Consonant Clusters with Short Vowel Epenthesis:

A Case Study Conducted to Spot How EFL Students at Hail University Tend to Pronounce
Consonant Clusters in English

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Abstract

This study was carried out in the field of pedagogical phonetics. It specifically aims at investigating the pronunciation of English consonant clusters as produced by Arabic native speaking students. In two phonological loci, namely prosthesis and anaptyxis, twenty English monosyllabic and disyllabic consonantal clustered words were examined qualitatively and quantitatively to familiarize the learning pronunciation point. With spelling test and observation, the study's data were sequentially elicited from a purposive sample of thirty Arab male students enrolled in the EFL preparatory program at Hail University. The data gathered were interpreted by the use of inferential analysis and descriptive statistics. The findings revealed that the students tended to epenthesize a short vowel into the English consonant clusters wherever they tookplace. Overall, the study proved that the production of English consonant clusters is a learning point with some challenge for Arabic native speaking learners of English. Accordingly, the study recommended a pedagogical practice for improving EFL students' pronunciation at Hail University.

Keywords: consonant clusters, epenthesis, prosthesis, anaptyxis

1. Introduction

Pronunciation learning, in general, might entail a complex set of difficulties confronting the EFL learners. In this regard, it has been argued in Huensch (2018) that the linguistic dimension is a major concern for learners of other languages to reach an ideal degree of pronunciation accuracy and intelligibility; that often frustrates EFL learners. Relevant to our current research, Masuda and Arai(2008) showed that such difficulties are attributed to the differences between mother tongue-languages and English with reference to the phonological environment of producing consonant clusters. For instance, Arabic and English Languages differ in the sense that some Arabic consonant sounds do not exist in the English language. According Khullar(2017), there are 32 consonants in Arabic, but there are 28 consonants in English. For that, there has been in general an interest among linguists to seek into the differences of the phonological systems and their effects on the pronunciation of consonant clusters in both languages. In connection to the current research topic, there has been an extensive amount of research literature made in this field to look into the production of consonant clusters with vowel epenthesis from purely phonetic and phonological perspectives. Yet, this paper's concern is to examine how English
consonant cluster seems to be a pronunciation learning issue for both English teachers and their EFL students. Little attention was given to this specific area of research, though.

This study stems its need from a couple of sources. The first concerns the conclusion of extensive literature that English consonant cluster is commonly broken up by vowel epenthesis when the earlier is produced by speakers of other languages than English. The second relates to preserving intelligibility of students' pronunciation in classrooms. Thereupon, the researchers, who are teachers of EFL, were pedagogically provoked to identify the most common difficulties stymieing the EFL learners' pronunciation. Specifically, the study's concern was to examine to what extent English consonant clusters are accurately pronounced by the EFL students. Using test document analysis and observation as research tools, qualitative and quantitative data were sequentially elicited from EFL students attempting English consonant clusters' production.

Lastly, it has been found that the Arabic sound pattern affects those learners' pronunciation of English consonant clusters. In other words, they simplified the production of a cluster by inserting a short vowel in the body of the consonant cluster. This, in turn, spurred the researchers to propose a pedagogical implication to make their students' pronunciation more intelligible, communicable, and effective. (Stern, 1992)

2. Research Objectives

This piece of research aims at examining Arab students' pronunciation of English consonant clusters. Specifically, it is to look into how EFL learners epenthesize a short vowel into the English consonant clusters making it a serious learning pronunciation problem. It also aims to urge teachers to develop materials that would be of great help for EFL learners to produce the English consonant clusters without vowel epenthesization. In short, the current study was guided by the following two research objectives:

- To check the interference of L1 on producing English consonant cluster.
- To investigate how EFL students produce the English consonant clusters in various positions.

3. Research Questions

The current study attempted to answer the following research questions in terms of their qualitative and quantitative data elicited from the research instruments:

1. To what extent does L1 influence the production of English consonant cluster as uttered by Hail University Preparatory Year EFL students?
2. What are the positions of the English consonant clusters that EFL students commonly produce with vowel epenthesization?

4. Significance of the Study

The current study stems its importance from the mixed research method of qualitative and quantitative data which contribute to the body of research in producing English consonant clusters by non-English native speakers.
It basically sheds light onto a challenging learning point in teaching pronunciation to EFL learners in classrooms. Its findings could contribute to ameliorate the curriculum design of the EFL program offered at Prep Year College at Hail University in terms of teaching English pronunciation. The findings of this study will help EFL teachers to lay importance to the accuracy of their students’ pronunciation of consonant clusters. The study would be useful for EFL teachers as it suggests a practical lesson along with some activities that we think merit consideration in the classroom. For those researchers interested in examining various teaching pronunciation practices, some pedagogical and didactic suggestions could be sought to examine the effectiveness of the proposed lesson for the advancement of teaching English pronunciation.

It is generally hoped that this investigation will contribute to the improvement of English pronunciation instruction at Hail University in Saudi Arabia and other similar EFL contexts.

5. Review of Related Literature

Following is a review of some literature made on epenthetic vowel as seen as an intra-language or inter-language strategy. It has been argued by many researchers that vowel epenthesis is a repair strategy adopted by speakers to tolerate producing some restrictive syllable structures from either their first language or other languages. In a study conducted by Hall (2006:407), it was stated that epenthesis is used by native speakers of a language like Lebanese Arabic as a way of repairing syllables that violate language’s abstract structural rules. In an exploratory study, Gouskava and Hall (2006) showed that a vowel epenthesis occurs within the codas of Arabic consonant clusters produced by Lebanese and Palestinian speakers. Another study conducted by Ali, Lahrouchi & Ingleby (2008) on Moroccan Arabic showed that Moroccans tend to insert a schwa between the consonant cluster in word initial position. It was also found in Jouini (2014: 819) that epenthesis is seen a repair strategy to be triggered by language users as in Tunisian Arabic when an ill-formed structure is to surface.

Several studies have been attempted to investigate how epenthetic vowels work within a single language, but in the case of loanwords. In Spanish, Eddington (2001) examined epenthesis in terms of the competence and performance distinction. He argued that /e/ is the epenthetic vowel in Spanish and has no role in processing the native Spanish words; it appears in loanwords though. Further, vowel epenthesis, for Adomako (2008), is a dominant repair strategy when it occurs to meet some phonotactic structures that are language-specific as the case of loanwords in Akan. The same concern is reported by Alqahtani and Musa (2015) but with reference to Hausa, a spoken language in Nigeria. According to them, vowel epenthesis is a main repair strategy used by Hausa speakers functionally to break up final consonant clusters in Arabic loanwords due to the restriction on Hausa syllable structure. Repetti (2012), who conducted a study on "Consonant –Final Loanwords and Epenthetic Vowels in Italian" assumed that epenthetic vowel is a vowel inserted into phonological environment to satisfy or repair a marked or illicit structure. But more widely, he extended his assumption to say that not only does vowel epenthesis vary within a language, but also it varies cross-linguistically.

Yet, the main concern of the current paper is not to consider vowel epenthesis interactions within a language or aspects of loanwords; it is mainly interested to look at the effect of vowel epenthesis when it occurs by Arab learners producing English consonant clusters. In relevance to this, the study reviews further works as they show an increasing interest to study the effect of vowel epenthesis, to use
Hall's word (2006), "in inter-languages which produced by second language learners". Among these studies, Shibuya and Erickson(2010) proposed that Japanese speakers face difficulty in producing complex syllables, namely consonant clusters and often use some repair strategy through inserting extra vowels into these syllables. Taking into account that Japanese is a CV language and is much more restricted than English in its syllable inventory, their study concluded that L1 influence is the most prominent source of syllable structure errors that Japanese learners of English make. Based on the data provided by Karimi(1987) who studied English consonant clusters produced by Farsi speakers, Akbari(2013) asserted that Farsi speakers of English break up illegal initial consonant clusters by the insertion of a vowel between the consonants as in "dirink for drink".

Ali and Ali (2011) indicated that "Because of the interactions between English and Arabic show some vowel harmony, investigation of epenthesis in both languages has received much attention recently". In this regard, they contrasted how the general principles individually govern the choice of epenthesis whether a vowel or consonant in the said languages.

Vowel epenthesis in Pakistani English has been instrumentally studied by Jabeen, Mahmood, and Asghar(2012). They found that the Punjabi speakers participated in their study used repair strategies like epenthetic vowel to meet the clash between the phonotactic constraints of their mother tongue with those of English. Their study showed that vowel epenthesis occurs at all locations. It can be at onset, coda, before syllable consonant, and word boundary in certain circumstances. So, they validated the claim that vowel epenthesis is a prominent feature of Pakistani English. Specific to the latter, this paper is most likely interested to add more to the research made particularly on the way the EFL learners whose first language is Arabic produce the English consonant clusters epenthized.

It is clear from the above-reviewed literature that vowel epenthesis has been treated as a repair strategy favored by speakers of a single language. It has the same function when it applies for loanwords among languages. Rather, it was also found in the same bulk of literature that vowel insertion' effect was phonetically and phonologically studied, hence significantly noticeable when speakers of other languages produce the very restrictive English consonant clusters. In relevance to this effect, the study seems to be slightly different from those works as it pedagogically addresses English consonant clusters with vowel epenthesis as a learning point which merits further consideration in teaching English as a foreign language to Arab learners.

6. Overview of the Research Method

This section is made to discuss the research methods of the study. Research methodology, population of study, sample of study, instrumentation, data collection, and data analysis were all essentially included in this part to enable the researchers outline the work thoroughly.

A. Research Design

The study employed a mixed research method of qualitative and quantitative data to examine the influence of inserting a short vowel into English consonant clusters as pronounced by EFL learners. To that end, a case study taken from English classes offered at an EFL preparatory program at Hail University was used in this paper. The data for the current study were obtained from two instruments, namely, spelling test documents and structured observation. In relation to the two research questions,
inferential analysis and descriptive analysis were used to interpret the data collected from the aforesaid instruments, respectively.

According to Creswell (2009), it is a mixed method research because the paper intends to use various data collection instruments sequentially to best understand the research problem. It is in particular a two-phase sequential exploratory research design. It is sequential because qualitative and quantitative phases of data collection and interpretation were conducted sequentially. The first phase of the research method was qualitative to explore the topic while the second was quantitative to expand the understanding of the research topic. As argued by Creswell (2009), it is exploratory because weight is given first to the qualitative data to explore the topic. Using its results in identifying the participants for further explanation, quantitative data method was carried out in a secondary follow-up phase to expand the understanding of the topic per se.

Procedurally, the first phase started with collecting and analyzing the study's qualitative data to give answers to the first research question. Built on the qualitative findings, the second phase of research method concerned the quantitative data. That was ventured to expand the understanding of the topic explaining another bulk of data to yield answers pertinent to the second research question.

B. Study Population

The population of the study consists of Arabic native speaking students who were enrolled in an EFL foundation program in Hail University, Saudi Arabia. All the students participated in this study came from public and private schools in Hail region. The targeted students belonged to various Arab nationalities like Saudis, Yemenis, Syrians, Egyptians, and Jordanians.

C. Study Sample

Purposive sampling was used in the study to choose 30 Arabic native speaking male students whose English proficiency is categorized "beginner" according to the CERF scale. They were selected from level one General English courses majoring in the humanities and social studies during the academic year 2017/18 in the EFL preparatory year program.

D. Instrumentation

To address the overall purpose of the study, the study's instruments were outlined below in relevance to the research questions. Therein, two instruments were mainly used to elicit the data, namely spelling test documents and observation.

- **Spelling Test Documents**
  In phase one where the paper uses the exploratory qualitative research method, document analysis is efficient to be as a research instrument for selecting reliable and primary data pertinent to the first research question. (Bowen, 2009)

- **Structured Observation**
  In phase two where the paper uses the explanatory quantitative research method, structured and direct observation as a research instrument was used unobtrusively to collect further reliable and secondary data yielding answers to the second research question. According to Dalen (1979),
observation was generally suitable to the study because it allows the researcher to record the situation as it naturally happens.

E. Data Collection Procedures

In order to yield answers to the research questions arose in section (3) on examining how English consonant clusters are produced by Arabic native speaking students, acoustic data of a list of 20 English words with consonant clusters in various positions were collected from 30 EFL students. The words were purposefully selected from the textbook adopted for humanities track students. In the classroom, 30 participants in phase one were individually instructed to spell the words once to serve the purpose of the spelling test document data selecting an instrument. Later, the same group of the participants was called in phase two for a session of uttering the same list of words to serve the observation test data collecting.

F. Analysis procedures

The produced data of the subjects were all manually examined for two points:

- Production accuracy to check if there are epentheses into consonant clusters or not. Students' spellings were checked by the researcher teachers themselves. That was to serve the qualitative data which emerged from document test instrument. The raw results were interpreted by the use of inferential content analysis.

- Epenthesis locus to identify the areas where epenthesis in the consonant cluster took place. The students' utterances were rated by a couple of English native speaking teachers volunteered in the study. That was to serve quantitative data which emerged from the observation test instrument. The raw results were keyed into figures and then interpreted by the use of SPSS data analysis tool.

Finally, table(1) below summarizes the relevance of research questions and the research instruments along with their data analyses throughout the study.

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Research Instruments</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To what extent does L1 influence the production of English consonant cluster as uttered by Hail University Preparatory Year EFL students?</td>
<td>Documents (Spelling test)</td>
<td>Inferential Content Analysis</td>
</tr>
<tr>
<td>2. What are the positions of the English consonant clusters that EFL students commonly produce with vowel epenthesis?</td>
<td>Structured Observation (pronunciation test)</td>
<td>Descriptive Statistical Analysis</td>
</tr>
</tbody>
</table>

7. Findings
Following is the findings of the study as they emerged in the light of its research questions, its data collection instruments, and its data analyses. Qualitative data followed by the quantitative data to expand the understanding of the problem is presented in the study according to Creswell's (2009) structure of outlining the sequential mixed research method.

**Phase One**

Findings emerged from the inferential content analysis of the spelling test document data regarding the first question.

The first question arose in the study was "To what extent does L1 influence the production of English consonant cluster as uttered by Hail University preparatory year EFL students?". In order to probe answers for the question, a list of 20 monosyllabic and disyllabic English words with consonant clusters in various areas was assigned by the teacher for students to attempt in the classroom. That happened when our targeted students sat for Weekly Continuous Assessment in spelling and pronunciation as a partial requirement to fulfill the overall course score. Their spelt pronunciations were rated and interpreted by the researchers themselves.

**Table (2) Monosyllabic and disyllabic words with double and triple consonant clusters**

<table>
<thead>
<tr>
<th>state</th>
<th>sleep</th>
<th>sky</th>
<th>grand</th>
<th>play</th>
<th>study</th>
<th>street</th>
<th>translate</th>
<th>term</th>
<th>brush</th>
</tr>
</thead>
<tbody>
<tr>
<td>partner</td>
<td>program</td>
<td>sports</td>
<td>first</td>
<td>next</td>
<td>plastic</td>
<td>film</td>
<td>screw</td>
<td>exactly</td>
<td>train</td>
</tr>
</tbody>
</table>

The table above displayed a list of words given to the students for a spelling test. That was just to check if consonant clusters in each word are produced in accurate manner or not.

By checking students' papers of the spelling test, there was obviously an evidence that the majority of the above-listed words were spelt incorrectly. Most of the spelling mistakes were ascribed to the addition of vowels somewhere into the body of the consonant cluster syllables. "Secrew, esky, gerrrand, palastik film, partener, terim, berush, taranselate esleep, and porogram" were among others found importantly to report for the purpose of the current research.

Overall, it was inferred from the data selected and checked throughout this part of the study that the majority of the study's participants affected the production of those consonant-clustered sounds by a vowel epenthesis in different spots.

**Phase Two**

Findings emerged from the descriptive statistical analysis of observation tests' data regarding the second question.

The second question arose in the study was "What are the positions of the English consonant clusters that EFL students commonly produce with vowel epenthesis?". As showed earlier, structured observations were unobtrusively used in classroom to describe where 30 students commonly inserted in different positions a vowel into consonant clusters syllables with reference to the same list of those 20 words. Two English native speakers volunteered to rate manually the pronunciation of the test. The raw results were quantitatively calculated by the use of a statistical descriptive analysis. The analysis of
findings showed that over half of the participants inserted a vowel into consonant clusters in different positions. Along with illustrative examples, the following are the epenthetic positions terminology as they appeared in Repetti(2012),Jabeen., et al (2012). The epenthetic vowels in the examples are in italics:

1. **Prosthesis** is defined as the addition of a sound or syllable before a consonant cluster at the beginning of a word. Almost 35% of the words were found with prosthesis cases. The table's data showed that over 60% of the students tended to add a vowel sound before consonant cluster syllable. For example, "states" was uttered by 67% of the participants as /e~eɪtsts/. 

2. **Anaptyxis** is the insertion of a vowel between two consonants to aid pronunciation. It is indicated in the table(3) that anaptyxis took place in 13 monosyllabic and disyllabic words. At the onset of consonant clusters syllable, anaptyxis took place in plastic, screw, train, grand, sports, program, and translate. In the middle of the word, 87% of the whole sample pronounced "Partner" as /pa:t~ɪ~na/ and about two third of the participants pronounced /igˈzakt~ɪ~li/ instead of the correct /ɪɡˈzaktli/. According to the data shown in table(3), three instances where consonant cluster in their codas, 72%, 65%, and 85% of the participants were found to insert an /ɪ/ into the consonant clusters of /fɪl~ɪ~m/ , /təː~ɪ~m/ , and /fəː~ɪ~st/ respectively.

**Table (3) percentages of the observation test scores in terms of prosthesis and anaptyxis epentheses into the consonant clusters**

<table>
<thead>
<tr>
<th>Prosthesis</th>
<th>Word</th>
<th>Percentages of each word uttered with epenthesis</th>
<th>Anaptyxis</th>
<th>word</th>
<th>Percentages of each word uttered with epenthesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>States</td>
<td>67%</td>
<td></td>
<td>Partner</td>
<td>87%</td>
<td></td>
</tr>
<tr>
<td>Sleep</td>
<td>72%</td>
<td></td>
<td>Program</td>
<td>66%</td>
<td></td>
</tr>
<tr>
<td>Sky</td>
<td>80%</td>
<td></td>
<td>Sports</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>87%</td>
<td></td>
<td>Exactly</td>
<td>80%</td>
<td></td>
</tr>
<tr>
<td>Play</td>
<td>70%</td>
<td></td>
<td>Next</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>Brush</td>
<td>66%</td>
<td></td>
<td>Plastic</td>
<td>77%</td>
<td></td>
</tr>
<tr>
<td>Street</td>
<td>89%</td>
<td></td>
<td>Film</td>
<td>72%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Screw</td>
<td>77%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>First</td>
<td>85%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Train</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Term</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Grand</td>
<td>61%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Translate</td>
<td>73%</td>
<td></td>
</tr>
</tbody>
</table>

8. Discussion

The current study was conducted to explore the production of English consonant clusters by Arab students learning English at Hail university. Question one pivots incorporated to what extent the phonetic sound pattern of L1 influences the production of English consonant cluster as uttered by Hail University EFL students. Question two statements concerned about what the positions of the English
consonant clusters that EFL students commonly produce with vowel epenthesis are. On this, the findings of the data analysis are discussed in this section according to their aforementioned research questions.

- Findings to be discussed in response to the first question
In accordance with the data collected and analyzed throughout this part of the study, it was revealed that the majority of our students whose mother tongue is Arabic tended always to break up those consonant-clustered words by inserting vowels in different places. Consistently to Masuda & Arai (2008), and Shibuya & Erickson (2010), the findings of the study showed that the participants' first language interference was crystal-clear and had a strong role in affecting the production of English consonant clusters.

Arabic native speaking students tended to use epenthesis as a repair strategy to produce English consonant clusters; that can be due to L1 interference. It has been explored that many of the Preparatory Year students whose their mother-tongue is Arabic pronounced English consonant clusters in Arabic manner. This exploration is consistent with previous claims of Ba'albaki's (1999:78) as cited in Ali & Ali (2011) that "it is difficult and rare to have consonant clusters in Standard Arabic, and for this reason many vowels are inserted". Overall, it is found that students tended to get the advantage of the L1 sound pattern to produce the clusters but causing a learning point with some challenge.

- Findings to be discussed in response to the second question
With reference to the second research question, the results of the study confirmed that the participants experienced pronunciation problems in producing consonant clusters in two positions.

1. Prosthesis
2. Anaptyxis

It has been observed that the students inserted a vowel in different places of the cluster as they tended to ease the production of English consonant clusters which are by nature complex syllables. (Daana and Khrais, 2018). Specifically, the students were found most likely to epenthesize a short vowel /ɪ,ɛ,ə/ into English consonant cluster in two positions making epenthesis a serious pronunciation learning point. It has been surprisingly found that students did not realize that short vowel epenthesis wherever it occurs in the consonant cluster, i.e., prosthesis, or anaptyxis, may affect the accurate meaning of certain words in English, hence a breakdown of the intended meaning and much of misunderstandings caused. By the way of illustration, below are examples to discern to what extent the insertion of any vowel into consonant clusters is not always a repair strategy to ease the pronunciation of those participants.

1. **Prosthesis** where they inserted the /ɛ/ before a consonant cluster that occurs at the beginning of a word. The findings showed that a considerable percentage of the participants pronounced /ɛ-stet/ for state, which both not only have two different pronunciations but also they have different definitions.

2. **Anaptyxis** where they inserted the /ə/ in the middle of a consonant cluster at the onset of a word. The analysis of the data pertinent to this incident, students were observed uttering incorrectly train as /tɛ-rɛn/ and sports as /sɔrptz/ knowing that the components of each pair of these examples do not share the same meaning nor the same spelling.

Consequently, it could be said that breakdown of communication is most likely the undesirable end. This however contradicts to the standpoint of Stern (1992:114) who underscored that good pronunciation should meet three criteria: intelligibility, communicability, and effectiveness.
9. Pedagogical Implication

Prompted by the findings that have been just discussed, this part of the current study aims at attempting in some detail a practical lesson on the pronunciation of English consonant cluster as performed by the researcher teachers themselves. Its purpose is to make students' pronunciation more intelligible, communicable, and effective at the context where the current study took place.

-Planning the Lesson

A description of what consonant clusters are is the starting point. Grouped phonemes of consonant clusters in English should be listed. Then, further focus on vowels and how they are epenthesized into consonant clusters to familiarize students with the pronunciation problem.

After that, teachers explain how learners mistakenly might insert a short vowel into the body of a consonant cluster. For example, a student may likely add /ɪ/ initially as in /ɪstɑː/ for "star" or medially like /pɑːt~ɪ~nə/ for "partner". Therefore, teachers should consider all the aforementioned to enable learners reach the ideal production of consonant clusters without any aspects of vowel epenthesis.

-Structure of the lesson

A. Introducing the new learning point

Firstly, teachers should describe all the segmental features in English. It is necessary to list consonant–vowel configurations like C, V, CV, CVC, and so on. This requires a description of cluster configuration like: CC(spa), CCC(partner) etc. To make it clear for students, teachers need to highlight how inserting a short vowel into a consonant cluster would affect a word that means something but leads to another meaning if produced incorrectly.

Let's consider the following words that were uttered by students:

Train --- /tɛˈrɛn/ (as pronounced by students) but does not refer to train.

Sports --- /soʊˈpɔːts/ (as pronounced by students) but does not refer to sports.

In recognition of this difference, students are advised to use dictionaries to pick up the correct word meaning and learn the accurate spelling.

B. Perception Activity.

According to Stern's view (1992:119), it is good to make opportunities for learners to listen, produce, and contrast the phonetic feature that you wish to teach. So, it was better to administer a listening activity to make students hear and recognize the short vowel epenthesis. After that, learners should be able to spot the possible and the impossible pronunciation of each. By the way of illustration, let us consider the following activity.

The teachersays: practice or ɪpractɪce
Teachers should keep drilling the two pronunciations to ensure that their students spot the differences, and realize which is possible and which is not. Stern (1992) asserted that students should not produce a phoneme correctly unless they perceive the accurate side of it. In relevance to this issue, let's further consider the following activity:

**Direction:** Write and read a list of words, then ask students to circle the impossible pronunciation biasing the answers on what they perceive and hear.

<table>
<thead>
<tr>
<th>Spain</th>
<th>exactly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egrow</td>
<td>gerow</td>
</tr>
<tr>
<td>esport</td>
<td>play</td>
</tr>
<tr>
<td>Scarf</td>
<td>escarf</td>
</tr>
</tbody>
</table>

If students circle the correct answer, teachers get the benefit of the activity.

Below is another helpful activity in perceiving students' pronunciation. Here, teachers incorporate a practice with sound spelling. For this activity, students are again required to circle the clusters and the epentheses. The activity is adopted in format from *(the sound system of North American English Book)* and adopted for the study.

**Direction:** Listen to each word. Circle the word that has a consonant cluster.

| bring   | send   | no     | swim   | bad   |

**Direction:** Listen to each word. Circle the word that has a short vowel epentheses.

| espirite | questionrecenti | play   |

To measure students' responses, teachers can have a confusing word in sentence level to check student's perception. For this, students should be able to circle the word from those given.

Last Summer, I went to the united *estates, states* of America.

C. Prediction Activity

After conducting perception activity, students are expected to have a complete knowledge of how short vowel epenthesize affects the production of consonant cluster. Here teachers predict students epenthesize a vowel into consonant clusters. For instance, students are asked to tick the correct pronunciation of the following words: *perice eprice price*. After prediction, accurate pronunciation needs to be uttered loudly. This aims at enabling students to self-check whether they pronounced it correctly or not. However, to build up prediction activity gradually, let us look at the following exercise of pronouncing a word like SPORT:

---ort   ---port   spport but not esport
D. Analysis Activity

As for analysis activity, students should realize that English allows consonant cluster, but Arabic does not. Students will be deliberately asked to make clusters with epenthesis. They need to contrast the correct pronunciation of consonant clusters with those are not. A question like: How many clusters did you find? can be asked. Then, a dialogue with examples of consonant clusters like the following needs to be delivered.

A: What is your favorite T.V program?
B: Supports.

A: Supports! Oh What kind of sports?
B: eSwimming, pelaying tennis, juggling, and eskiing.
A: Ok. You mean swimming, playing tennis, juggling, and skiing, don't you?

E. Controlled activity and feedback.

As cited in Chien (2019:7), Baker (2014) and Saito (2012) proposed that the pronunciation intelligibility of learners can be advanced by adopting controlled activities. Here teachers design the exercises that concern language form. In other words, learners should correctly produce consonant clusters that have no vowel epenthesis. To do so, teachers could use subject category to have some words with consonant clusters.

Countries: Brazil, Spain, the United States.

Space: star, sky, planet.

To follow up this activity, students should be encouraged to perceive clusters and contrast them with the epenthesized clusters.

F. Communicative Activity and feedback.

According to Baker (2014) and Saito & Lyster (2012) Chien (2019:7) reported that teachers design more communicative exercises to develop their students' pronunciation features of the target language. The purpose behind designing a communicative activity is to let students engage in a real learning environment where they practice as free as they can a number of consonant clusters without short vowel epentheses. The teacher can observe how a pair of students attempts a fill-in gap exercise of a word like (prize) in a dialogue context. The context begins with writing the word on the board asking some questions about it. After that, students are chorally urged to drill the word for several times.

A: Hello Omar! I've got a PRize?
B: A PRize? What is it? Say it again, please.
A: Mine is T.V.
B: Not similar to my PRize.

For feedback, teachers can evaluate students' pronunciation of consonant cluster as similar as the English accent. Students would also be given the opportunity to evaluate each others as to how accurate, natural, and easily intelligible the sounds as well. (Kelly, 2000)

10. Conclusion

This paper was carried out in English pronunciation to shed lights onto a learning point that has some challenge to EFL learners. In classrooms, teachers could have observed that their students experience trouble pronouncing consonant clusters. The findings of this paper showed that the phonological and phonetic pattern of L1 plays a prominent role for Arab learners to make errors in producing the English consonant clusters. Incidents of short vowel epentheses into consonant clusters were reported by the majority of the study's participants. Specifically, prosthesis the anaptyxis were examined to provide the study with a clear image of how epenthesis of short vowels affects negatively the morphology of words in some instances like /teˈrɛn/ for train and /ɛ~stɛt/ for state. Therefore, teaching pronunciation must lay further significance on the linguistic dimension, the intelligibility, and the communicability of pronunciation.

11. Recommendations

1. Further research with practical and pedagogical implications is needed to find out real practices to better pronunciation for Hail university's EFL students and elsewhere. In addition, we recommend that there be studies on developing materials to help Arab learners avoid undesirable pronunciation of English syllable structures.
2. This study recommends that further studies be conducted examining other learning points in teaching pronunciation to the EFL learners at Hail University.
3. Further experimental study is needed to measure quantitatively the effectiveness of the proposed lesson in teaching pronunciation to EFL students.

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12. References


https://halshs.archives-ouvertes.fr/halshs-00432598/document


80.https://www.researchgate.net/publication/275656192_Vowel_Epenthesis_in_Arabic_Loanwords_in_Hausa?enrichId=rgrq3-314c812ce0525ef0d00d65f10a6578b8-XXX&enrichSource=Y292ZXJQYWdlOzI3NTY1NjE5MjtBdUzozMjAyOTU2NnejE5NjUzMTJAMTQ1MzM3NTE1NDkwNw%3D%3D&el=1 x 2


Repetti, L. (2012). Consonant-final loanwords and epenthetic vowels in Italian. *Catalan journal of linguistics, 11*, 167-188. [http://scholar.google.co.uk/scholar?q=%27Consonant-final+loanwords+and+epenthetic+vowels+in+Italian%27&btnG=&hl=en&as_sdt=0%2C5](http://scholar.google.co.uk/scholar?q=%27Consonant-final+loanwords+and+epenthetic+vowels+in+Italian%27&btnG=&hl=en&as_sdt=0%2C5)
