Investigating Pronunciation Errors of English Consonant Clusters of EFL Saudi Female Students Level Four at Albaha University, KSA

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Volume (83) Issue (Third) Part (I) July 2021

Abstract

EFL Arab speakers face difficulties in English pronunciation which is considered a major difficulty among them. There are many causes of pronunciation errors. This study focused on pronunciation of English consonant clusters. However, this study was conducted to analyze pronunciation errors made by female EFL students level four at the Department of Foreign Languages at College of Arts and Humanities of Albaha University in the second semester of the academic year 2016-2017. Errors were collected by giving an oral test to the students. Errors made by learners have been analyzed on the basis of error analysis and contrastive analysis theories. Data has been statistically analyzed in an attempt to answer questions of the study. The words have been transcribed and then the number of errors in each position was calculated. The study showed that students made errors while producing English consonant clusters. It also indicated that students made more errors in the initial consonant clusters than in the final ones. The percentage of errors made in the initial position was 59.0% and in the final position was 11.1%. Also, the study clarified that the main cause of students' errors was the transfer from the native language elements to the target language. There are some recommendations that are given in this study such as the importance of teaching the difference between English sound system and Arabic sound system to help students overcome difficulties in pronouncing English words. Furthermore, the current study suggests that other researchers may focus on investigating the relationship between the type and number of consonant clusters and EFL learners' fluency and correct pronunciation. In addition, the study explained that the differences between Arabic and English sound systems can be a source of difficulty for EFL female students. It ends up with a set of pedagogical implications in EFL settings that can help learners increase their language learning outcomes.

المستخلص

يواجه المتحدثون العرب صعوبة في نطق اللغة الإنجليزية إذ تعد هذه المشكلة من أكثر الصعوبات التي يواجها متعلمو اللغة الإنجليزية من العرب. هناك أسباب كثيرة وراء هذه الأخطاء اللفظية. هذه الدراسة تركز على أخطاء النطق عند التقاء ساكنين أو اكثر وتسمى هذه بالأصوات الساكنة العنقودية. أجريت هذه الدراسة لتحليل الأخطاء اللفظية لدى طالبات المستوى الرابع في قسم اللغات الأجنبية في كلية الآداب والعلوم الإنسانية في جامعة الباحة. تم جمع الأخطاء اللفظية عن طريق تقديم اختبار إلى طالبات اللغة الإنجليزية وذلك لجمع بيانات الدراسة. ثم تم تَحْليل الأخطاء اللفظية بطريقة كمية احصائية و بالاعتماد على نظرية تحليل الأخطاء للإجابة على أسئلة البحث. تم كتابة التحليل الصوتي للكلمات وجمع عدد الأخطاء في كل موضع. نتائج الدراسة اظهرت بأن الطالبات يخطئن عند نطق أصوات اللغة الإنجليزية إذا اتت متتابعة. اظهرت الدراسة أيضا بأن الطالبات أخطئن في نطق الأصوات الإنجليزية الساكنة في بداية الكلمة أكثر من تلك التي اتت في نهاية الكلمة فنسبة الأخطاء في بداية الكلمة59.0 % خطأ بينما في نهاية الكلمة كانت 11.1%. الدراسة بينت أيضا بأن السبب الرئيسي لإخطاء الطالبات هو تأثير اللغة الأم العربية على اللغة الثانية أو الانجليزية. هذه الدراسة افترضت عدة توصيات منها أهمية تدريس الطلاب والطالبات الفرق بين النظام الصوتي للغة الانجليزية والنظام الصوتي للغة العربية لأن ذلك سيساعدهم على تعلم الانجليزية بطريقة أفضل. كما اوصت الباحثين عمل أبحاث للتركيز على نوعية وعدد الأصوات الساكنة المتتابعة لمعرفة هل لاختلاف طبيعة الساكن أي دور في عملية نطق الأصوات الساكنة المتتابعة في مقطع واحد. على أية حال بينت الدراسة بأن الاختلاف في النظام الصوتي بين اللغتين العربية والإنجليزية أحد أسباب الصعوبات التي يواجها كثير من متعلمي اللغة الإنجليزية من العرب. وتنتهي الدراسة بتوصية وضع تطبيقات تعليمية في تعليم اللغة الثانية التي قد تساعد المتعلمين في تحسين نطق اللغة الثانية.

Chapter 1

Introduction

1.1 Background of the Study

Learning a new language implies learning its pronunciation. Therefore, poor pronunciation can affect the understanding of a foreign language and a learner might have a foreign accent as a result of pronunciation errors as well. Thus, doing beneficial studies on the English pronunciation difficulty that challenges Arab speakers can be useful for learners, materials providers, and teachers. However, Arabic speakers face difficulties in learning English due to the differences between Arabic and English sound systems. This study aims to analyze pronunciation errors of English consonant clusters made by English language students. The study depends on error analysis (Corder, 1967), and contrastive analysis theories (Lado, 1957). Error analysis (EA) is working with errors that second language learners made whereas Contrastive analysis (CA) is comparing two languages to predict errors according to the differences between these languages (Keshavarz, 1999). The study focuses on errors made by learners in which the impact of the first language on the second language is the reason. The influence in the area of pronunciation specifically these errors that are the results of the difficulties of English consonant clusters. Consonant clusters are consonant sounds which come consequently in a word. (Roach, 2000).

However, this study will investigate the following problem:

1.2   Statement of the Problem

English language learners make many errors in pronunciation and they face difficulties to acquire a good English pronunciation. These errors made by English learners have many causes Brown (2000). These errors might be due to the inter-language process or the lack of a good level of English or they might be due to transferring of the phonological system of L1 to the phonological system of L2. However, Arab speakers face difficulties to pronounce English consonant clusters because Arabic Language avoids consonant clusters ,especially, in the beginning of a syllable (Esteeteh, 2005). Likewise, the different systems of the English language and Arabic language may lead to cause serious difficulties

as Keshavarz (1999) stated that negative transfer from the first language to the second language is an influential source of errors. The study focuses on this problem and will determine the role of the mother tongue in pronouncing the second language (L2).

1.3 Objectives of the Study

o To analyze and explain the pronunciation errors of English consonant clusters made by female EFL freshmen learners.

o To determine and investigate the nature of these pronunciation errors.

1.4 Significance of the Study

This study can be important for English language learners and teachers since speaking skill and pronunciation are essential to any language learning endeavor. Error analysis helps to understand the nature and causes of pronunciation errors of English clusters and it can give reasons for the problem of foreign accent. Furthermore, this study might be helpful to offer good insights, strategies, and other pedagogical implications to enhance the English learning process (Kim, 2008; Jobeen, Kazemian, & Shahbaz, 2015). However, this study will manifestly contribute to understanding the influence of the mother tongue on the target language (L2) pronunciation as well as will make learners, teachers and instructors aware of this problem and so they can deal with it. It might enlighten teachers and learners and guide them to handle errors before they become fossilized. Sanal (2008) mentioned that error analysis makes teachers have better understanding of how L1 interference occurs which in turn makes them adapt adequate and useful measures to enhance students' learning. However, the study can be beneficial to direct other researchers to do further research endeavors utilizing the results of this study.

1.5 Questions of the Study

1. What are the errors made by female EFL university students when they pronounce English consonant clusters?

2. Are these errors in initial or final consonant clusters?

1.6 Limitations of the Study

The study is limited to EFL female English language students level four at the Department of Foreign Languages at Faculty of Arts and Humanities of Albaha University in the second semester of the academic year 2016-2017. The number of students is twenty-two and their age range from nineteen to twenty-one. Moreover, an oral test was conducted to collect data for this study. The test is originally written by Sharynne McLeo &Linda Hand (1991) and the version that was used in this study is a modified version of this test. The data were then statistically analyzed and explained.

The study is limited to certain point of language phonology that is the pronunciation of the English consonant clusters that are made by female freshmen learners, level four. Furthermore, this study does not emphasize on the numbers of clusters, which means that it doesn't consider the number of consonant clusters whether they are two consonants or three or four nor it concentrates on the nature of consonant clusters. According to carr (1993), Broselow and Finer (1991) and Clements (1990) vowels are the most sonorous sounds whereas plosives are the lowest sonorous sounds. Yet, the study focuses on the clusters without taking into consideration the kind of sounds. However, this study is concerned with Modern Standard Arabic language (MSA) and Standard English language.

There are some concepts that are related to this study, these concepts will be mentioned successively below.

1.3   Definition of the Terms: The following terms are used in the current study:

-    Error Analysis (EA): It is regarding analysis of errors made by L2 leaners. "What has come to be known as 'error analysis' has to do with the investigation of the language of second language learners." (Corder, 1981). In addition, James (2013) stated that "Error Analysis is the process of determining the incidence, nature, causes and consequences of unsuccessful language."

-    Consonant Clusters: Are groups of consonants come in sequence. Verma(2014) defined consonant clusters as "Combination of more than one consonant occurring together within a single syllable" (cited in Bin-Hady, 2016).

-    L1: Stands for first or native language, or even the mother tongue which means that language that one acquires it from birth.

- L2: It is an abbreviation which means foreign or second language that is the language that is learned after the native language.

- Language Interference: The transfer of L1 systems into L2 systems. It is the influence of L1 on L2. Ellis (1997) defined interference as a transfer, he stated that the transfer is "The influence that the learner's L1 exerts over the acquisition of an L2."

- Inter-language: Is a term that refers to rule based linguistics system that has been grown up by a second language learner who has not got the level of proficiency. "Inter-language is that linguistic space that exists between the native language and the language that one is learning" (Selinker, 1972 cited in Han, & Tarone, 2014).

- Inter-lingual Errors: Errors that may occur as a result of mother tongue influence. They are called language interference. Larsen-Freeman, & Long (2014) mentioned that inter-lingual are " Errors which could be traced to L1 interference."

- Intra-lingual Errors: Errors that may occur because of other reasons in which the influence of L1 cannot be accounted for (Larsen-Freeman &Long, 2014).

- Fossilization: "The long term persistence of plateaus of non-target like structure in inter-language of non-native speakers" (Selinker, 1972 cited in Selinker & Lakshmanan, (1992).

Furthermore, investigating learners errors become important and it considered the basic issue in Applied Linguistics as Error Analysis is a subfield of Applied Linguistics (James, 2013).

These are some explained terms that are used in this study. The next chapter is going to be about theoretical and previous studies that were done in terms of error analysis, the influence of the first language on the second or foreign language as well as the concept of consonant cluster.

Chapter 2
 Review of Literature
2.1. L2 Error Analysis And Contrastive Analysis Hypothesis
            Language learners make errors and mistakes during the learning journey. Language learners' errors are always the sole of many language studies that carried out by researchers. They get great regard by teachers, instructors, and whoever are interested in learning and education. Thus, studying these errors may help and facilitate the language learning because it provides the type of errors and mistakes made by students then it will give information about how to make language learning easier and promoted when these errors have been investigated (Lightbown and Spada, 2006).

        However, there are some theories which contribute to language learning, and how to deal with students' errors. Contrastive analysis is an approach in linguistics which studies and sheds light on the similarities and differences between two languages. There are some theories that have impacted contrastive analysis theory, such as behaviorism and structuralism in the 1940s and the 1950s (Roberto Lado,1957). Fries (1945) stated that the methodical investigation of both the target and the native will be effective and fruitful. He mentioned that effective and practical materials for foreign language teaching are the ones that focus on a scientific explanations of both the target and native languages.

        Contrastive analysis is a domain of linguistics that studies the differences and similarities between two or multiple languages (Fisiak, 1981, p.1). Further, Ahmed (2015) stated that "In CA, the errors made by learners are predicted by identifying the linguistic differences between their first language and the target language."

    It is considered a negative transfer when the language learner uses the first language features which are different from the second or foreign language features in his or her second or foreign language learning process. (Tushyeh,1996).

     However, linguists and researchers had criticized contrastive analysis theoretically and methodologically during the last decades. Lennon (2008) stated that Contrastive Analysis could not predict some errors like developmental errors and it considered learners as a passive agent of language interference. He also mentioned that

Contrastive Analysis predicts some difficulties that are not among what learners failed to produce.

However, after, contrastive analysis has been criticized, error analysis arose to be the best to investigate the language learning students' errors. Error analysis is an approach in linguistics to study language learners' errors and learners' abilities to produce the language and it is used to explain second and foreign language learners' errors (Mahmoodzadeh, 2012). According to Sercombe (2000) and Candling (2001), error analysis gives insights into the language learning process and language acquisition.

The approach of Error Analysis became well known by S.P. Corder (1967) Pit Corder has a different point of view; he wrote in an article done by him 'The significance of Learner Errors.' EA aims to analyze and describe learners' production not to predict errors which showed that first language is not the only source of all learners' errors (Mitchell, Myles, & Marsden, 2013).

According to James (2001), EA can be defined as "the study of linguistic ignorance, the investigation of what people do not know and how they attempt to cope with their ignorance."

However, Erdogan (2005) stated that "Applied error analysis concerns organizing remedial courses and devising appropriate materials and teaching strategies based on the findings of theoretical error analysis." Second, he mentioned that error can provide researchers with knowledge of how a language is acquired and learnt and the ways and procedures that learners use during their learning process. Third, errors are inevitable and should be accepted as part of learners' progress in learning a language. He stated that children make errors too during the process of acquiring their mother tongue, it is the necessary stage in any language learning process.

2.1.1Types of EFL/ESL Learners' Errors

Linguists have mentioned two types of errors: inter-lingual and intra-lingual. Richard and Schmidt (2002) stated that errors can be inter-lingual and intra-lingual. Inter-lingual errors are that kind of errors which are produced as an outcome of interference or transfer of elements of the mother tongue. On the other hand, Intra-lingual errors can be seen as related to developmental errors which

produced due to the limit and insufficient knowledge of the target language.

There are three types of inter-lingual errors. First, overextension of analogy, it is produced when a learner misuses an element in the target language because it has a similar element in his or her native language. Second, is the transfer of structure, it means that a learner use "the structure, grammar, items phonological sound " of his or her mother tongue to apply it on his or her target language. Third one are inter-lingual and intra-lingual errors, they occur when an item can get a learner confused because there are no specific differences in his or her first language (Lott,1983 cited in Zafar, 2016; Alonso, & Rosa, 1997).

However, Intra-lingual can be subdivided into four categories. First, overgeneralization which means that a learner overgeneralize a rule within the target language, so a learner may use two grammar rules to create a deviant output. For example, a learner can use the word should with -s in a sentence like 'he should eats'. Second, ignorance of rule restrictions, which means that a learner uses a rule and apply it in the sentences that do not accept this rule. For example, the sentence ' he made me to eat' as an application of the rule that produced in sentences like he invited me or he wanted me to eat. Third one is the incomplete application of rules, it occurs when a learner did not fully apply a rule to a sentence. For example, when a learner produces: 'you have it? instead of saying 'Do you have it?'. Last one is, false concepts hypothesized, it occurs when a learner does not completely understand the differences in the target language. For example, when a learner fails to understand how to get past tense structure right (Richard, 1972 cited in Sari, 2016; Sawalmeh, 2013; Amara, 2015).

Errors can be divided into three divisions (Dulay and Burt, 1974 cited in Marchenko-Vienna, 2005). One is developmental errors which are the errors that tell the level of a learner, they occur too in one's native acquisition. Brown (2007) stated that errors can be as a result of the learner's competence and knowledge developmental process of L2. Second, is interference, they are those errors which are the consequences of the effect of L1 on L2. Last

one is a unique error, they are those errors which are neither a result of transfer nor a developmental process.

Corder (1967) introduced three steps of error analysis, data collection, description and explanation, and Ellis (1994) elaborated on these steps (cited in Saville-Troike, 2006). Nevertheless, there were some critiques concerning error analysis. First, the lack of positive data which means that errors alone do not necessarily determine the level of language learners and the correct uses he or she used might be ignored. In addition, Schachter criticized EA by highlighting the potential for avoidance which means that a language learner may avoid difficult items and structures to avoid making errors and to use only the elements he or she knows very well (James, 1998).

2.2. Inter-language

Smith (1994) defined inter-language as "The systematic linguistic behavior of learners of a second or other language; in other words, learners of non-native languages"(smith,1994). Moreover, Inter-language is a language that has some features of the first language and the second language with its rules and it is a state that is in between both languages in a developmental process towards the target language (Yule, 2006).

Selinker (1972) (cited in Ellis 1994) introduced the term inter-language. Selinker considered this state as it is a result of inner stimuli to interact with the environment under the impact of first and target languages.

2.3. The English Sound System

English contains 25 consonants sounds and 20 vowel sounds. There are short vowel sounds and long vowel sounds. These vowels are all voiced while consonants can be voiced or unvoiced. Voiced means that the sound occurs by the vibration in vocal cords. Consonant sounds are divided according to the place and manner of articulation and to identify whether the sound is voiced or voiceless.

However, consonants sounds can come one after another without a vowel sound between them unlike many languages such as Arabic language. It is called consonant clusters. Consonant clusters mean two or more consonants come consequently like the sound s and l in the word 'please' and like the sound s, p and r in the word 'spray'. "A

consonant cluster as a sequence of consonants that come together in a syllable without a vowel sound between them" (Jones,1976). The English syllable structure can be categorized into three elements, onset, nucleus and coda. An onset which is the beginning of the syllable consists of consonant sounds, and it can be up to three consonants . Whereas a nucleus or a peak is the middle part which consists of a vowel or a diphthong and sometimes it can be a syllabic consonant, a nasal or lateral. The third element is coda which is the final part which consists of consonants, and it can be up to four consonants (Roach, 2000).

On the other hand, for some languages like Arabic language tends to avoid consonants clusters, so the sound system of Arabic tends to be more like CVC where English can be CCV, CCCV,VCC and VCCV. Moreover, in medial word or syllable, consonant segments can be up to four or even five consonant segments.

2.4.Previous Studies

There are many studies done in regard to consonant clusters and the influence of interfering the first language sound system with the second or foreign language. One of these studies is what Berta Flores and Xinia Rodriguez (1994) have done. They conducted a study entitled 'The Influence of Language Transfer on Consonant Cluster Production'. The study showed that Costa Rica University's students who were in the second year made mistakes in pronouncing English consonant clusters because of the huge impact of Spanish language on English language due to the differences of the syllable structure in both languages. The students were asked to read some words, paragraph and sentences, then they were asked to answer questions regarding the lesson discussion in the class and also questions about themselves. The data analyzed by categorizing each word that involves consonant clusters according to initial, medial, and final position clusters. The words transcribed by using IPA and errors were calculated (Flores & Rodriguez, 1994).

Moreover, the result showed that students used some systematic processes to simplify the consonant clusters in all three positions, which are initial, medial and final. Most students insert a vowel in the initial position because of their first language influence. However, in medial consonant clusters, students tended to substitute

and use the deletion process to simplify the consonant clusters. The final consonant clusters simplified by devoicing or deleting the sound.

In addition, there was a study conducted on 45 Yemeni students by Dr. Abbas Na'ama (2011) entitled 'An Analysis of Errors Made By Yemeni University Students in The English Consonant Clusters System'. The students were randomly chosen from three different levels and their pronunciations were recorded by using cassette recorder. The study focused on English consonant clusters. The students were asked to read some words that include the initial consonant clusters which contain two and three initial consonant clusters and words which contain three and four final consonant clusters.

However, the results show that only 26 students out of 45 were able to utter the initial consonant clusters which contain two consonants. They uttered these sounds by inserting a short vowel. However, most students could pronounce the final consonant clusters which contain two consonants properly unlike the final consonant clusters made up of three or four consonants. They all failed to pronounce these words because Arabic language doesn't permit three or four consonant cluster in the final position (Na'ama, 2011).

Moreover, there is also a study done by Ivy Yiing (2011). The title of the study is 'An Analysis of Pronunciation Errors in English of Six UTAR Chinese Studies Undergraduates'. Six Chinese students whose first language is Mandarin Chinese were given a list of twenty words and eight sentences to read. They got prepared by reading them before the recording process. Their pronunciation errors put in groups. One of these groups was 'consonant cluster confusion'. However, the study showed that mother tongue influence was the basic reason of students' pronunciation errors of consonant clusters. Students used some techniques to facilitate consonant clusters pronunciation. They edited the final consonant clusters by omitting one consonant sound. The students also inserted schwa between consonant clusters in some words to modify consonant clusters pronunciation. They also omitted one of consonant cluster and inserted a schwa to replace the consonant

sound while pronouncing some words as one of their strategies to simplify consonant clusters (Yiing, 2011).

In addition, Khanbeiki and Abdolmanafi-Rokni (2015) carried out the study with the title 'A Study of Consonant Clusters in an EFL Context'. The study sample contains sixty female students who were given a pronunciation test which contains 50 words. The students were asked to read the words which were selected from their own textbook to make sure that the words are suitable for their level. However, the study had two hypotheses, first one is that Persian students of English language use insertion strategy whether in the initial or in the final consonant clusters equally. Second, is the phonological structure of the Persian language has no effect on students' pronunciation of the initial and final consonant clusters.

However, the results showed that students did more errors in pronouncing the initial consonant clusters than in final consonant clusters. The study proved that Persian students did more errors in the initial consonant clusters more than the final consonant clusters, thus, their first language sound system affected the pronunciation of Persian students (khanbeiki &Abdolmanafi-Rokani, 2015).

Sabbah (2016) done a study on Arabic influence on English language. The aim of this study is to list the results of the previous studies to show the differences between Arabic and English languages and explain the causes of errors made by English learners. It explained the role of differences between English and Arabic in producing learners' errors. It mentioned that Arab learners face difficulties in English consonant pronunciation. It stated that learners modify English consonant clusters by inserting a vowel to split them.

Moreover, these studies confirmed that English learners whose languages don't permit consonant clusters face great difficulties in pronouncing them. Some studies showed that mother tongue played a major role in producing the second or foreign language.

Chapter 3

Methodology and Procedures

In this study, the emphasis is on the pronunciation of English consonant clusters by EFL female students level four at Albaha university. It seeks to answer two questions. First one is what are the

errors made by female students when they pronounce English consonant clusters. Second one is in which position do they make errors in initial or final position. However, the methodology of research is the core of any research. It gives a clear picture about the procedures and mentions every step taken to get data as the purpose of this study is to analyze English learners' pronunciation. Thus, in this chapter, the procedures of the study will be discussed in detail.

3.1 Research Design

The current study used quantitative method to analyze findings quantitatively and qualitatively utilizing statistical interpretation of the findings.

3.2 Research Instruments

(A) Oral Test

The researcher used an oral test to collect data. The test is originally written by Sharynne McLeo & Linda Hand (1991). The version that was used in this study is a modified version of this test. The test was modified by adding five words which contain three consonant clusters in the final position. These words are camps, works, hands, accepts and attempt. Also, thirty-five words have been chosen randomly from the original test. The test contains forty words, twenty words contain initial consonant clusters and twenty words contain final consonant clusters. Moreover, the test was chosen as a tool for this study because it is suitable for the method of this study which is a quantitative one. However, the oral test was given to female English learners, level four at the Department of Foreign Languages at College of Arts and Humanities of Albaha University. The test was given to five girls twice before the actual use of it for this study. It was given twice for the pilot study and then it was administrated to twenty-two students to get data for this study.

3.3 Pilot Administration

The oral test was given to five girls who studied at the college and they have been chosen randomly. It was given to the participants twice in different times and the results of both administration were calculated. However, they were given instructions before they started taking the test and the purpose of the test was explained.

They showed that the test was clear and they had no difficulty in it. However, they weren't told what the test was measuring.

Timing of the Test: The time of the test was estimated for the study by calculating the time during the pilot study. The test lasted twenty minutes.

Moreover, the following table shows the percentage of students who read the words correctly in both the first and second administrations that relate to pilot study.

Table(3-1): Percentage of Students Who Read the Words Correctly in Pilot Adminstration

Table(3-1): Percentage of Students Who Read the Words Correctly in Pilot

Adminstration

	Test (Administration 1)				Test (Administration 2)			
	Read correctly		Read incorrect		Read correctly		Read incorrect	
	#	%	#	%	#	%	#	%
Snake	2	40%	3	60%	0	0%	5	100%
Scratch	2	40%	3	60%	2	40%	3	60%
Splinter	0	0%	5	100%	0	0%	5	100%
Glasses	3	60%	2	40%	4	80%	1	20%
Twinkle	4	80%	1	20%	5	100%	0	0%
Plane	2	40%	3	60%	2	40%	3	60%
Flower	0	0%	5	100%	0	0%	5	100%
Spray	0	0%	5	100%	0	0%	5	100%
Spoon	0	0%	5	100%	0	0%	5	100%
Train	2	40%	3	60%	2	40%	3	60%
Camps	2	40%	3	60%	2	40%	3	60%
Stamp	5	100%	0	0%	5	100%	0	0%
Film	4	80%	1	20%	4	80%	1	20%
Text	3	60%	2	40%	3	60%	2	40%
Drink	5	100%	0	0%	5	100%	0	0%
Mask	5	100%	0	0%	5	100%	0	0%
Last	5	100%	0	0%	5	100%	0	0%

Orange	5	100%	0	0%	5	100%	0	0%
Hands	4	80%	1	20%	4	80%	1	20%
Behind	5	100%	0	0%	5	100%	0	0%
Snail	2	40%	3	60%	0	0%	5	100%
Smell	0	0%	5	100%	0	0%	5	100%
Fly	0	0%	5	100%	0	0%	5	100%
Crying	3	60%	2	40%	3	60%	2	40%
Throw	3	60%	2	40%	3	60%	2	40%
Stop	0	0%	5	100%	0	0%	5	100%
Pray	2	40%	3	60%	2	40%	3	60%
Swing	4	80%	1	20%	4	80%	1	20%
Splash	0	0%	5	100%	0	0%	5	100%
Square	3	60%	2	40%	2	40%	3	60%
Paint	5	100%	0	0%	5	100%	0	0%
Desk	5	100%	0	0%	5	100%	0	0%
Lunch	5	100%	0	0%	5	100%	0	0%
Pink	5	100%	0	0%	5	100%	0	0%
Works	3	60%	2	40%	3	60%	2	40%
Attempt	3	60%	2	40%	3	60%	2	40%
Fact	5	100%	0	0%	5	100%	0	0%
Help	5	100%	0	0%	5	100%	0	0%
Fence	4	80%	1	20%	4	80%	1	20%
Accepts	3	60%	2	40%	2	40%	3	60%

Data in Table (3-1) shows that students had difficulty to pronounce most of words that begin or end with consonant clusters. Thus, the results of the test showed that 60% of the students failed to pronounce correctly the following words: snake, scratch, plane, train, camps, snail and pray. Likewise, 40 % of students pronounced the following words incorrectly: glasses, text, crying, throw, square, works, attempt and accepts. Also, 20% of students failed to pronounce the following words correctly: hands, twinkle, film, swing and fence. However, all students pronounced the following words incorrectly: splinter, flower, spray, spoon, fly, smell, stop and splash.

On the other hand, the results of the second use of the test shows that all student failed to pronounce the following words: snake, splinter, flower, spoon, spray, smell, snail, fly, stop and splash. Moreover, 60% of students pronounced scratch, plane, train, camps, pray, square and accepts. Also, 40% of students failed to pronounce the following words correctly: works, attempt, throw, crying and text. In addition, 20 % of participants failed to pronounced glasses, film, hands, swing and fence.

3.4 Reliability & Validity

In the present study, the test-retest and Cronbach's Alpha was used to measure the reliability of the instrument; Table (3-2) illustrates the value of Reliability & Validity coefficients:

Test	N of Items	Reliability	Validity*
Oral Test	40	0.942	0.971

* Validity = square root (Reliability coefficient

Table (3-2) shows that the reliability coefficient for the administration equal 0.942 and it shows that the validity is also in a great level, it is 0.971. These results indicate the presence of high reliability in the test. Also, the researcher has submitted the instruments of the study to a jury members of applied linguistics at the Department of Foreign Languages at College of Arts and Humanities of Albaha University who reported that the test was suitable to achieve objectives of the current study.

3.5 Participants of the Study

This research was administered on twenty-two EFL female English learners, level four at the Department of Foreign Languages at Faculty of Arts and Humanities of Albaha University. The students' age is between (19-21). They have been studying English since the age of 12 years.

3.6. Data Collection.

In this study, data was collected in one phase. The researcher gave a list of English words which contained initial and final consonant clusters. The word list was given to the participants to read each one as naturally as possible. The researcher asked for students' permission to record their pronunciation and they were

told that their recordings will be used only for this study. Then, they were introduced for the test, and they were told about the purpose of the test without telling them the purpose of the test which means that they were not told about English consonant clusters. The test lasted for two hours because the students were tested one by one. Students' pronunciation was recorded by using a voice recorder.

Chapter 4

Results and Interpretation

The purpose of the study is to analyze the students' pronunciation errors of English clusters. In order to answer the questions, Female students' errors were analyzed. Also, the method stated by Corder (1981) in error analysis was used to classify errors. Ellis (1994) elaborated on this method by giving the procedures for analyzing learners' errors including the following steps:

- Sample collections of learners' language.

- Identification of errors to distinguish between errors that are a result from the lack knowledge of the target language and mistakes that made because of memory slip, for example. So, it can be corrected by the ones themselves.

- The description of error classification concerning language level(the phonological, morphological, etc), general linguistic (e.g. auxiliary, passive form), linguistic aspects (articles, preposition)

- The explanation of errors clarifies the reasons behind errors. The causes of errors in the second language might be inter-lingual (between languages) the negative transfer or interference from L1 or intra-lingual (within language) which take into consideration the developmental errors and lack of good learning of the second language structures.

- Evaluation of errors concerns to the nature of errors and gives evaluation how a specific error may influence the clarity of language (Saville-Troike, 2006)

In addition, errors were analyzed statistically. IPA charts were used to determine the right sound in contrast to students' pronunciation.

However, the following section will be pronunciation transcription of students who participated in this study. The transcription focuses only on English consonant clusters.

4.1.Students' Pronunciation Error Analysis and Transcription

In the following table (4-1) twenty two students' pronunciations are transcribed and compared to IPA phonetic transcription. This is done to identify EFL female students pronunciation of consonant clusters in an attempt to answer question 1# What are the errors made by female EFL university students when they pronounce English consonant clusters?

Table (4-1) Students' Pronunciation Error Analysis and Transcription

The word	IPA transcription	Students' pronunciation
Snake	/sneɪk/	8 students /sneɪk/
		13 students /əsneɪk/
		1student /si:neɪk/

The word	IPA transcription	Students' pronunciation
Scratch	/skrætʃ/	9 students /skrætʃ/
		1 student /skərætʃ/
		1 student /si:krætʃ/
		11 students /əskrætʃ/

The word	IPA Transcription	Students' Pronunciation
Splinter	/splɪn.tə/	7 students /splɪn.tɹ/
		13 students /əsplɪn.tɹ/
		1 student /spəlɪn.tɹ/
		1 students /si:plɪn.tɹ/

The word	IPA Transcription	Students' Pronunciation
Glasses	/glæsəz/	19 students /glæsəz/
		1 student /əglæsəz/
		2 students /gəlæsəz/

The word	IPA Transcription	Students' Pronunciation
Twinkle	/twɪŋkəl/	21 students /twɪŋkəl/
		1 student /təwɪŋkəl/

The word	IPA transcription	Students' pronunciation
Plane	/pleɪn/	14 students /pleɪn/
		8 students /əpleɪn/

The word	IPA Transcription	Students' Pronunciation
Flower	/flaʊə/	11 students /flaʊɹ/
		2 students /fəlaʊɹ/
		9 students /əflaʊɹ/

The word	IPA Transcription	Students' Pronunciation
Spray	/spreɪ/	3 students /spreɪ/
		18 students /əspreɪ/
		1 student /spiːreɪ/

The word	IPA Transcription	Students' Pronunciation
Spoon	/spuːn/	1 student /spuːn/
		21 students /əspuːn/

The word	IPA Transcription	Students' Pronunciation
Train	/treɪn/	12 students /treɪn/
		9 students /təreɪn/
		1 student /ətreɪn/

The word	IPA Transcription	Students' Pronunciation
Stamp	/stæmp/	All students /əstæ(mp/)

The word	IPA Transcription	Students' Pronunciation
Film	/fɪlm/	20 students /fɪlm/
		2 students /fɪləm/

The word	IPA Transcription	Students' Pronunciation
Text	/tekst/	11 students **/tekst/** 11students **/tekɪst/**

The word	IPA Transcription	Students' Pronunciation
Drink	/drɪŋk/	all students /drɪŋk/

The word	IPA Transcription	Students' Pronunciation
Mask	**/mɑːsk/**	all students **/mɑːsk/**

The word	IPA Transcription	Students' Pronunciation
Last	/lɑːst/	all students **/lɑːst/**

The word	IPA Transcription	Students' Pronunciation
Orange	**/ɒrɪndʒ/**	all students **/ɒrɪndʒ/**

The word	IPA Transcription	Students' Pronunciation
Behind	/bɪhaɪnd/	all students **/bɪhaɪnd/**
The word	IPA Transcription	Students' Pronunciation
Paint	**/peɪnt/**	all students **/peɪnt/**

The word	IPA Transcription	Students' Pronunciation
Desk	**/desk/**	all students **/desk/**

The word	IPA Transcription	Students' Pronunciation
Lunch	**/lʌntʃ/**	all students **/lʌntʃ/**

The word	IPA Transcription	Students' Pronunciation
Pink	/pɪŋk/	all students /pɪŋk/

The word	IPA Transcription	Students' Pronunciation
Fact	/fækt/	all students /fækt/

The word	IPA Transcription	Students' Pronunciation
Help	/help/	all students /help/

The word	IPA Transcription	Students' Pronunciation
Snail	/sneɪl/	5 students /sneɪl/ 17 students /əsneɪl/

The word	IPA Transcription	Students' Pronunciation
Smell	/smel/	2 students /smel/ 20 students /əsmel/

The word	IPA Transcription	Students' Pronunciation
Fly	/flaɪ/	1 student /flaɪ/ 21 students /əflaɪ/

The word	IPA Transcription	Students' Pronunciation
Crying	/kraɪ.ɪŋ/	11 student /kraɪ.ɪŋ/ 11 students /kəraɪ.ɪŋ/

The word	IPA Transcription	Students' Pronunciation
Throw	/θrəʊ/	20 student /θrəʊ/ 2 students /əθrəʊ/

The word	IPA Transcription	Students' Pronunciation
Stop	/stɒp/	1 student /stɒp/
		21 students /əstɒp/

The word	IPA Transcription	Students' Pronunciation
Pray	/preɪ/	14 student /preɪ/
		4 students /pəreɪ/
		4 students /əpreɪ/

The word	IPA Transcription	Students' Pronunciation
Swing	/flaɪ/	19 student /swɪŋ/
		٣ students /əswɪŋ/

The word	IPA Transcription	Students' Pronunciation
Splash	/splæʃ/	15 student /əsplæʃ/
		5 students /sɪplæʃ/
		2 students /spəlæʃ/

The word	IPA Transcription	Students' Pronunciation
Square	/skweə/	2 student /skweəɹ/
		20 students /əskweəɹ/

The word	IPA Transcription	Students' Pronunciation
Works	/wɜːks/	17 student /wɜːks/
		5 students /wɜːkəs/

The word	IPA Transcription	Students' Pronunciation
Attempt	/ətempt/	11 student /ətempt/
		11 students /ətempət/

The word	IPA Transcription	Students' Pronunciation
Fence	/fens/	20 student /fens/
		2 students /fenəs/

The word	IPA Transcription	Students' Pronunciation
Accepts	/əksepts/	19 student /əksepts/
		3 students /əkseptəs/

The errors made by students were analyzed and explained based on Error Analysis of pronunciation. The words' transcriptions denote the errors that made by students so obvious. However, fourteen students pronounced the word 'snake' wrongly and eight students pronounced it correctly. Thirteen students pronounced the word 'scratch' wrongly and nine students pronounced it correctly. Fifteen students pronounced the words 'splinter' and ' camps' wrongly and seven students pronounced it correctly. One student pronounced the word 'twinkle' wrongly and twenty-one students pronounced it correctly.

Also, eight students pronounced the words 'plane' and 'pray' wrongly and fourteen students pronounced it correctly. Eleven students pronounced the words 'flower', 'crying' , 'text' and 'attempt' incorrectly and eleven pronounced it correctly. Nineteen students pronounced the word 'spray' wrongly and three students pronounced it correctly. Twenty-one students pronounced the words 'spoon',' stop' and 'fly' incorrectly and one student pronounced it correctly. Ten students pronounced the word 'train' wrongly and twelve students pronounced it correctly.

Moreover, Seventeen students pronounced the word 'snail' incorrectly and five students pronounced it correctly. Twenty students pronounced the words 'smell' and 'square' incorrectly and two students pronounced it correctly. Three students pronounced the words 'swing', ' glasses' and 'accepts' incorrectly and nineteen students pronounced it correctly. Five students pronounced the word 'works' incorrectly, whereas seventeen students pronounced it correctly. Furthermore, two students pronounced the words 'film',' throw' , 'fence' and 'hands' incorrectly and twenty students pronounced it correctly.

Finally, the students pronounced words such as Stamp, drink, mask, last, orange , behind, paint, desk, lunch, pink, fact and help correctly whereas all the participants pronounced the word 'splash' incorrectly.

According to table (4-1) students made different errors while pronouncing consonant clusters. These errors seem systematic and not self-corrected because all students made almost the same errors

while pronouncing consonant clusters. They facilitated consonant clusters by adding a vowel. Their modifying of consonant clusters pronunciation was different depending on the quality of the vowel they inserting and the place of it in the word.

The students modified consonant clusters pronunciation by inserting a vowel to ease the pronunciation in different ways. Students separated consonant clusters by adding a vowel before consonant clusters such as when they pronounced the word snake, thirteen students pronounced it as /əsneɪk/ In addition, students broke the consonant clusters by inserting a vowel between consonant clusters, for instances, the word splash, five students pronounced as /sɪplæʃ/ and two students pronounced as /spəlæʃ/. Also, the word attempt, eleven students pronounced as /ətempət/.

Obviously, students added three different vowel sounds; schwa /ə/ , /ɪ/ and/ i:/ but mostly, they added schwa /ə/ . Hall (2011) mentioned that the quality of vowel epenthesis can be a fixed quality that based on the language allophonic variation, or it can be affected by the phonological context. Further, Hall pointed out that the place of epenthetic vowel depends on the characteristics of the language. Anyways, these points are not included in this study, further research is needed.

Generally speaking, these errors made by students are inter-lingual errors because Arabic language has a big role in producing English consonant clusters since Arabic language does not allow consonant clusters especially in the initial position (Watson, 2002). Students applied their native language sound system to pronounce foreign language, in simple words, they transfer their mother tongue sound system to second language.

Al-Khawaldeh, Bani-Khair, & Al-Edwan (2016) in their study reported that some errors that made by the students can be attributed to the interference of their mother tongue.

EFL Female Students Pronunciation Errors in Consonant Clusters (initial and final position)

Results in table (4-2) below is meant to answer question 2# Are their pronunciation errors in initial or final consonant clusters?

Table (4-2):The Percentage of Errors

The word	The Percentage of error
Snake	%٦٣
Scratch	%٥٩
Splinter	%٦٨
Glasses	%٨٦
Twinkle	%٩٥
Plane	%٣٦
Flower	%٥٠
Spray	%٨٦
Spoon	%٩٥
Train	%٤٥
Camps	%٦٨
Stamp	%٠.٠
Film	%٨٩
Text	%٥٠
Drink	%٠.٠
Mask	%٠.٠
Last	%٠.٠
Orange	%٠.٠
Hands	%٩١
Behind	%٠.٠
Snail	%٧٧
Smell	%٧١
Crying	%٥٠
Throw	%٧١

Stop	٩٥%
Pray	٣٦%
Swing	١٤%
Splash	١٠٠%
Square	٩١%
Paint	٠.٠%
Desk	٠.٠%
Lunch	٠.٠%
Pink	٠.٠%
Works	٣٢%
Attempt	٥٠%
Fact	٠.٠%
Help	٠.٠%
Fence	٩%
Accepts	١٤%

However, the abovementioned table (4-2) showed the error percentage of each word pronounced by participants. It displayed that initial position clusters were more difficult for participants.
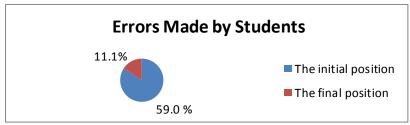
Shormani & AlSohbani (2015) showed that Arabic speakers have difficulty in pronouncing the onset and coda clusters that contain three consonant clusters and coda clusters that made of four consonants. "One way to explain this is that they used to pronounce only di-consonant-clustering syllables words and only in final positions, it is perhaps difficult for them to cope with English words having tri-and quadric consonant clusters."

However, next chart represents the percentage of students' pronunciation errors. It shows that students' pronunciation errors in the initial position is 59.0% while in the final position is only 11.1%. It shows that students have major difficulty in pronouncing English consonant clusters in initial position more than in the final position.

Students' errors (figure 1)

Errors Made by Students

11.1%

■ The initial position

■ The final position

59.0 %

It is clear that students made errors in the initial position more than the final position. These errors are vowel insertion whether before consonant clusters or between consonant clusters. The numbers of errors made in the initial position is 260 and in the final position is 49 where the numbers of words which have initial consonant clusters are 20 words and the number of words which have the final consonant clusters are 20 words. The results showed that words which contain two consonant clusters in the final position were pronounced correctly most of the time, whereas most of the words that contain the two initial consonant clusters were pronounced incorrectly.

Likewise, the number of errors in pronouncing the words that contain three initial consonant clusters are more than the errors in pronouncing the words that contain three final consonant clusters, but not like the case of the two consonant clusters in both positions which was clear that the two initial clusters was more difficult for the participants.

Pirogova (2017) mentioned that Arabic speakers have problems with complex onsets consisting of more than one consonant and codas of more than two. Pirogova added that "An epenthetic vowel is placed in between the first and second consonant in CC clusters, CvC, and in between the second and third in CCC clusters, CCvC. "

4.2.Results and discussion

The results of data analysis showed that majority of students made errors when they pronounce English consonant clusters. These errors are vowel insertion like /i:/, /ɪ/ and /ə/ which had been inserted before or between consonant clusters to simplify the pronunciation of these consonant clusters. The deletion and vowel insertion are the basic modification techniques for those whose native language

doesn't allow consonant clusters (Weinberger, 1997). The study results showed that these pronunciation errors are systematic and they are considered inter-lingual, which is negative transfer from the first language to the foreign language, from Arabic to English. However, errors make the pronunciation not obvious sometimes and the learners who insert vowels to break the consonant clusters tend to have a foreign accent.

Arab speakers tend to modify English consonant clusters by pronouncing vowels to break the consonant clusters and make the pronunciation process simpler. These errors made because of sound system differences between English and Arabic language (Eckman & Inverson, 1993). As mentioned before in chapter two, English has the consonant clusters range from two to three consonant clusters in the initial position and it has a potential number from two to four consonant clusters in final position in one syllable (wells,1990; Roach, 2000). While Arabic language avoids the consonant clusters ; especially, in the initial position. Arabic does not allow the consonant clusters in the initial position but there are some cases of the consonant clusters in the final position (Kipersky,2003).

However, Arabic language allows the consonants clusters in few cases (Jasim,2002). One of these cases is CVCC in the word baʔθ بعث (resurrection). However, this may account for the right pronunciation of the English consonant clusters at the end of words in this study. Thus, participants are familiar with two consonant clusters because they exit in Arabic language as it mentioned above.

Moreover, the findings of study support the claim that errors emerge from the differences between two languages (Lado, 1957 cited in Tao, Lijuan & Gann, 2008; Richards, 2015). Furthermore, the results showed that the participants made errors more in the initial position which supports the claim that Arabic doesn't allow onset consonant clusters but has some cases which allow two consonant clusters in coda position (Watson, 2002; Al-Shuaibi, 2009; Jarrah, 1993). Therefore, students made less errors in final consonant clusters and they succeed to pronounce most of the words that contain two final consonant clusters whereas the pronunciation of the three final consonant clusters was more difficult.

Moreover, Hussain Almalki (2014) conducted a study on the pronunciation of the English onset clusters by Saudi participants. His study showed that Saudi participants simplify the clusters by inserting a vowel in the beginning of the word and the duration of the vowel sound get longer with more marked clusters (Almalki, 2014).

However, Salem (2014) mentioned that several studies proved that L2 students learned the initial consonant clusters before the final consonant clusters in which the later are considered more marked (Salem, 2014)

Yet, this study proved that the differences between two languages cause negative transfer (interference) from the first language to the foreign language. The results of the study displayed that participants had great difficulties in pronouncing initial consonant clusters than final ones. So, the native language of learners make a big role in producing the second or foreign language. Errors emerge as a result of the impact of the first language. These errors may bring serious barriers to learners when dealing with others. They may misunderstand others or create confusions during communications.

Poor pronunciation is an obstacle in which people may get wrong message and other communication problems. Pronunciation difficulties have many reasons, First language influence is one of these reasons. It also has negative effects. Thus, it is inevitable and possible to find applicable remedial solutions to solve this problem that Arab learners have when pronouncing English consonant clusters.

Teachers and educators may help learners succeed to overcome this difficulty by making them aware of these errors and by adapting authentic and suitable materials for teaching this part of English pronunciation. Students need to get exposed to natural English speech and get involved in speaking activities as well. The importance of listening to English language make it a necessary step to achieve a good English pronunciation. It should be one of the basic stages in which learners start to expose to real language. It can be very helpful to train students to listen to the English natives speakers to get proper input to help them master the pronunciation.

However, this was an explanation and discussion of the study results and this is the end of this chapter. The following chapter will provide a brief conclusion, some recommendations and suggestions for further researches.

Conclusion, Recommendations and Suggestions for Future Research

5.1 Conclusion and Discussion

This study was meant to answer two questions. The first one was 'what are the errors made by female EFL university students when they pronounce English consonant clusters?' and the second one was 'Are these errors in initial or final consonant clusters?'. Consonant clusters are consonant sounds come consequently without a vowel sound between them.

Further, the main aim of this study is to phonologically analyze and clarify the pronunciation errors of English consonant clusters made by female EFL learners and to investigate the nature of these errors. In addition, Error analysis method was applied to investigate the nature of the pronunciation errors of English consonant clusters.

However, to collect data, this study was administered to twenty-two EFL female English learners level four at the Department of Foreign Languages at Faculty of Arts and Humanities of Albaha University. They were given a modified oral test which contained forty words. The original version of the test was created by Sharynne McLeo & Linda Hand (1991). The test was chosen as a tool for this study because it is suitable for the method of this study which is a quantitative method.

Moreover, after the transcription of the participants' pronunciation and analyzing the data and the findings of the research, the results have showed that participants simplify consonant clusters by inserting a vowel to break them. The results also showed that students made errors when they pronounce English consonant clusters in initial position more than in the final position. It is also clear that the students made errors in the initial position 59.0% while in the final position 11.1%.

Analysis of results revealed that the difficulty in pronunciation of consonant clusters is due to the differences between the English sound system and Arabic sound system. English allows consonant clusters in initial and final positions. There are English syllables that

may have two or three consonant clusters in the initial position and it can be up to four consonant clusters in the final position. On the other hand, Arabic syllables do not include consonant clusters in the initial position ,yet, it permits two consonant clusters in the final position. Therefore, this study asserts that the negative transfer was a fundamental root cause of errors made by the students.

5.2 Recommendations and Suggestions for Future Research

This study suggests some solutions that may assist English learners and teachers to avoid the errors in pronouncing consonant clusters. Therefore, it might be useful to teach students the differences between English and Arabic sound systems. Also, it may be fruitful to make learners aware of this problem and train them by keeping them listening to English native speakers and expose them to authentic English materials.

Also, the results can be helpful and useful for teachers, learners and educators. It can help teachers and educators to better know the difficulties that Arab learners have while pronouncing English consonant clusters. It sheds light on the types of errors that Arab students may have. Consequently, it may lead them to look for better strategies in teaching English pronunciation and adapt better ways to enhance EFL learners' pronunciation. In addition, learners can have better knowledge about English consonant clusters which may lead to be more aware and this promote their learning by avoiding these type of errors.

Moreover, the following recommendations and suggestions are provided to help other researchers and whoever are interested in the field of applied linguistics, specifically, in English consonant clusters. These recommendations may help English teachers, learners, and course designers in their domains as well.

1. Future research may study the relationship between number of consonants in a clusters and errors in pronouncing them.
2. Future research may study the relationship between the type of consonant clusters and errors in pronouncing them.
3. Future research can replicate the current study using different data collection instruments if applicable.
4. Future research may examine EFL students errors in consonant clusters in middle position or in different English accents.

5. Future research may administer the current study instrument to EFL learners in another context.

6. Future research could further explore the causes of the specific location of vowel epenthesis.

7. Teachers are advised to provide students with English listening materials and make speech practices inside classrooms.

This study attempts to investigate the errors made by EFL female Saudi students in pronouncing English consonant clusters and determine what is the most difficult position to them. The abovementioned recommendations and suggestions are given to contribute to the field of applied linguistics and to help EFL teachers better improve their students pronunciation.

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