male participant of the sample

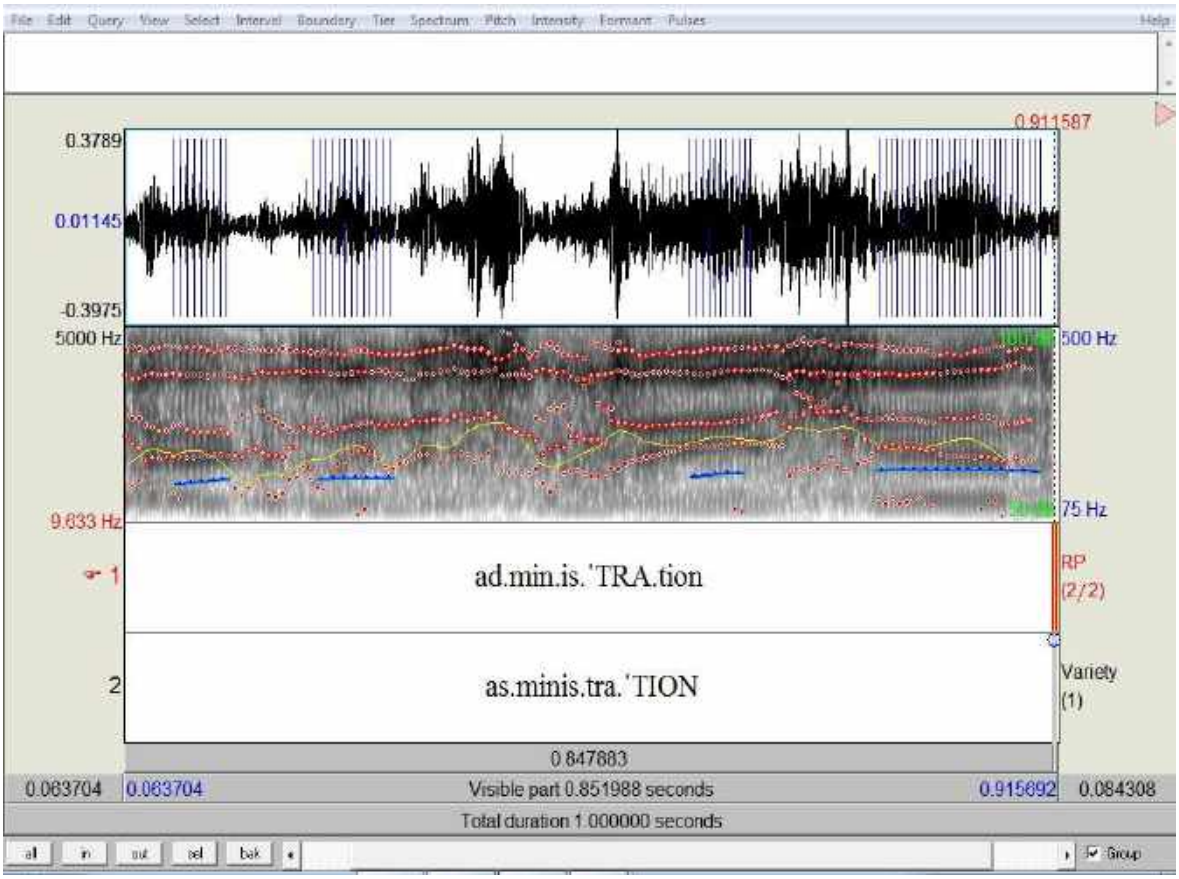


Figure 14 above shows an in-depth analysis of the word produced by a male participant in the sample. The topmost window of Figure 15 shows the waveform analysis with denser pulses in the last syllable, which can be easily recognized as a stressed syllable. The middle window of Figure 15 shows a spectrogram analysis of the word “administration”. By analyzing the pitch and duration of the uttered word, it is easy to recognize that the last syllable is longer and higher in pitch than the first one, making it a stressed syllable. The last part of the window above shows the text grid. Bar 1 with the title “RP” contains a standard stressed pattern, and Bar 2 with the title “variety” contains the uttered word by English speakers with a Saraiki background.

Figure 15:

Spectrogram and waveform analysis with text grid of the word “administration” produced by a female participant

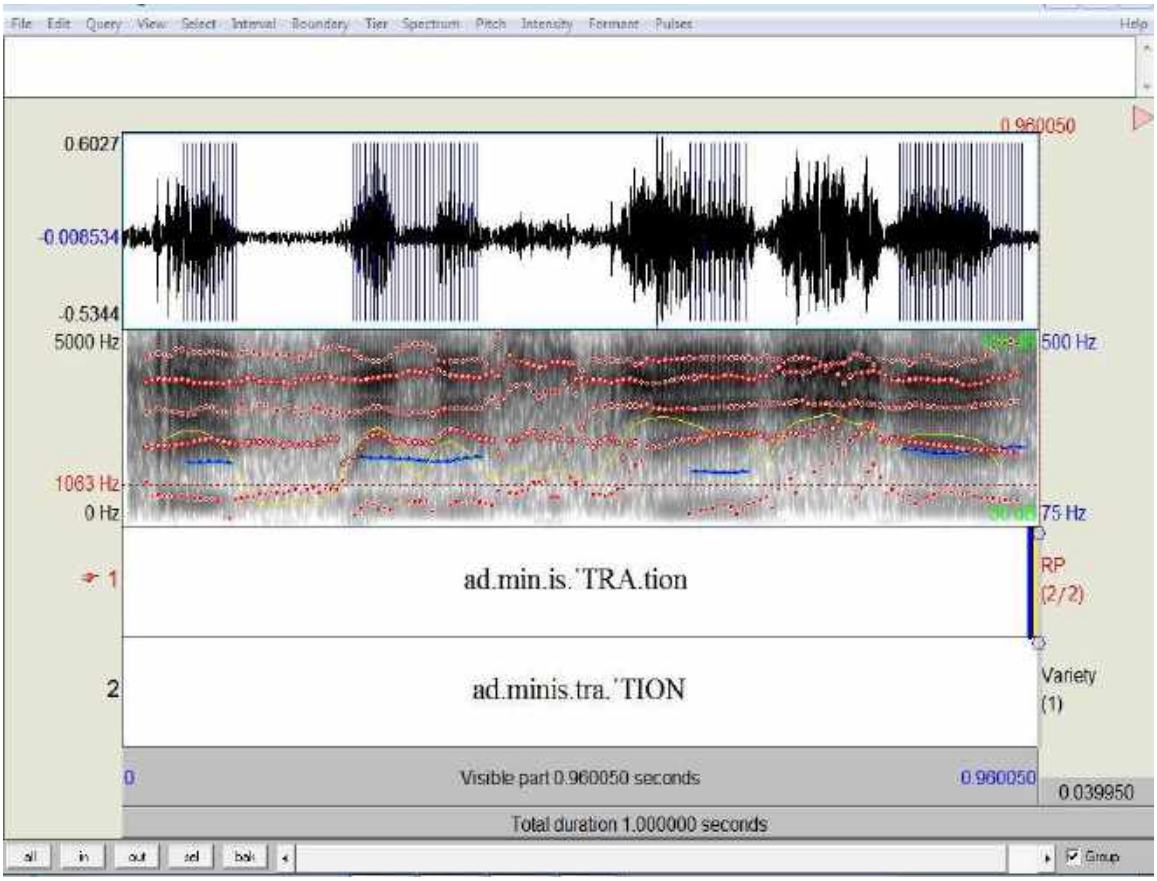


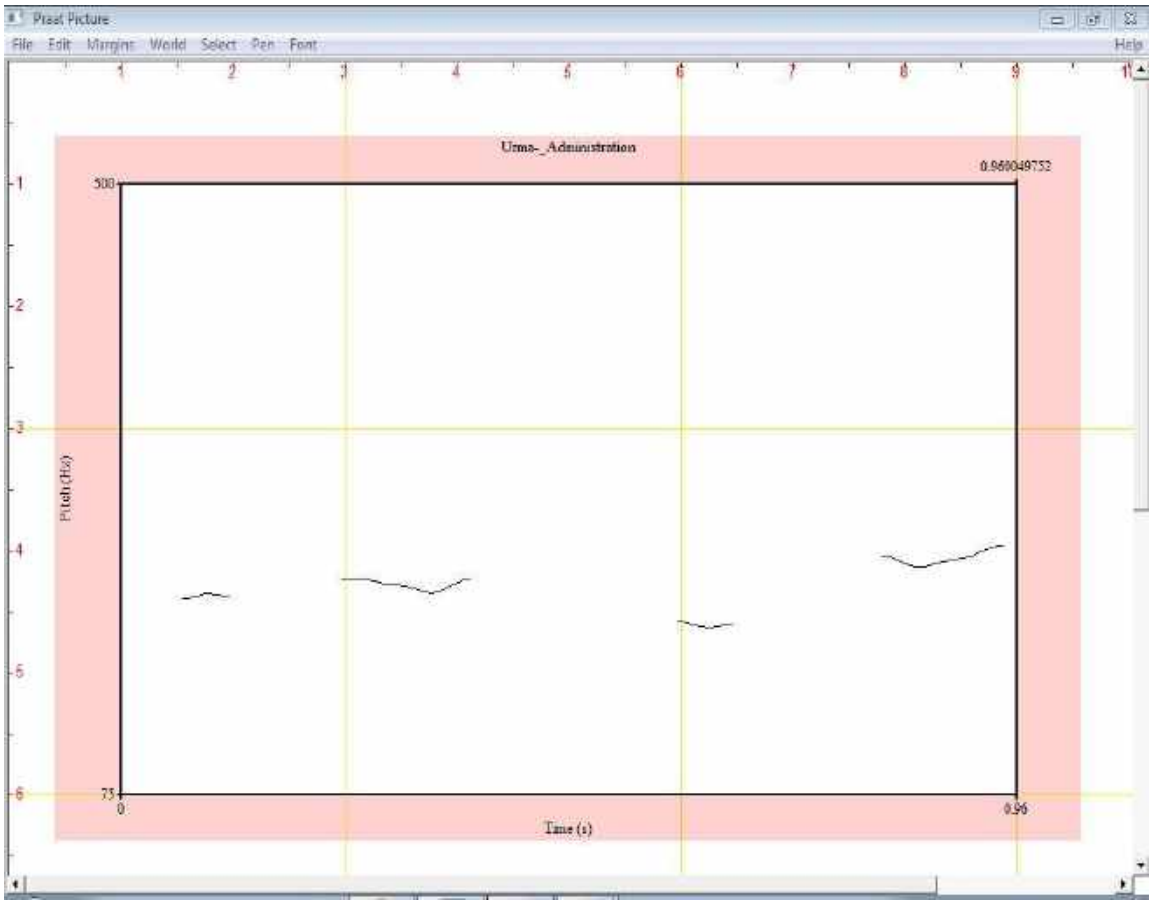
Figure 15 above shows an in-depth analysis of the word produced by a female participant in the sample. The topmost window of Figure 16 shows the waveform analysis with denser pulses in the last syllable, which can be easily recognized as a

stressed syllable. The middle window of Figure 16 shows a spectrogram analysis of the word “administration” by the female participant in the sample. By analyzing the pitch and duration of the uttered word, it is easy to recognize that the last syllable is longer and higher in pitch than the rest, making it a stressed syllable. The last part of the window above shows the text grid. Bar 1 with the title “RP” contains a standard stressed pattern, and Bar 2 with the title “variety” contains the uttered word by English speakers with a Saraiki background.

4.8.3.1 Pitch Analysis of “Administration” by PRAAT Picture

Figure 16:

Pitch analysis of “administration” produced by a female participant



The same word was analyzed with the help of the PRAAT picture to make the difference in pitch between all syllables clearer. The total duration of the uttered word is 0.96 seconds. The first syllable is too short, and the second syllable is quite longer. The last syllable has the highest pitch and duration of the rest of the syllables, so it is the stressed one.

Table 32:

Intensity, pitch and duration of "administration" produced by the male and female members of the sample

	Intensity		Pitch					Duration	Stress
	Minimum	Maximum	Syllable 1	Syllable 2	Syllable 3	Syllable 4	Syllable 5	Stressed syllable	
M1	60.028 dB	192.541 dB	161.033 Hz to 169.749 Hz	171.857 Hz to 174.016 Hz		176.708 Hz to 183.604 Hz	187.153 Hz to 192.541 Hz	0.1536 seconds	Wrong
M2	69.138 dB	140.859 dB	158.029 Hz to 165.847 Hz	189.248 Hz to 198.781 Hz		169.549 Hz to 176. 489 Hz	170.734 Hz to 178.365 Hz	0.1961 seconds	Wrong
M3	71.898 dB	189.308 dB	155.224 Hz to 163.112 Hz	168.078 Hz to 175.394 Hz		171.526 Hz to 178.217 Hz	186.458 Hz to 199.822 Hz	0.1589 seconds	Wrong
F1	55.522 dB	78.636 dB	211.724 Hz to 214.903 Hz	214.630 Hz to 225.211 Hz		191.005 Hz to 195.456 Hz	233.652 Hz to 247.879 Hz	0.1364 seconds	Wrong
F2	59.042 dB	85.843 dB	208.766 Hz to 213.015 Hz	213.849 Hz to 219.084 Hz		190.845 Hz to 199.158 Hz	240.010 Hz to 261.343 Hz	o.1426 seconds	Wrong
F3	64.690 dB	76.249 dB	230.456 Hz to 255.839 Hz	217.086 Hz to 227.349 Hz		187.343 Hz to 196.746 Hz	212.099 Hz to 228.867 Hz	0.1508 seconds	Wrong

Table 32 above shows utterances of the word by three male participants and three female participants who are part of the present research. To highlight further, the horizontal line of table 32 shows the maximum and minimum values of intensity in the two separate values and the pitch for both syllables in the next two separate columns. The letters M and F in the first column denote male and female members of the sample. The duration of stressed syllables in the word has been shown in a separate column of research participants. The last column of Table 32 shows whether stress was put on the right syllable or not by the participants in the research sample. The intensity values given in Table 32 above show in all the productions, and the male participants have a higher intensity in their voice than female participants. The highest intensity value in the male participants is 192.541 dB, and the lowest intensity in the male participants is 60.028 dB. To highlight further, the maximum intensity for the female participants is 85.843 dB, and the minimum intensity for the female participants is 55.522 dB. Conversely, the highest pitch value produced by the male learner is 199.822 Hz, and the lowest pitch value produced by the male learner in the sample is 155.224 Hz. In females, the highest pitch value is 261.343 Hz, but the lowest pitch value produced in their speech is 187.343 Hz. In terms of durations, they also vary for the male and female participants. The longest duration in the speech of the male learner from the research sample is 0.1961 seconds for the stressed syllable. The majority of the students pronounced the word with the last syllable as a stressed one. The longest duration of stressed syllables for the female learners for the word *administration* is 0.1508 seconds. The male participants uttered the word for a longer duration than the female participants. The intensity in the voice of male students is higher than that of female students, but the pitch they show in their speech is lower than that of female participants in the study's sample.

When lexical stress for the word is considered, the entire research sample produced the wrong stress patterns for the word *administration*. Almost the whole sample (N = 30) put stress on the last syllable while stress is on the fourth syllable in the Received Pronunciation; as a result, 100% deviations from the standard English are recorded from the analysis of the data by using PRAAT software. In terms of gender, both the male and female students show the wrong stress pattern. To add further, the male research participants have more intensity in their speech as

compared to the females, but the pitch values are higher for the female students of English with a Saraiki background.

4.8.4 The Word "Architect"

The second word list was given to the research participants. The list contained twenty bi, tri, and tetra syllabic words; one of them was 'architect". The word has three syllables: ˈ**ar.**chi.tect, and the stress is on the first syllable of the word in RP accent. It is a commonly used word, but it still has deviations in terms of stress. The list was read aloud by all thirty participants in the research sample. After analysis, the result showed that five participants pronounced the word correctly; moreover, nine of them put stress on the second syllable. Sixteen participants in the sample stressed the word's third syllable, and none of them uttered the word 'architect' containing all syllables as stressed. So, twenty-five members of the sample pronounce it with the wrong stress pattern. When the word was analyzed based on gender-based variation, the male and female students uttered the word slightly differently. Out of fifteen male participants, three pronounce the word with the correct stress. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, only two correctly stressed the word. The rest of the thirteen participants could not make it with the right stress pattern. Hence, the evaluation of the data collected from word list two showed a strong trend of deviation from the standard pattern of stress in British English. At first, Table 33 showed the variations in the form of syllables along with gender; moreover, the variation of the word from RP is presented in Table 33. The analysis of the word was also presented through a pie chart to make it more feasible and clarified.

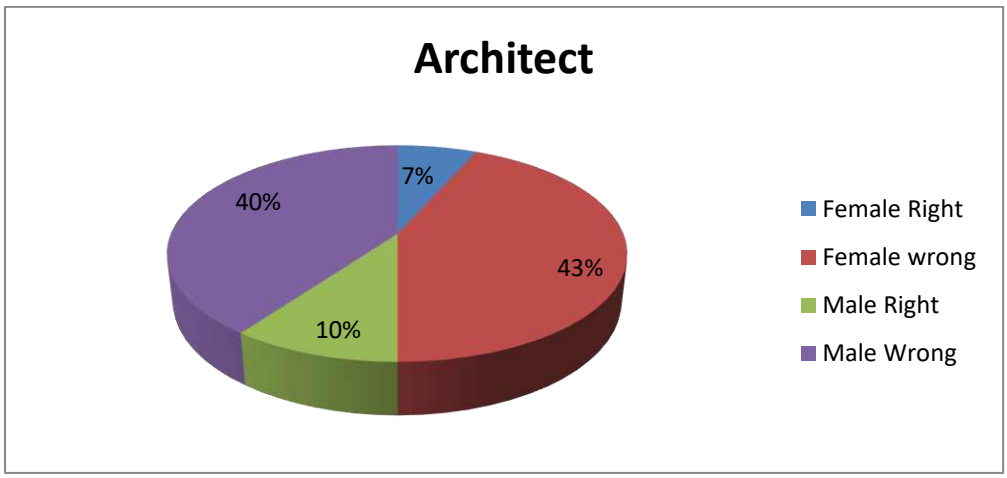
Table 33:

Stress analysis of the word 'architect'

Word	Stress on Syllables				Correctly stressed	Wrongly stressed	Variations in percentage
	First	Second	Third	All	5	25	83
Architect	5	9	16	0			
Gender Based Variations	Male correct	Male wrong	Female correct	Female wrong			
	3	12	2	13			

Figure 17:

Pie chart analysis of "architect"



4.8.5 The Word "Illiterate"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words; one of them was 'illiterate". The word has four syllables: il-***lit***-er-ate, and the stress is on the second syllable of the word in the RP accent. It is a commonly used word, but it still has deviations in terms of stress. The list was read aloud by all thirty participants in the research sample. After analysis, the result showed that six students from the sample put stress on the right syllable; moreover, eighteen of them put stress on the first syllable. The third syllable of the word was stressed by zero participants from the sample. While five participants put

stress on the fourth syllable, one of them uttered the word ‘illiterate’ with all syllables as stressed. So, twenty-five members of the sample pronounced it with the wrong stress pattern. When the word was analyzed based on gender-based variation, the male and female students uttered the word slightly differently. Out of fifteen male participants, four pronounced the word with the correct stress. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, only two of them uttered the word with the right stress pattern. The rest of the thirteen participants could not make it with the right stress pattern. Hence, the analysis of the data collected from word list two showed a strong trend of deviation from the standard pattern of stress in British English. At first, Table 34 showed the variations in the form of syllables along with gender; moreover, the variation of the word from RP is presented in Table 34. The analysis of the word was also presented through a pie chart to make it more feasible and clarified.

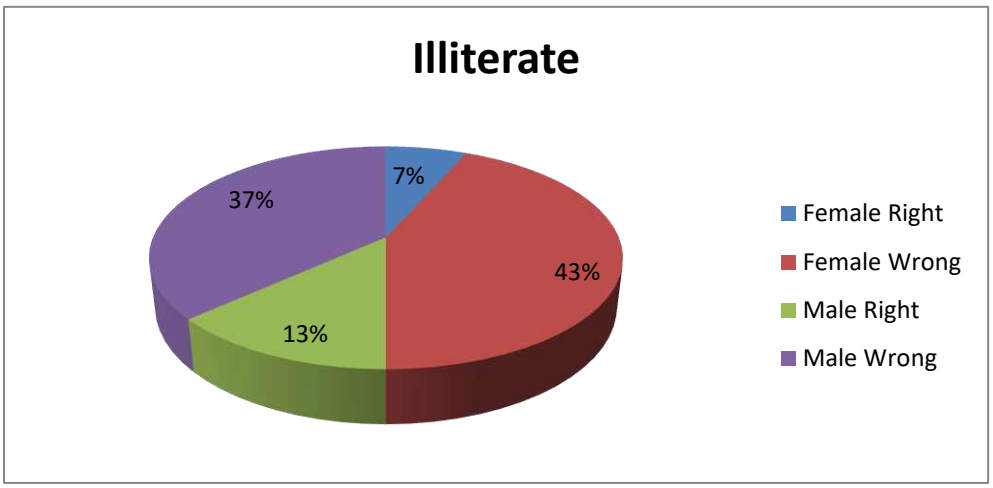
Table 34:

Stress analysis of the word ‘illiterate’

<table>
<tr><td>Word</td><td colspan="5">Stress on Syllables</td><td>Correctly stressed</td><td>Wrongly stressed</td><td>Variations in percentage</td></tr>
<tr><td></td><td>First</td><td>Second</td><td>Third</td><td>four</td><td>All</td><td rowspan="4">6</td><td rowspan="4">24</td><td rowspan="4">80</td></tr>
<tr><td>Illiterate</td><td>18</td><td>6</td><td>0</td><td>5</td><td>1</td></tr>
<tr><td rowspan="2">Gender Based Variations</td><td>Male correct</td><td>Male wrong</td><td>Female correct</td><td colspan="2">Female wrong</td></tr>
<tr><td>4</td><td>11</td><td>2</td><td colspan="2">13</td></tr>
</table>

Figure 18:

Pie chart analysis of "Illiterate"



4.8.6 The Word "Constituent"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words; one of them was "constituent". There are four syllables in the word con-***stit***-u-ent, and the stress is on the second syllable of the word in the RP accent. It is a commonly used word, but it still has deviations in terms of stress. The list was read aloud by all thirty participants in the research sample. After analysis, the result showed that four students put stress on right syllable; moreover, five of them put stress on the first syllable. The third syllable of the word was stressed by six participants from the sample. While fifteen participants put stress on the fourth syllable, none of them uttered the word 'constituent' with all syllables as stressed. So, twenty-six members of the sample pronounced it with the wrong stress pattern. When the word was analyzed based on gender-based variation, the male and female students uttered the word slightly differently. Out of fifteen male participants, one pronounced the word with the correct stress. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, only three of them uttered it with the right stress pattern. The rest of the twelve participants could not make it with the right stress pattern. Hence, the analysis of the data collected from word list two showed a strong trend of deviation from the standard pattern of stress in British English. At first, Table 35 showed the variations in the form of syllables along with gender; furthermore, the variation of the word

from the RP is presented in Table 35. The analysis of the word was also presented through a pie chart to make it more feasible and clarified.

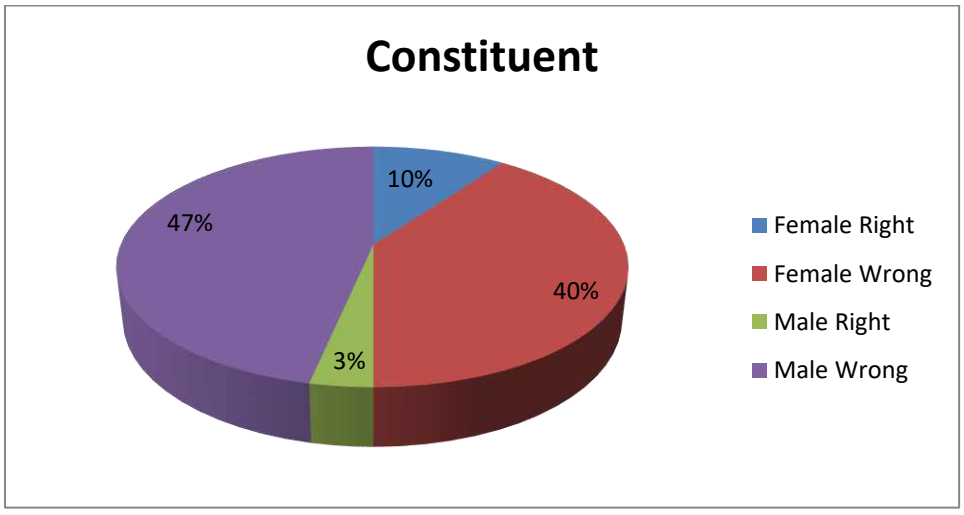
Table 35:

Stress analysis of the word 'constituent'

Word	Stress on Syllables					Correctly stressed	Wrongly stressed	Variations in percentage
	First	Second	Third	four	All	4	26	86
Constituent	5	4	6	15	0			
Gender Based Variations	Male correct	Male wrong	Female correct	Female wrong				
	1	14	3	12				

Figure 19:

Pie chart analysis of "constituent"



4.8.7 The Word "Cassette"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words; one of them was "cassette". It has two syllables, cas.sette, and the stress is on the second syllable in the RP accent. It is a commonly used word, but it still has deviations in terms of stress. The list was read

aloud by all thirty participants in the research sample. After analysis, the result showed that seven students from the sample pronounced it with accurate pronunciation; moreover, fourteen of them put stress on the second syllable. Nine of them uttered the word “cassette” with all syllables stressed. So, twenty-three members of the sample pronounced it with the wrong stress pattern. When the word was analyzed based on gender, the male and female students uttered the word slightly differently. Out of fifteen male participants, two pronounced the word with the correct stress. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, only five uttered the word with the right stress pattern. The rest of the ten participants could not make it with the right stress pattern. Hence, the analysis of the data collected from word list two showed a strong trend of deviation from the standard pattern of stress in British English. At first, Table 36 showed the variations in the form of syllables along with gender; furthermore, the variation of the word from RP is presented in Table 36. The analysis of the word was also presented through a pie chart to make it more feasible and clarified.

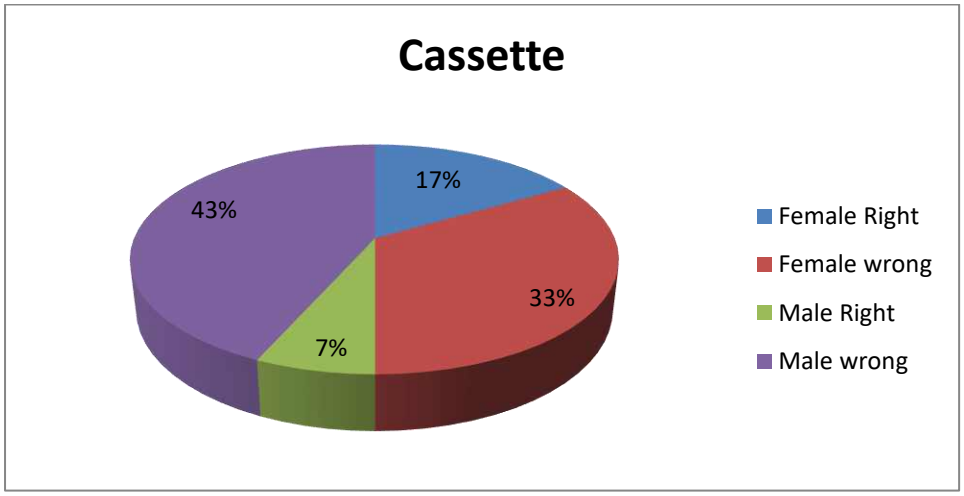
Table 36:

Stress analysis of ‘cassette’

<table>
<tr><td>Word</td><td colspan="4">Stress on Syllables</td><td>Correctly stressed</td><td>Wrongly stressed</td><td>Variations in percentage</td></tr>
<tr><td></td><td>First</td><td colspan="2">Second</td><td>All</td><td rowspan="4">7</td><td rowspan="4">23</td><td rowspan="4">76</td></tr>
<tr><td>Cassette</td><td>14</td><td colspan="2">7</td><td>9</td></tr>
<tr><td rowspan="2">Gender Based Variations</td><td>Male correct</td><td>Male wrong</td><td>Female correct</td><td>Female wrong</td></tr>
<tr><td>2</td><td>13</td><td>5</td><td>10</td></tr>
</table>

Figure 20:

Pie chart analysis of "cassette"



4.8.8 The Word "Timetable"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words; one of them was 'timetable'. The word has three syllables in the RP accent, and the first syllable is stressed: ***time***-ta-ble. It is a commonly used word, but it still has deviations in terms of stress. The list was read aloud by all thirty participants in the research sample. After analysis, the result showed that sixteen participants pronounced the word with correct pronunciation; moreover, nine of them put stress on the second syllable. Five individuals in the sample placed stress on the word's third syllable, and none of them uttered the word 'timetable' containing all syllables as stressed. So, fourteen members of the sample pronounced it with the wrong stress pattern.

When the word was analyzed based on gender, the male and female students uttered the word slightly differently. Out of fifteen male participants, seven pronounced the word with the correct stress. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, only nine uttered the word 'timetable' with the accurate stress pattern. The rest of the six participants could not make it with the right stress pattern. Hence, the analysis of the data collected from word list two showed a strong trend of deviation from the standard pattern of stress in the British English. At first, Table 37 showed the variations in the form of syllables along with gender; moreover, the variation of the

word from the RP is presented in Table 37. The analysis of the word was also presented through a pie chart to make it more feasible and clarified.

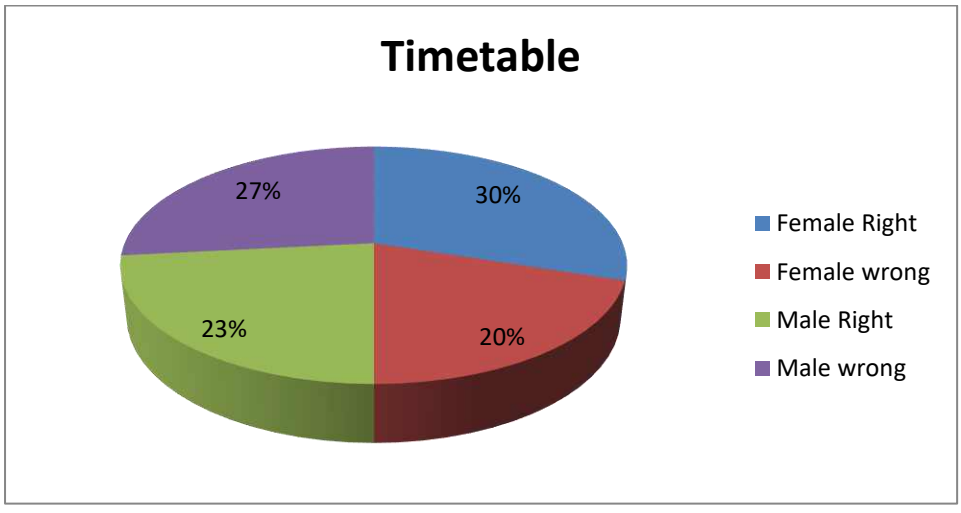
Table 37:

Stress analysis of 'timetable'

Word	Stress on Syllables				Correctly stressed	Wrongly stressed	Variations in percentage
	First	Second	Third	All	16	14	46
Timetable	16	9	5	0			
Gender Based Variations	Male correct	Male wrong	Female correct	Female wrong			
	7	8	9	6			

Figure 21:

Pie chart analysis of "timetable"



4.8.9 The Word "Theater"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words; one of them was 'theatre'. The word has three syllables in the RP accent, and the first syllable is stressed: ***the***-a-ter. It is a commonly used word, but it still has deviations in terms of stress. The list was read aloud by all

thirty participants in the research sample. Following analysis, the findings indicated that three students had correctly pronounced the word; moreover, five of them put stress on the second syllable. Eighteen participants from the sample stressed the word's third syllable, and four of them uttered the word 'theatre' with all syllables stressed. So, twenty-seven members of the sample pronounced it with the wrong stress pattern.

When the word was analyzed based on gender-based variation, the male and female students uttered the word slightly differently. Out of fifteen male participants, one pronounced the word with the correct stress. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, only two uttered the word 'theater' with the right stress pattern. The rest of the thirteen participants could not make it with the right stress pattern. Hence, the analysis of the data collected from word list two showed a strong trend of deviation from the standard pattern of stress in the British English. At first, Table 38 showed the variations in the form of syllables along with gender; moreover, the variation of the word from the RP is presented in Table 38. The analysis of the word was also presented through a pie chart to make it more feasible and clarified.

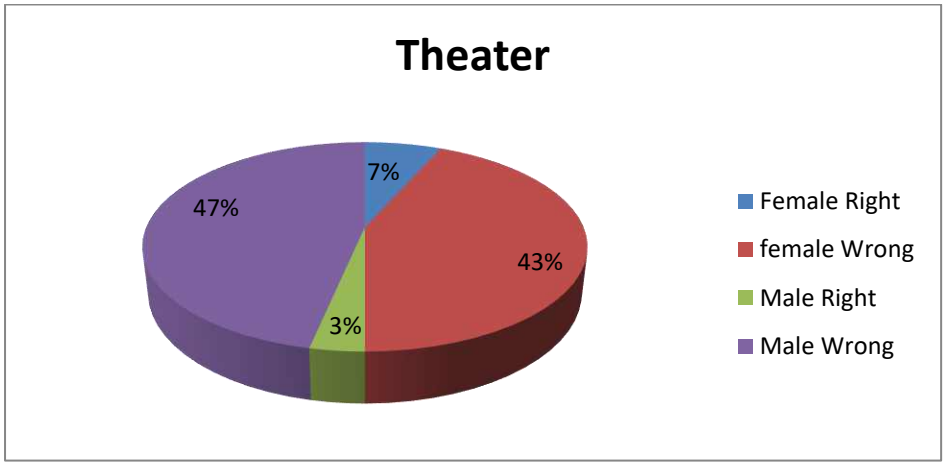
Table 38:

Stress analysis of 'theater'

<table>
<tr><td>Word</td><td colspan="4">Stress on Syllables</td><td>Correct stressed</td><td>Wrong stressed</td><td>Variations in percentage</td></tr>
<tr><td></td><td>First</td><td>Second</td><td>Third</td><td>All</td><td rowspan="4">3</td><td rowspan="4">27</td><td rowspan="4">90</td></tr>
<tr><td>Theater</td><td>3</td><td>5</td><td>18</td><td>4</td></tr>
<tr><td rowspan="2">Gender Based Variations</td><td>Male correct</td><td>Male wrong</td><td>Female correct</td><td>Female wrong</td></tr>
<tr><td>1</td><td>14</td><td>2</td><td>13</td></tr>
</table>

Figure 22:

Pie chart analysis of "theater"



4.8.10 The Word "Curiosity"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words; one of them was 'curiosity'. The word has five syllables: cu-ri-***os***-i-ty, and the third syllable is stressed in the RP accent. It is a commonly used word, but it still has deviations in terms of stress. The list was read aloud by all thirty participants in the research sample. Analysis of the data revealed that only one person had correctly uttered the word. Moreover, nine of them put stress on the first syllable. The second syllable of the word was stressed by two participants from the sample. Furthermore, eleven students from the sample uttered the word with the fourth syllable stressed, and five of them put stress on the fifth syllable. None of them uttered the word 'curiosity' with all syllables stressed. So, twenty-six members of the sample pronounced it with the wrong stress pattern.

When the word was analyzed based on gender-based variation, the male and female students uttered the word slightly differently. Out of fifteen male participants, one pronounced the word with the correct stress. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, no participant uttered the word with the correct stress pattern. All fifteen female participants could not make it with the right stress pattern. Hence, the analysis of the data collected from word list two showed a strong trend of deviation from the standard pattern of stress in the British English. At first, Table 39 showed the variations in the form of syllables along with gender; moreover, the variation of the

word from the RP is presented in Table 39. The analysis of the word was also presented through a pie chart to make it more feasible and clarified.

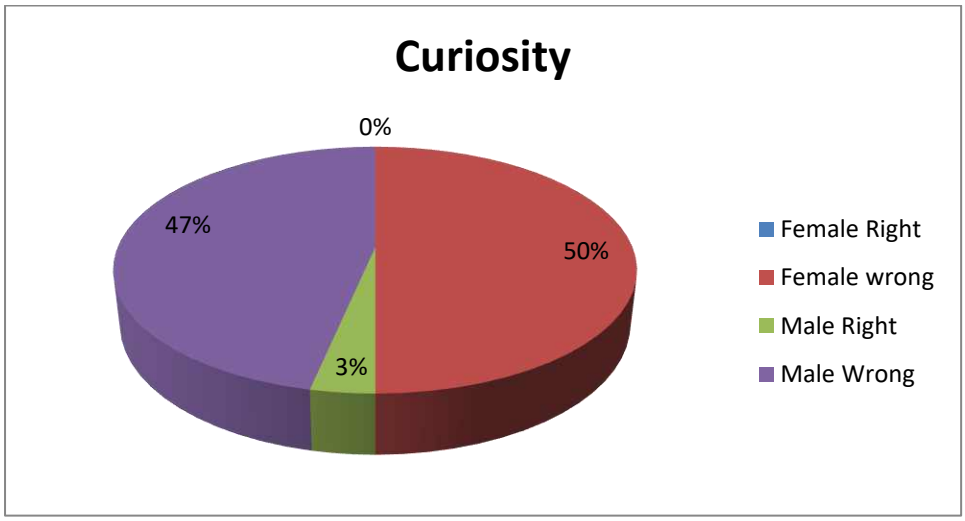
Table 39:

Stress analysis of 'curiosity'

<table>
<tr><td>Word</td><td colspan="6">Stress on Syllables</td><td>Correctly stressed</td><td>Wrongly stressed</td><td>Variations in percentage</td></tr>
<tr><td></td><td>First</td><td>Second</td><td>Third</td><td>four</td><td>Five</td><td>All</td><td rowspan="3">1</td><td rowspan="3">29</td><td rowspan="3">96</td></tr>
<tr><td>Curiosity</td><td>9</td><td>3</td><td>1</td><td>11</td><td>7</td><td>0</td></tr>
<tr><td rowspan="2">Gender Based Variations</td><td>Male correct</td><td>Male wrong</td><td colspan="2">Female correct</td><td colspan="2">Female wrong</td></tr>
<tr><td>1</td><td>14</td><td colspan="2">0</td><td colspan="2">15</td></tr>
</table>

Figure 23:

Pie chart analysis of "curiosity"



4.8.11 The Word "Intermediate"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words; one of them was 'intermediate'. It is a commonly used word, but it still has deviations in terms of stress. The word contained five syllables, and the third syllable is a stressed one: in-ter-***me***-di-ate. The list was

read aloud by all thirty participants in the research sample. Only two students from the sample put stress on the right syllable as given in the RP accent; moreover, eighteen of them put stress on the first syllable. The second syllable of the word was stressed by three participants from the sample. Furthermore, two students from the sample uttered the word with the fourth syllable stressed, and five of them put stress on the fifth syllable. None of them uttered the word 'intermediate' with all syllables stressed. So, twenty-eight members of the sample pronounced it with the wrong stress pattern.

When the word was analyzed based on gender-based variation, the male and female students uttered the word slightly differently. Out of fifteen male participants, one pronounced the word with the correct stress. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, only one of them uttered the word with the correct stress pattern. All fourteen female participants could not make it with the right stress pattern. Hence, the analysis of the data collected from word list two showed a strong trend of deviation from the standard pattern of stress in British English. At first, Table 40 showed the variations in the form of syllables along with gender; furthermore, the variation of the word from the RP is presented in Table 40. The analysis of the word was also presented through a pie chart to make it more feasible and clarified.

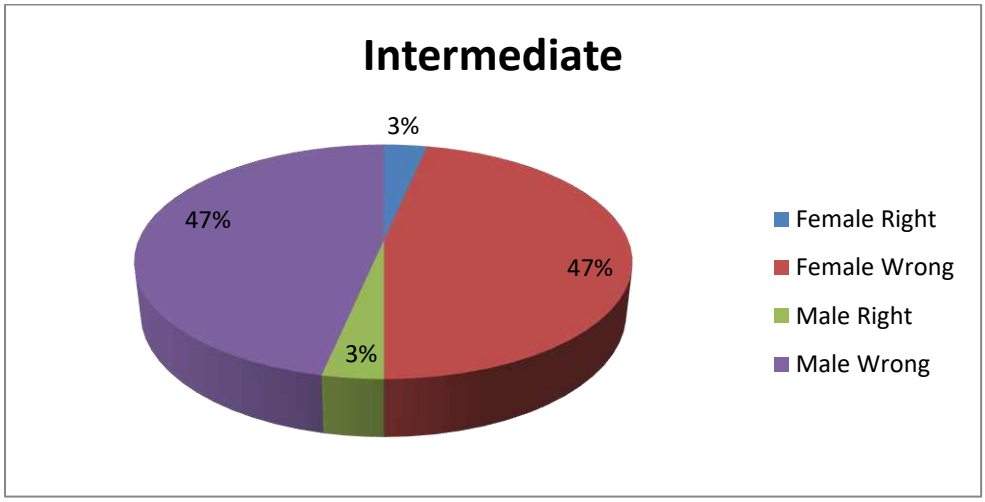
Table 40:

Stress analysis of 'intermediate'

<table>
<tr><td>Word</td><td colspan="6">Stress on Syllables</td><td>Correctly stressed</td><td>Wrongly stressed</td><td>Variations in percentage</td></tr>
<tr><td></td><td>First</td><td>Second</td><td>Third</td><td>Four</td><td>Five</td><td>All</td><td rowspan="4">2</td><td rowspan="4">28</td><td rowspan="4">6</td></tr>
<tr><td>Intermediate</td><td>18</td><td>3</td><td>2</td><td>2</td><td>5</td><td>0</td></tr>
<tr><td rowspan="2">Gender Based Variations</td><td>Male correct</td><td>Male wrong</td><td>Female correct</td><td colspan="3">Female wrong</td></tr>
<tr><td>1</td><td>14</td><td>1</td><td colspan="3">14</td></tr>
</table>

Figure 24:

Pie chart analysis of "intermediate"



4.8.12 The Word "Operation"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words; one of them was 'operation'. The word has four syllables: op-er-***a***-tion, and the third syllable is the stressed one in the RP accent. It is a commonly used word, but it still has deviations in terms of stress. The list was read aloud by all thirty participants in the research sample. After analysis, the result showed that five participants pronounced the word correctly; moreover, eleven of them put stress on the first syllable. The third syllable of the word was stressed by five participants from the sample. While fourteen participants put stress on the fourth syllable, none of them uttered the word 'operation' with all syllables as stressed. So, twenty-five members of the sample pronounced it with the wrong stress pattern.

When the word was analyzed based on gender-based variation, the male and female students uttered the word slightly differently. Out of fifteen male participants, two put stress on the right syllable. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, only three uttered it with the accurate stress pattern. The rest of the twelve participants could not make it with the right stress pattern. Hence, the analysis of the data collected from word list two showed a strong trend of deviation from the standard pattern of stress given in the British English. At first, Table 41 showed the variations in the form of syllables along with gender; moreover, the variation of the word from

the RP is presented in Table 41. The analysis of the word is also presented through a pie chart to make it more feasible and clarified.

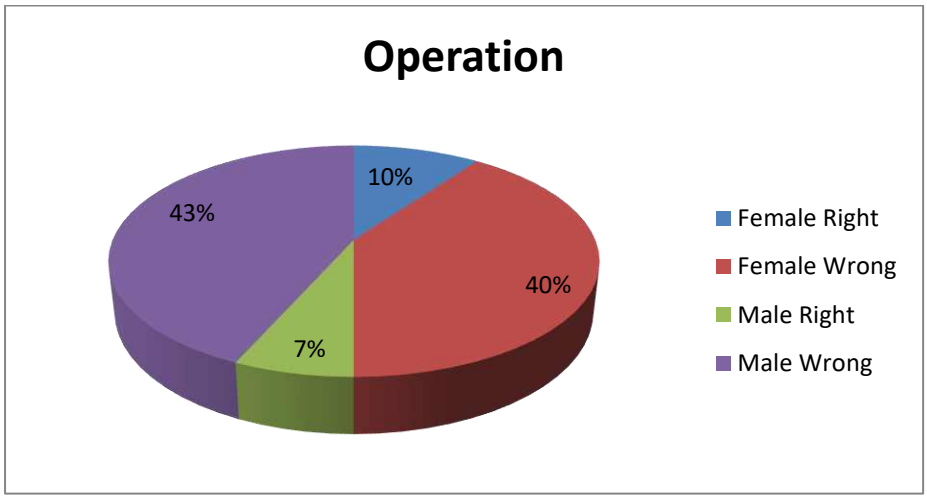
Table 41:

Stress analysis of 'operation'

<table>
<tr><td rowspan="2">Word</td><td colspan="5" rowspan="2">Stress on Syllables</td><td rowspan="2">Correctly stressed</td><td rowspan="2">Wrongly stressed</td><td rowspan="2">Variations in percentage</td></tr>
<tr></tr>
<tr><td></td><td>First</td><td>Second</td><td>Third</td><td>fourth</td><td>All</td><td rowspan="4">5</td><td rowspan="4">25</td><td rowspan="4">83</td></tr>
<tr><td>Operation</td><td>11</td><td>0</td><td>5</td><td>14</td><td>0</td></tr>
<tr><td rowspan="2">Gender Based Variations</td><td>Male correct</td><td>Male wrong</td><td>Female correct</td><td colspan="2">Female wrong</td></tr>
<tr><td>2</td><td>13</td><td>3</td><td colspan="2">12</td></tr>
</table>

Figure 25:

Pie chart analysis of "operation"



4.8.13 The Word "Affidavit"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words, and one of them was 'affidavit'. The word has four syllables: af-fi-***da***-vit. It is a commonly used word, but it still has deviations in terms of stress. The list was read aloud by all thirty participants in the research

sample. After analysis, the result showed that eight participants pronounced the word with correct pronunciation; moreover, twenty-one participants in the sample put stress on the first syllable. The third syllable of the word was stressed by eight participants from the sample. While no participant put stress on the fourth syllable, none of them uttered the word ‘affidavit’ with all syllables as stressed. So, twenty-two members of the sample pronounced it with the wrong stress pattern.

When the word was analyzed based on gender, the male and female students uttered the word slightly differently. Out of fifteen male participants, three pronounced the word with the correct stress. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, only five uttered it with the right stress pattern. The rest of the ten participants could not make it with the right stress pattern. Hence, the analysis of the data collected from word list two showed a strong trend of deviation from the standard pattern of stress in the British English. At first, Table 42 showed the variations in the form of syllables along with gender; further, the variation of the word from the RP is presented in Table 42. The analysis of the word is also presented through a pie chart to make it clear for the readers.

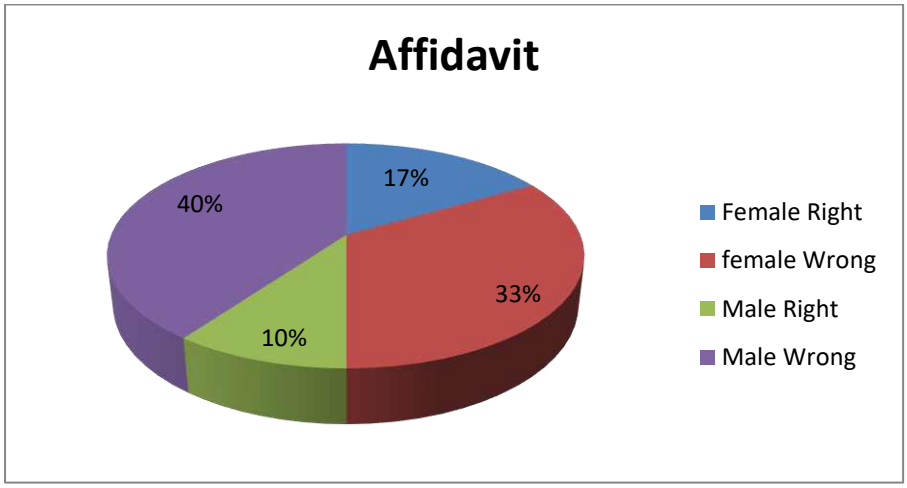
Table 42:

Stress analysis of ‘affidavit’

<table>
<tr><td>Word</td><td colspan="5">Stress on Syllables</td><td>Correctly stressed</td><td>Wrongly stressed</td><td>Variations in percentage</td></tr>
<tr><td></td><td>First</td><td>Second</td><td>Third</td><td>fourth</td><td>All</td><td rowspan="4">8</td><td rowspan="4">22</td><td rowspan="4">73</td></tr>
<tr><td>Affidavit</td><td>21</td><td>2</td><td>8</td><td>0</td><td>0</td></tr>
<tr><td rowspan="2">Gender Based Variations</td><td>Male correct</td><td>Male wrong</td><td>Female correct</td><td colspan="2">Female wrong</td></tr>
<tr><td>3</td><td>12</td><td>5</td><td colspan="2">10</td></tr>
</table>

Figure 26:

Pie chart analysis of "affidavit"



4.8.14 The Word "Election"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words, and one of them was 'election'. The word has three syllables in the RP accent: e-***lec***-tion, and the second syllable is stressed. It is a commonly used word, but it is pronounced in a deviant way in terms of stress. The list was read aloud by all thirty participants in the research sample. The data analysis presented eight students from the sample put stress on the right syllable; moreover, nine of them put stress on the first syllable. The third syllable of the word was stressed by thirteen participants from the sample, and none of them uttered the word 'election' with all syllables stressed. So, twenty-two members of the sample pronounced it with the wrong stress pattern. When the word was analyzed based on gender-based variation, the male and female students uttered the word slightly differently. Out of fifteen male participants, five pronounced the word with the correct stress. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, only three of them uttered it with the accurate stress pattern. The rest of the twelve participants could not make it with the right stress pattern. Hence, the analysis of the data showed a strong trend of deviation from the standard pattern of stress from the British English. At first, Table 43 showed the variations in the form of syllables along with gender; further, the variation of the word from the RP is presented in Table 43. The analysis of the word is also presented through a pie chart to make it clear.

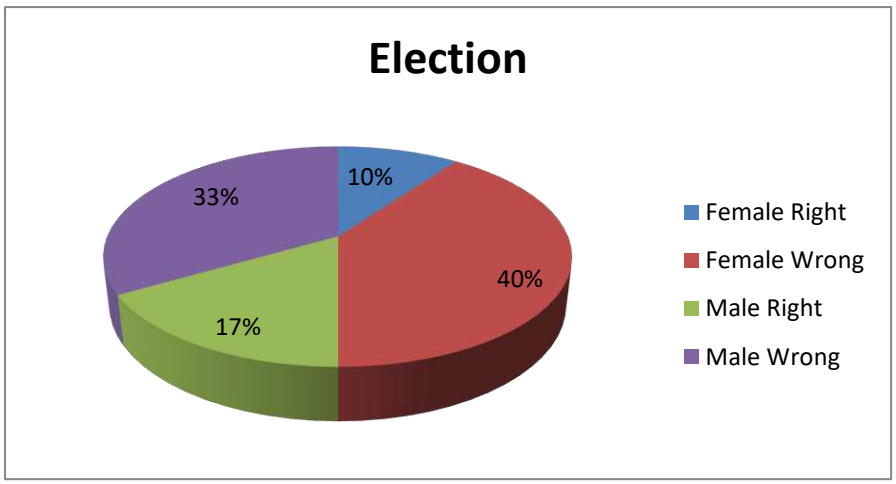
Table 43:

Stress analysis of 'election'

Word	Stress on Syllables				Correctly stressed	Wrongly stressed	Variations in percentage
	First	Second	Third	All	8	22	73
Election	9	8	13	0			
Gender Based Variations	Male correct	Male wrong	Female correct	Female wrong			
	5	10	3	12			

Figure 27:

Pie chart analysis of "election"



4.8.15 The Word "Elementary"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words; one of them was 'elementary'. The word has five syllables: el-e-**men**-ta-ry, and the stress is on the third syllable in the RP accent. It is a commonly used word, but it still has deviations in terms of stress. The list was read aloud by all thirty participants in the research sample. Two students put stress on the right syllable that was identified through data analysis; moreover, six of them put

stress on the first syllable. The second syllable of the word was stressed by zero participants from the sample. Furthermore, twelve students from the sample uttered the word with the fourth syllable stressed, and ten of them put stress on the fifth syllable. None of them uttered the word ‘elementary’ with all syllables stressed. So, twenty-eight members of the sample pronounced it with the wrong stress pattern.

When the word was analyzed based on gender, the male and female students uttered the word slightly differently. Out of fifteen male participants, no one pronounced the word with the correct stress. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, only two uttered it with the right stress pattern. All thirteen female participants could not make it with the right stress pattern. Hence, the analysis of the data showed a strong trend of deviation from the standard pattern of stress from the British English. At first, Table 44 showed the variations in the form of syllables along with gender; moreover, the variation of the word from the RP is presented in Table 44. The analysis of the word is also presented through a pie chart to make it clear for the readers.

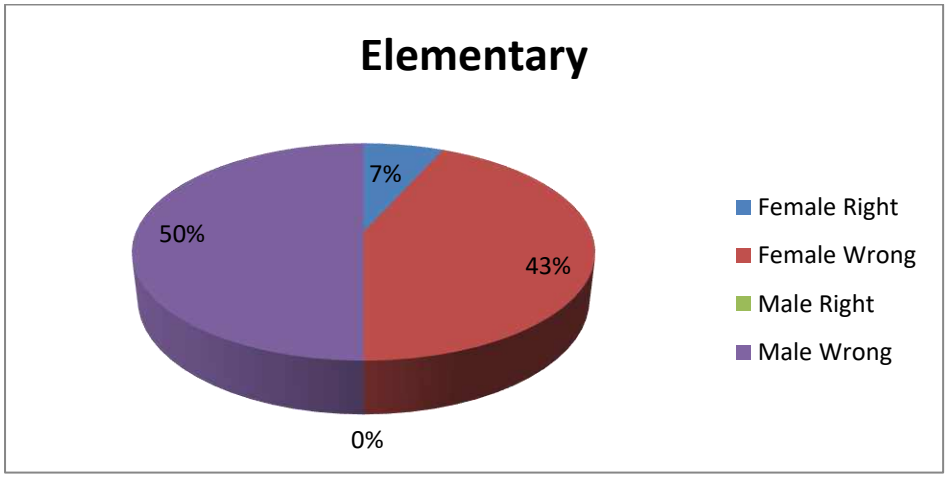
Table 44:

Stress analysis of ‘elementary’

<table>
<tr><td>Word</td><td colspan="6">Stress on Syllables</td><td>Correctly stressed</td><td>Wrongly stressed</td><td>Variations in percentage</td></tr>
<tr><td></td><td>First</td><td>Second</td><td>Third</td><td>Four</td><td>Five</td><td>All</td><td rowspan="3">2</td><td rowspan="3">28</td><td rowspan="3">93</td></tr>
<tr><td>Elementary</td><td>6</td><td>0</td><td>2</td><td>12</td><td>10</td><td>0</td></tr>
<tr><td rowspan="2">Gender Based Variations</td><td colspan="2">Male correct</td><td colspan="2">Male wrong</td><td colspan="2">Female correct</td><td colspan="2">Female wrong</td></tr>
<tr><td colspan="2">0</td><td colspan="2">15</td><td colspan="2">2</td><td colspan="2">13</td></tr>
</table>

Figure 28:

Pie chart analysis of "elementary"



4.8.16 The Word "Preposition"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words; one of them was 'preposition'. The word has four syllables: prep-o-**si**-tion, and the stress is on the third syllable. It is a commonly used word, but it still has deviations in terms of stress. The list was read aloud by all thirty participants in the research sample. After analysis, the result showed that two participants pronounced the word with correct pronunciation; moreover, fourteen participants in the sample put stress on the first syllable. The second syllable of the word was stressed by ten participants from the sample. While four participants put stress on the fourth syllable, none of them uttered the word 'preposition' with all syllables stressed. So, twenty-eight members of the sample pronounced it with the wrong stress pattern.

When the word was analyzed based on gender, the male and female students uttered the word slightly differently. Out of fifteen male participants, two pronounced the word with the correct stress. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, none of them uttered the word with the correct stress pattern. All fifteen participants could not make it with the right stress pattern. Hence, the analysis of the data showed a strong trend of deviation from the standard pattern of stress from the British English. At first, Table 45 showed the variations in the form of syllables along with gender; moreover, the variation of the word from the RP is presented in Table 45. The

analysis of the word is also presented through a pie chart to make it clear for the readers.

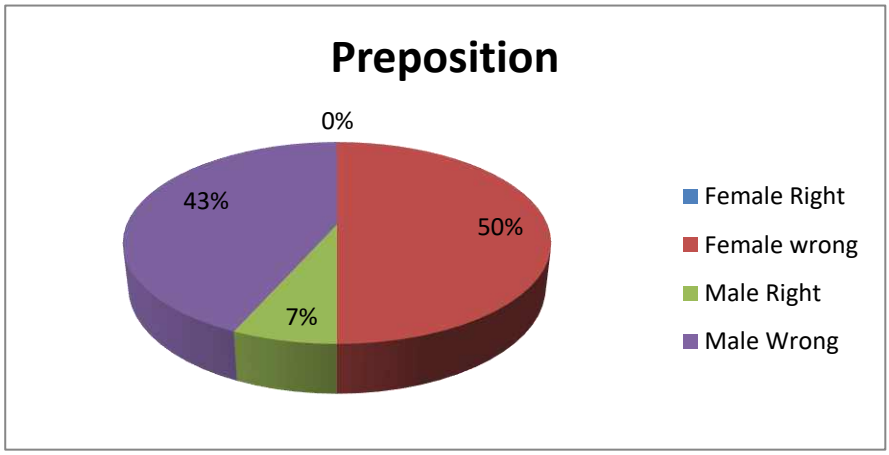
Table 45:

Stress analysis of 'preposition'

Word	Stress on Syllables					Correctly stressed	Wrongly stressed	Variations in percentage
	First	Second	Third	fourth	All	2	28	93
Preposition	14	10	2	4	0			
Gender Based Variations	Male correct	Male wrong	Female correct	Female wrong				
	2	13	0	15				

Figure 29:

Pie chart analysis of "preposition"



4.8.17 The Word "Continental"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words; one of them was 'continental'. The word has four syllables: con-ti-***nen***-tal, and the stress is on the third syllable in the RP accent. It is a commonly used word, but it still has deviations in terms of stress. The list was

read aloud by all thirty participants in the research sample. After analysis, the result showed that four participants pronounced the word with correct pronunciation; moreover, twelve participants in the sample put stress on the first syllable. The second syllable of the word was stressed by eight participants from the sample. While six participants put stress on the fourth syllable, none of them uttered the word 'continental' with all syllables as stressed. So, twenty-six members of the sample pronounced it with the wrong stress pattern.

When the word was analyzed based on gender, the male and female students uttered the word slightly differently. Out of fifteen male participants, two uttered it with the right stress. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, two of them uttered the word with the correct stress pattern. The thirteen participants could not make it with the right stress pattern. Hence, the analysis of the data showed a strong trend of deviation from the standard pattern of stress in the British English. At first, Table 46 showed the variations in the form of syllables along with gender; furthermore, the variation of the word from the RP is presented in Table 46. The analysis of the word is also presented through a pie chart to make it clear for the readers.

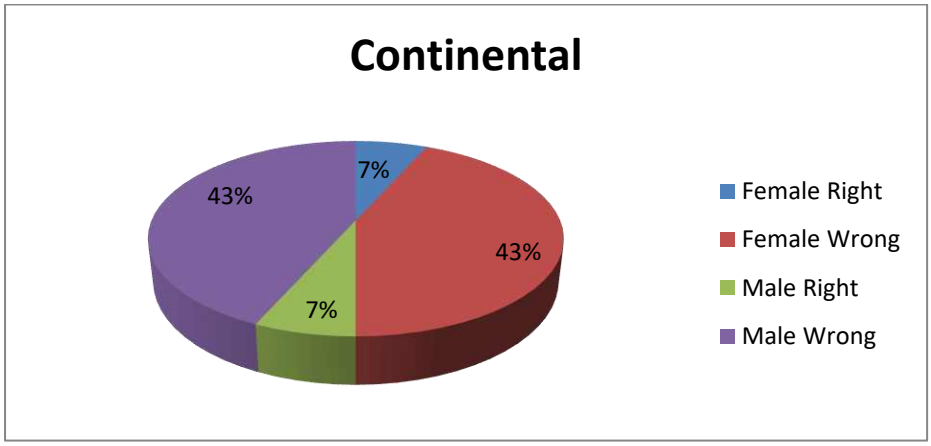
Table 46:

Stress analysis of 'continental'

<table>
<tr><td>Word</td><td colspan="5">Stress on Syllables</td><td>Correctly stressed</td><td>Wrongly stressed</td><td>Variations in percentage</td></tr>
<tr><td></td><td>First</td><td>Second</td><td>Third</td><td>fourth</td><td>All</td><td rowspan="4">4</td><td rowspan="4">26</td><td rowspan="4">86</td></tr>
<tr><td>Continental</td><td>12</td><td>8</td><td>4</td><td>6</td><td>0</td></tr>
<tr><td rowspan="2">Gender Based Variations</td><td>Male correct</td><td>Male wrong</td><td>Female correct</td><td colspan="2">Female wrong</td></tr>
<tr><td>2</td><td>13</td><td>2</td><td colspan="2">13</td></tr>
</table>

Figure 30:

Pie chart analysis of "continental"



4.8.18 The Word "Entertain"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words; one of them was 'entertain'. The word has three syllables in the RP accent: en-ter-**tain,** and the third syllable is stressed. It is a commonly used word, but it still has deviations in terms of stress. The list was read aloud by all thirty participants in the research sample. After analysis, the result showed that five participants pronounced the word correctly; moreover, eleven of them put stress on the first syllable. The second syllable of the word was stressed by nine participants from the sample, and five of them uttered the word 'entertain' with all syllables stressed. So, twenty-five members of the sample pronounced it with the wrong stress pattern.

When the word was analyzed based on gender, the male and female students uttered the word slightly differently. Out of fifteen male participants, four put stress on right syllable. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, only one of them uttered the word with the accurate stress pattern. The rest of the fourteen participants could not make it with the right stress pattern. Hence, the analysis of the data showed a strong trend of deviation from the standard pattern of stress in the British English. At first, Table 47 showed the variations in the form of syllables along with gender; moreover, the variation of the word from the RP is presented in Table 47. The analysis of the word is also presented through a pie chart to make it clearer for the readers.

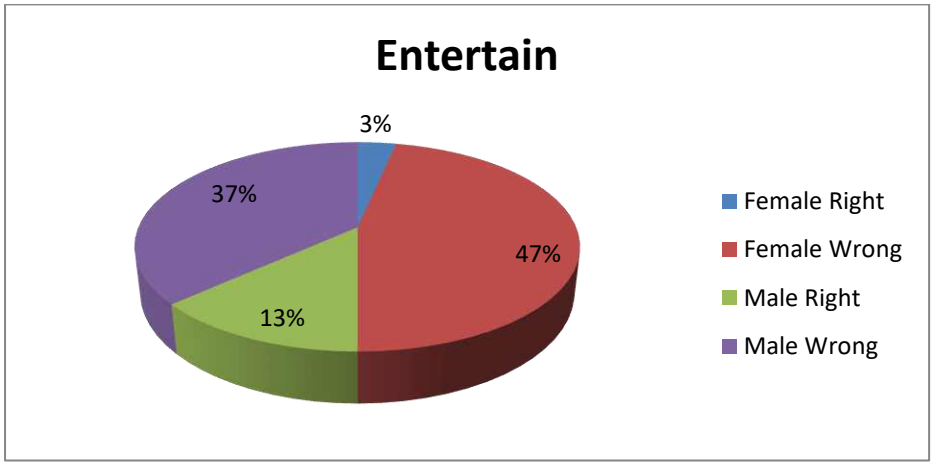
Table 47:

Stress analysis of 'entertain'

Word	Stress on Syllables				Correctly stressed	Wrongly stressed	Variations in percentage
	First	Second	Third	All	5	25	83
Entertain	11	9	5	5			
Gender Based Variations	Male correct	Male wrong	Female correct	Female wrong			
	4	11	1	14			

Figure 31:

Pie chart analysis of "entertain"



4.8.19 The Word "Cafeteria"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words; one of them was 'cafeteria'. The word has five syllables: caf-e-***te***-ri-a, and the stress is on the third syllable in the RP accent. It is a commonly used word, but it still has deviations in terms of stress. The list was read aloud by all thirty participants in the research sample. After analysis, the result showed that only nine students from sample put stress on right syllable; moreover, twelve of them put stress on the first syllable. The second syllable of the word was

stressed by five participants from the sample. Furthermore, two students from the sample uttered the word with the fourth syllable stressed, and two of them put stress on the fifth syllable. None of them uttered the word ‘cafeteria’ with all syllables stressed. So, twenty-one members of the sample pronounced it with the wrong stress pattern.

When the word was analyzed based on gender, the male and female students uttered the word slightly differently. Out of fifteen male participants, five pronounced the word with the correct stress. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, only four uttered it with the accurate stress pattern. The rest of the eleven female participants could not make it with the right stress pattern. Hence, the analysis of the data showed a strong trend of deviation from the standard pattern of stress in the British English. At first, Table 48 showed the variations in the form of syllables along with gender; in addition, the variation of the word from the RP is presented in Table 48. The analysis of the word was also presented through a pie chart to make it clearer for the readers.

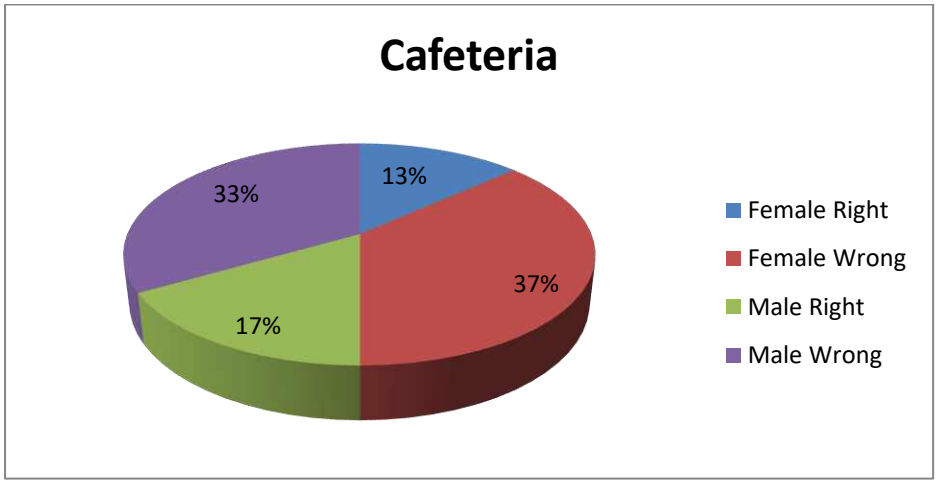
Table 48:

Stress analysis of ‘cafeteria’

<table>
<tr><td>Word</td><td colspan="6">Stress on Syllables</td><td>Correctly stressed</td><td>Wrongly stressed</td><td>Variations in percentage</td></tr>
<tr><td></td><td>First</td><td>Second</td><td>Third</td><td>Four</td><td>Five</td><td>All</td><td rowspan="3">9</td><td rowspan="3">21</td><td rowspan="3">70</td></tr>
<tr><td>Cafeteria</td><td>12</td><td>5</td><td>9</td><td>2</td><td>2</td><td>0</td></tr>
<tr><td rowspan="2">Gender Based Variations</td><td>Male correct</td><td>Male wrong</td><td>Female correct</td><td colspan="3">Female wrong</td></tr>
<tr><td>5</td><td>10</td><td>4</td><td colspan="3">11</td></tr>
</table>

Figure 32:

Pie chart analysis of "cafeteria"



4.8.20 The Word "University"

The second word list was given to the research participants. The list contained twenty bi, tri and tetra syllabic words; one of them was 'university'. The word has five syllables: u-ni-***ver***-si-ty, and the stress is on the third syllable in the RP accent. It is a commonly used word, but it still has deviations in terms of stress. The list was read aloud by all thirty participants in the research sample. After analysis, the result showed that only five participants pronounced the word correctly; moreover, sixteen of them put stress on the first syllable. The second syllable of the word was stressed by three participants from the sample. Furthermore, three students from the sample uttered the word with the fourth syllable stressed, and three of them put stress on the fifth syllable. None of them uttered the word 'university' with all syllables stressed. So, twenty-five members of the sample pronounced it with the wrong stress pattern.

When the word was analyzed based on gender, the male and female students uttered the word slightly differently. Out of fifteen male participants, three of them put stress accurately. On the other hand, there were fifteen female participants in total for the study who pronounced the word from the list; however, only two of them uttered it with right stress pattern. The rest of the thirteen female participants could not make it with the right stress pattern. Hence, the analysis of the data showed a strong trend of deviation from the standard pattern of stress in the British English. At first, Table 49 showed the variations in the form of syllables along with gender; furthermore, the variation of the word from the RP is presented in Table 49. The

analysis of the word was also presented through a pie chart to make it clearer for the readers

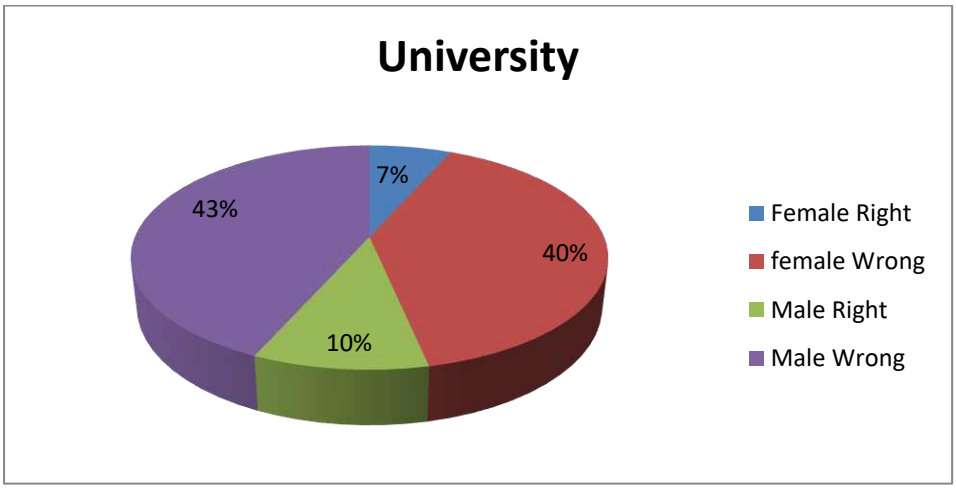
Table 49:

Stress analysis of 'university'

<table>
<tr><td rowspan="2">Word</td><td colspan="6" rowspan="2">Stress on Syllables</td><td rowspan="2">Correctly stressed</td><td rowspan="2">Wrongly stressed</td><td rowspan="2">Variations in percentage</td></tr>
<tr></tr>
<tr><td></td><td>First</td><td>Second</td><td>Third</td><td>Four</td><td>Five</td><td>All</td><td rowspan="4">5</td><td rowspan="4">25</td><td rowspan="4">83</td></tr>
<tr><td>University</td><td>16</td><td>3</td><td>5</td><td>3</td><td>3</td><td>0</td></tr>
<tr><td rowspan="2">Gender Based Variations</td><td>Male correct</td><td>Male wrong</td><td>Female correct</td><td colspan="3">Female wrong</td></tr>
<tr><td>3</td><td>12</td><td>2</td><td colspan="3">13</td></tr>
</table>

Figure 33:

Pie chart analysis of "university"



4.9 Findings and Discussion

The whole word list presented above was analyzed and evaluated by the PRAAT (6.2.1) software. The results of the study show that supra-segmental features are equally important for second and foreign learners. In the collected data, the stress patterns followed by the English speakers with a Saraiki background have been quite

weak. A number of the words from the list were pronounced with totally wrong stress in the word. Lexical stress interpretation and its relation to gender are important parts of the study. The sample (N = 30) shows weak and deviated stress patterns in their speech. The word ‘administration’ shows 100 percent deviations from the defined stress of Received Pronunciation; further, the majority of the sample pronounced the word with four syllables. The spectrogram analysis showed the same. The male students in the sample show more intensity in their speech than the female students. While discussing pitch, all fifteen male participants showed a lower pitch than the female participants. During data interpretation, it has revealed that the male students from the sample uttered the words with a longer duration than the female learners. It is interpreted that English speakers of the northern variety of Saraiki, who speak Saraiki as a native language, lack knowledge of lexical stress patterns. Gender does not matter in terms of lexical stress as both the male and female learners show variations in terms of stress patterns. Hence, they were not able to put stress on the right syllable to make communication easy and attainable.

There are multiple reasons for these variations found in the speech of the sample. One of the most important reasons is the interference of the mother tongue. Learning the English language with the rules and phonetics of the mother tongue make it more complex and far from the standard variety. Another important factor for lexical stress is the difference in letters and sounds in the English language; there are 44 sounds for 27 letters in English, making it difficult for non-native learners. There is a lack of proper teaching of phonology for learners of English in Pakistan. Teachers are usually untrained and follow the traditional method for English language teaching. Teachers also belong to non-native varieties, and that’s how the negative structures get transferred. English does not have proper rules for stress; in fact, it has a very unpredictable nature. There are no fixed patterns for where to put stress on a word. The words that have five syllables can have stress on the first to last syllable, and it can be on any syllable. There are multiple reasons that make the language learning procedure difficult and ambiguous. Hence, English language learning in Pakistan has many issues that should be addressed.

CHAPTER 5

CONCLUSION

5.1 Conclusion

The present study was carried out on the principle of finding out variations in the speech of English learners who have the Saraiki language as their mother tongue. The research sample (N = 30) was based on intermediate students of public sector colleges in the District, Mianwali, Pakistan. These variations were measured on both the segmental and supra-segmental levels. The research has delimited to the English consonant sound that is plosive along with approximant. For the supra-segmental level, the research is delimited to lexical stress. The analysis of the data results in a strong level of variation among the Saraiki speakers of English from the RP. The overall analysis of the participants' performance shows multiple variations in the area of the selected sounds, i.e. /t/ and /r/. The performance of the sample (N = 30) was analyzed through a wordlist, a passage for these sounds and a separate list of 20 words used for lexical stress analysis.

The sample, on average, uttered more of the Saraiki variety in their speech. The performance of the sample of the research produces retroflex variety for plosive sound. Moreover, the selected approximant sound was uttered with variations, and its manner of articulation changed to flap. The place of articulation in the speech of Saraiki speakers for the phoneme /r/ was identified as similar to retroflex and alveolar. Furthermore, the performance of the whole sample in the area of lexical stress was weak as Saraiki like Urdu has zero stress patterns. The language usually shows a stress-free variety.

The performance on the basis of gender was also analyzed in the research. The output from all the male members of the sample has shown a significant level of deviation from the standard British English (RP). The same trend was followed in the area of English consonants by the female participants in the research sample.

The performance in the area of rhoticity by the whole sample was poor on average. As the RP accent is non-rhotic, the /r/ sound is usually pronounced when it comes before a consonant sound. After analyzing the data, the results showed that the Saraiki variety of English (Mianwali dialect) is rhotic in nature. The feature of

rhoticity in this variety is the same as in the Pakistani variety of English. There are multiple factors, mainly the interference of L1that make it a rhotic variety.

Lexical stress was the only focused area of the present study for supra-segmental features. On average, the study sample produced poor results for the feature of stress on the lexical level as the sample aggregate results in structures that are not similar to the Received Pronunciation.

To sum up, the variations identified in the speech of intermediate students of public sector colleges in the district of Mianwali indicated that it is a distinct variety, which shows many characteristics on its own specifically and in general to the central variety of Saraiki and Pakistani variety of English. The sample has a different background linguistically at the segmental and supra-segmental levels, and the same acts as an obstacle to learning L2 sounds. Moreover, the gender-based analysis of the data showed strong deviations from the standard accent of RP. Thus, the Pakistani learners of English faced a large number of problems in learning the English sounds due to the difference in sound systems.

5.2 Contributions of Present Research

The present research has added the variations in non-native English speech in the sample. It identifies and contrasts the variety of English produced by the English speakers with the background of the Saraiki variety spoken in the district of Mianwali. The central variety of Saraiki has been explored by many researchers in the field of phonology, but this variety has remained neglected so far. The sample produced variations largely. One of the basic aims of the research has been to identify the variations at the phonemic level in the English speech of students who have Saraiki as their mother tongue. The variations are analyzed on different levels, such as rhoticity.

The research also contributes to the existing knowledge to provide a gender based analysis of the data. The female participants show a little bit better language production for some features, but on average, the whole sample varies in phonemic and prosodic features from the standard British English (RP).

To explore further, the present research also contributes to the present literature in the area of supra-segmental features. Lexical stress was analyzed by using the software, PRAAT.

An information form was designed to get their maternal and paternal educational and professional information. The tool helped in selecting the appropriate sample for the study. The exposure to English channels of the sample was also collected and analyzed, and this was useful in interpreting whether the exposure enhanced their learning or not.

Along with the wordlist, a passage was also used for data collection to analyze the variations in the coherent text. This is also a contribution to the present study.

5.3 Suggestions and Recommendations

The northern variety of Saraiki has been the focus of the current study. This is the first study of the English variety produced by Saraiki-speaking people in the district, Mianwali; the research has covered the area of phonetics and phonology only. The researcher has proposed the following suggestions and recommendations in accordance with the study's findings:

1. It is a fact that language learning and language acquisition are two different areas of the same process, and none of them can be the same. The level of proficiency and competency may not be equal for the two ways of learning a language. In Pakistan, English is an official language and is used widely, but it is learned, not acquired. The articulators of learners of the English variety spoken in Pakistan are tuned to national and regional languages. So, the difference in speech is quite obvious; however, it can be reduced with a better method of teaching.
2. Extra attention should be paid to the English sounds that are absent from the sound systems of Pakistani languages. In order to minimize the variations in their speech, students ought to practice these sounds frequently.
3. The teaching of any language is based on four skills: listening, speaking, reading and writing. All four skills are equally important in the learning process. Unfortunately, the main focused areas are reading and writing in our country, and speaking skills are totally ignored. It is a major cause of lack of language competence, which needs attention and strategies for their enhancement.
4. Indeed, the difference in context is another major area of deviation. The two nations, the natives of English and the Pakistanis, have different social as well

as regional differences, but these differences should not affect the understanding of listeners in L2. It is necessary to make it the recognized standard, and for that purpose, English language teaching needs a proper environment.

5. The English language has 26 letters but 44 sounds. It is quite obvious that if only letters were the focus of language teaching, learners would always be short on proficiency. To avoid the variations, the phonemic sounds of English should be taught in the initial grades of schooling. This will help in reducing the variations caused by poor teaching practices.
6. It is a widely accepted fact that the mother tongue is the most important cause of variations in L2 learning. Accents of speakers are tuned according to their first language and act as a hurdle in L2 learning. If speaking skills are given equal attention in language learning, the influence of the mother tongue can be minimized.
7. It is a fact to believe that some differences originate from not being exposed to L2, and for these deviations, mother tongue influence is not responsible at all.
8. Another crucial factor in the way of learning English for Pakistani learners is hesitation and reluctance, so a stress-free environment is the basic need for productive learning. A relaxing and unrelenting environment in the classroom is a prerequisite for efficient and improved learning.
9. Speaking activities to enhance the speech of non-native learners may work as a meaningful tool. Speaking activities may not only improve speech competency but also minimize the factor of hesitation.
10. In order to make the variety spoken in the area near the standard, communication based teaching techniques should be adopted, so the students maximize the use of language. The suggestion is the same as the aim of the present study as it will help in making this sub variety of English noticeable.
11. There is a difference between a variety and a substandard and incomprehensible version of a language. If language teaching methods were improved, the outcome would not be the ambiguous version but a variety of English language.
12. The classrooms usually follow traditional methods of teaching, i.e. teacher-centred. During lectures, the students hardly got a chance to get involved in the learning process. Modern methods of teaching should be followed, which

are based on a two-way learning process. Students are also an active part of the lecture, which will improve their speaking skills.

13. In the early years of schooling, sounds of language should be taught, as this will bring about a transformative change in language learning. They should know the differences between sounds and letters.
14. The education system in Pakistan is divided into three basic levels, including madrassas, public sector schools, and private sector schools. Levels of language also exist just like the multiple educational systems in Pakistan. As a result, people with the same qualifications have different levels of language proficiency.
15. A single national curriculum is a positive step towards eliminating different levels of academic institutions in the country. The policy should be implemented quickly and develop a positive attitude towards this pragmatic measure.
16. Lexical stress in the English language has an important place. The study sample has shown poor results in this area. The significance of English phonology and phonetics should be realized by the teachers and students simultaneously.
17. Stress patterns in English do not have fixed rules, such as grammar, making them a more complex feature. Second- and foreign-language learners faced huge difficulties in learning and interpreting when and where to put stress in lexis and sentences. The area needs more attention from teachers and curriculum developers.
18. The government should organize training programmes for the teachers, so they can acquire and teach the phonological system of English with the adequate proficiency.
19. Different websites provide practicing activities, such as worksheets and audiovisual aids for language learners. They should be used at the institutional level by teachers and people who want to improve their language proficiency.
20. Today, social media is not just used for global connectivity and entertainment; it may also be used for the purpose of learning and practicing. There are a number of YouTube channels that teach English segmental and supra-segmental features; they can be useful sources for second and foreign language learners.

21. Students must be made fully aware of the subtle details of the target language so that they take extra care when using it. The data analysis chapter demonstrates that our rhotic speech strongly differs from the Received Pronunciation.
22. Hence, English, like all other languages, has a defined phonological system for segmental and supra-segmental levels, and for the aesthetic, productive and practical use of English, it should be learned with all of the requirements.

5.5 Future Research Areas

The present study has focused only on the variations in the English speech of Saraiki students. To the best of the researcher's knowledge, this is the first research on the northern variety in the field of phonology. There are many other areas, including loan words, grammar and lexicology that can be explored by the other researchers.

To add further, the present research has focused on only two consonant sounds. That is why a detailed study of other consonant sounds and vowel sounds should be conducted.

Supra-segmental features other than stress, such as intonation, should be explored, too. Since stress is a complex area of English and Saraiki is a stress-free language, it makes it more difficult for learners to learn an accurate stress pattern.

The prosodic features are also focused only on lexical stress; there should be other studies conducted on sentence-level stress. Future studies can explore the level of variation in different age groups as the present study focused only on intermediate students in the public sector colleges.

Lastly, the future researchers may use other research tools that can collect context based data. They can generate debates on different topics and dialogues to get different perspectives and effects of variations on different levels.

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APPENDIX A

PARTICIPANTS' INFORMATION FORM

(1) Full Name ……...

(2) Gender (Male/Female)……..

(3) Qualification…….

(4) Name of Institution……..

(5) Place of birth……

(6) Place of Education …….

(7) Age ……

(8) Mother Education …….

(9) Mother Occupation……

(10) Father Education……..

(11) Father Occupation……...

(12) Medium of communication used by Teachers……

(13) Stay duration in native town……..

(14) Mother Tongue …….

(15) Place and time duration of stay other than hometown……

(16) Exposure to English Channels…….

(17) Nature of interaction with Non Saraiki speaking people……

(18) Language use in day to day conversation (Family, Friends, Market etc.)

……

APPENDIX B

WORD LIST OF /t/ SOUND

S.No	Initial Position	Medial Position	Final Position
1.	Teacher		
2.		Battle	
3.			Biggest
4.	Train		
5.		Tuition	
6.			Acceptation
7.	Trail		
8.		Stationary	
9.			President
10.	Tilt		
11.		Tent	
12.			Technologist
13.	Tenor		
14.		Treatment	
15.			Torrent
16.	Truce		
17.		Integrationist	
18.			Intelligent
19.	Temporary		
20.		Treaty	
21.			Inflict
22.	Temporary		
23.		Testament	
24.			Capability
25.	Total		
26.		Embattlement	
27.			Educationalist
28.	Tallest		

29.		Intermittent	
30.			Toast
31.	Traditionalist		
32.		Superintendent	
33.			Technocrat
34.	Tablet		
35.		District	
36.			Court
37.	Tyranny		
38.		Thirsty	
39.			Jacket
40.	Toughest		
41.		Retirement	
42.			Affect
43.	Translate		
44.		Acceptance	
45.			Capacity
46.	Tailor		
47.		Taste	
48.			Street
49.	Truck		
50.		Carton	
51.			Account
52.			
53.		Antioxidant	
54.			Lieutenant
55.	Transfer		
56.		Templates	
57.			Empty
58.	Traffic		
59.		Gateway	
60.			Target

APPENDIX C

WORD LIST FOR /r/ SOUND

S. No	Initial Position	Medial Position	Final Position
1.	Roar		
2.		Recruiter	
3.			Reminder
4.	Ruler		
5.		Refresh	
6.			Martyr
7.	Rocket		
8.		Array	
9.			Helicopter
10.	River		
11.		Laboratory	
12.			Hour
13.	Rubber		
14.		Berry	
15.			Researcher
16.	Register		
17.		Agree	
18.			Printer
19.	Rainbow		
20.		Administrator	
21.			Water
22.	Reading		
23.		Recharge	
24.			Later
25.	Ruler		
26.		Bury	
27.			Calligrapher
28.	Rhyme		

29.		Rollercoaster	
30.			Ambassador
31.	Recommend		
32.		Refrigerator	
33.			Reformer
34.	Record		
35.		Absurdity	
36.			Rumor
37.	Recycle		
38.		Approve	
39.			Rotter
40.	Robot		
41.		Abstract	
42.			Razor
43.	Roman		
44.		Rare	
45.			Radiographer
46.	Rather		
47.		Profit	
48.			Baker
49.	Radiant		
50.		Alternate	
51.			Remover

52.	Reticular		
53.		Crucial	
54.			Beggar
55.	Rust		
56.		Marriage	
57.			Color
58.	Ribbon		
59.		Robbery	
60.			Rectangular

APPENDIX D

WORDLIST FOR STRESS

1) Rocket
2) Chocolate
3) Architect
4) Illiterate
5) Constituent
6) Cassette
7) Timetable
8) Theater
9) Curiosity
10) Intermediate
11) Administration
12) Operation
13) Affidavit
14) Metamorphosis
15) Elementary
16) Preposition
17) Continental
18) Entertain
19) Cafeteria
20) University

APPENDIX E

PASSAGE FOR READING

Passage for reading I have a neighbor we call “Happy”. I have never seen her angry at anything and never heard her say a mean word to anyone or about anyone. Happy and her husband Ben, 70, have a huge garden. They spent many happy hours together working on it. Most of the neighbors watched interestingly as Ben doubled the size of their garden. As the cost of food climbed faster than Ben’s beans, we all wished we also had such a large garden. As the rest of us spent our dollars at the market, Happy could be seen picking beans in her backyard. Last month, Happy and Ben invited most of the neighborhood over for an “all-day food fest”. We were told to bring gloves and arrive very early in the morning. We didn’t know what was about to take place. By 9:00 am, there were nine of us in the garden picking tomatoes, beans, peppers, and cucumbers. By 10:00 am, there was lots of laughter. We had delicious food and shared a lot of stories. After dinner, we played games. As we were leaving, Happy and Ben handed each of us a shopping bag filled with the vegetables of the day, already packaged and frozen. What a delightful gift! Well, the point wasn’t so much about the food. The true gift was a day of friends enjoying one another’s company. None of it would have happened if it had been for Happy and Ben’s garden. Now they have a blog about gardening in case we decided to plant a garden. And I am so proud of my tomato plants!