

Arabs' Problems with the Pronunciation of some Consonants and Consonant Clusters

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Abstract:

This study sheds light on the problems that Arabs have with the pronunciation of some consonant sounds, including /p/, /v/, /θ/ and /ð/ as well as consonant clusters. It investigates the reasons of Arab students' confusion between /p/ and /b/, /v/ and /f/, /θ/ and /s/, as well as /ð/ and /z/, in addition to their tendency to declusterize, inserting a vowel sound inside a consonant cluster. Moreover, these two pronunciation problems are investigated in light of L1 transfer. The research adopts the descriptive and analytical method with the use of observation at one of Syrian secondary schools. The results show that many students mispronounce the sound /p/, and a few of them the sound /v/, replacing them with /b/ and /f/ respectively, which can be attributed to the lack of corresponding sounds in their mother tongue, Arabic. However, many students mispronounce both /θ/ and /ð/ although they do exist in the inventory of Arabic sounds because of the impact of vernacular dialects and diglossia. Finally, students fail to pronounce consonant clusters correctly, inserting a short vowel in between because of the difference in the phonological rules of both their L1 and L2. Accordingly, a number of recommendations are proposed to encourage both school students and teachers to avoid such errors.

Keywords: Consonant sounds, Consonant clusters, mispronunciation, L1 transfer, Syrian secondary schools

1. Introduction:

Many people seek to learn a foreign language (L2), especially English, trying to master it with its four skills: speaking, listening, reading and writing differently according to their purposes of learning that language. However, a person's knowledge of their mother tongue, (L1), makes them vulnerable to recall its linguistic system while learning a foreign language, leading to interference between their L1 and L2, which affects their L2 learning, especially at the early stages (Zahri, 2005, p.15). Over time, the person can distinguish more between the two linguistic systems, and the effect of their mother tongue lessens, especially when they have more exposure to the target language through living within the social community in which people speak in natural contexts, which leads to an increase in their awareness of the differences between these two languages (Gorba & Cebrian, 2021, p.7). Many linguists discussed the phenomenon of language transfer, and most of them agreed that transfer may be positive and help to "facilitate" learning the language skills of the target language, or in some cases it can be negative and may constitute a "hindrance" to learning these skills because of the differences between the two languages, that is L1 and L2 (Al-Rajhi, 1995, p.46).

Speaking is one of the most important language skills, yet many learners of English as a foreign language have problems with it. In Syria, as in many Arab countries, learners suffer from having some problems in the pronunciation of some consonants and vowels, consonant clusters, stress placement, and other phonetic and phonological challenges. This research focuses on two of the most important and common problems. The first one is the learner's poor awareness of some consonants and mixing them up. An example of this problem is the confusion of the voiceless sound /p/ and the voiced one /b/; they are pronounced as a voiced /b/, as if they were the same sound. Moreover, when

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pronouncing the voiced sound /v/, learners pronounce it as the voiceless sound /f/. The same applies to the two pairs of sounds (/θ/, /s/) and (/ð/, /z/). The other problem is declusterization, which means separating a two or three-consonant cluster existing within a syllable by inserting a vowel sound in between, especially at initial positions. For instance, a word like "please" is pronounced as /pli:z/ instead of /pli:z/.

2. Research Problem:

Many foreign language learners believe that learning a new language is limited to learning its grammar and vocabulary. Thus, they neglect its phonetic and phonological aspects and have a problem with the realization of the pronunciation of some sounds, especially when learning L2 out of its natural context among native speakers, and this possibly happens due to the influence of their L1. Accordingly, this study focuses on investigating the effect of Arabic on the pronunciation of consonants and consonant clusters among English language learners at Syrian secondary school students.

3. Research Questions:

The research seeks to answer the following questions:

- 1) Do English language learners at Syrian secondary schools make errors such as confusing the sounds of /p/ and /b/ or /f/ and /v/ and mixing up /θ/ and /s/ or /ð/ and /z/?
- 2) Does L1 transfer have anything to do with the errors made by English language learners in Syrian secondary schools when pronouncing these consonants?
- 3) Are English language learners at Syrian secondary schools proficient in the pronunciation of consonant clusters within syllables?

4. The Importance of the Research:

Phonetic and phonological studies come in the first place in linguistic research, and the importance of these studies comes from the fact that the spoken language comes first before the written one in language acquisition and learning (Bin Zurouq, 2011, p.25). Undoubtedly, the learner's proper pronunciation of foreign sounds helps them acquire spoken skills in a manner similar to the pronunciation of native speakers. Accordingly, this research deals with one of the common problems in pronunciation among Arab learners of English, in general, and Syrian students, in particular, so as to increase learners' awareness of the importance of pronouncing English sounds correctly to achieve linguistic fluency and avoid misunderstanding. In addition, these errors are analyzed to find out their causes and guide both learners and teachers to avoid making them. The research also aims to improve the quality and methods of teaching at Syrian secondary schools in particular, which gives a significant contribution to the studies dealing with the teaching environment of English classrooms in the Syrian Arab Republic.

5. Reasons for Choosing the Topic:

This topic was chosen for the following reasons:

1. Due to Syrian secondary school students' low level of pronouncing English words, the research seeks to solve the pronunciation problem of these students with consonants in particular, focusing on increasing their awareness of the differences between similar sounds.
2. Teachers, when teaching English, do not pay much attention to pronunciation, neglecting the exercises dedicated to the pronunciation of sounds and focusing to a great extent on translating vocabulary and explaining grammar.
3. This research sheds light on the problem of pronouncing certain consonants, investigating its causes so as to provide solutions to this problem.
4. Finally, this research is an attempt to present a comprehensive vision of an existing linguistic problem in the Syrian Arab Republic and its secondary schools, seeking to develop the reality of the English language in them.

6. The Objectives of the Research:

This study aims to:

1. trace the impact of the mother tongue, Arabic, on the pronunciation of some consonants and mixing them up by monitoring the pronunciation of some English phrases and words produced by students of English at Syrian secondary schools;
2. investigate the effect of the phonological rules of Arabic on the proper pronunciation of syllables that contain more than one consonant in a sequence, which prompts the learner to insert a vowel inside consonant clusters;

3. raise the awareness towards the existence of these errors and analyze them to avoid making them; and
4. develop the teaching process in the Syrian Arab Republic, in general, and at secondary schools, in particular, through providing the necessary recommendations that go in harmony with the conclusions in order to improve students' spoken skills in English.

7. Main Terms and Concepts Used in the Research:

The Mother Tongue (L1): The mother tongue in this research is Arabic, which is the native language of the subjects participating in the research.

The Foreign Language (L2): The foreign language in this research is English, which students learn at Syrian schools.

Transfer: It is the L2 learner's application of a language skill previously learnt in their first language to the foreign language they are learning, and transfer has two kinds: positive, which is helpful in the learning process, and negative, which hinders the acquisition of some linguistic characteristics (Karim & Nassaji, 2013, p.118-9).

Interference: It refers to the negative transfer that leads to making errors while using the foreign language because of the influence of the mother tongue.

Voiceless Consonants and Voiced Consonants: When the pronunciation of a consonant is accompanied with a vibration of the vocal cords, it is voiced, but when there is no vibration in the vocal cords while producing it, it is voiceless (Jackson, 1982, p.4).

8. Literature Review:

8.1. Problems with the Pronunciation of some Consonant Sounds:

Several studies have dealt with the pronunciation problems that English language learners face when pronouncing consonants, especially among Arabs. Some studies, such as El Zarka (2013), state that the main reason of such problems is the absence of the consonant in the phonetic inventory of the mother tongue, based on a contrastive analysis at the phonetic level of Arabic and English (p.58). One example is the pronunciation of the two bilabial phonemes: the voiced /b/ and the voiceless /p/. This may actually be a reason for the learner's little awareness of the difference between the two previous sounds, so they mispronounce them as if they were one sound. However, how can we interpret pronouncing the interdental sounds /θ/ and /ð/ represented by the letters (th) as the two the alveolar sounds /s/ or /z/ consecutively despite the fact that all these consonants exist in Arabic?

Lin (2014) mentions a problem with the pronunciation of interdental sounds among Chinese learners of English, attributing this to the same reason, which is the absence of the phoneme /θ/ in Chinese (p.17). Therefore, Chinese learners make an error when pronouncing a word like "think" as "sink". As for the existence of this phenomenon in Arabic, we have few studies dealing with it. For example, the study of Alshalaan (2020) confirms that some Arabs replace /θ/ with /s/ and /ð/ with /z/ although these two phonemes, /θ/ and /ð/, are found in the mother tongue (p.3). However, the study does not explicitly address the reasons. Another study conducted by Hago & Khan (2015) on Saudi English language learners finds that the learners confuse the pronunciation of some consonant sounds such as the labio-dental /v/, pronouncing it as /f/ due to its unavailability among the Arabic sounds (p.95-6).

In conclusion, we find that the interference between the mother tongue and English is the reason behind making many errors in pronouncing such consonants. However, is this problem only confined to this reason? More specifically, how do we explain that there is a problem with the pronunciation of interdental sounds /θ/ and /ð/ among Arab English students despite the fact that these two sounds exist in the inventory of Arabic sounds? This research aims to answer this question ultimately.

8.2. The Problem of Separating two or more Consonants:

There is a difference in the syllable structure between English and Arabic. While English allows the presence of two or three consonants at the beginning of the syllable (in the onset), the phonological rules of Arabic require the existence of a vowel after one consonant at the beginning of the syllable. In other words, two consonants cannot come at the beginning of the syllable in Arabic (El Zarka, 2013, p.30). Therefore, we find the common verbal problem when Arab learners pronounce words such as "splash", "scream", and "create", as they insert a vowel after the first consonant sound. This vowel is often /i/. For example, when pronouncing "scream", learners pronounce it as /sɪkri:m/ instead of /skri:m/.

Hago and Khan (2015) also show that the classical Arabic does not accept beginning with consonant clusters, so Arabs usually insert a short vowel between the consonants while pronouncing consonant clusters such as /sp/, /gr/, /str/, and others (p.86). This problem is not only limited to the consonants that come in the onset, but it also involves the consonants that come at the end of the syllable (coda). The syllable in English can end with four consonants, while Arabic does not accept that. Therefore, we find that Arabs add a short vowel to separate the consonant cluster like /mpts/ when pronouncing a word such as attempts, so that it is pronounced as /ətemptɪs/.

Moreover, Lin (2014) shows that there is a problem in Arabic when pronouncing words that start with two consonants, on the basis that having two consonants in the onset violates the structure of the Arabic syllable, which often has a Consonant-Vowel structure (p.19). Therefore, when pronouncing a word such as "plane" which begins with two consonants, the first consonant is pronounced /b/ instead of /p/, and the learner begins with a short vowel sound pronouncing it /ɪbleɪn/ or /əbleɪn/. In this example, it can be noted that in the pronunciation of the word "plane", there are two pronunciation problems. The first one is inserting the vowel /ɪ/ or /ə/ at the beginning of the first syllable of the word, which leads to the transition of the second consonant /l/ from the first syllable to the beginning of the second syllable. The second problem is the pronunciation of the phoneme /b/ instead of /p/. Accordingly, we find that Arab learners of English insert a vowel in the middle or before the first consonant of consonant clusters, such as /CCV/ or /CCCV/, trying to follow the phonological rules of the Arabic syllable /CV/ spontaneously.

9. Research Methodology:

This research adopts the descriptive and analytical method by reviewing the literature, investigating previous studies and setting the theoretical framework. In addition, a mini-study is conducted on a sample of the research population, analyzing data collected through observation.

9.1. Research Population and Sample:

The research population is represented by Syrian public secondary schools. The sample has been chosen from one of the public secondary schools in Jableh City, Latakia. The study sample consists of 20 students chosen from the first secondary grade to control the variable of age, as students at this stage are usually at a close age ranging from 15 to 16 years. The number of females is the same as the number of males to control the variable of gender.

9.2. Research Tools and Data Collection:

Because the observation method is considered "the most commonly used method specially in studies relating to behavioral sciences" (Kothari, 2004, p.96), the data were collected practically through observing an English language classroom at a secondary school to identify pronunciation errors among secondary school students of English. Each student had to read one sentence and two lists of words including words with the consonant sounds /v/, /p/, /θ/ or /ð/ at different places as well as words with consonant clusters. The items of the first group of words include: *stop, people, believe, van, nevertheless, than, breathe, death, faithful and thirsty*. The second list includes the words: *student, screen, spray, sky, hands, month, fifth, asked, attempts, and stopped*. Notes were taken while the students were reading, and assessment checklists were used to monitor the number of errors. Two competent referees assured the validity of two lists of words used in this study while testing the learners' pronunciation of words with related consonant sounds and clusters.

10. Results and Discussion:

The first checklist was designed to assess students' pronunciation of the consonant sounds /v/, /p/, /θ/ and /ð/. The following diagram shows the collected data and percentages:

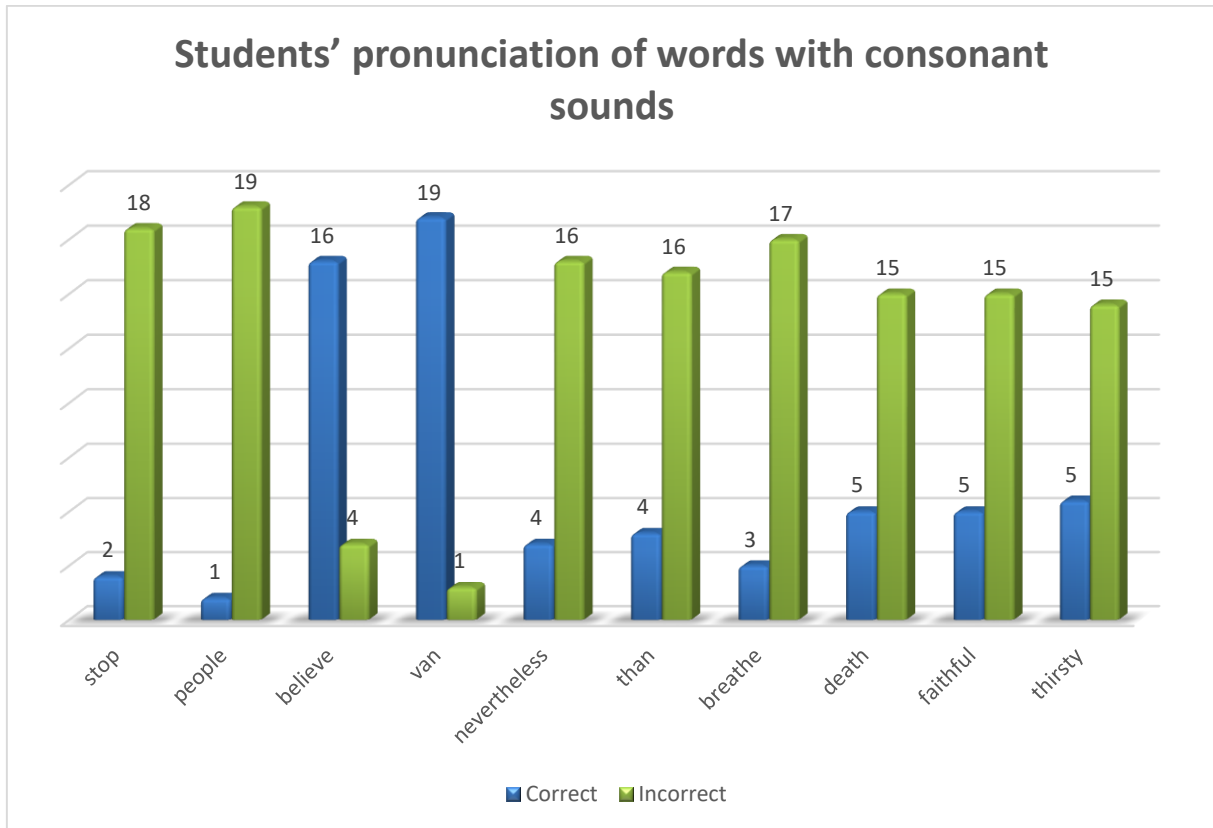


Diagram (1): Students' pronunciation of words with consonant sounds

As for the second checklist, it was designed to observe the students' pronunciation of the words with consonant clusters. The following diagram shows the results:

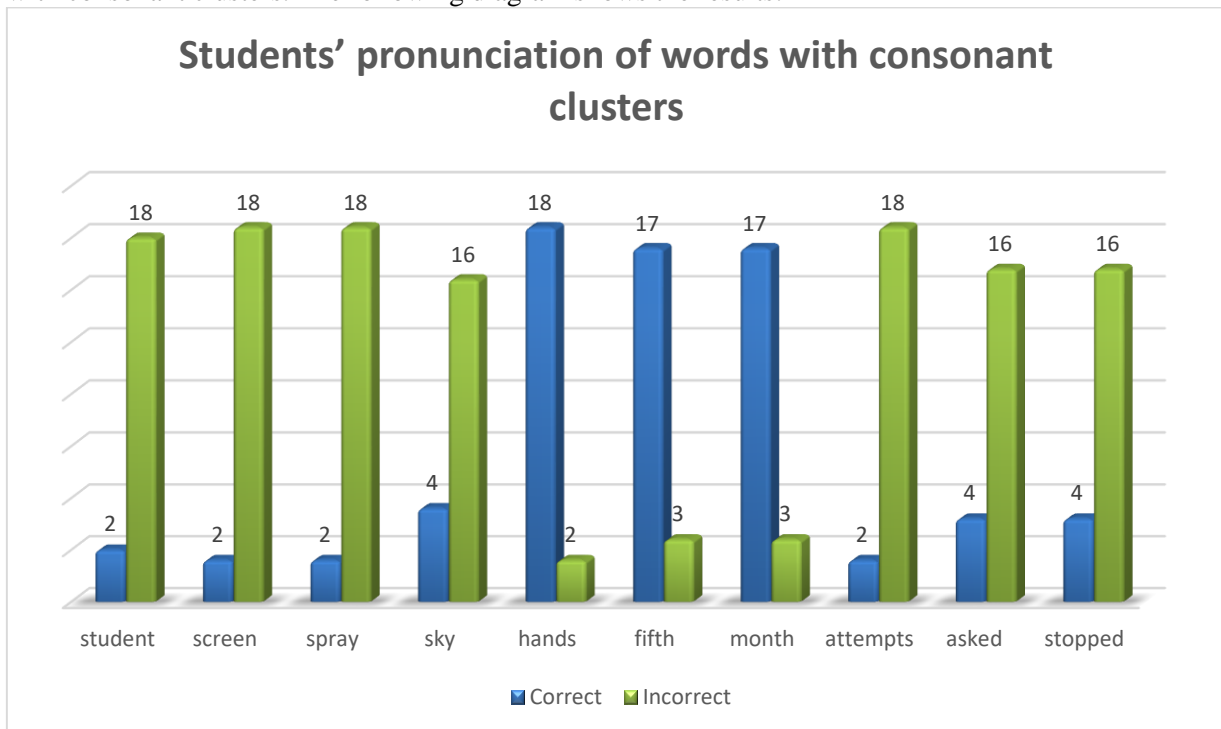


Diagram (2): Students' pronunciation of words with consonant clusters

10.1. In Terms of Contrastive Analysis:

When studying this problem in light of the theory of Contrastive Analysis, which was developed by the American linguist Lado in 1957, we find that Arab learners of English are expected to make errors, as mentioned before, whether it is in confusing English consonant sounds that have no equivalent in Arabic or in separating syllables that contain consonant clusters because the existence of consonant clusters violates the linguistic system of the learner's mother tongue. Consequently, these errors are the result of the difference in the phonetic and phonological systems between Arabic and English as well as the influence of the learner's knowledge of their mother tongue on English pronunciation, as there are clear differences in terms of the phonemes in the phonetic inventory of each of them, which leads to the confusion of consonants. In addition, there is a difference in the phonological rules of Arabic and English, leading the learner to make errors by inserting a vowel in a consonant cluster because the mother tongue is activated while learning the second language (Gass & Selinker, 2008, p.462). Moreover, L1 interference constitutes the main factor for making the errors addressed in this research.

10.2. In Terms of Error Analysis:

While Contrastive Analysis is good for predicting the errors that can be made at early stages of second language learning, error analysis is effective for investigating the errors that can be made at advanced stages of learning (Brown, 1994, p.226). Since the study sample includes secondary school students, who have been learning English for at least nine years, Error Analysis can be used by observing students in an English class to investigate and analyze their errors in order to find out the sources of these errors. While Contrastive Analysis is used to compare the errors made by a learner as a result of the influence of their mother tongue (L1), Error Analysis is applied to analyze the learner's errors produced when using the second language in comparison with the target language (L2) (Gass & Selinker, 2008, p.102).

Teaching and dealing with large groups of learners of English in one of the Syrian secondary schools as well as in the Department of English at Tishreen University, the researchers noticed these two problems, especially while listening to the students' speaking or reading passages in English. Therefore, a practical experiment was conducted to examine the extent to which learners perceive the difference between the phonemes /b/ and /p/ through writing several words containing either the phoneme /b/ or /p/. through observing secondary school students while pronouncing words including the phoneme /p/. As it can be seen in Diagram(1), 92.5% of the students failed to pronounce the words including the phoneme /p/ in initial, middle or final positions. In other words, the majority of learners pronounced both /b/ and /p/ in the same way as if they were one sound although the teacher pronounced them properly over and over again while reading the text.

Another problem occurred when pronouncing words containing the sound /v/. However, fewer students pronounced it as /f/ instead of /v/. Only 5% of the students mispronounced the initial /v/ sound in the word *van*, while 20% of them mispronounced it in the final position in the word *believe*. This is interesting because although both /v/ and /p/ are not available in Arabic, students could pronounce /v/ but failed to pronounce /p/. This can be interpreted with the availability of the sound /v/ in many colloquial words used by learners in their daily lives, including *video*, *van*, and *Volvo*. This phenomenon is known as diglossia, and it will be explained when answering the research questions in the next section. In addition, the most prominent case found in the observation session was the pronunciation of the sound /θ/ as if it were /s/ and the pronunciation of the sound /ð/ as if it were /z/ even though these two sounds are available in the Arabic phonetic repertoire. About 80% of the students mispronounced the words that include the dental sound /ð/, while 75% of them failed to produce the other dental sound /θ/, which also exists in Arabic. This is another piece of evidence that mother tongue interference is not the only reason of committing pronunciation errors of consonant sounds. Again, the problem here can be attributed to diglossia and the impact of the learner's colloquial language.

In Table 2, we find that about 90% of the students failed to pronounce three-consonant clusters at initial positions, while 85% could not pronounce two-consonant clusters at the same position. As for final consonant clusters, 90% of them could not pronounce four-consonant clusters. However, the percentages of errors for pronouncing two and three-consonant clusters at the final position were contradicting. The majority of students (about 85%) could pronounce the consonant clusters in the words *fifth*, *hands* and *month* correctly, but only the minority (20%) succeeded in pronouncing the

clusters in the words *asked* and *stopped*. One reason can be mentioned here is the impact of the writing system: while English pronunciation relies heavily on the perception of the phonemes and pays little attention to the spelling of the word, Arabic depends on graphemes and the writing system to guess the correct pronunciation of its words. Therefore, students may have failed to pronounce the consonant cluster of both *stopped* and *asked* because of the letter (e) which comes in the middle. Hence, it should be noted that according to Error Analysis, errors are divided into two types: the first is caused by the influence of the mother tongue, and the other has other reasons such as lack of knowledge, the learner's failure to know all cases of the target language, generalization, non-linguistic reasons such as exhaustion and fear, and others (Zahri, 2005, p.48-9). However, the main focus of this study is the first type. After identifying, describing and interpreting the errors, Error Analysis seeks to correct them and provide suggestions for teachers and learners to avoid similar and possible errors in the future, which is what this research aims to achieve at the end.

10.3. In Terms of Behavioral Learning Theory:

This theory confirms that learning is based on the habit that a person develops in their childhood as a result of imitation, just like learning their mother tongue. When applying this theory to foreign language learning, we find that the interference between the mother tongue and the target language is inevitable when an individual learns a second language (Azzouz, 2013). The habits developed by the individual while learning their mother tongue are transferred, playing a major role in their second language learning, so they are affected by the linguistic system they have already acquired and used.

11. Answering the Research Questions:

11.1.RQ1: Do English language learners at Syrian secondary schools make errors such as confusing the sounds /p/ and /b/ or /f/ and /v/ and mixing up /θ/ and /s/ or /ð/ and /z/?

According to previous studies such as ElZarka, (2013) and Hago & Khan(2015), many Arabs make errors by confusing the pronunciation of /v/ with /f/ and /b/ with /p/. The problem of the confusion between /θ/ and /s/ as well as /ð/ and /z/ has been indicated by some studies, even though there were only few, such as the study of Alshalaan(2020). Observing a group of secondary school students, the researchers also found these two phenomena common among them, especially when they were asked to pronounce words containing similar sounds, and very few students were able to distinguish between them.

11.2. RQ2: Does L1 transfer have something to do with the errors made by English language learners in Syrian secondary schools when pronouncing these consonants?

According to previous literature, through class observation and error analysis, it is possible to emphasize the major role of the mother tongue in the interference that occurs and causes the confusion of all those consonants whether due to the lack of corresponding sounds in the phonetic inventory of Arabic, such as /p/ and /v/, or because of the influence of the spoken dialect, which often lacks the interdental sounds /θ/ and /ð/ (Azzouz, 2013, p.167-8). In both cases, the confusion of these consonants can be attributed to the influence of the mother tongue, as these learners' usage of different dialects dominates both their daily lives and their ability to read in classical Arabic, which is known as "diglossia". This term is defined by William Mercier as "a competition between a written, literary language and a colloquial commonly-spoken language" (Qusair, 2019, p.44), which affects Arab learners' pronunciation of the second language, that is English.

11.3. RQ3: Are English language learners at Syrian secondary schools proficient in the pronunciation of consonant clusters within syllables?

According to the observation of an English class, many learners of English at Syrian schools fail to pronounce consonant clusters without putting a short vowel either at the beginning or in the middle of them. This can be predicted in advance via contrastive analysis and reading previous studies on this issue. Undoubtedly, the reason is that the learner is affected by the syllable structure of their mother tongue, which requires the presence of a vowel after each consonant (CV). However, the phonetic and phonological systems of the learner's colloquial language must be also taken into account

12. Results and Recommendations:

12.1. Research Findings:

The most important findings of this research can be summarized as follows:

1. When learning and using a second language, the learner resorts to the system of their mother tongue that they have already acquired and used, leading to interference between the two language systems.
2. At the phonetic level, the interference affects the learner's ability to pronounce some consonants, especially the sounds that do not exist in the phonetic inventory of their mother tongue, in which there are similar sounds at the same time. Therefore, the learner pronounces sounds similar to the original ones, such as the pronunciation of /f/ instead of /v/ and /b/ instead of /p/, as it is shown in the observation of the English class within this research.
3. Nevertheless, learners can produce sounds that do not exist in their L1 if they use them in their varieties or colloquial languages. For example, the observation of school students' pronunciation showed that they were able to produce the sound /v/ although this sound never exists in Arabic because they use it with some common words in their daily lives.
4. Similarly, the learner is affected by the dialect they use, so that they make an error in pronouncing interdental sounds despite their familiarity with them in their formal language. They mispronounce the two sounds /θ/ and /ð/ as if they were /s/ or /z/ respectively, which has been proven in the field study.
5. In addition to the problem of pronouncing consonants at the phonetic level, the learner's pronunciation of the English syllable is affected by the syllable structure of Arabic, which is different from the English one. The learner tries to insert a vowel, usually /i/, in consonant clusters in an attempt to adhere to the phonological rules of the mother tongue instead of the target language. This problem has been found very common in the observation.
6. Finally, we find that the negative transfer from Arabic to English affects the Arab learners' acquisition of English consonants and the correct pronunciation of English syllables that have consonant clusters, leading to other problems, such as the pronunciation of words different from the intended words. An example of this is saying "I sink so" while the speaker means "I think so", which results in misunderstanding between the listener and the speaker.

12.2. Recommendations:

After reviewing the literature, observing the students' real experiences in the speaking skill, and analyzing data, the following suggestions are proposed:

1. Syrian students and other Arab students who study English as a foreign language should listen more to native speakers and try to pronounce and repeat the sentences with them with the same accuracy and clarity whether during the classroom lessons or in self-learning at home.
2. Teachers of English should encourage their students to participate and have short conversations with each other while focusing on their pronunciation of sounds in accordance with their place and manner of articulation. They also should make them distinguish between voiced sounds and voiceless sounds.
3. The curriculum should introduce the idea of phonetic symbols at early educational stages and let students get accustomed to using an English dictionary, so that they always look at the phonetic transcription of words in order to learn their pronunciation accurately and correctly. Moreover, the importance of pronunciation in terms of meaning should be highlighted.
4. Teachers should raise the student's awareness of the differences between the systems of English and Arabic in order to have full access to universal grammar, so that they avoid interference, and the negative impact of the mother tongue on foreign language learning is eliminated as much as possible.
5. Finally, teachers should teach their students the difference between a phoneme and a grapheme, paying their attention to the difference between the spelling and the pronunciation of words.

13. Conclusion:

Just like other studies conducted to highlight EFL learners' problems with the pronunciation of consonant sounds that do not exist in their mother tongue, this study also investigates the possible difficulties that Syrian learners of English may have at secondary schools, including both /p/ and /v/ which have no existence in the Arabic inventory. However, although the current study, like most previous ones tackling this topic, highlights the role of mother tongue interference, it also sheds light on other important factors leading to pronunciation errors with such sounds, like diglossia and writing system. Moreover, it can be noted that this study also investigates EFL learners' difficulties with consonant sounds that they have already acquired from their mother tongue, yet they confuse them with other similar ones, like confusing the sound /ð/ with /z/ and the sound /θ/ with /s/. In spite of the fact that some other studies showed EFL learners' confusion of such phonemes, most of them failed to mention the sources, which can be considered a questionable issue that this study could answer.

Finally, the methodology of this study provides a direct investigation of these pronunciation problems at Syrian secondary schools, which adds concrete evidence to previous studies related to the same topic.

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