

IMPROVING ENGLISH PRONUNCIATION AMONG ARABIC EFL SCHOOL-AGE
STUDENTS USING MINIMAL PAIRS

by

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CERTIFICATION OF PROJECT WORK

We, the undersigned, certify that this project entitled IMPROVING ENGLISH PRONUNCIATION AMONG ARABIC EFL SCHOOL-AGE STUDENTS USING MINIMAL PAIRS by Ali Altamimi, for the Degree of Master of Science in Education, TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES, is acceptable in form and content and demonstrates a satisfactory knowledge of the field covered by this project.

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Abstract

This study investigated whether the use of the minimal pairs' strategy improves English pronunciation of unfamiliar consonant sounds for native Arab student in a 2nd intermediate grade in Saudi Arabia. The minimal pair defines as patterns of words which sound similar but are in fact different in only one sound (phoneme). Thirteen of participants in this study were male Arabian school students who had been studying English as a foreign language. The type of research used in this study was action research which was designed to enhance teaching in the classroom. The researcher had used four phases in conducting this study; plan, act, observe and reflect. The intervention (use of minimal pairs) was used in this study for approximately fifteen minutes each time, four times per week over a four-week period. Three instruments were used in this study: pre-test, post-test and oral assessment (based on observation). This research was designed using pre-and post-test to determine if there was any improvement with the pronunciation of specific English consonant phonemes (/p/, /z/, /v/, /tʃ/ and /ŋ/) by the study participants. Finally, the findings revealed that teaching strategy, minimal pairs, is effective in improving the pronunciation of the 2nd intermediate grade Arab speakers.

Key words: minimal pairs, Arab learners, unfamiliar sounds, pronunciation, consonant phonemes

Dedication and Acknowledgement

Dedication: This thesis is dedicated to my family and my friends who assisted me in this study. My thanks to **my father** who was supporting me financially and spiritually during my graduate study. I would like to dedicate this thesis to **my mother** who encouraged me to success throughout of my life. **To my wife**, I thank my darling wife for creating the ideal environment for study and success, for her patience on my permanent preoccupation, and for taking responsibilities of the family upon herself lonely.

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List of Contents

Abstract.....	
Dedication and Acknowledgment.....	
Appendices.....	
List of Tables.....	
List of Figures.....	
Introduction.....	1
Improving English Pronunciation among Arabic EFL School-Age Students.....	1
Problem.....	1
Research question.....	3
Purpose of study.....	3
Significance of the study.....	4
Literature review.....	6
Second Language Acquisition Theory.....	6
Behaviorism.....	7
Acculturation.....	7
Univversal grammar hypothesis.....	8
Minotr model hypothesis.....	9
Sociocultural theory.....	9
Critical Period.....	10
Speaking and Second Language Acquisition Theory.....	11

Factors Affecting Pronunciation.....	12
Attitude.....	13
Exposure to target language.....	13
Instruction.....	14
Mother tongue.....	14
Strategies for Teaching difficult Sound.....	15
Stress.....	17
Intonation.....	18
Minimal Pairs.....	19
Effectiveness of Minimal pairs.....	21
Synthesis of Literature	24
Methodology.....	26
Setting.....	26
Country.....	26
City.....	27
School.....	27
Classroom.....	28
Participants.....	29
Design of study.....	29
Procedures.....	30
Plan.....	31
Act.....	31
Observe.....	32

Reflect.....	32
Data collection.....	32
Data analysis.....	33
Limitations.....	33
Results and Discussion.....	35
Conclusion.....	45
Recommendation.....	46
References.....	47

List of Appendices

Appendix	page
A pronunciation test (pre-test).....	53
B Activity1.....	54
C Activity2.....	55
D Oral assessment	56

List of Table

Table	page
1 Dates and procedures within periods study.....	29

List of figures

	Figure	Page
1	Pre-test.....	35
2	Post-test.....	37
3	/p/ sound.....	39
4	/tʃ/ sound.....	40
5	/ŋ/ sound.....	41
6	/v/ sound.....	42
7	/ʒ/sound.....	43

Introduction

Improving English Pronunciation among Arabic EFL School-Age Students

Good phonological awareness of a second language is necessary for learners to have if they are to achieve fluent communication in the language. However, many learners of English as a second language (foreign language) face difficulties and struggle with correct pronunciation of English words. Avery & Ehrlich (2012) believe the original language of an individual, has a direct effect on their ability to hear and produce the sounds of the English language. Learners fail to produce certain sounds, which do not exist in their mother tongue. For this reason, Arab learners have difficulty in producing certain sounds when they are learning English. There are particular sounds that native Arab speakers find difficulty in reproducing accurately and fluently when speaking English because they are not used in Arabic. The proposed research study focused on investigating a specific strategy for addressing this problem.

Problem

The English language consists of 21 consonants and five vowels whereas the Arabic language has 28 consonant and five vowel sounds. There are both similarities and differences between the two languages in terms of sounds and the alphabet letters. However, the Arabic English learner faces some serious difficulties because certain phonemic segments and patterns encountered in English are not found in the Arabic language. For example, the English language has two distinctive sounds /p/ and /b/, whereas Arabic language only has the latter one. The researcher attempted to shed some light on the problems which Arabic English learners faced with particular consonant sounds that are unfamiliar in the Arabic language. He focused on five consonant phonemes (/p/, /ʒ/, /v/, /tʃ/ and /ŋ/) which Arabic English learners have difficulties

with in trying to reproduce when speaking in English. For example, the (/p/, /z/, /v/, /tʃ/ and /ŋ/) sounds have no existence in the phonemic system in the Arabic language. The learners replace these sounds by using /b/, /dʒ/, /f/, /ʃ/ and /n-k/ sounds respectively. There are some examples which illustrate these consonant sounds, namely, /blei/ for /plei/ play, /plɛdʒər/ for /plɛzər/ pleasure, /fəri/ for /veri/ very, /ʃɪldrən/ for /tʃɪldrən/ children and /raɪtɪŋk/ for /raɪtɪŋ/ writing. This is a very common problem, which is found not only with Arabic English learners at high school and university but also found afterwards with Arab English speakers when they try to generally communicate with other speakers of English. According to Ahmad (2011), these unintelligible sounds cause barriers and boundaries to effective communication amongst speakers. This problem is very common throughout most Arab countries. In Saudi Arabia, English learners are taught to pronounce each word correctly and fluently. However, often learners do not have an awareness of particular consonant (and vowel) sounds because these sounds are not found in the Arabic language. Sounds that are familiar in their native Arabic language are heard instead of the actual English word sounds spoken by the teacher. This leads to learners frequently repeating mispronounced words. The result is that this affects the learner's ability to reproduce correct word sounds and creates misunderstandings in oral English communication.

There have been some studies undertaken, which have investigated pronunciation difficulties experienced by Arabic speakers as learners of English. Most of these studies have focused on the pronunciation of vowel sounds and investigated Arabs who have never left their countries in order to learn English. Research studies, which have specifically dealt with Arab learners' difficulties of reproducing pronunciation in consonant sounds, include Ahmed, 2011; Ismael & Mahadin, 2012; Al-Saidat, 2010; and Al TAHA, 1995. Many of the research findings consider the role of the mother tongue as a problem for Arabic English learners because of the

role played by negative transfer from the mother tongue and its negative effects on second language learning. Yet, very few studies have proposed any specific strategies to overcome these problems. Ismael and Mahadin (2012), argue that intelligibility of sound might be a better way to transfer ideas on clear English pronunciation, which could improve communicative interaction with others. This includes learners being able to pronounce words correctly to enable them to communicate in a proficient and effective way with other English speakers. For them to do this, errors and mistakes in learning pronunciation must be minimized to avoid communication problems arising when the English language is used. This becomes very important later on when students are no longer learning the language at school or university, but are actually using and speaking it in everyday life with a diversity of non-Arabic English speaking people. A major hurdle that Arabic English learners must overcome is to familiarize themselves with these particular consonant sounds found in English. They then must be able to correctly pronounce words using them. If this is not done, then their ability to speak competently and effectively in English will be little more than a dream. Teachers need to devise and implement effective strategies and methods to address this very serious problem for Arab students learning English.

Research question

The research question was; How will the use of the minimal pairs strategy improve pronunciation of unfamiliar sounds in English (/p/, /z/, /v/, /tʃ/ and /ŋ/) among Saudi students in a 2nd grade intermediate EFL classroom?

Purpose of study

It was therefore extremely important to try to identify and use effective teaching strategies in the classroom that would improve the ability of Saudi students to reproduce correct phonetic English sounds, particularly the unfamiliar phoneme sounds. One such method, which

was proposed, was the teaching of minimal pairs to learners. This strategy had been used successfully to help second language English learners to overcome confusion with unfamiliar word sounds. According to Wright (2010), minimal pairs can be defined as a way to discriminate among words or phrases by one phoneme (p.156). Minimal pairs draws on patterns of words which sound similar (e.g. cheap and sheep) but are in fact different in only one sound (phoneme). This teaching approach can show how two sounds can be contrasted in language. Through this type of instruction, learners can develop the ability to better differentiate between the phonemic sounds of each word.

The author conducted a research study on students enrolled in a 2nd intermediate grade English course in Saudi Arabia. All of the students in this grade were males. The author, as the course teacher, used an action research methodology. This study relies on quantitative research through examination of the students' work before and following the introduction of the minimal pairs' strategy to try to improve the pronunciation of students with each of the phonemic sounds. The author will continually collect data of the students work by microphone recordings to analyze the phoneme sounds over a seven-week period.

Significance of the Study

It is extremely important in second language English teaching to assist learners in being able to use their second language in a communicative way. Al-Saidat (2010), argues that communication between foreign language speakers and native speakers has made English “a means of global communication” (p.15). English has become the international language and the lingua franca as Mackay (2002) defines “a language that is widely used by speaker of different languages to communicate” (p. 133) is spoken by over one and a half billion people worldwide. There are increasing numbers of English learners in most countries. Most researchers have

pointed to the fact that English has become the era language because of internationalization and globalization with regards to the economy, as well as with political, technological and communication matters. Moreover, the Saudi government has realized the value of English, which it considers as the dominant language in the world. The Saudi government has employed efforts to send many students to learn English in countries where English is the predominant first or native language. Being proficient in English enables Saudi students to enter into universities to study in multiple disciplines such as technology, medicine, education and economics. Although these students learn English for academic and scientific purposes, it has also given them the opportunity to communicate with other individuals who come from a variety of language backgrounds and cultures.

The researcher personally has faced the same sorts of pronunciation problems with these consonants sounds when he learned English. He would like to research more deeply into this area, so that he can see how these difficulties can be overcome for the benefit of Arabic English learners. He wants to find out how Saudi students may be able to better cope with this problem in the future. English is not similar to the Arabic language. There are some sounds and alphabet letters that many Saudi learners have major difficulties and challenges with when learning English. It is important to find effective teaching strategies and solutions to overcome these problems. He has introduced this problem for research because it is an important issue facing many English learners in my country. If this kind of problem can be overcome, it will help Saudi English learners to pronounce words more correctly so that in the future they can communicate with better competence and avoid misunderstandings with other English speakers.

Literature Review

Most English learners attempt to achieve language proficiency in the four domains of speaking, listening, reading and writing. Although most learners consider the development of these four-language skills necessary, many learners would see English-speaking competency as being the most relevant and purposeful. For many learners, who are likely to meet and have contact with other English speakers during their life, developing their English speaking skills is seen as being possibly the most important aspect of second language acquisition. For this reason, learners of English as a second language attempt to make their speech more intelligible and comprehensible, so that they can be more like native speakers. Many English second language learners face considerable difficulties in developing and perfecting their speaking skills to this level. Arab English learners in particular encounter pronunciation problems, some of which are related to unfamiliar sounds found in the English language. The following literature review begins with an examination of the existing literature on the main second language acquisition (SLA) theories as well as critical period hypothesis. This is then followed by a review of the difficulties affecting second language learners with their English speaking and pronunciation, including unfamiliar sounds. Finally, strategies for teaching difficult sounds are looked at with the use of stress, intonation and minimal pairs to improve English pronunciation.

Second Language Acquisition Theory

SLA is the process whereby a learner looks to achieve proficiency in a second language or target language in terms of language production and comprehension. It is a language learned in addition to a person's first or native language. Acquiring a second language requires different conditions and environments comparatively to the acquisition of a first language. This section of the review explores particular theories, hypotheses of SLA of which highlight these different

conditions, and environments, including behaviorism, acculturation, universal grammar hypothesis, monitor model hypothesis, and the sociocultural theory.

Behaviorism. The behaviorist theory states that learning a language is based on habit formation of the learner. This habit formation is related to an environment that is around the learner. Learning is a noticeable behavior, which is inevitably acquired by means of stimulus and response in the form of repetition. Johnson (2004) sees “learning as the ability to inductively discover patterns of rule-governed behavior from the examples provided to the learner by his or her environment” (p. 18)

Behaviorism was applied to second language acquisition because it seemed the process was similar to first language acquisition, in terms of formation of correct habits for learners. Behaviorism developed two approaches that are based on teaching learners of a second language. According to Lightbown & Spada, the audio-lingual approach attempts to use previous habit formation in first language learners to recognize patterns and sounds of second language learning. The audio-lingual approach is applied through stimulation and memorization. The second approach, the contrastive analysis hypothesis, is defined by Lightbown & Spada (2006) as “where the first language and the target language are similar, learners should acquire target language structure with ease; where there are differences, learners should have difficulty” (p.34). Thus, we can see the impact of similar language structures on ease of second language acquisition.

Acculturation. Another environmental-oriented theory is the acculturation model. According to Graham & Brown (1996) the acculturation model, which was developed by Schumann, supports the view that integration of the L2 learner into the target linguistic community plays an important part in the SLA process. This theory emphasizes identification and

integration with the language community and its culture. According to Barjesteh and Vaseghi (2012), the model consists of two types of acculturation:

The first type takes place when the learner is socially integrated with and psychologically opens to the target language (TL) while the second type has all the characteristics of the first type except for the psychological openness of the learner. (p. 581)

The closer learners are socially and psychologically to the speakers of the TL, the more successful they will be in acquiring the second language.

Universal grammar hypothesis. In contrast to the environmental perspective, supporters of the Universal Grammar theory (UGT) argue that humans are born with an innate and genetic language system that shapes grammars found in languages (Kliesch, 2012). According to UGT, language development occurs the same as other biological functions of the human body. According to Kliesch (2012), UGT believes this innate system is required because it would be virtually impossible for language grammars to be learned through social interactions alone. According to White (2003), the universal grammar hypothesis can be used to understand SLA. White (2003) says:

L2 learners already have a means of representing language, namely the grammar of the mother tongue. Thus, it might be that there is, in fact, no under determination problem: if L2 learners demonstrate the relevant kind of unconscious knowledge, it might be the case that they are drawing on the L1 grammar, rather than on UG itself. (p.22)

Monitor model hypothesis. Krashen (1982, 1985, 1992, 2004a), (as cited in Wright, 2010) developed five hypotheses which have had a big influence on SLA. The first hypothesis is that there is a difference between acquisition and learning a language. He points out that acquiring a language is a subconscious act; whereas in contrast, learning a language is a conscious process. The second hypothesis is the natural approach, which theorizes, “we acquire part of the language in a predictable order” (Wright, 2010, p. 38). The third hypothesis is the monitor approach, which attempts to govern the way learners produce patterns and then correct these patterns before producing them during the learning process. The fourth hypothesis is the input approach, which emphasizes acquiring language through understanding messages that learners receive. The fifth hypothesis is the affective filter approach, which limits and controls the amount of input that learners absorb due to anxiety and low- self-esteem.

Sociocultural theory. The sociocultural theory (SCT) challenges the cognitive approach to SLA. An important concept central to this theory is the notion of mediation (Kao, 2010). Learners are thought to be actively involved in the process of making sense of meaning and solving problems in their learning process (Fahim and Haghani, 2012). Mediation refers to the use of tools to resolve a problem or reach a goal. According to Kao (2010), “language is the most significant one” and language learning is a socially mediated process. According to Xiangui (2005), SCT holds the view that human development cannot be considered separately from social context. Language development occurs when there is meaningful interaction between learner and expert in the environment.

Critical Period. The critical period hypothesis is part of the language acquisition theory that describes processes or phenomenon about language learning. Lenneburg (1967), a linguist, introduced the critical period hypothesis to describe a certain period of time that would be ideal

for a student to learn a language. “In language acquisition theory the concept of a time frame for optimal acquisition of a language is known as the critical period hypothesis (CPH)” (Ioup, 2013, According to Lenneburg, the critical period for language learning begins at two years of age and ends at puberty. Lenneburg’s supposition is based on the pattern of brain activity observed from infancy until adolescence. The linguist discovered most of the activity of neural plasticity from age two until puberty. At the end of puberty, neural plasticity declined, and thus, limited the capacity of adolescents to acquire or learn language (Emmorey, 2002; Ioup, 2013). After the critical period, efforts for students to learn language result in incomplete acquisition. This means adolescent and adult students can fail to achieve ultimate attainment of language because they have passed the critical age period to learn a language. To support the logic behind his theory on critical period hypothesis, Lenneburg used studies on children and adults who suffered from aphasia due to major brain trauma. One of the symptoms of aphasia is the loss of language or the inability of patients to communicate. After treatment, Lenneburg discovered that patients between the ages of two and before puberty recovered their capacity to learn language while adolescents and adult patients did not. Due to the outcomes obtained from his research, Lenneburg conducted further studies to support the critical period hypothesis (Ioup, 2013).

Other language theories and concepts that support Lenneburg’s critical period hypothesis as well. Johnson and Newport’s (1989) exercise hypothesis, for instance, promotes the idea that even after a child’s ultimate acquisition of the mother tongue, the child’s capacity to learn another language is still intact. (Ioup, 2013) The exercise hypothesis, therefore, supports the critical period hypothesis because it underscores the inherent skill or capability of children to learn a second language after their mother tongue. This capacity of children is within the scope of the critical period for language learning. Following Lenneburg’s assertions, various scholars

and researchers also studied language acquisition as a critical period. Asher and Garcia (1969) assessed the accents of Cuban learners of different ages who immigrated to the United States. They discovered that out of 71 students, the students that were aged six years or younger had faint accents and were deemed similar to native speakers of English. Derwing, Munro, and Wiebe (1998) also conducted a study to determine strategies for pronunciation instruction and discovered that improvements in pronunciation among young ESL learners were more pronounced than improvements among adult ESL learners.

The critical period hypothesis plays an important role in the study because it highlights the value of timing in teaching ESL. The study primarily focuses on the target population, which are Arabic ESL school-age students who are likely to have English pronunciation problems. The development of instructional plans and strategies in the study will focus on ones which are appropriate for school age students, or those in primary school. The critical period hypothesis justifies the inclusion of the target population because it highlights the importance of taking advantage of the critical period of language learning among Arabic ESL students to facilitate mastery of English pronunciation. Moreover, the critical period hypothesis underscores the importance of developing a comprehensive English curriculum for ESL learners, which is one of the weaknesses of the English curriculum in Arabic primary schools.

Speaking and Second Language Acquisition Theory

Most theories of second language acquisition emphasize the importance of developing speaking skills and competency for learning a language. In accordance with Krashen's theory, the learner can acquire speaking capability as a result of being exposed to comprehensible input of the target language. In other words, speaking proficiency can be an indirect aid to assisting with the second language acquisition process. Wright, (2010) states:

Speaking results in conversation, and what the other person says can provide an excellent source of comprehensible input for a learner. Speaking can also help by making the learner feel more like a user of the second language, and this feeling helps to lower the affective filter. (p.40)

Furthermore, interaction hypothesis and sociocultural theory also put an emphasis on speaking in learning a second language. Interaction hypothesis sees conversation as an interaction between a learner of a second language and a native speaker, which is modified in order for there to be mutual comprehensibility in the exchange. Sociocultural theory also focuses on speaking (conversation) that enhances language acquisition. It claims that language learning takes place through interaction and collaboration between a learner and the interlocutor. Lightbown & Spada (2006) define interaction hypothesis where, "The emphasis is on the individual cognitive process by giving learners access to the input they need to activate internal process. In Vygotsky theory, greater importance is attached to the conversations themselves, with learning occurring through the social interaction." (p.47)

Factors Affecting Pronunciation

A requirement for language proficiency is for learners to attain understandable pronunciation in speaking a language. The prime objective of teaching pronunciation with any language is for intelligible and comprehensible pronunciation. Gilakjani (2012) says that although the demonstration of precise pronunciation is unlikely, the pronunciation should fall within reasonable standards to meet the communication needs of the learner. However, many second language learners struggle with producing intelligible and comprehensible English

pronunciation. The factors, which can affect the learning of English pronunciation, include learners' attitude, exposure to the target language, and teaching instruction.

Attitude. Some learners are more able at developing and acquiring good language pronunciation skills. In Elliot's study (as cited in Gilakjani, 2012) he found that the participants' attitudes towards learning native or near-native pronunciation, "was the principal variable in relation to target language pronunciation. If the students were more concerned about their pronunciation of the target language, they tended to have better pronunciation of the target allophones" (p.122). Whereas, Lightbown&Spada (2006) argue that "it is difficult to know whether positive attitude produce successful learning or successful learning engenders positive attitudes, or whether both are affected by other factors." (p.63) Yashima, Zenuk, Nishide, and Shimizu (2004) examined Japanese adolescent learners' willingness to communicate (WTC). They found that learners who had a habit of communication outside of classroom with their teacher achieved high scores in WTC.

Exposure to target language. Unlike a native language learner, many second language learners are learning English in their own country, as a foreign language(EFL learners). This lack of exposure to the target language considerably limits EFL's abilities to interaction and speak to English native speakers. This also means that learners will have exceedingly limited access to comprehensible input, which is an essential element of Krashen's monitor model refers that comprehensible input is the necessary condition for language acquisition to take place.

Asassfeh, Al-Shaboul, Zuraiq, &Alshboul (2011) designed a study to investigate the main difficulties that Jordanian English-major undergraduates found from their experiences of learning English as a foreign language. A questionnaire was developed and administered to 270 (50 male and 220 female) participants from the Hashemite University, Jordan. The researchers analyzed

these problems from a learner's viewpoint. Their findings suggest that students struggled most with speaking English. The researchers referenced that difficulties were experienced in speaking English; in pronouncing words correctly, determining the stressed syllable in a word, using appropriate intonation in pronouncing sentences, and in being able to use grammatically correct English when speaking. This study is important because it suggests that these speaking difficulties can happen where EFL learners have limited use with English in daily life.

Instruction. Instruction in foreign language centers on the four skill areas of development: listening, speaking reading and writing. However, according to Elliot (1994), (as cited in Gilakjani, 2012), there may be absence or emphasis on pronunciation improvement with second language teaching. This may be due to a general weakness of interest both by teachers and students. As such, pronunciation of a second language may not necessarily be seen as being very important. Due to pronunciation being excluded as a priority, the act of teaching pronunciation to EFLL's may be sacrificed for other language building skills during classroom time.

Mother tongue. Arab ESL learners' often struggle with correct English pronunciation. Ahmad (2011) investigated the difficulties, which Saudi students meet when pronouncing certain English consonant sounds. He randomly selected eight students for the study from a Saudi Arabian university. Recording samples of consonant sounds were taken from the research participants and four words selected for possible consonant sound problems using initial, medial, and final word positions. An English native speaker identified the problem sounds from the participants' speech recordings. According to Ahmad (2011), the results show that the participants had major difficulties in pronouncing specific consonant sounds such as /p/, /d/, /v/, /tʃ/, /z/, and /ŋ/. The findings of the study indicate that when students speak a second or foreign

language they will tend to produce the sounds, which are closest to the sounds that exist in their mother tongue that lead to pronunciation errors. Al-Saidat's (2010) study results demonstrate that Arab EFL learners unintentionally insert an anaptyctic vowel (a short vowel between consonants) at the beginning as well as in the end of certain English syllables. The findings suggest that certain English syllables are difficult to learn for Arab learners of English and this leads to pronunciation problems.

Na'ama (2011), results show that the most frequent errors by Arab ESL learners occurred in their pronunciation of three and four-final-consonant cluster English words. These two types are usually not found in Arabic segmental features. According to Na'ama (2011) this is a major cause of interlingual phonological errors for Arabic English speakers.

Al Taha (1995) found that the most common speaking errors were English phonemes being replaced by Arabic phonemes. According to the researcher these errors can in part be attributed to first language (L1) interference where certain sounds in English do not exist in Arabic and different consonant clustering between the English and Arabic languages.

Strategies for Teaching Difficult Sounds

The proposed study concerns the development of instructional or training strategies that would help Arabic English as a Second Language (ESL) school age students learn to improve their English pronunciation. Existing literature on ESL instruction identifies pronunciation as a major learning area and one that is challenging for all language students, including Arabic ESL students (Saigh & Schmitt, 2012). Linebaugh and Roche (2013) identify students' inability to discriminate (i.e. phonemic discrimination) and articulate sounds as barriers to proper English pronunciation. Ansari (2012) believes that Arabic students find it difficult to master English pronunciation. To properly learn and attain competency with this skill, additional instruction is

often requested by students. This is because learning institutions do not always expose students adequately to basic and functional English even when English is part of the curriculum. While primary and secondary schools teach English in Arab countries, like Saudi Arabia, the content of the curriculum does not necessarily offer opportunities for students to master the language, including proper English pronunciation (Ansari, 2012). Due to the weak foundation of English in the primary and secondary curriculum, most students struggle with speaking functional English at a high level in their education. “Inter lingual errors’ occur because of the transfer of the students’ mother tongue to their use of the English language. As Khan (2011) argued, “most English Language learners often commit linguistic mistakes of syntax and pronunciation as an effect of the interference of their [first language] L1” (p. 1250). For this reason, a primary objective of conducting this research is to identify instructional strategies for teaching Arabic ESL school-age children (as the target population) that will help them master English pronunciation. The expected outcome of research includes identifying instructional strategies to teach English pronunciation effectively to the target population. This is seen as an important part of nurturing the students’ skills in listening and speaking. Despite the prevalent use of the intuitive-imitative approach and analytic-linguistic approach in training pronunciation, the succeeding discussion focuses on critical period and the intonation method as concepts and probable strategies in improving the target population’s English pronunciation. According to Tergujeff (2012), English pronunciation teaching in general has changed from a narrow approach, which used to concentrate on teaching phonemic segments, to a much broader one, which now emphasizes suprasegmentals. Suprasegmentals are units of sound that extend over more than one sound or utterances where there are two or more phonemes. They relate to important spoken language features such as intonation, rhythm and stress that occur at the same time with vowels and consonants in an utterance. On the other hand, segmental features are units

of one sound or utterance where there is one phoneme and which relate to consonants and vowels. Celik (2005) argues for example that intonation is an extremely important part of speech and that non-native English speakers must obtain proficiency with it to be able to properly communicate.

Stress. According to Celec-Murica, Brinton, Goodwin and Griner (2012) “stressed syllables are most often defined as those syllables within an utterance that are longer, louder, and higher in pitch” (p.184). Celec-Murica Brinton, Goodwin and Griner(2012) classified stressed syllables in words in three categories: strongly stressed represent large capital letters, lightly stressed represent small capital letters, and unstressed represent lower letters or small case letters.

Most studies examining pronunciation-teaching strategies have focused on the importance of the suprasegmentals in communication. For example, a study carried out by Hahn (2004) investigated primary stress on intelligibility for nonnative speakers. The participants in her study were native Korean speakers who spoke English as their second language. Native English speakers were used as listeners to evaluate the utterances of nonnative speakers. From the findings of her study on incorrect stress placement, she concluded that suprasegmental features were very important for second language learners. While a number of these types of research studies investigating suprasegmentals have been undertaken in various countries, they have not been undertaken to date in Arab countries. This may well reflect the lack of importance attached to this particular pronunciation teaching approach in these countries.

Intonation. There are different strategies and techniques available to ESL educators’ to improve English pronunciation. The intonation method is one important strategy or technique to accomplish this learning goal. Teaching intonation primarily focuses on the melodic element of

language, specifically the way a human being would speak taking note of pitch and the rising and falling pattern of the voice (Celce-Murcia, Brinton & Goodwin, 2010). Proper intonation is crucial in language comprehension because it signifies pattern of language that allows the speaker and the listener to make sense of the message. Intonation allows the listener to identify the grammatical function in language uttered by the speaker. Teaching intonation, therefore, involves oral exercises that allow the learner to speak in a manner that uses pitch to note grammatical function. One of the problems amongst ESL learners, however, is that student's find difficulty in mastering intonation, thereby, making comprehension challenging for them. Nevertheless, language comprehension aside, mastering intonation is also crucial to the mastery of pronunciation. Intonation focuses on the preciseness and clarity of language when spoken through the student's regulation of pitch and voice. Consequently, mastering intonation will help the student master pronunciation because it cultivates fluency and voice quality. Therefore, "since voice quality [which is an important element in learning intonation] encompasses so many aspects of phonology, it provides a useful point of departure for pronunciation work" (Bassiri, 2013, p. 102).

A proper English pronunciation leads to greater comprehensibility of the speaker, and comprehensibility is the common denominator between pronunciation and intonation because the latter focuses on pitch as a means of making oral language comprehensible among listeners. Due to the link between intonation and pronunciation, many practitioners use intonation as a starting point in helping learners' master pronunciation. Exercises in pronunciation often begin with practices in intonation in order to facilitate comprehensibility, fluency, and accent (Derwin, Munro, & Weibe, 2002). Goodwin (2012) also discusses exercises in intonation as a means of mastering skills in articulation, which is an important component of pronunciation. During

instruction, students are taught to use intonation to stress consonant and vowel sounds in a sequence, and the focus on the segmental features of phrases or sentences allows students to learn how to articulate them orally, and thus, pronounce them properly. In this way, students can use intonation to properly convey the true meaning of a word, phrase, or sentence through correct pronunciation (Goodwin, 2012). Using proper intonation to say “record” (noun) and “record” (verb) consequently allows students to pronounce these words correctly within the proper grammatical context. Overall, the description of teaching intonation as an instructional strategy and the results of research studies briefly discussed previously suggest that it would be an effective means of improving English pronunciation among the target population.

Minimal pairs. A common struggle of Arab ESL learners is the unfamiliarity of a number of English phoneme sounds in the language. A number of sounds within the English phoneme are not found in the Arabic language. Learners often incorrectly substitute the sounds they know in Arabic into English words. This can result in the incorrect phonemes being spoken which will raise the student’s difficulties with proper pronunciation and intelligibility within their language use. Minimal Pairs can be used as an effective teaching strategy to help eliminate these kinds of problems.

According to Pennington, as cited in Cruz (2005), “A minimal pair is a pair of words which differ in lexical meaning based on a difference in one sound” (p. 172). As an example, in the pair of words, very and ferry, the only distinguishing sounds are /v/ and /f/. Minimal pairs have been used for teaching pronunciation. They provide a means of differentiating between sounds with vowels and consonants. According to Levis & Cortes (2008), this teaching strategy can be used to get learners to identify and contrast the sounds between words. For Arab ESL learners, this approach would enable them to distinguish the unfamiliar sounds found in English

words for special listening, comprehension and speaking practice. An important benefit in using this approach is that the pairs do not need be similar word types or come from the same lexical group.

There has been very little research done in relation to the effectiveness of using minimal pairs' strategy to improve pronunciation of difficult sounds with ESL learners. Tuan (2012) devised a research study to investigate possible problems facing English University Vietnam students with the production of discrete English sounds. Discrete sounds refer to vowels and consonants spoken separately in an intelligible manner. Tuan wanted to determine the extent to which minimal pairs facilitated the teaching and learning of English discrete sounds. The researcher used fifty-four first-year students who were majoring in tourism and twenty teachers of English from the English Department at Hung Vuong University as participants.

The data was collected using both quantitative and qualitative methods from various sources. These included: questionnaires and interviews, tests, regular observations, audio recordings of students' sound productions, and spectrogram-based analyses of recordings. The researcher's findings revealed that nearly all of the participants faced English pronunciation problems. These included omission of consonants at the end of words, addition of the letter /s/ to the end of words, addition of the schwa /ə/ in the middle of consonant clusters, and a failure to distinguish between long and short vowels, as well as between voiced and voiceless consonants.

Both students and teachers who participated in the study considered minimal pairs an effective learning and teaching strategy for pronunciation of discrete sounds. According to Tuan (2012), the study raised students' awareness concerning pronunciation of English discrete sounds in oral communication and made them more motivated to consider other aspects of English

pronunciation “with a more practical impetus either by themselves or with their teachers’ support” (p. 560).

Effectiveness of Minimal Pairs: Various researches have reported several benefits of minimal pairs and its prevalence as a teaching strategy among second language learners have already been reviewed. Because the study will use minimal pairs as a teaching strategy, it is important that empirical research that establishes its effectiveness be reviewed in this study.

A variety of empirical researches has focused on evaluating the effectiveness of using minimal pairs as a teaching strategy to address several phonological problems. One of these researches is by Gierut (1989) who conducted a study determining the effectiveness of minimal pairs in improving the pronunciation of children. The study specifically used maximal opposition consonants as an intervention instrument and determined that awareness of maximal opposition consonant increase and pronunciation of maximal opposition consonants improved.

Barlow and Gierut (2002) also conducted a study which evaluated the effectiveness of minimal pairs as phonological remediation for children experiencing phonological delay. The study explored different types of minimal pairs such as conventional minimal pair treatment and minimal pair variants and determined that both kind of minimal pair treatment is effective in improving the pronunciation of English consonant sounds of second language learners who are experiencing phonological delays. Even though the study did not focus on second language learners, but instead speakers experiencing phonological delays, the study was still able to establish the effective of minimal pairs as a teaching strategy.

Similarly, Hayes-Harb (2007) evaluated the effectiveness of using minimal pairs in acquisition of phonemes. The results of the study determined that the participants’ perception in acquiring second language phonemes increased and that the participants’ overall performance in

acquiring second language phonemes improved. The study also determined that after using minimal pairs, the participants' sensitivity in identifying phonemic contrasts in the second language. By increasing the participants' awareness and sensitivity in identifying contrasting phonemes, the strategy of using minimal pairs was able to improve the pronunciation of the participants of the study. The result of this study is also similar to the results of other studies which were able to identify that an increase in the awareness or sensitivity as an effect of using minimal pairs as a teaching strategy.

Tajima (2002) also conducted a study among Japanese participants and focused on the English consonant phoneme /r/ and /l/. The study also used minimal pairs to introduce phonetic differences between the two consonant phonemes and a pre-test and post-test were given to the participants to measure if their pronunciation of /r/ and /l/ improved after the intervention. The result of the study determined that majority of the Japanese speakers showed improved in the post-test in their pronunciation of the English consonant phonemes /r/ and /l/. Japanese speakers only have one consonant phoneme for /r/ and /l/ which greatly caused difficulty among Japanese speakers when communicating in the English language. However, by increasing their awareness of the differences between /r/ and /l/, minimal pairs was able to effectively improve the pronunciation of Japanese speakers.

Moreover, Wambaugh, Doyle, Kalinyak, and West (1996) also conducted a study evaluating the effectiveness of minimal pairs as a strategy addressing speech apraxia. Speech apraxia is a motor speech disorder that causes problems in producing sounds, syllables and words. Although the participant of the study was a native English speaker, the participant was suffering from apraxia which caused problems in producing correct pronunciation. The results of the study determined that minimal pairs were effective in promoting the correct pronunciation of English consonant phonemes. This just shows that the effect of minimal pairs as a teaching

strategy is not just limited to children or second language learners. It is also an effective teaching strategy among speakers with speech problems such as speech apraxia.

Tuan (2010) also conducted a study in Vietnam to evaluate if using minimal pair is effective in improving the pronunciation of Vietnamese second language learners. The difficulties that the participants of the study identified were: omitting the word-final consonant, adding the word-final /s/ to English words not ending in /s/, adding the schwa in the middle of a consonant cluster, mispronouncing /t/ and /d/, inability to differentiate the difference between long and short vowel sounds, and inability to differentiate voiced and non-voiced consonant sounds. The study concluded that Vietnamese second language learners benefit greatly from minimal pairs. Specifically, the study determined that using minimal pairs is beneficial for both the student and the teacher. Students' awareness on contrasting sounds increased and teachers appreciated minimal pairs as a teaching strategy due to its effectiveness. Other than Japanese speakers, this study also added evidence that the effectiveness of minimal pairs as a teaching strategy is universal by establish its effectiveness on Vietnamese speakers.

A similar study by Mora (2004) also determined that using minimal pairs as a teaching strategy increase second language learners' pronunciation and word recognition. As observed in other literature reviewed on minimal pairs, increase in awareness and word recognition is an effect of minimal pairs which further influences positive results in improving pronunciation of consonant phonemes.

The proposed study will examine how minimal pairs can be used as a teaching strategy to improve pronunciation with unfamiliar English sounds for Arab ESL students. For this purpose, the study will focus on addressing difficult sounds. It will focus specifically on consonant sounds (/p/, /ʒ/, /v/, /tʃ/ and /ŋ/).

Synthesis of the Literature: Although the study is quantitative in nature, evidences from other empirical research is also utilized in the study to further establish whether minimal pairs as a teaching strategy is effective in improving the pronunciation of the English consonant phonemes identified (/p/, /z/, /v/, /tʃ/ and /ŋ/). The literature first examined existing literature on how second language learners acquire a new language. The theories explored in the literature are the second language acquisition (SLA) theories and critical period hypothesis. The theories examined in the literature review centered on the idea that learning a second language is influenced by several factors such as behavior, attitude, and the people and environment surrounding you. The factors influencing acquiring a new language vary from one person to another.

The literature reviewed then examined the difficulties affecting second language learners with their English speaking and pronunciation, including unfamiliar sounds. The literature review specifically identified that most second language learners have difficulty with the English language because of the absence of some consonant phonemes. The case also applies to Arab speakers. There are consonant phonemes identified to be absent in the Arab language which causes difficulty when Arab speakers are communicating in the English Language.

Finally, strategies for teaching difficult sounds are looked at with the use of stress, intonation and minimal pairs to improve English pronunciation. Various literatures focusing on the different teaching styles to improve pronunciation have been explored individually. However, the study focused more on minimal pairs. Researches that evaluated the effectiveness of using minimal pairs to improve the pronunciation of children, second language learners, and speakers with difficulties such as apraxia were examined in the literature.

Although there are various theories on language acquisition and various teaching styles that aim to improve the pronunciation of English speakers, there are limited literatures on the

effectiveness of minimal pairs, specifically on Arab speakers. The study not just aims to evaluate the effectiveness of minimal pairs, but also to add to the limited literature of the topic. The evidences gathered in this part of the study will later be used together with the quantitative data to achieve the aim of the study which is to evaluate the effectiveness of minimal pairs as a teaching strategy that will improve the pronunciation of 2nd intermediate Arab speakers in the English consonant phonemes identified to be absent in the Arab language.

Methodology

The research study will be conducted using a class of second grade students from an intermediate school in Saudi Arabia. The students are learning English as a second language. The researcher will apply the minimal pairs strategy to see whether this method enhances pronunciation of particular English consonant phonemes amongst the Saudi students. The researcher will focus on classroom action research as the framework of this study. The study will be conducted over a four-week period. For assessment purposes, this will involve both pre-testing and post-testing of students before and after instructional intervention.

The study will be conducted among Arab English learners who speak Arabic as their native language. Specifically, this study will target male Saudi students aged 13-15 who are learning English and trying to develop accuracy and fluency skills with speaking English. For the purpose of this study, I will first look to explain some features of the demographics of Saudi Arabia; including the city and school where the research study will be undertaken.

Setting

Country. This study was conducted in Saudi Arabia, a country located in the Middle East. According to the Central Department of Statistics & Information in Saudi Arabia, which released the census of 2010, the population of Saudi Arabia consists of both Arab ethnic people who had citizenship and immigrant people who had come to this country to work. The Saudi people constitute 52% of the population, males make up about 50.9% of the population, and females make up 49.1% of the total population. Many of the ethnic Saudi's were Arab and a few of them have several ethnicities such as Turkish, Indonesian, African and Persian. Most of the Saudi citizens spoke Arabic as their mother tongue and a few were bilingual who spoke other languages as well such as English, Persian, Turkish and Hindi. Nearly 48% of the Saudi

population is made up of immigrants. They were from diverse nationalities and have various ethnic backgrounds, including Asian, African and Caucasian. They were involved in a variety of occupations. Many of these immigrants spoke English together with Arabic to allow them to deal and communicate with the local Saudi people in Arabic.

City. The research was conducted in a small area near a city which is located in the north of Saudi Arabia. The population of this area was approximately 2500. Most of the population in this area spoke Arabic with only a small percentage speaking English. In this area, speaking English is generally restricted to people who were professionals, including: doctors, academic teachers and nurses who worked in hospitals, universities and clinics. English was used by these professional people for work purposes, but most of the time they spoke Arabic when they met other local people outside their workplaces (e.g. hospitals and universities). This was very different from the markets and public places where the majority of people speak only Arabic. There were very few immigrants who speak and use other languages such as Hindi, Urdu or Bangladeshi in this region.

School. The intermediate school was one of many schools in the city of this district that was under the control of the Supervision office. The school was established in 1978 and consists of 20 teachers and 98 students. Most of the students were local Saudi who speaks Arabic language. The six classes in the school were mixed, serving boys aged 13-15 years old, and each class was comprised of approximately 32 students. The economic status of students and their families at the school varies. The parents of these students worked in the local area. The school provided students with books and materials to help them to achieve the best possible results with their education. The school used many different methods to teach the students, and which

included the use of computers, the use of white boards and providing access to the internet for students.

Classroom. The second intermediate grade was used by the researcher to implement his action research during the spring semester of 2015. English as a second language was taught at this school. Grades of school in Saudi Arabia are divided into three levels. First, primary school consists of six grades which are classified from first grade to sixth grade. In addition, intermediate level entails three grades which are categorized first, second and third grade as well as secondary school which include three grades. These students have learned English from fourth grade in the primary school up to the second intermediate grade. The English curriculum is comprised of all English language skills, namely: reading, speaking, listening and writing. The English class is one of many classes that are compulsory for students in this grade. The English class is divided into two learning terms, one is in the fall and the other is in the spring semester. The curriculum covering the teaching of English in classes has changed at various times since it was first implemented in Saudi schools. The last version which has been recently introduced provides several new methods to enhance English language teaching inside the classroom. As a result of the introduction of this version, students have been more willing to learn English. At the same time there are some difficulties that Saudi students continue to face in order to acquire reasonable English language proficiency. One of these is to develop reasonable and intelligible speaking competency. Students have difficulty speaking accurately and fluently. The English classes for the second intermediate grade last for forty-five minutes each and there are four classes held each week. The school week starts on Sunday and ends on Thursday, while the weekend is on Friday and Saturday. This is standard for education in Saudi Arabia.

Participants

In this study, all the participants are male Arabic native speakers who are attending an intermediate public school as students. The majority of students (from the 2nd grade in the intermediate) are aged in the range between thirteen and fifteen years. They are all learning English as EFL students and this is their third year of formally studying English. At this level, students are required to attend classes four times per week with each lesson lasting 45 minutes. The number of students in the study is thirteen.

This study will be conducted over a four-week period. The intervention will be carried out in the first week of conducting the study. The data collection took four weeks. The researcher began collecting data on 9th March, 2015.

Table 1

Dates and procedures within periods study.

Date	Procedures
Week (1) 19 th March	Ask students to sign consent form and pre-test.
Week (2-4) 16 th March to 7April	Intervention Oral assessment observation
Week (4) 8-9 April	Post-test
13 th April & 15 th May	Report

Design of study

The researcher focused on classroom action research as the framework of this study. The researcher assumed that action research enabled teachers to develop and enhance classroom

teaching in terms of identifying aspects of weaknesses in skills of students in the process of their learning. Mills (2011) defines action research as:

Any systematic inquiry conducted by teacher researchers, their particular school's operator, principals, school counselors, or other stakeholders in the teaching learning environment to gather information about how they teach, and how well their students learn. This information is gathered with the goal of gaining insight, developing reflective practice, effecting changes in the school environment and on educational practices in general, and improving student's outcomes and the lives of those involved.

(p.5)

The main objective of this study was to determine whether the use of the minimal pair strategy improves pronunciation among a group of Saudi English learners who faced unfamiliar sounds found in English. These sounds were specifically the /p/, /ʒ/, /v/, /tʃ/ and /ŋ/ sounds, and the group was made up of Saudi students from a 2nd grade intermediate EFL class. The researcher used action research in his classroom to conduct this study. He detailed further information on the methodology and design which was to be used in the study, including study participants, procedures, data collection as well as details on data analysis and limitations.

Procedures

The researcher focuses on classroom action research in his study. This kind of research consist of four phases, namely, plan, act, observe and reflection.

Plan. In this phase, the researcher began using appropriate activities that are associated with pronunciation and spelling. The researcher used different activities such as reading texts, listening to conversations, and asking direct questions of students in order to observe and record their responses. To understand the kind of difficulties that students face, the researcher conducted a pre-test by recording students pronouncing specific words containing the targeted English phonemes (see appendix A). The researcher then analyzed the recordings by documenting and classifying the words with the phonemes into categories according to correct and incorrect pronunciation. The researcher attempted to find appropriate activities for students to undertake to help them overcome their difficulties with English pronunciation. The activities selected took account of students' ages and abilities.

Act. After identifying and recording the types of obstacles which students were experiencing, the researcher provided activities, which were centered on developing students' pronunciation and speaking skills. These may include website activities which related to pronunciation of English word sounds, flash cards and word lists. The teacher handed out to the participants a sheet of paper with a number of paired English words containing commonly confused phonemes, for example, very/berry (see Appendix B). Three phonemes, which were used in this study, occur in initial, medial and final words such as (chair, machine and much). Two of them only occur in medial and final words. The targeted consonant phonemes were /p/, /ʒ/, /v/, /tʃ/ and /ŋ/. The students was asked to attempt to pronounce the words containing the target phonemes individually. The researcher recorded the sounds of each word including consonant phonemes from each participant. After that, the researcher conducted minimal pair exercises with the participants for fifteen minutes each time, four times a week, for approximately four weeks.

Observe. In this phase the researcher used observation techniques based on oral assessment checklist and note taking. This assessment and accompanying notes was undertaken during activities, which students performed during class. The researcher recorded notes during each of the classes.

Reflect. The reflection was conducted after observation. The researcher investigated and evaluated results of observation, responses on direct questions and answer sheet. The researcher evaluated the previous phase to see if there have been any improvements with pronunciation of consonant sounds. If there have been improvements with many of the students, he continued using the minimal pairs exercises to solidify the pronunciation gains made by the students. If there was limited improvement in pronunciation accuracy, the researcher designed a second phase to the action research plan involving varied instructional strategies including intonation and stress

Data collection

The researcher used a quantitative approach for collecting data. He used two instruments in this study. The researcher used a pre-test and post-test to investigate students' pronunciation of the targeted consonant phonemes before and after the instructional intervention. The researcher used word pairs that highlight the distinction between two consonant phonemes and then integrate these words into conversation for use among students. During the first four weeks of the study period, the researcher assessed all the participants and see how they were performing doing the minimal pairs exercises and note any improvements with their pronunciation (using consonant phonemes) through the oral assessment checklist (See appendix D). During the intervention period the researcher collected data on three separate occasions, at the beginning, in the middle, and the end of the intervention. In a four-week period of action research, the

researcher tested students to confirm results which were obtained during the intervention. A post-test was implemented where students were evaluated individually by recording their speaking during reading exercises.

Data analysis

The researcher analyzed all participants' sounds with each of the phonemes spoken. Data was used which has been collected from participants at the beginning of the study (prior to introduction of minimal pairs exercises), at intervals during the four weeks (when the minimal pairs exercises had been introduced), and at the end from a post-test. The researcher then prepared a transcript to identify the accurate and inaccurate phonemes produced by all the participants. At the end of the analysis, the researcher compared the results to determine the extent of success or failure that the minimal pair's strategy has had in improving pronunciation with unfamiliar English sounds for this group of participants. These results were demonstrated using a number of different graphic presentations.

Limitations

There were some limitations of this study in terms of certain features in how it was conducted. This research study was limited to one English class of students in the school and only uses male participants. The research study also was limited to five phonemes consonant sound. The intervention has limited time; approximately 15 minutes of each period.

Teaching English as second language was based on four language domains: writing, listening, speaking and writing. In this study, the researcher focused on one of these domains, namely speaking and the acquisition of pronunciation proficiency. Pronunciation plays an important role in oral communications amongst English speaking people. The purpose of this

study, and the methodology used, was to evaluate the effectiveness of a minimal pairs strategy for overcoming pronunciation difficulties for Arab English learners. A number of research studies have emphasized the difficulties that Arab learners face when attempting to pronounce particular consonant phonemes that are unfamiliar in their mother tongue. Research has also shown that when students speak a second or foreign language, they tended to produce the sounds closest to the sounds that exist in their mother tongue which can lead to pronunciation errors. The rationale behind using the minimal pairs strategy in this research study was that the method can provide a means to help learners distinguish between discrete English sounds. If the research findings were positive, then the minimal pairs strategy could contribute in assisting Arab learners in improving their English pronunciation.

Results and Discussion

A total of 13 native Arab speaker students enrolled in 2nd intermediate grade in Saudi Arabia participated in the research study that aims to determine whether the use of minimal pairs is an effective teaching strategy for English as a Foreign Language (EFL) learners in improving their pronunciation, specifically in terms of their pronunciation of English consonant phonemes (/p/, /z/, /v/, /tʃ/ and /ŋ/). The participants’ pronunciation and the English consonant phonemes they were having difficulty with were identified using a pre-test. The result of the pre-test is shown below:

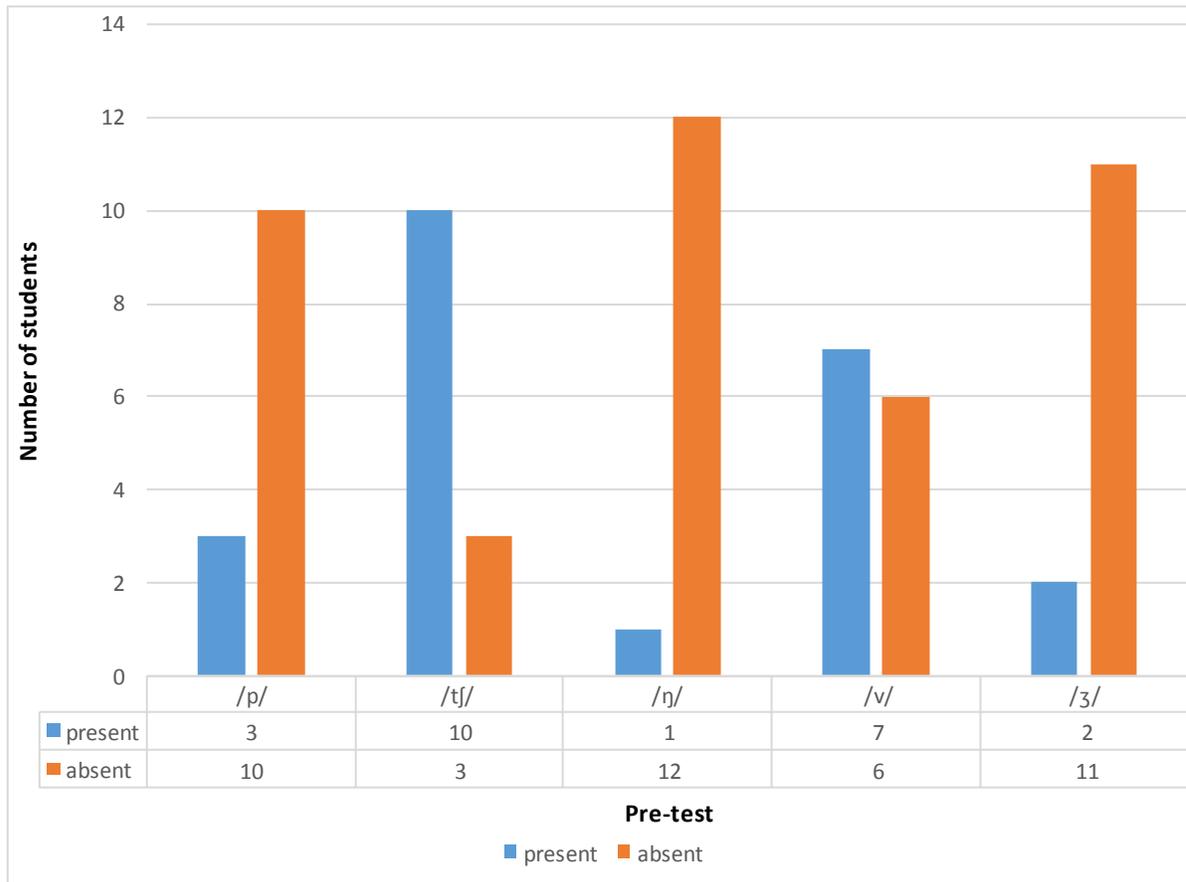


Figure 1: The Figure shows the results of students of the pre-test.

As shown in the graph, the participants experienced difficulty in the following English consonant phonemes: (/p/, /ʒ/, /v/, /tʃ/ and /ŋ/). Specifically, the result of the pre-test showed that 76.9% of the respondents have difficulty with the consonant phoneme /p/, 23.07% have difficulty with the consonant phoneme /tʃ/, 92.30% have difficulty with the consonant phoneme /ŋ/, 46.15% have difficulty with the consonant phoneme /v/, and 84.51% have difficulty with the consonant phoneme /ʒ/. As can be observed in the pre-test results, the consonant phoneme that the participants experienced most difficulty with is the consonant phoneme /ŋ/, followed by /ʒ/, /p/, /v/ and the consonant phoneme that the participants had least difficulty with is /tʃ/. The difficulty experienced by the participants in the mentioned consonant phonemes is due to its absence in the Arabic language (Ahmad, 2011; Na'ama, 2011; Al Taha, 1995).

After identifying the consonant phonemes the participants have difficulty with, the researcher used minimal pairs as a teaching strategy to improve the participants' pronunciation in the identified consonant phonemes. The researcher used minimal pairs as a teacher strategy due to various empirical researches such as Tuan (2012) and Levis & Cortes (2008) is effective in improving the pronunciation of second language learners because it increases the speaker's sensitivity between two contrasting sounds. Tuan (2012) determined that a second language learners' awareness of contrasting sounds can greatly help the speakers improve their oral communication.

A post-test was given to the participants after 4 weeks and the results of the post-test are shown below:

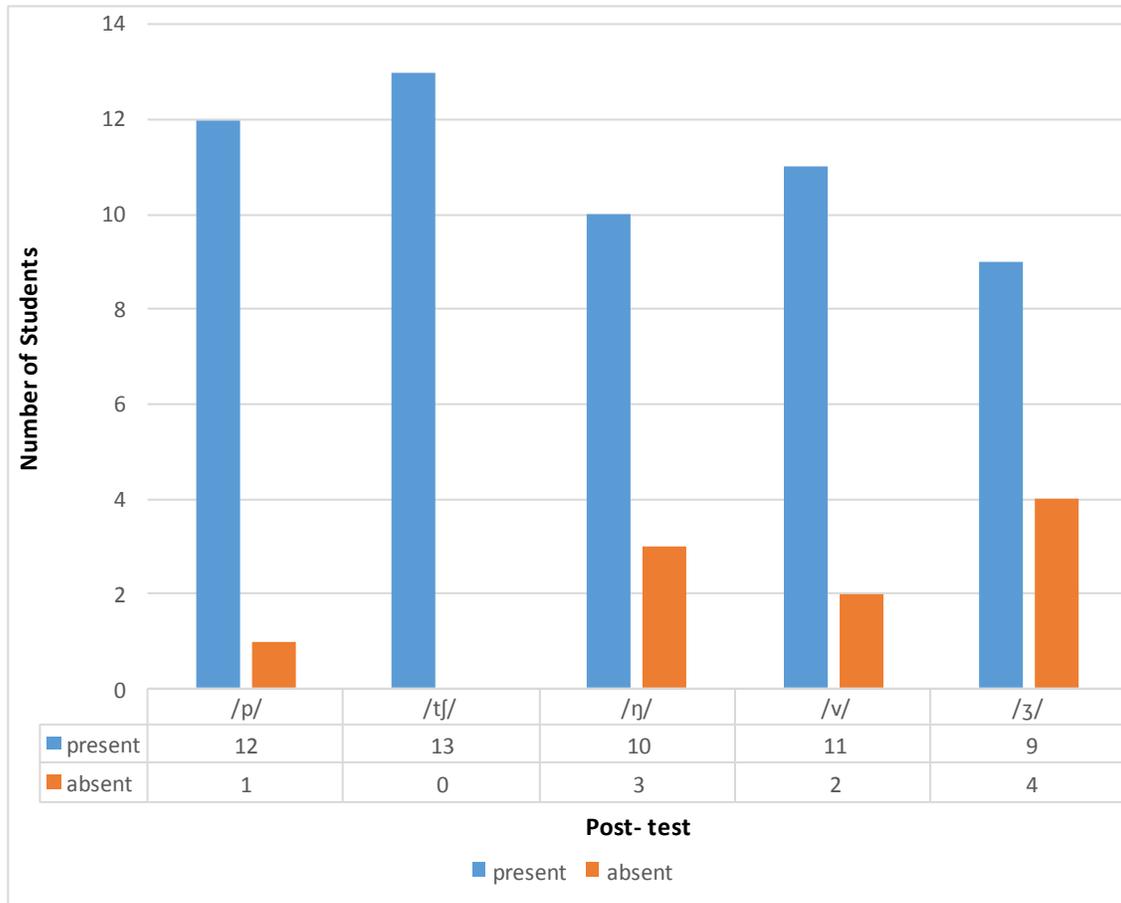


Figure 2: The Figure shows the results of students of the pre-test

As shown in the graph, it is evident that the pronunciation of the participants on all the English consonant phonemes improved. Specifically, the post-test result showed that 92.30% of were able to pronounce the English consonant phoneme /p/ properly, while all of the participants (100%) were able to pronounce the English consonant phoneme /tʃ/ properly. Moreover, it was determined that 76.92% of the participants pronounced the English consonant phoneme /ŋ/ properly, 84.61% were able to pronounce the English consonant phoneme /v/, and 61.53% were able to pronounce the English consonant phoneme /z/ properly.

The graph also showed how much improvement was influenced by using minimal pairs as a teaching strategy. Specifically, the result showed that among the English consonant

phonemes evaluated in the study, the most improvement can be observed in the consonant phonemes /p/ (76.92% to 7.69%) and /ŋ/ (92.30% to 23.07%), both of which showed a difference of 69.23%, followed by /ʒ/ (84.61% to 30.76%) with a difference of 53.84%, /v/ (53.84% to 15.38% with a difference of 38.46%. The least improvement is observed in the consonant phoneme /tʃ/ (23.07% to 0%) with a difference of 23.07%.

This improvement in the participants' pronunciation of the English consonant phonemes identified in the pre-test is also observed in several empirical researches. Research by Gierut (1989) has determined that minimal pairs improve the pronunciation of consonant sounds of children. Barlow and Gierut (2002) have also determined that minimal pairs effectively help children experience phonological delays in improving their pronunciation of English consonant phonemes.

Moreover, Hayes-Harb (2007) has also reported that minimal pairs can aid in acquisition of phonemes for second language learners and increase awareness on different contrasting sounds. Tajima (2002) on the other hand focused on the pronunciation of Japanese speakers on the consonant phonemes /r/ and /l/ and have also determined that minimal pairs improved pronunciation on the said consonant phonemes. Tuan (2010) on the other hand evaluated Vietnamese speakers' pronunciation and evaluated if minimal pairs can also improve the pronunciation of Vietnamese speakers. The study also determined that minimal pairs are effective in improving the pronunciation of Vietnamese speakers.

Wambaugh, Doyle, Kalinyak, and West (1996) even determined that minimal pairs is not just effective in improving the pronunciation of second language learners but also the pronunciation of speakers suffering from speech apraxia. The result of this study emphasizes the effectiveness of minimal pairs.

All the research reviewed in the literature is consistent with the result of the study where using minimal pairs as a teaching strategy is also effective in improving the pronunciation of Arab speakers in the English consonant phonemes (/p/, /z/, /v/, /tʃ/ and /ŋ/). Although the research reviewed in the study did not evaluate the same consonant phonemes, it still provided evidence that minimal pairs as a teaching strategy is effective. The improvement and comparison of the pre-test and post-test results in each English consonant phoneme is shown on the graphs below.

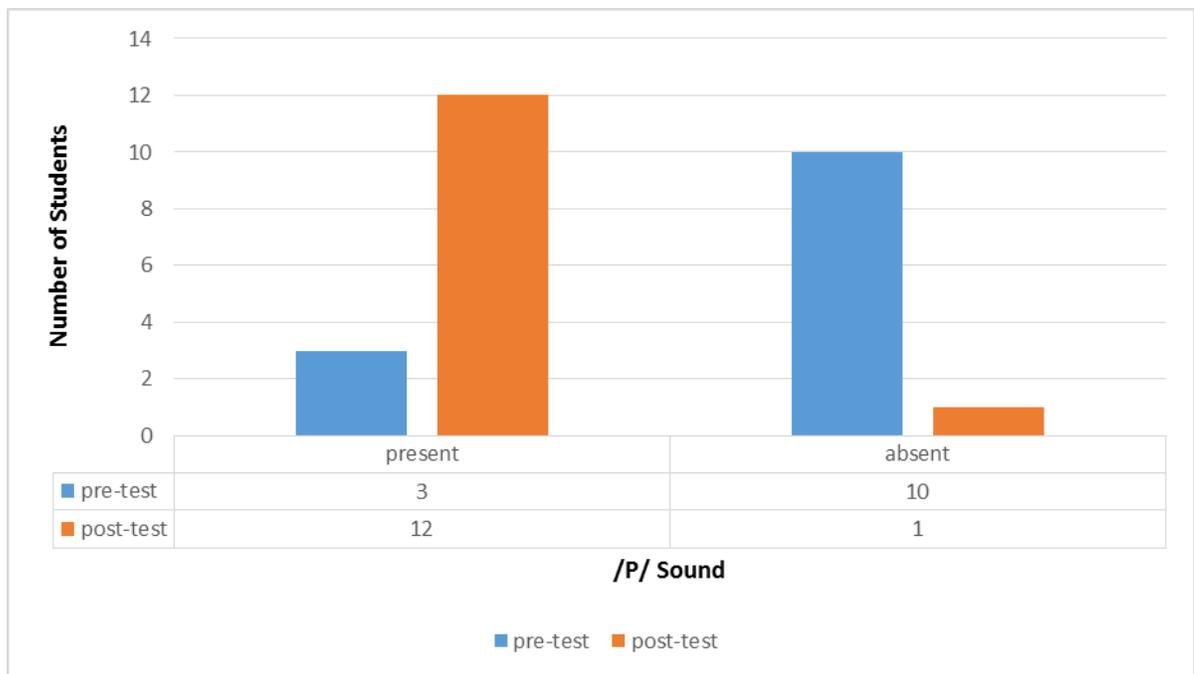


Figure 3: The figure shows the results of students of the /P/ sound.

The graph shown shows the comparison of the test results for the English consonant phoneme/p/. The pre-test result showed that 76.92% of the participants had difficulty pronouncing the English consonant phoneme /p/ however after the intervention that number of participants experiencing difficulty decreased to 7.69%.

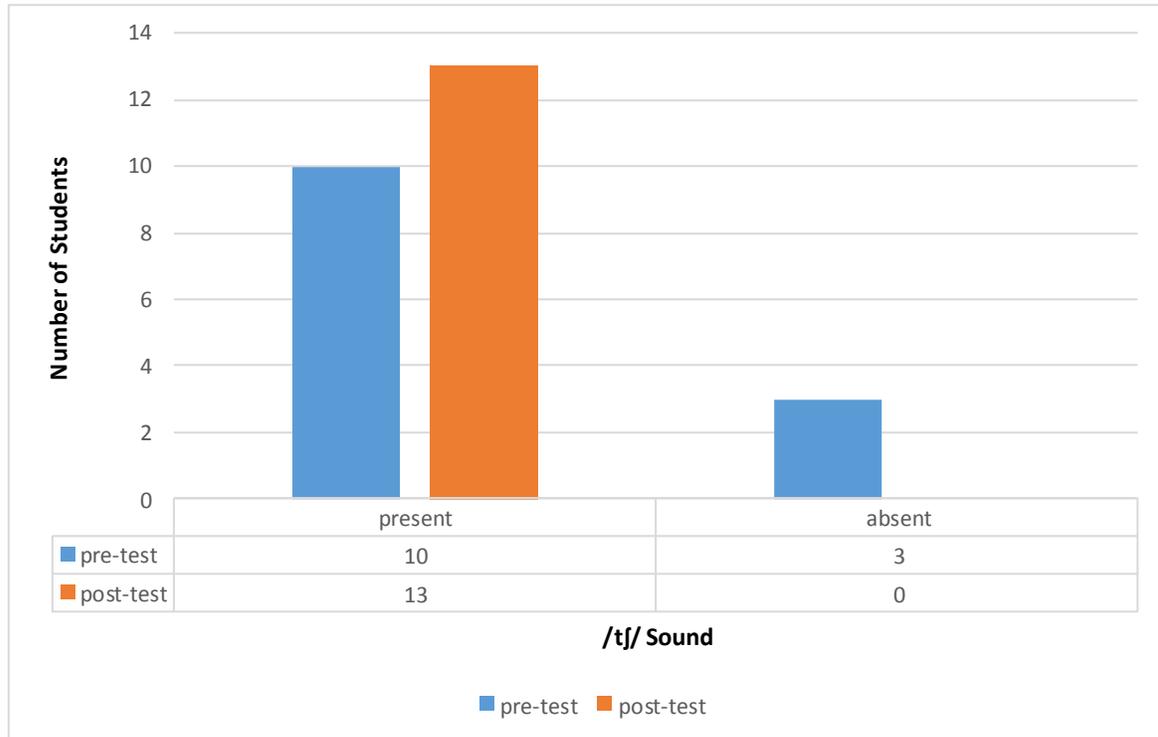


Figure 4: The figure shows the results of students of the /tʃ/ sound.

Similarly, the pronunciation of the participants of the consonant phoneme /tʃ/ also improved. The graph above shows that in the pre-test, 23.07% of the participants have difficulty pronouncing the consonant phoneme properly. However after the intervention, all of the participants (100%) were able to pronounce the consonant phoneme properly.

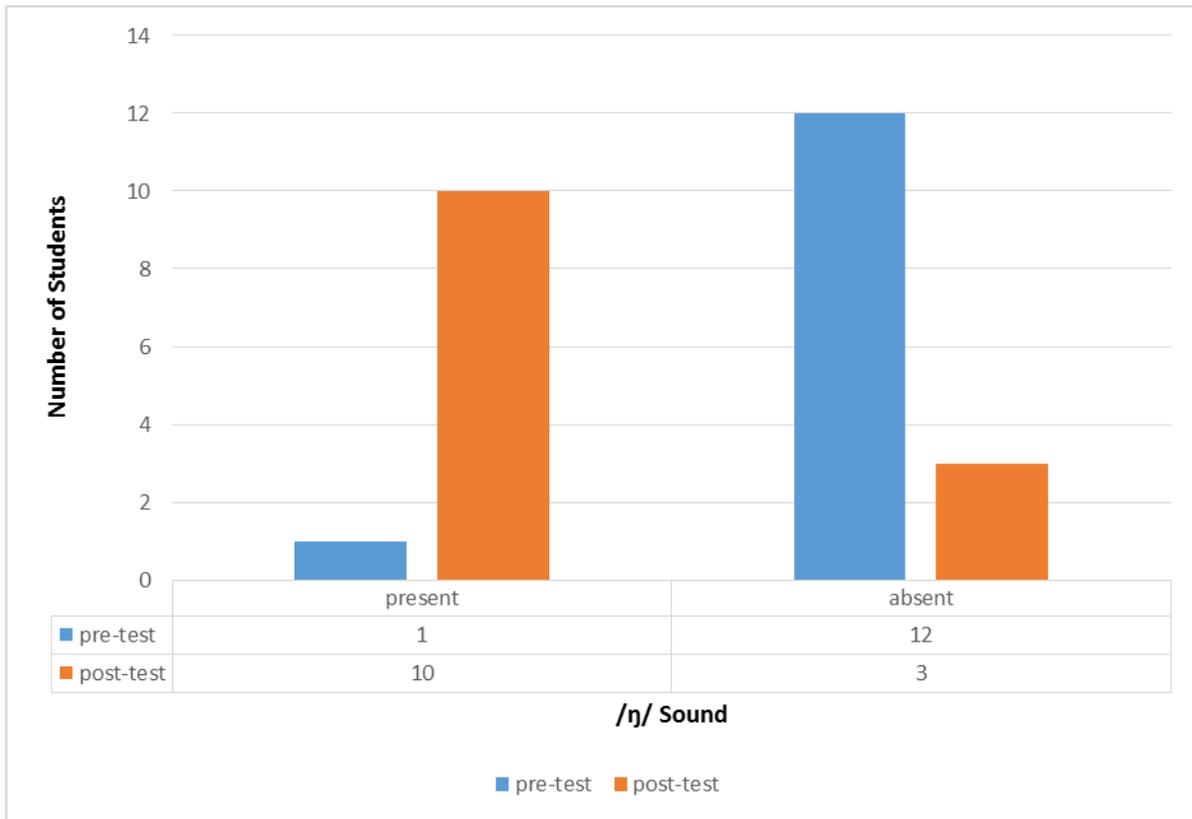


Figure 5: The figure shows the results of students of the /ŋ/ sound.

In terms of the consonant phone /ŋ/, an improvement was also observed after the intervention. The number of participants experiencing difficulty with the consonant phoneme /ŋ/ during the pre-test is 92.30% which decreased to 23.07%.

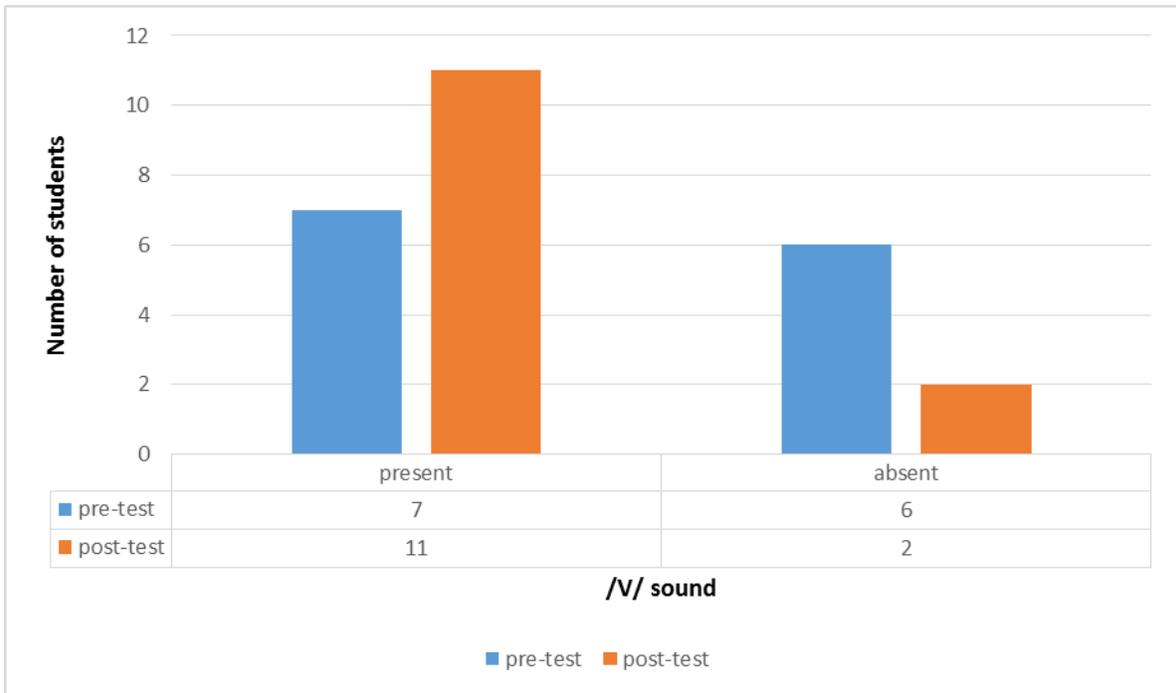


Figure 6: The figure shows the results of students of the /V/ sound.

The post test result also showed improvement for the consonant phoneme /v/. In the pre-test, 53.84% of the participants reported difficulty in pronouncing the consonant phoneme /v/, however in the post test, the number of participants who have difficulty decreased to 15.38%.

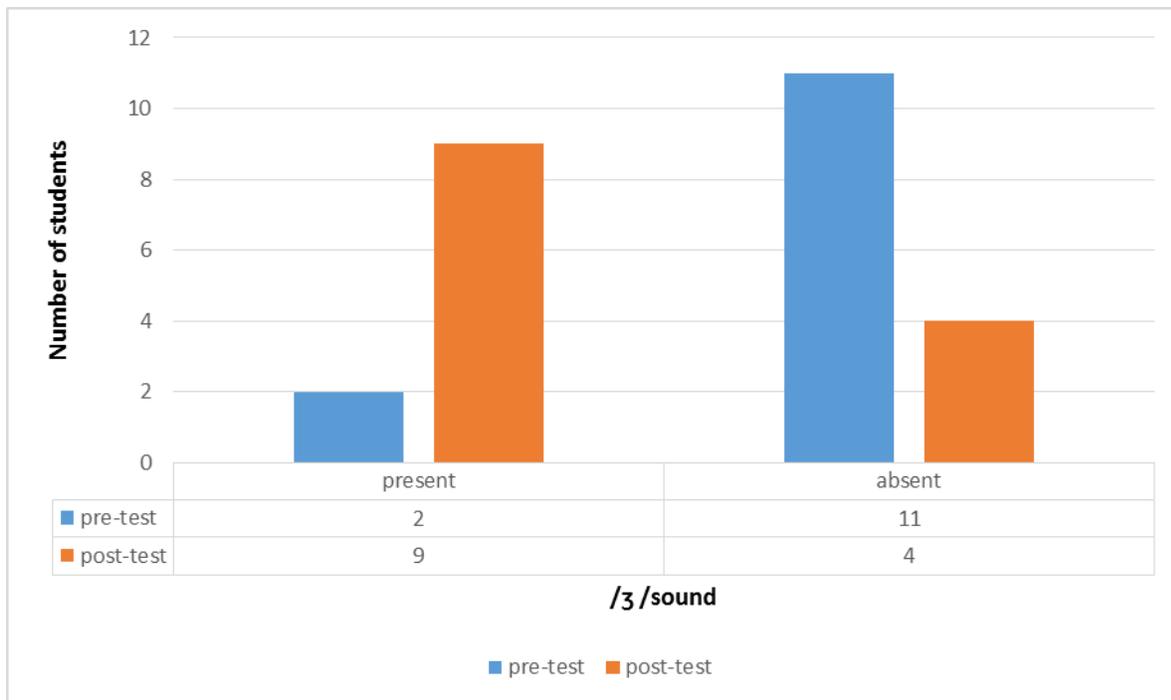


Figure 7: The figure shows the results of students of the /ʒ/ sound.

Lastly, the pronunciation of the participants of the consonant phoneme /ʒ/ has also showed improvement in the post-test result. Before the intervention, 84.61% of the participants were not able to pronounce the consonant phoneme properly, however after the intervention, the number of participants who experience difficulty with the proper pronunciation dropped to 30.76%.

Based on the researcher's observations during the oral assessments of the participants, the improvement of the participants' pronunciation of the identified consonant phonemes /p/, /ʒ/, /v/, /tʃ/ and /ŋ/ is also evident. The participants should increase awareness on the difference between the pronunciations of contrasting phonemes so they were able to pronounce the words better during the post-test. Moreover, the participants increase in awareness on the difference between the pronunciations of contrasting phonemes made them more confident in communicating in the English language, which is especially helpful because it motivates the participants to explore

other areas of the English language rather than continually focusing on their pronunciation of certain words.

The figures presented in this results sections, the research reviewed, and the personal observation of the researcher during the participants' oral assessments all provide evidences that as a teaching strategy that aims to improve the pronunciation of English consonant phonemes, minimal pairs is effective. After a 3-week intervention, the pronunciation of Arab speakers on /p/, /z/, /v/, /tʃ/ and /ŋ/ was shown to improve greatly. The participants' awareness and sensitivity to contrasting phonemes, word recognition, and confidence in communicating in the English language have also been determined to increase.

CONCLUSION

The study aimed to evaluate the effectiveness of minimal pairs as a teaching strategy to address the problem that the Arab speakers encounter when speaking in the English language. The problem occurs because of the absence of several consonant phonemes in the Arab language that are present in the English language. This problem has also been determined to be experienced by other second language learners such as Japanese and Vietnamese. In order to address this issue, several teaching strategies are available however, the researcher chose to use minimal pairs as an intervention to 2nd intermediate Arab students for 3 weeks. A pre-test was given to the participants on the first week and a post-test was given after the 3 week intervention. After 3 weeks of intervention, the result of the study showed the following data: the participants reported to experience difficulty in /p/ decreased from 76.92% to 7.69%; the participants reported to experience difficulty in /z/ decreased from 84.61% to 30.76%; the participants reported to experience difficulty in /v/ decreased from 53.84% to 15.38%; the participants reported to experience difficulty in /tʃ/ decreased from 23.07% to 0%; and, the participants reported to experience difficulty in /ŋ/ decreased from 92.30% to 23.07%.

The result of the study also showed that among the 6 English consonant phonemes observed, consonant phonemes /p/ (76.92% to 7.69%) and /ŋ/ (92.30% to 23.07%), both of which showed a difference of 69.23%, followed by /z/ (84.61% to 30.76%) with a difference of 53.84%, /v/ (53.84% to 15.38% with a difference of 38.46%. The least improvement is observed in the consonant phoneme /tʃ/ (23.07% to 0%) with a difference of 23.07%.

Based on these results and the evidences gathered in the research reviewed in the study, it is concluded that as a teaching strategy, minimal pairs is effective in improving the pronunciation of the 2nd intermediate grade Arab speakers of the English consonant phonemes /p/, /z/, /v/, /tʃ/ and /ŋ/.

RECOMMENDATION

The study determined that minimal pairs is a teaching strategy that is effective in improving the pronunciation of 2nd intermediate grade Arab speakers of the English consonant phonemes /p/, /z/, /v/, /tʃ/ and /ŋ/. However, the study further recommends the following:

1. Although the study determined differences (pre-test and post-test) in the pronunciation of the participants, a statistical treatment that will determine if the difference is significant is lacking. Therefore, the study recommends using a statistical treatment that will identify if any of the differences observed is significant or not.
2. The study was conducted among 2nd intermediate grade Arab speakers, however only 13 participated. The study recommends conducting the study with a bigger population to further establish effectiveness.
3. Further research should be done on the effectiveness of minimal pairs in improving the pronunciation of Arab speakers to add evidence to the limited literature.

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Appendix A

Pronunciation test (pre-test)				
Name: Class: 2 nd intermediate grade Date:				
NO.	Words	Present	Absent	Comments
1	Pat			
2	Jail			
3	Vary			
4	Chip			
5	Simple			
6	Saver			
7	Watcher			
8	Vision			
9	Prestige			
10	Singing			
11	Cap			
12	Rapid			
13	Witch			
14	Five			

Appendix B

No.	Position	Initial	Medial	Final
1	/p/&/b/ sound	Pace-base	Rapid- rabid	Cap-cab
2	/v/&/f/sound	Veil – fail	Rival- rifle	Five - fife
3	/n/ & /ŋ/ sound	-----	Hand-hanged	Bang-ban
4	/tʃ/ & /ʃ/ sound	Chair-share	Watcher-washer	Match-mash
5	/ʒ/ & /dʒ/ sound	-----	Vision- vegan	Prestige-judge

Appendix C

<p>A. Listen to your partner reading the sentences below. Circle the word you hear.</p>	<p>B. Read aloud each of the sentences below.</p>
<p>1- She has the cap/cab on her head.</p> <p>2- Don't tell me it's my fault/vault.</p> <p>3- He did the shopping/chopping yesterday.</p> <p>4- I heard about the ban/bang.</p> <p>5- She had a clear vision/vegan of what she wanted to do.</p>	<p>1- She has the cap on her head.</p> <p>2- Don't tell me it's my vault.</p> <p>3- He did the chopping yesterday.</p> <p>4- I heard about the bang.</p> <p>5- She had a clear vision of what she wanted</p>

Appendix D

Student's name: **Class:** 2nd intermediate grade **Date:**

Task	Present	Absent	Comments
Activity 1 of /p/ sound			
Activity 2 of /v/ sound			
Activity 3 of /z/ sound			
Activity 4 of /tʃ/ sound			
Activity 5 of /ŋ/ sound			