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EFL Learners' Difficulties with the Pronunciation of some Consonants and Consonant Clusters

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Abstract

This research investigates EFL learners' problems with the pronunciation of some consonant sounds, including /p/, /v/, /θ/ and /ð/ as well as consonant clusters. The research adopts the descriptive and analytical method with the use of observation at one of the Syrian secondary schools in Jableh City to identify the pronunciation errors made by students in terms of the previous consonants and consonant clusters, so that the researcher can analyze these errors and figure out their sources, depending on contrastive analysis, error analysis and the behavioral learning theory. The sample of the study included 40 female students of the 10th grade in the academic year 2022-2023. The results showed that 92.5% of them failed to pronounce the phoneme /p/, while about only 12.5% failed to pronounce the sound /v/ on the other hand. Moreover, 83% pronounced /z/ instead of /ð/ and about 70% pronounced /s/ instead of /θ/. Finally, the assessment lists also showed that students had great difficulties with the pronunciation of consonant clusters in the onset, but they were better at pronouncing them in the coda when there are no silent vowel letters. The study ends with the researcher's findings and suggestions to improve students' pronunciation and conduct future research.

Keywords:

Consonant sounds, Consonant clusters, mispronunciation, L1 transfer, Syrian secondary schools, diglossia

Chapter one: The Study Background

1.1. Introduction:

This chapter introduces the topic of this research, and it is an overview of the study. It also introduces the main terms and abbreviations used. Then it reveals the research problem, its importance, its objectives, and the questions which it tries to answer ultimately. It functions as a background of the study through which certain pronunciation difficulties faced by learners of English as a foreign language are investigated to be scientifically studied. This includes the pronunciation of some consonants and consonant clusters.

1.2. Research overview:

In the pursuit to learn a foreign language (L2), many people try to master the four skills of this language: speaking, listening, reading and writing. They focus on certain skills according to their purposes of learning that language. However, the previous knowledge of their mother tongue (L1) often plays a significant role when they learn another language, which leads to interference between L1 and L2. This negatively affects the learning process, especially at early stages (Zahri, 2005, p.15). Later, the learner becomes more aware of the differences between the two linguistic systems of both L1 and L2, especially after they have more exposure to L2, i.e. the target language, and have direct access to Universal Grammar (UG), which makes L2 learning for them just like L1 acquisition (Cook, 2002, p.500). This can be better achieved through learning this language through living within its community and under natural contexts, which increases the learner's awareness of the differences between L1 and L2 (Gorba & Cebrian, 2021, p.7). In fact, a number of linguists have investigated the phenomenon of language transfer, and most of them have stated that this transfer can *be positive* and *facilitate* learning the four skills of L2, or it can be, in many other cases, *negative* and cause a *hindrance* to the learning process due to the differences between the two languages (L1 and L2) (الراجحي [Al-Rajhi], 1995, p.46).

Speaking is regarded as one of the most important linguistic skills in EFL, but most learners of English have difficulties with it. For example, EFL learners in Syria, as in many Arab countries, have great difficulties with pronouncing certain consonants and vowels, stress placement, consonant clusters, and other phonological and phonetic difficulties. Thus, this research highlights two of these common difficulties which are very important for EFL learners. The first problem is the difficulty with pronouncing specific consonants and mixing them up. For

instance, many learners have little awareness of the difference between the pronunciation of the voiceless bilabial sound /p/ and the voiced one /b/, so that they pronounce both of them as if they were voiced /b/. Likewise, learners mispronounce the voiced sound /v/, making it similar to the voiceless consonant /f/. The other problem is the difficulty of pronouncing consonant clusters, or what is called declusterisation, which means dividing a syllable that includes a cluster of two or three consonants into two ones and separating it by inserting a vowel sound within this cluster, especially in initial positions. For example, a learner pronounce the word 'please' as /pɪli:z/ instead of /pli:z/. Thus, these two interesting problems are going to be investigated in this study.

1.3. Main Terms and Procedural Definitions Used in the Research:

EFL: English as a foreign language.

Interference: In this study, it refers to the negative transfer that leads to making errors while using the foreign language because of the influence of the mother tongue.

The Mother Tongue (L1): The mother tongue in this study is Arabic, which is the original language of the subjects studied 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. Transfer has two kinds: positive and negative. It is positive when it is helpful in the learning process, while it is negative when it hinders the acquisition of some linguistic characteristics (Karim & Nassaji, 2013, p.118-9). However, only negative transfer is investigated and meant to be of main concern in this research.

Vowel: It is a sound in which we have no obstruction of the airstream, as the air goes of the lips freely (Roach, 1991, p.10). It occurs at the center of a syllable, known as its nucleus, and it is always voiced.

Consonant: Unlike vowels, a consonant is a sound that occurs at the edges of a syllable and in which there is a kind of obstruction of the airstream (Cruttenden & Gimpson, 2001, p.26-7). It can be voiced or voiceless. The main consonant sounds in this study include /p/, /b/, /v/, /f/, /θ/, /s/, /z/ and /ð/.

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

Consonant cluster: "A consonant cluster in a word is a group of consonants with no vowels between them. The longest possible cluster in English is three consonant sounds at the start, such as 'splash', and four at the end, as in *'twelfths'*" (The website of The United Kingdom's international organization for cultural relations and educational opportunities).

1.4. Reasons for Choosing the Topic:

There are four main reasons why this topic has been chosen:

1. EFL students have weaknesses in terms of pronunciation, so the present study seeks to solve the Syrian secondary school students' pronunciation problem with consonant sounds, trying to increase their awareness of the phonetic differences between similar sounds.
2. Many teachers at Syrian secondary schools do not focus on teaching accurate pronunciation and pay little attention to the errors made by their students, so that some of them even neglect the exercises included in the books and dedicated to pronunciation, focusing on teaching grammar and translating words and texts.
3. The main concern of this research is to investigate the errors made by students while pronouncing certain consonants and their sources, trying to find some solutions to solve this problem.
4. This research can be regarded as an attempt made by the researcher to present a comprehensive vision of an existing linguistic and pedagogical problem in the Syrian Arab Republic and at its secondary schools, seeking to develop the reality of English classes.

1.5. Research Problem:

Because some EFL learners think that learning another language is restricted to learning its vocabulary and grammar, they overlook both phonetic and phonological aspects. Therefore, they have difficulties with the pronunciation of certain sounds, especially when they learn English out of the communities speaking it. One possible reason is the influence of their L1. For

this reason, this research sheds light on the study of the effect of Arabic on the pronunciation of both consonant sounds and consonant clusters among EFL learners at Syrian secondary schools, as the researcher has noticed that these learners have such difficulties within his work at a secondary school and a university in Syria. Eventually, this study tries to find out the EFL learners' difficulties with the pronunciation of consonant sounds and clusters as well as the impact of L1 transfer in this respect.

1.6. Importance of Research:

In linguistic research, phonological and phonetic studies take the first place among other linguistic aspects, and the importance of these studies is due to the fact that spoken language comes first and before the written language in language acquisition (بن زروق [Bin Zurouq], 2011, p.25). There is no doubt that when a learner pronounces L2 sounds properly, this helps them acquire spoken skills and have native-like pronunciation. Thus, this study addresses one of the most common problems that Arab students, particularly in Syria, have in EFL; it is an attempt to raise learners' awareness of the importance of accurate pronunciation of sounds in English in getting fluency and avoiding mispronunciation which leads to misunderstanding among language users. Furthermore, these learners' errors are analyzed to investigate their sources and to consequently guide them, as well as their teachers, to avoid making them. Finally, this study aims to improve the reality and methods of teaching and quality of learning particularly at Syrian secondary schools, which is, in turn, regarded as a significant contribution to the literature review dealing with the teaching process of English and EFL classes in the Syrian Arab Republic.

1.7. Research Objectives:

This study is meant to:

1. trace the impact of L1, which is Arabic here, on the pronunciation of some L2 consonants and on mixing them up by monitoring the pronunciation of some English phrases and words produced by EFL learners at Syrian secondary schools;
2. shed light on the impact of the difference between phonological rules of both L1 and L2 on the proper pronunciation of syllables containing consonant clusters, which leads learners to insert a vowel sound within them;
3. increase students' awareness of the existence of these errors and in order to avoid making them; and finally

4. improve the learning process generally in the Syrian Arab Republic and particularly at secondary schools through providing the necessary recommendations and suggestions that contribute, with the conclusion of the study, in order to improve students' spoken skills in English.

1.8. Research Questions:

The present study seeks to answer the following questions:

1- Do EFL learners have difficulties with the pronunciation of the consonants /p/, /v/, /θ/ and /ð/ mixing them up with /b/, /f/, /s/ and /z/ respectively?
2- Are EFL learners capable of pronouncing consonant clusters accurately?
3- Does the mother tongue have any effect on the pronunciation of the consonant sounds focused on in this study or on the pronunciation of English consonant clusters?

1.9. Summary:

After introducing an overall overview of this research, exposing the problem it seeks to address, showing its importance and objectives, and setting the main questions it tries to answer, the following chapter is going to provide the theoretical framework of this study. This research is divided into five chapters. The first one has just introduced the background of the study, while the second one is going to provide the necessary theoretical information and review some related literature. The third chapter involves the methodology of the research and data collection. Then the data are analyzed with the discussion of the most important figures and remarks in the fourth chapter. Finally, the fifth chapter concludes the study with its findings as well as the researcher’s recommendations and suggestions for further research.

Chapter Two: Literature Review

2.1. Introduction:

This chapter is meant to provide a theoretical analysis of the related issues regarding pronunciation and its importance in EFL learning as well as the characteristics of consonant sounds and syllable structure in both English and Arabic. In this respect, this chapter offers a comprehensive analysis of the phonetic and phonological differences in both linguistics systems of these two languages to highlight possible errors due to these contrasts. Moreover, it reviews literature and previous studies in terms of the pronunciation errors made when producing certain consonants, declusterization, language transfer and the learner's awareness of L1-L2 distance, which is known as the learner's psychotypology.

2.2. The Importance of Pronunciation:

Having good and accurate pronunciation is important for any language user to produce comprehensible utterances or a successful speech, yet many L2 learners find difficulties and problems with it. In L2 learning and acquisition, especially in EFL, learners pay little attention to their pronunciation, so that they mispronounce many words, which leads to miscommunication and misunderstanding (Prashant, 2018, p.16). Since the significance of learning another language is to use it as a means of communication, pronunciation instruction plays an important role in improving learners' oral skills and their communicative competence (Gilakjani, 2016, p.2-3).

Moreover, apart from misunderstanding which it may result in, poor pronunciation causes frustration and annoyance to the listener, which can "discourage them from further contact with the foreign speaker" (Szpyra, 2014, p.3). Accordingly, English people can rely on a speaker's pronunciation to know whether they are foreigners or not. This directly influences the perception of the foreigner when speaking to native speakers. It even affects foreigners themselves: when they have good command and pronunciation, they feel more confident to speak to others and can get many advantages and opportunities, while they feel less motivated to speak and have less self-confidence when their pronunciation is poor (ibid, p.4).

An example of the miscommunication caused by poor pronunciation can be seen in the following question: "*Can I park here?"* It is totally different from asking "*Can I bark here?"* because of replacing the phoneme /p/ with /b/. It is clear here how mispronunciation can really

lead to misunderstanding and the learner could fail to convey and deliver their message. For this reason, learning correct pronunciation is crucial to avoid miscommunication.

Another example can be seen when replacing a vowel sound with another, so a person in a restaurant asking the waitress for *soup* to eat would possible be misunderstood when they say *soap* instead. There are also many other examples of such misunderstanding when a foreigner lacks accurate pronunciation not only in terms of consonant and vowel sounds, but also in terms of intonation and stress (Kelly, 2000, p.11). These examples show how problematic pronunciation is for the receptor and what embarrassing situations that speakers may be involved in when there is mispronunciation of some words or utterances! It can also be noted that the EFL learner's mother tongue "can interfere with the pronunciation of a second language" (ibid, p.12). Therefore, teachers should take L1 interference into account as well as the problems of L2 mispronunciation. Finally, besides the learner's optimal goal to achieve native-like accent, there are more realistic goals that EFL learners can seek to attain out of learning accurate pronunciation. These goals include intelligibility, comprehensibility and confidence in speaking (Lane & Brown, 2010, p.3).

2.3. English Consonant Sounds and their Characteristics:

English sounds are classified, in general, into vowel and consonant sounds. While the airstream passes through the mouth freely when producing vowels, it is interrupted, constricted or modified, in some way or another, when a consonant sound is made (Carr, 2013, p.35). Moreover, in terms of voicing, all vowel sounds in English are voiced, but consonants can be either voiced or voiceless. There are 24 consonant sounds in English, and most books of phonetics and phonology mainly categorize them according to three features: voicing, place of articulation and manner of articulation.

2.3.1. Voicing:

This feature is related to the state of the vocal folds (or vocal cords) which exist in the larynx. When the vocal folds vibrate, the consonant sounds produced are called voiced. In this way, the edges of the vocal folds touch (or nearly touch) each other, and the airstream which passes through the glottis, the opening between vocal folds, causes vibration. On the other hand, when there is no vibration of the vocal folds while producing the consonant sounds, it is considered voiceless (Roach, 1991, p.28-30). Thus, consonant sounds are categorized into:

- **Voiced consonants**: they include /b/, /d/, /g/, /v/, /z/, /ʒ/, /dʒ/, /ð/, /l/, /r/, /w/, /j/, /m/, /n/, and /ŋ/.
- **Voiceless consonants**: they include /p/, /t/, /k/, /f/, /s/, /ʃ/, /tʃ/. /θ/, and /h/.

The feature of voicing is very important to distinguish between very similar pairs of consonant sounds like /p/ and /b/ or /s/ and /z/, for example. One can see the difference between a voiced consonant like /z/ and voiceless one like /s/ through putting a finger on the throat to feel the area where the vocal folds lie: when the former sound is produced for a while, there will be a kind of vibration as the vocal folds are brought together closely, but this vibration will disappear when the latter sound is produced (Dalbani, 2005, p.18). Moreover, voiceless consonants require greater muscular effort to be produced, so that they are called *fortis consonants*, while voiced consonants need less muscular effort, so that they are called *lenis consonants* (ibid).

2.3.2. Place of Articulation:

The points at which the airstream is modified, blocked or interrupted are called places of articulation (Carr, 2013, p.37). In other words, the place of articulation refers to where the obstruction of the airstream occurs. Thus, consonant sounds in English are also categorized, according to their places of articulation, into (Gut, 2009, p.31-2):

- **Bilabials**: In bilabial sounds, there is a kind of constriction of the airstream between the two lips as the lower lip articulates with the upper lip. Bilabial sounds include: /p/, /b/ and /m/, which come together in the word *problem*.
- **Labio-dentals**: In labio-dental sounds, the constriction is between the lower lip and the upper teeth, rather than the upper lip. Such sounds include /f/ (like the initial sound in the word *first*) and /v/ (like the first sound in the word *virus*). Both bilabial and labio-dental sounds are called *labials*.
- **Dentals (Interdentals)**: Dental consonants are produced when the tip of the tongue articulates against the upper teeth. These sounds include both /θ/ and /ð/, which come initially in the words *thin* and *then* respectively.
- **Alveolars**: In the production of alveolar sounds, the tip of the tongue articulates against the alveolar ridge. These sounds include the initial sounds of the words: *team, dream, seem, zoom, name* and *leave*, namely /t/, /d/, /s/, /z/, /n/, and /l/.
- **Post-alveolars (palato-alveolars)**: The blade of the tongue is raised against the palato-alveolar area, which lies at the rear if the alveolar ridge and borders on the hard palate, to produce the following sounds: /ʃ/ (like the initial sound in *sheep*), /tʃ/ (like the

first sound in *cheap*), /ʒ/ (like the middle consonant sound in the word *vision*), and /dʒ/ (like the initial and final sounds in the word *judge*).

- **Retroflex:** There is only one sound in English that is called a retroflex, and it is symbolized by an upside down /r/, that is /ɹ/. This sound is produced when the tip of the tongue is curled up and back towards the rear edge of the alveolar ridge, like the initial sound in the word *red*.
- **Palatal:** Again, there is only one sound in English that is considered under this category. This sound is /j/ and it can come in initial or central positions in words like *yet*, *year* and *student*. This sound is produced when the front part of the tongue articulates against the hard palate, which is part of the roof of the mouth.
- **Velars:** Velar sounds are produced when the back of the tongue articulates against the soft palate (the velum), which is the soft part of the roof of the mouth. They include the three sounds /k/ (like the first sound in the word *kitten*), /g/ (like the initial sound of the word *grieve*), and /ŋ/ (like the final consonant sound in the word *interesting*).
- **Glottals:** In English, there are two glottal sounds. The first one is the voiceless /h/ which is produced when the vocal folds are stiffened while the airstream becomes turbulent. The other sound is called the glottal stop /ʔ/, which is not included within the phonemic inventory of English, but it is used in English and is considered as a variant of the phoneme /t/ in specific phonetic environments. The glottal stop is produced when the vocal folds are held tightly together that no airstream can escape.
- **Labial-velar**: The final English sound is called labial-velar because producing it requires a double place of articulation: the labial and the velar. There is only one labial-velar sound in English, which is /w/ like in the first sound in words like *world*, *one*, and *witness*. When this sound is made, the lips are rounded while the back of the tongue is raised towards the velum (ibid).

2.3.3. Manner of Articulation:

While the place of articulation refers to where the airstream is modified, the manner of articulation refers to how the airstream is blocked, i.e. the kind of closure that is caused by making the consonant sound (Jackson, 1982, p.12). Thus, the manner of articulation reflects the different degrees of constriction applied while articulators are involved to produce the consonant sound. Accordingly, the following manners of articulation can be distinguished:

- **Stops (Plosives)**: When a stop consonant is produced, the articulators form a *complete closure* which blocks the airstream completely, preventing it from escaping through the oral cavity. Meanwhile, the velum is raised to prevent the airstream from flowing and escaping through the nasal cavity. However, this constriction is followed by a sudden release, which causes the explosion of the airstream, so that these stop consonants are also called *plosives*. There are seven stop consonants in English: two are bilabials (/p/ and /b/), two are dentals (/t/ and /d/), two are velars (/k/ and /g/), and the final one is glottal /ʔ/ (Carr, 2013, p.42-3).
- **Fricatives**: The degree of air blockage is less extreme when producing a fricative consonant than when producing a stop consonant. When a fricative consonant is produced, the articulators are brought together, so that there is *close approximation* (near closure or *narrowing*) without having a complete blockage of the airstream. As a result, the gap that exists between the articulators allows the airstream to flow with a kind of friction (a hissing sound like a long /s/). Moreover, fricatives are also called continuant consonants because a person can continue producing them without any interruption as long as there is airstream coming out from the lungs (Roach, 1991, p.47). Most consonant sounds are fricative, including: labio-dental fricatives (/f/ and /v/), dental fricatives (/θ/ and /ð/), alveolar fricatives (/s/, and /z/), a glottal fricative (h), and palato-alveolar fricatives (/ʃ/ and /ʒ/).
- **Affricates**: In English, there are two affricate consonants which begin as plosives and end as fricatives. The first affricate sound is /tʃ/ like the initial and final sound in the word *church*, and the other one is /dʒ/ like in the initial and final sound of the word *judge*. In affricate consonants, there is a kind of *complete closure* at the beginning of their production, and it is followed by a sudden release, just like in plosives, but it is accompanied with friction or a hissing sound (ibid).
- **Approximants**: To produce an approximant consonant, the two articulators move towards each other and are brought together to have a kind of constriction, but the closure is not complete and causes no friction because the *approximation* is not close enough to cause friction. In English, there is the labial-velar approximant /w/, the palatal approximant /j/ and the alveolar approximant /ɹ/. We can notice that these consonants never come in a final position in British English, particularly in Received Pronunciation (RP). Moreover, both /w/ and /j/ are also called semi-vowels because they have certain features which are common with the vowels /u/ and /ɪ/ respectively (McCully, 2009, p.38). However, these sounds are grouped within consonants “because of their behavior

in the sound system of a language" and due to their behavior in sonority and phonotactic rules (Gut, 2009, p.30).

- **Lateral**: Lateral consonants are often included in the class of approximants. A lateral sound is produced when the tip of the tongue is touching the roof of the mouth while the airstream is passing through both sides of the tongue. In other words, there is a *partial closure* that allows the airstream to escape. The only literal consonant in English is /l/ like in the initial position of the word *later* (ibid).
- **Nasals**: Nasal consonants are produced when there is a complete closure of the oral cavity, so that the airstream goes out through the nose while the soft palate is lowered. In English, there are three main nasal consonants including the bilabial nasal sound /m/, the alveolar nasal /n/ and finally the velar nasal consonant /ŋ/ (Kelly, 2000, p.6). Some references and books of phonetics refer to nasals as 'stops' because of the *complete closure* that is made in the oral cavity while producing them (Cruttenden & Gimson, 2001, p.29).

2.4. English Syllable Structure:

In order to see the differences between the phonological systems of both Arabic and English, we need first to have a look at the syllable structure in both languages to figure out the contrasts and divergences which could lead to interference.

2.4.1. Definition of a Syllable:

Generally speaking, a syllable in linguistics is "a unit at a higher level than that of the phoneme or sound segment, yet distinct from that of the word or morpheme" (ibid, p.49). Phonologically speaking, a syllable can be defined as a combination of segments or phonemes (consonants and vowels) which are possible in a particular language and whose center or peak is the nucleus without which there cannot be a syllable (den Ouden, 1995, p.10). Actually, a syllable is an important linguistic unit which is used to show the phonological representation of speech and determines whether a specific combination of sound segments is acceptable in a certain language or not (Ibrahim, 2019, p.36-7). As for Arab linguists, Dr. Muhammad Al-Sa'ran defines the syllable as a set of sounds which constitute two bases and a peak in between (بن زروق, 2011, p.57). The peak represents the vowel sound, while the two bases are made of the consonant sounds that come before and after the vowel one.

2.4.2. Syllable Constituency and Types:

As it can be seen from the definition of the syllable, the **peak** (the **nucleus**) is its essential component, and it determines the number of syllables in a word as the number of syllables in a word depends on the number of peaks it has (ibid). The phonemes that come before the nucleus make up the **onset** of the syllable, while the ones which come after the nucleus within the same syllable form the **coda**. Accordingly, an ideal syllable looks like a mountain whose peak or summit is the vowel sound (the nucleus) while the consonant sounds which surround the vowel sound represent its steep sides, i.e. the onset on the left and the coda on the right. Both the nucleus and the coda constitute what is called the **rhyme**, so the coda is "more closely associated with the peak than the onset" (Cruttenden & Gimson, 2001, p.51). Thus, the syllable structure has the following representation:

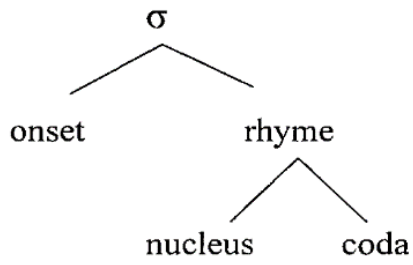


Figure 1: **Universal Structure of a Syllable** (Gut, 2009, p.75)

In English, there can be a syllable with only a nucleus, i.e. without any segments in both the onset and the coda, just like in the words: *eye* and *air*, and such syllables can be represented with the letter (V) because it has only a vowel sound. Accordingly, there must be a nucleus in every English syllable, as it is an obligatory component. However, we can have a syllable with the form (CV), in which there are an onset and a nucleus but no coda, like the English words *sea* and *high*. Similarly, English syllables with both a nucleus and a coda without an onset are also possible, with the form (VC), like in the words *eat* and *earn*. Syllables with codas are called **closed syllables**, while the ones with no coda are called **open syllables** (ibid, p.77).

Moreover, when the syllable has a long vowel (like /i:/ in the word *sea*) or a diphthong (like /aɪ/ in the word *die*) in the nucleus or a short vowel in the nucleus plus at least one consonant in the coda, it is called a **heavy syllable**, while it is called a **light syllable,** which is normally unstressed, when it has only a short vowel without any consonant in the coda, like the second syllable in the word *cobra* (ibid).

Consonant clusters can come both syllable-initially and syllable-finally. In English, it is possible to have up to three consonants in the onset and four ones in the coda. For example, the word *strengths*, which is made up of one syllable, has the consonant cluster /str/ in the onset and the cluster /ŋgθs/ in the coda (Jackson, 1982, p.42). However, there are phonotactic rules which govern the association of more than one consonant sound in both the onset and the coda. These rules need to be followed when combining sounds to form syllables.

For initial periphery (initial consonant cluster), there are 26 possible combinations, out of 576 ones, for two-consonant combinations that are allowed in English structure, including /sm/, /sn/, /st/, /sk/, /sp/, /sf/, /dw/, /θw/, /tw/, /dr/, /θr/, /tr/, /kw/, /kr/. /kl/, /pr/, /fr/, /br/, /gr/, /pl/, fl/, /bl/, /gl/, /ʃr/, /sw/, and /sl/ (ibid: 43). As for three-consonant combinations in the onset, there are only six possible and accepted combinations, including /spl/, /spr/, /str/, skr/, /skw/ and /sfr/ (as it is shown in the following figure). For final periphery, there can be four consonant sounds in the coda of an English syllable which must follow the rules of syllable sonority.

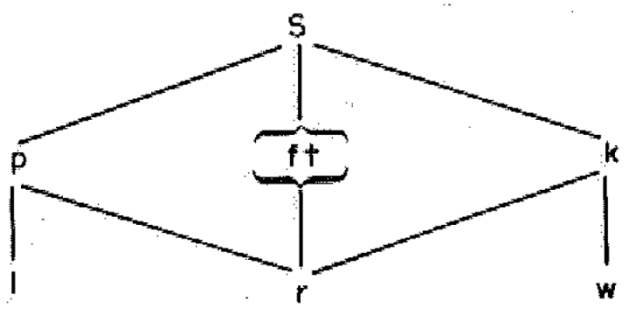


Figure 2: **Possible initial three-consonant combinations** (ibid, p.44)

2.4.3. Syllable Sonority and its Hierarchy:

Any syllable often has more than one sound, but there are some sounds which are more sonorous (prominent) than others. In other words, there are sounds which are more audible and noticed by listeners than the other neighboring ones. For example, in the word *army*, the vowel sound /ɑ:/, which is an open vowel, is more sonorous than both the nasal sound /m/ and the vowel sound /i/, which is a closed vowel, while /i/ is more sonorous and noticeable than /m/. This hierarchy of sonority follows a specific scale in which sounds are ordered according to their sonority from the most to the least sonorous, just as it follows:

- Open vowels
- Close vowels
- Laterals
- Nasals

- Approximants
- Trills
- Fricatives
- Affricates
- Plosives (Cruttenden & Gimson, 2001, p.49)

Vowels which are central are grouped between open and close vowels. Moreover, sounds which are voiced are more sonorous than voiceless sounds, but the fricative sound /s/ is an exception, as it violates the principle of hierarchy in sonority (ibid).

2.5. Arabic Consonant Sounds:

According to modern Arab linguists, Arabic consonant sounds can be classified, according to their place of articulation, into (بن زروق, 2011, p.33-5):

1- **Bilabial sounds**: Like English bilabial consonants, they are produced when both lips articulate together to pronounce the Arabic sounds /b/, /m/ and /w/.
2- **Labio-dental sounds**: Just like in English labio-dentals, the lower lip articulates against the upper teeth to pronounce the Arabic sound /f/.
3- **Interdental sounds**: As it is the case in English interdental consonants, the tongue articulates between the upper and lower teeth to pronounce the Arabic sounds /ðˤ/[1], /θ/ and /ð/.
4- **Alveolar sounds**: Similar to English alveolar sounds, they are produced when the tip of the tongue articulates against the alveolar ridge or just behind the upper teeth to pronounce the Arabic sounds /t/, /d/, /z/, /s/, /l/, /r/, /n/, /dˤ/[2], /sˤ/[3], and /tˤ/[4].
5- **Pre-palatal sounds**: They are produced when the back of the tongue articulates against the front part of the hard palate to pronounce the Arabic sounds /dʒ/, /ʃ/, and /j/.
6- **Post-palatal sound**: It is produced when the back of the tongue articulates against the hard palate to pronounce the Arabic sound /ɤ/[5].
7- **Velar sound**: They are produced when the back of the tongue articulates against the soft palate to pronounce the Arabic sound /k/ (ibid).

[1] It is (ظ) in Arabic, like the first sound in the Arabic word (ظهر), which means *back* in English, i.e. the part of the body which lies between the head and the legs.
[2] It is (ض) in Arabic, like the first sound in the Arabic word (ضد), which means *against* in English.
[3] It is (ص) in Arabic, like the first sound in the Arabic word (صديق), which means *friend* in English.
[4] It is (ط) in Arabic, like the first sound in the Arabic word (طبيب), which means *doctor* in English.
[5] It is (خ) in Arabic, like the first sound in the Arabic word (خبر), which means *news* in English.

8- **Uvular sounds**: They are produced when the back of the tongue goes farther than it goes when producing velar sounds coming up to the uvula, which hangs down at the back of the throat, to pronounce the Arabic sounds, /q/[6] and /ɣ/[7].

9- **Laryngeal sounds**: They are produced when the vocal folds stop, and they are tightly together preventing the airstream from escaping, while the internal layer of the larynx contracts to produce the Arabic sounds /ʔ/[8] and /h/.

10- **Pharyngeal (or glottal) sounds**: They are produced when the pharynx, which lies between the uvula and the larynx where the vocal folds exist, is constricted to pronounce the Arabic sounds /ʕ/[9] and /ħ/.[10] This constriction is often made with the root of the tongue (Dalbani, 2005,
p.32-7).

In terms of the manner of articulation, Arabic consonant sounds can be classified into the following categories (Ashour, 2017, p.138):

1. **Stops**: They include eight stop sounds /b/, /t/, /d/, /tˤ/, /dˤ/, /k/, /q/, and /ʔ/.
2. **Fricatives**: They include 13 fricative sounds (/f/, /θ/, /ð/, /ðˤ/, /s/, /sˤ/, /z/, /ʃ/, /ɤ/, /ɣ/, /ħ/, /ʕ/, and /h/.
3. **Affricates**: There is only one affricate sound, which is /dʒ/.
4. **Nasals**: They include two nasal sounds /m/ and /n/.
5. **Approximants**: They include /w/, /j/ and /ɹ/.
6. **Laterals**: There is only one lateral sound, which is /l/ (ibid).

2.6. Arabic Syllable Structure:

According to Arab linguists, a syllable has three types according to its length (بن زروق, 2011, p.58):

1) Short syllable: It consists of either one short vowel only (V), which is often very rare in Arabic, or a consonant vowel plus a short vowel (CV), which is very frequent, like the first

[6] It is (ق) in Arabic, like the first sound in the Arabic word (قلم), which means *pen* in English.
[7] It is (غ) in Arabic, like the first sound in the Arabic word (غرب), which means *west* in English. It is sometimes represented with the phonetic symbol /G/.
[8] This sound represents (ء) or (الهمزة) in Arabic, which can be seen in the final sound of the word (قرأ), which means *read* in English.
[9] It is (ع) in Arabic, like the first sound in the Arabic word (علوم), which means *sciences* in English.
[10] It is (ح) in Arabic, like the first sound in the Arabic word (حلم), which means *dream* in English.

syllable /da/, the second one /ra/ and the third one /sa/ in the Arabic word /*darasa*/, which means 'he studied' in English.

2) **Average syllable**: It has either one consonant plus a long vowel (CV), like the first syllable /ha:/ in the word /ha:dʒɪr/, which means *emigrate*, or a consonant and a short vowel plus a consonant (CVC), like the word /man/ which means 'who' in English.
3) **Long syllable:** It is made up of either a consonant and a long vowel plus a consonant (CVC), like the word /da:r/ which means 'home' in English, or a consonant and a short vowel plus two consonant sounds in the coda (CVCC), like the word /nahr/ which means 'a river' in English (ibid).

In another categorization of Arabic syllables, there are three main types:

1. **Open syllable**: It is the syllable that ends with a vowel sound (V) or (CV), whether the vowel is short (like the first syllable in the word /kataba/ which means *wrote* in English) or a long one like the first syllable in the word /la:ma/ which means *blamed* in English.
2. **Closed syllable**: It is the syllable that ends with one consonant sound (VC) or (CVC), like the word /mur/ which means *bitter* in English.
3. **Tightly-closed syllable (double-closed syllable)**: It is the syllable that ends with two consonant sounds (CVCC), like the word /asr/ which means *imprisonment* in English (ibid).

2.7. Analysis of the Arabic and English phonetic and phonological systems:

Concerning the phonetic inventory of sounds, English has 24 consonants sounds as well as the glottal stop, while in Arabic there are 28 ones. There are some consonant sounds which are common between English and Arabic, including /f/, /t/, /k/, /θ/, /ʃ/, /s/, /h/ and the glottal stop /ʔ/, which are voiceless in both languages, in addition to /b/, /d/, /ð/, /dʒ/, /r/, /z/, /l/, /m/, /n/, /w/, and /j/, which are voiced in English and Arabic. However, some English consonant sounds do not occur in the phonetic system of Arabic, such as /v/ and /p/. Similarly, some Arabic sounds do not exist in English, such as /ħ/ and /q/ (بن زروق, 2011, p.38).

In terms of the phonological systems, there are different syllable structures in both English and Arabic, some of which are common in both of them, while others are not. For example, in both languages we can have a syllable with a single consonant in the onset and the coda (CVC). On the other hand, the number of consonant sounds in the onset is limited to only one sound in Arabic, while we can see English syllables with three consonant sounds in the onset. Accordingly, consonant clusters never exist in the onset of Arabic syllables (El Zarka, 2013, p.30). Even in the coda, the maximum number of consonant sounds differs between

English and Arabic: in English there can be four consonant sounds in some cases, like in the word *strengths*, but in Arabic we can find just examples with two-consonant codas (Ibrahim, 2019, p.40-1).

2.8. Previous Studies:

2.8.1. Difficulties with the Pronunciation of some English Consonants:

Several studies have dealt with the pronunciation problems that EFL learners face when pronouncing some English consonants, especially among Arabs. Some studies, such as El Zarka (2013, p.58), state that the main reason of such a problem 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. 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 pronounce them as if they were one sound. Moreover, highlighting the Arab learners' difficulties with the pronunciation of some consonants and their confusion about both /p/ and /b/ as well as /f/ and /v/, Allaith & Joshi (2011, p.1101) show that the influence of L1 phonology on L2 pronunciation and spelling is evident when producing both /p/ and /v/ because they do not exist in Arabic, and learners choose /b/ and /f/ instead because they are the most similar alternatives in the Arabic sound inventory. What is remarkable in this study is that both researchers find that reverse transfer may happen when the learner produce the sound /v/ instead of /f/ and /p/ instead of /b/ due to overgeneralization after acquiring the two targeted sounds /p/ and /v/. Nevertheless, whether learners are vulnerable to produce such errors due to reverse transfer is still arguable.

Hassan (2014) reveals how Sudanese students make errors when pronouncing both dental sounds /θ/ and /ð/ as well as the voiceless bilabial sound /p/ and the voiced labio-dental sound /v/, replacing them with the alveolar sounds /s/ and /z/ as well as the voiced bilabial sound /b/ and the voiceless labio-dental sound /f/ respectively (cited in Ashour, 2017, p.141). Ashour's study shows that Arabs differ in terms of the difficulties they encounter when learning English pronunciation of some consonants, based on their different dialects. However, he does not state clearly the reasons of using certain consonant sounds in the place of other ones. Similarly, Ababneh (2018, p.251) shows how Arabic-speaking learners in the KSA pronounce the voiced bilabial sound /b/ instead of the voiceless one /p/, and they even misspell the words that include the letter (p), when they write them down, with the letter (b), so they write *cub* instead of *cup* and *lab* instead of *lap*. Moreover, they pronounce the voiceless labiodental sound /f/ or the

voiced one /v/, like pronouncing the word *very* as /feri/. Another study conducted by Hago & Khan (2015, p.95-6) on Saudi English language learners concludes that the learners confuse the pronunciation of some consonant sounds such as the labio-dental /v/, pronouncing it as /f/ due to their unavailability among the inventory of Arabic sounds.

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, p.17) 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. Therefore, Chinese learners make an error when pronouncing a word like "think", pronouncing it as "sink". As for the existence of this phenomenon in Arabic, there are few studies dealing with this issue. For example, the study of Alshalaan (2020, p.3) 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. However, this study also does not explicitly address the reasons.

In conclusion, we find that the interference between the mother tongue (Arabic) 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 even though these two sounds exist in the inventory of Arabic sounds? This research aims to answer this question ultimately.

2.8.2. The Problem of Separating two or more Consonants (Declusterization):

There is a great 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 (under 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, for consonant clusters are not allowed in this language (El Zarka, 2013, p.30). Therefore, we find a common pronunciation problem when Arab learners pronounce words such as "splash", "scream", and "create", as they insert a vowel after (or before) the first consonant sound. This vowel is often /ɪ/. For example, when pronouncing "scream", learners say it as /sɪkri:m/ instead of /skri:m/. The results of El Zarka's study show that "inserting vowels is a major error for Arabs living in Palestine, Syria, Iraq, Jordan and the Arabian Peninsula," and that Arab learners are used to inserting the vowels /e/ and /ə/ "to break up the word into more syllables for easier pronunciations" (ibid, p.51).

Moreover, the study of Lin (2014, p.19) shows that there is a problem in Arabic when pronouncing words that start with two consonants, on the basis that this issue contradicts the structure of the Arabic syllable, which often consists of a Consonant-Vowel structure. Therefore, the pronunciation of a word such as "plane" which begins with two consonants, the first of which is /b/, becomes as if it begins with a short vowel /ɪblein/ or /əblein/. In this example, it can be noted that in the pronunciation of the word "plane", there are two pronunciation problems, the first of which 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, while 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.

The study of Hago & Khan (2015, p.86) also shows that 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. 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 so. Therefore, we find that Arabs add a short vowel to separate a consonant cluster like /mpts/ when pronouncing a word such as attempts, so that it is pronounced as /ətempɪts/. Al-Saidat (n.d.) also investigates the Arab learners' difficulties with the pronunciation of three-consonant clusters in both the onset and the coda. The researcher provides first the different types of syllable structures in both Arabic and English and then names three ways or strategies used by Arab learners to deal with this problem: insertion, substitution and deletion, but he deals with only the first one, i.e. insertion (p.128). This study shows how Arab learners find it easier to deal with two-consonant clusters because Arabic does allow to have two consonants together, particularly in the coda. However, they declusterize those syllables with three-consonant clusters in initial or final positions or with four-consonant clusters in a final position. It also shows that the process of declusterization is rule-governed. For example, all participants of the study insert the short vowel /ɪ/ after the first member of the cluster in the onset, which is the sound /s/, like the following examples (ibid, p.129):

1. /sɪblæʃ/ 'splash'

2. /sɪblɪ:n/ 'spleen'

3. /sɪkrɪ:n/ 'screen'

4. /sɪbraɪt/ ‘sprite’

5. /sɪtreɪn/ ‘strain’

6. /sɪkræp/ ‘scrap’

7. /sɪtreɪt/ ‘straight’

8. /sɪpreɪ/ ‘spray’

As for the multi-consonant clusters in final positions, the study shows that all participants insert the same short vowel /ɪ/ before the last member of the cluster, whether in two, three or four-consonant clusters, as it is shown in the following examples (ibid, p.130-1):

1. /stɒbɪd/ ‘stopped’

2. /dɪvɪlɒbɪd/ ‘developed’

3. /ɑːskɪd/ ‘asked’

4. /tɪksɪt/ ‘text’

5. /mʌnθɪs/ ‘months’

6. /hændɪz/ ‘hands’

7. /tɪkstɪs/ ‘texts’

8. /kɒntɪkstɪs/ ‘contexts’

In addition, Ashour (2017, p.139-140) distinguishes between the phonetic and phonological systems of both English and Arabic, showing that although the number of consonant sounds in Arabic is more than those in English, Arabic does not frequently use consonant clusters. For this reason, Arab learners tend to “insert a vowel in between the cluster to ease the pronunciation of them” when learning English. This includes initial consonant clusters like /sp/, /gr/, /spl/ and /str/ in particular (ibid). Likewise, the study of Ababneh (2018, p.252) also highlights the Arab learners’ difficulty with the pronunciation of words with initial consonant clusters, and it finds that words with two or three-consonant clusters at initial positions are often mispronounced with the insertion of a vowel sound before or after the first consonant sound, like saying /ɪspend/ instead of /spend/ for the word (*spend*) or /ɪskuːl/ instead of /skuːl/ for the word (*school*).

Finally, Al-Zoubi (2019, p.23) shows how Arab learners split words with consonant clusters by adding a vowel sound to divide the English word into syllables with a more similar structure as in L1 syllables. For example, the word *next* is mispronounced as /neksɪt/ instead of /nekst/. Such an error is expected and common since Arabic allows syllable-final consonant clusters with no more than two members. However, Al-Hattami (2000, p.360-2) shows that in addition to having difficulties with the pronunciation of English syllables with three-consonant or four-consonant codas, Arabic-speaking learners also have a difficulty with the pronunciation of certain two-consonant clusters, such as /ðz/ in the English word (clothes), so they tend to pronounce it as /kləʊðɪz/ instead of /kləʊðz/ because the combination of /ðz/ is not permissible according to the Arabic phonological rules.

2.8.3. Language Transfer in Relation to Pronunciation

The learner's mother tongue often has an inevitable impact on learning a foreign language. The learner's linguistic knowledge of L1 interferes with L2 learning, leading to either committing errors of various types, including phonetic and phonological errors, due to the differences between L1 and L2 and misleading similarities or facilitating learning process because of similar forms and meanings. The reliance on the learner's native language while learning another language is known, according to Lado, as language transfer (Gass & Selinker, 2008, p.89). According to Al-Saidat (n.d., p.123), the mother tongue influence is one of the major factors that affect pronunciation, as it is inevitable that L1 phonetics and phonology have strong impact on L2 pronunciation. This impact is often reflected either by having some foreign accent or by mispronouncing some L2 words. In other words, L2 learners rely on their L1 structures and background in the process of L2 learning, leading them to use erroneous structures transferred and hypothesized on the basis of L1 ones, just as Arab learners do when they pronounce English words that include syllables which are not available in the Arabic phonological system, like CCC or CCCC combinations (ibid, p.131).

The problem of L1 transfer in relation to L2 pronunciation lies in the fact that "the recognition and production of the sound system of a new language is of primary importance in mastering that language, and that the learner transfers unconsciously his native sounds to the target language" (Kadamani, 1966, p.3). This means that the representation of the consonant sound may differ in the learner's mental processing because of the influence of the mother tongue. Kadmani also shows that the problem does not lie only in the recognition and production of some consonant sounds but also in the combinations and distributions of them (ibid, p.4). This includes consonant clusters whether in initial or final positions, so Syrian learners do have

problems when they deal with these clusters in English according to the contrastive analysis carried out in Kadmani's study.

The basis of the concept of transfer is traditionally associated with behaviorism, as the traditional view of contrastive analysis hypothesizes that analyzing both "the native language (NL) and target language (TL)" could enable us to predict the difficulties in TL acquisition (Yi, 2012, p.2372). In a study of the factors leading to L1 transfer, Yi suggests linguistic factors, including L1-L2 distance and the degree of markedness. The former refers to the fact that differences between L1 and L2 bring difficulties in L2 acquisition according to the contrastive analysis hypothesis, while the latter refers to the forms and rules that are less natural or special compared to other forms and rules (ibid). Another important factor that the same study mentions is the frequency of input, which refers to the relationship between accuracy and input and the role of input to learn L2 successfully (ibid, p.2375).

It is also proved that the mother tongue (Arabic) interferes in pronouncing some sounds in English and affects the pronunciation of some English words (Al-Zoubi, 2019, p.23). Because the linguistic skills acquired in L1 can be transferred to L2, as Krashen suggests, "errors in foreign/second language learning are partly attributable to interference" (ibid). Thus, it is evident that the mother tongue interference in pronouncing English consonant sounds involves the inability to produce L2 sounds that are unavailable in L1, like the sounds /p/ and /v/, and the substitution of these sounds with similar ones, like /b/ and /f/ respectively. However, Al-Zoubi sees that L1 also plays a positive role in learning and producing some English sounds, which are similar to their counterparts in Arabic, like the common sounds /b/, /f/, /k/, /l/, etc. (ibid, p.25).

2.8.4. Pronunciation and the Learner's Awareness of L1-L2 Distance (learner's psychotypology)

Psychotypology is an important factor that has a significant role in L2 learning process. Kellerman (1977) defines psychotypology as "the learner's own perception of the relationships between L1 and L2, that is, the learner's notion of the distance, or difference, […] between rules or items in his existing knowledge of the L1 and their counterparts in a subsequent L2 he is willing to learn or acquire" (cited in El Marzouk, 1992, p.215). The importance of psychotypology lies in its influence on the degree of transferability, as it is among three main factors that determine language transfer: the learner's psychotypology (the learner's perception of the L1-L2 distance), the learner's organization of L1, and the learner's actual knowledge of L2 (Naser Eddine, 2012, p.101). However, the learner's psychotypology is not static because it develops and alters as long as the learner has more access to L1 while learning the target

language, and this is related to the similarities and differences which exist between L1 and L2 and constitute "the variables for learners' decision-making" (ibid, p.103). Moreover, learners are more likely to transfer elements in L1 to L2 structures when their perception of L1-L2 distance is small, while they are less likely to do so when they perceive that these elements as *language specific* or *unique to that language*, leading them to have less cases of transferability, i.e. when they have full access to Universal Grammar (ibid, p.104).

Furthermore, Gass and Selinker (1992) state that the proximity or distance between L1 and L2 differs from an individual to another, adding that "this distance can shrink as the learner becomes more aware of L2" (cited in Altuğ and Önal, 2022, p.48). Thus, it is evident that getting more information of L2, being more aware of negative transfer, and acquiring distinctive L2 sounds and structures can help learners avoid different errors related to crosslinguistic influence, including L1 interference and transfer. It can be noted that this perception of L1 and L2 distance also plays a vital role in limiting the transfer of L1 forms and functions to L2 structures, especially when L1 is similar to L2 (Yamashita & Jiang, 2010, p.662). Finally, in order to raise learners' awareness of L1-L2 distance, especially in terms of the acquisition of pronunciation, they need to have more exposure to L2 input (ibid, p.663).

2.8.5. Similarities and Differences between Previous Studies and the Present Research:

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 present 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 between such phonemes, most of them failed to mention the sources, which can be considered a questionable issue that this study seeks to 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.

2.9. Summary:

In reviewing the literature, investigating previous studies and setting the theoretical framework, it can be concluded that:

1. There are differences between the phonetic inventory of both English and Arabic, which leads Arab learners to having difficulties with the English sounds that do not exist in Arabic, like /p/ and /v/.
2. Learners tend to replace the consonant sounds that have no existence in their mother tongue with the ones which have similar phonetic characteristics in terms of place and manner of articulation, like the replacement of the sound /p/ with /b/ or /v/ with /f/.
3. Sometimes Arab learners mispronounce consonant sounds which do exist in their L1, like replacing interdental sounds with alveolar ones such as the sound /θ/ with /s/ or /ð/ with /z/.
4. The differences in the phonological systems of Arabic and English also lead to errors made by Arab learners due to the difference in the syllable structure as well as the number of consonant sounds allowed in both the onset and the coda.
5. While Arabic allows no consonant clusters in the onset and only two-consonant clusters in the coda, English includes words with three consonants in the onset and four ones in the coda, so that Arab learners tend to insert a vowel sound to split the consonant cluster whether in the onset or in the coda.
6. L1 transfer plays a major role in the pronunciation difficulties that Arab learners have in terms of consonant sounds and consonant clusters. In other words, the recognition and production of both consonant sounds and consonant clusters within English words by Arab learners are affected by the mother tongue interference.
7. Finally, the learner's perception of L1-L2 distance (known as learner's psychotypology) is also considered a major factor that impedes the acquisition of pronunciation of consonants and consonant clusters.

Chapter Three: Methodology

3.1. Introduction:

This study aims to investigate the difficulties that EFL learners have with the pronunciation of consonant sounds and consonant clusters due to mainly L1 interference as well as other factors. To shed light on these difficulties, this chapter provides the reader with the ways of investigating the real errors made by EFL learners at English classrooms at secondary schools, followed by contrastive analysis and error analysis to describe these errors and find out their sources. Moreover, this chapter includes the adopted research method, sampling, instruments and procedures used in data collection.

3.2. Research Method:

This research adopts the descriptive analytical method in which the behaviors of the subjects of the study sample are described, analyzed and interpreted. The descriptive analytical approach is defined as "In-depth descriptive method, in which the scientific researcher describes the various scientific phenomena and problems, and solve problems and questions that fall within the scientific research department, then the data collected is analyzed by the descriptive analytical approach, so that the appropriate explanation and results can be extracted" (Al-Manara Consultancy's website). In the present study, the researcher depends on observation conducted on a sample of the research population (40 students), collecting data through observing an English class at one of the Syrian secondary schools in the City of Jableh. This school is one of the four secondary schools that exist in this city; it was randomly selected after writing the names of these schools on cards and picking one of them. Samples of students' answers and pronunciations were recorded, in addition to the notes that the researcher took while observing the English class, which was administered and taught by another English teacher who works at the same school. Finally, the data collected is analyzed statistically, and the findings are discussed in detail in relation to the research questions.

3.3. Research Population and Sample:

The research population of the present study is represented by all of the students at Syrian public secondary schools. The sample was chosen from one of the public secondary schools in Jableh City, Lattakia, within the first semester of the academic year 2022-2023. The study

sample consisted of 40 students chosen from the first secondary grade to control the variable of age, for students at this stage are usually at approximately the same age, ranging between 15 and 16 years. The research chose a secondary public school for girls, so the 40 students of the sample are females since the variable of gender is of no concern in this study.

3.4. Research Tool 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 based on the observation of an English language classroom at a secondary school on the purpose of identifying pronunciation errors among Syrian students of English and answering the research questions. Meanwhile, the researcher was observing their participation -including reading, speaking and pronunciation- and taking notes on related pronunciation problems. Each student was expected to read one paragraph of the text. Moreover, the researcher used assessment checklists and took notes while observing students' pronunciation of a list of words that the teacher wrote on the board and asked all of the students to read them. This list includes two groups of words: the first one contains words with the consonant sounds /v/, /p/, /θ/ or /ð/ at different places in the word, while the other contains words with consonant clusters. The researcher recorded the students' participations and answers using a voice-recording application on his mobile phone. 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*.

3.5. Ethical Considerations:

In order to start collecting data, the researcher brought the necessary approvals of the officials, the school principal, and one of the school English teachers participating in this study. The school principal was generous and showed great enthusiasm to help the researcher collect the data needed, asking one of the English teachers working at his school to be cooperative and helpful. The latter also showed her interest and enthusiasm to take the lead within her one of the English classes to give the researcher an opportunity to observe students while they were speaking and reading in the class. For the purpose of confidentiality, all participants were assured that their names and private information would remain anonymous and that all their answers and pronunciations recorded would be used only for the purpose of this study. They

were also informed that their participation in the study was totally voluntary, and that they could stop or withdraw any time they would like.

3.6. Validity and Reliability:

A successful research study demonstrates a high level of validity and reliability in terms of the scaling tools and instruments it uses (El Zarka, 2013, p.40). Validity is defined as "the extent to which a test measures what we actually wish to measure," while reliability refers to "the accuracy and precision of a measurement procedure," (Kothari, 2004, p.73) i.e. repeating the study will lead to the same (or at least similar) results. As for the validity of the present study, it is reflected in two ways. The first one is that 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. The pronunciation test has been adopted by many researchers who have investigated EFL learners' problems with consonants and consonant clusters. The second thing is that the process of data collection in this study is objective, as it was based on observation without the researcher's intervention at class, which enabled him to avoid subjectivity and bias. As for the reliability scale, the researcher could not test it as he had no enough time to conduct a pilot study because the time allocated to do the research was only 10 weeks.

Chapter Four: Data analysis and Discussion

4.1. Data Analysis:

4.1.1. In Terms of Reading the Text:

After the teacher asked her students to read the parts of the text, the researcher observed their pronunciation and took notes. Each paragraph included words having the problematic sounds /v/, /p/, /θ/ and /ð/ as well as words with initial and final consonant clusters. The researcher noticed that the four students chosen for reading the text had great difficulty in the pronunciation of the voiceless bilabial sound /p/, and they pronounced it, as it had been expected, as the voiced alternative /b/. This mispronunciation included all words having the sound /p/ at different places of the words, such as *passenger, people, company, speed, ship*, etc. None of these students pronounced the voiceless bilabial sound /p/ correctly. This error was actually expected and common, as it was suggested, in previous studies.

Similarly, the four students failed to pronounce the words that included the dental sounds /θ/ and /ð/ correctly. Rather, they used the sound /s/ for the former one and the sound /z/ for the latter. For example, they pronounced /s/ instead of /θ/ in words like *truth, mouth* and *thought*, while they used the sound /z/ instead of /ð/ in words like *their*, *nevertheless* and *breathe*. Although these two problematic sounds were not widely investigated by previous researchers, they are worthy of being studied because they supposedly exist in the learners' mother tongue, which is Arabic, unlike the case of the sound /p/.

On the contrary, the four students could pronounce the voiced labio-dental sound /v/ in different words correctly without confusing it with the voiceless alternative sound /f/. For example, students were able to distinguish between the words *fan* and *van* or *safe* and *save*, and they never mispronounced the sound /v/ in any word including it, like *even, receive,* and *live*. This contradicts what most studies have concluded regarding the difficulty Arabs have when trying to produce this sound. Moreover, it is also surprising how these students could easily pronounce this sound correctly although it has no existence in the Arabic inventory of sounds.

In addition, the text included many words with consonant clusters whether in the initial or final positions. Three students have difficulty with all of these words, but the fourth one could pronounce them better, yet they all pronounced final consonant clusters better than they did with the words with initial consonant clusters. In other words, all of these four students had great difficulty with the pronunciation of words with three consonant sounds in the onset, such as

struck and *scream*. However, one student could pronounce most words with initial two consonant sounds such as *dress* and *tragedy* correctly. The four students could pronounce words with final consonant clusters like the word *change* very well. Here, the errors made by these students with the pronunciation of consonant clusters are expected and logic because of the great differences between the phonological systems of both English and Arabic.

Finally, it should be noted that there were many other pronunciation problems and difficulties these students had when reading the text, including stress misplacement, vowel sounds, silent letters, etc. However, since the main concern of this study relies on the pronunciation of consonant clusters and some consonant sounds, other pronunciation errors were neglected.

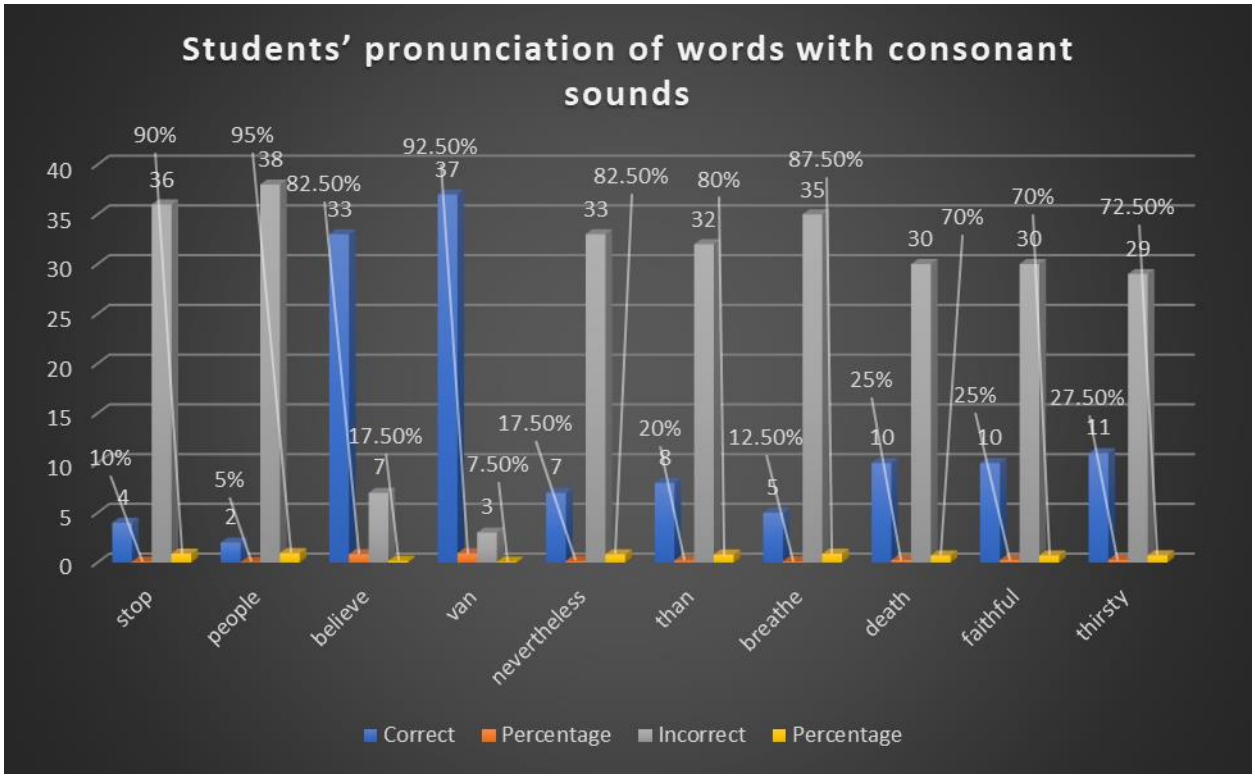
4.1.2. In Terms of the two Word Lists:

With the help of the English teacher who administered the English class observed by the researcher and relying on the tests used by previous researchers investigating EFL learners' pronunciation problems of consonant clusters and consonant sounds, two assessment checklists were developed to observe the students' pronunciation of both of them. The first checklist was designed to assess students' pronunciation of the consonant sounds /v/, /p/, /θ/ and /ð/. The following table shows it with the collected data and percentages:

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

Words	Correct	Percentage	Incorrect	Percentage	Notes
stop	4	10%	36	90%	/b/ instead of /p/
people	2	5%	38	95%	
believe	33	82.5%	7	17.5%	/f/ instead of /v/
van	37	92.5%	3	7.5%	
nevertheless	7	17.5%	33	82.5%	/z/ instead of /ð/
than	8	20%	32	80%	
breathe	5	12.5%	35	87.5%	/z/ or /s/ instead of /ð/
death	10	25%	30	70%	/s/ instead of /θ/
faithful	10	25%	30	70%	
thirsty	11	27.5%	29	72.5%	

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



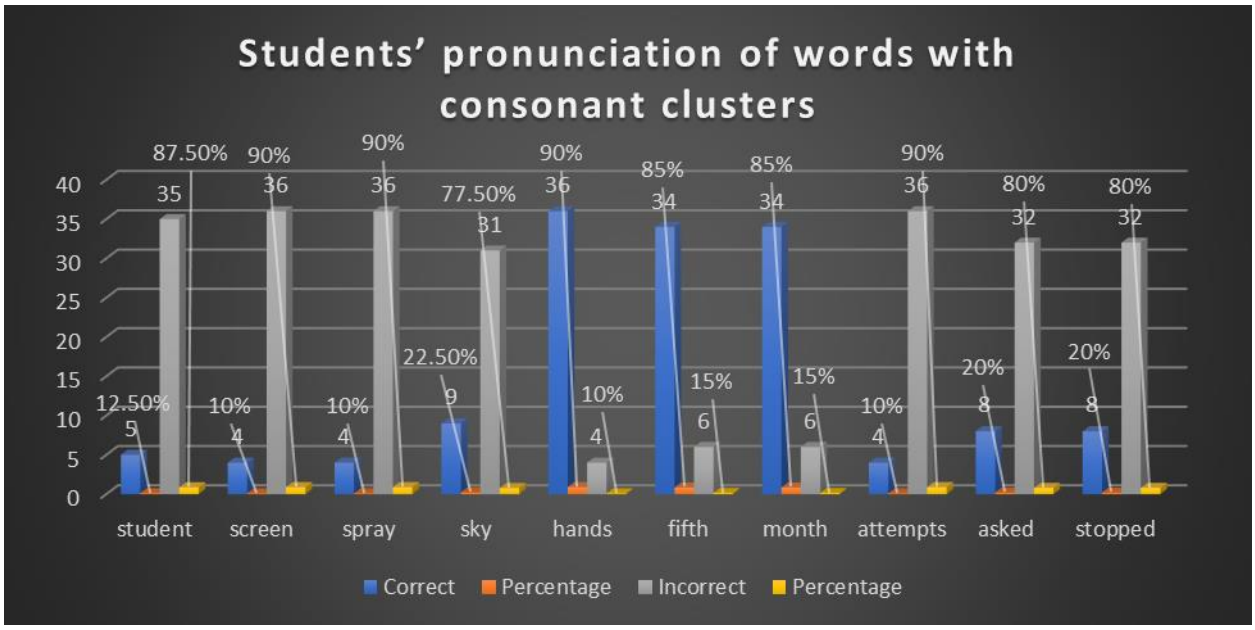
As for the students' pronunciation of the words with consonant clusters, the following table shows the list with the students' participation:

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

Words	**Correct**	**Percentage**	**Incorrect**	**Percentage**	**Notes**
student	5	12.5%	35	87.5%	Inserting a vowel sound after the first consonant sound in the initial three-consonant cluster
screen	4	10%	36	90%	
spray	4	10%	36	90%	
sky	9	22.5%	31	77.5%	Inserting a vowel sound before the first consonant sound in the initial consonant cluster
hands	36	90%	4	10%	Inserting a vowel sound in the middle of the final two-consonant cluster or before
fifth	34	85%	6	15%	
month	34	85%	6	15%	

					the last consonant in the final three-consonant cluster
attempts	4	10%	36	90%	Inserting a vowel sound in the middle of the final four-consonant cluster
asked	8	20%	32	80%	Inserting a vowel sound in the middle of the final two-consonant cluster or before the last consonant in the final three-consonant cluster
stopped	8	20%	32	80%	

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



4.2. Discussion:

4.2.1. 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 it is mentioned before, whether in the confusion of 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 differences 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 learning, as there are clear differences in terms of the phonemes in the phonetic inventory of each of them, which leads to the confusion between certain 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 whatever it is (Gass & Selinker, 2008, p.462). Thus, L1 constitutes the main factor for making the errors addressed in this research. However, there must be other sources of pronunciation errors as it will be seen in the error analysis of the students' answers.

4.2.2. In Terms of Error Analysis:

While contrastive analysis is good for predicting the errors that can be made at the 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 the students in the 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, error analysis is applied to analyze the learner's errors produced when using the second language in comparison with the target language (Gass & Selinker, 2008, p.102).

Teaching and dealing with large groups of learners of English at one of the Syrian secondary schools, the Sharia Secondary School in Jableh, as well as in the Department of English at Tishreen University, the researcher noticed these two problems, especially while listening to the students' speaking or reading passages in English. Therefore, he conducted an observation session to examine the extent to which the learners perceive the difference between

the phonemes /b/ and /p/ through observing secondary school students while pronouncing words including the phoneme /p/. As it can be seen in Table 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 7.5% of the students mispronounced the initial /v/ sound in the word *van*, while 17.5% 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 83% of the students mispronounced the words that include the dental sound /ð/, while about 70% 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.

Finally, in Table 2, we find that about 89% of the students failed to pronounce three-consonant clusters at initial positions, while 77.5% 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 87%) 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.

Accordingly, 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, overgeneralization, non-linguistic reasons such as exhaustion and fear, and others (Zahri, 2005, p.48-9). 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 this research aims to achieve at the end.

4.2.3. 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, p.25-6). The habits developed by the individual while learning their mother tongue are transferred, playing a major role in their second language learning. Accordingly, learners are affected by the linguistic system they have already acquired and used. This theory explains why Arab learners fail to pronounce consonant clusters since they are used to pronouncing only two-consonant clusters according to their phonological system, and they depend on the writing system as it is the case in their mother tongue to guess the pronunciation of English words, which also lead them to make pronunciation errors.

4.3. Answering the Research Questions:

4.3.1. As for the First Question:

Do EFL learners have difficulties with the pronunciation of the consonants /p/, /v/, /θ/ and /ð/ mixing them up with /b/, /f/, /s/ and /z/ respectively?

According to previous studies such as the study of El Zarka, (2013) and the study of 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 they were few, such as the study of Alshalaan (2020). Observing a group of students, the researcher also found that these two phenomena were common among these students, especially when they were asked to pronounce words containing similar sounds, and very few students were able to distinguish between them. However, many students could pronounce words with the phoneme /v/ correctly, and only about 12.5% of them

confused the pronunciation of /v/ with /f/. Nevertheless, it was obvious that about 92.5% pronounced /b/ instead of /p/, 83% pronounced /z/ instead of /ð/ and about 70% pronounced /s/ instead of /θ/. One reason of mispronouncing /p/ is that these learners cannot realize it because it does not exist in their phonetic inventory. Another reason for mispronouncing both /θ/ and /ð/ is that these learners may even mispronounce these two sounds while reading Arabic texts because of the impact of their colloquial usage of language.

4.3.2. Concerning the Second Question:

Are EFL learners capable of pronouncing consonant clusters accurately?

According to the statistics concluded after the observation session, EFL learners actually find difficulty with the pronunciation of three or four-consonant clusters. The difficulty is greater when the consonant cluster is in the onset or when the number of the consonant sounds is greater, as there are no consonant clusters at initial positions in the Arabic phonological system, and Arabic allows only two consonant sounds in a cluster at a final position. This means that the greater the number of consonant sounds in a cluster is, the more difficult it is for learners to pronounce it. The observation revealed that around 89% of students failed to pronounce three-consonant clusters in the onset, and 90% of them also could not pronounce four-consonant clusters in the coda.

The observation also showed that the spelling of the word might play a role in the pronunciation of the consonant clusters at final positions. Although around 87% of the students could pronounce two or three-consonant clusters in the coda correctly in some examples, they failed to do the same with other examples that included silent vowels, like the words that end with (ed). This suggests that there are other factors besides L1 transfer that lead to errors in pronouncing consonant clusters, such as the writing system.

4.3.3. Regarding the Third Question:

Does the mother tongue have any effect on the pronunciation of the consonant sounds focused on in this study or on the pronunciation of English consonant clusters?

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 due to the influence of the spoken dialect, which often lacks the interdental sounds /θ/ and /ð/ (Azzouz, 2013, p.167-8/ p.201). In both cases, the confusion between 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" defined by William Mercier as "a competition between a written, literary language and a colloquial commonly-spoken language" (قصير, 2019, p.44), which affects the Arab learners' pronunciation of the second language, that is English.

Moreover, according to the observation made by the researcher, 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.

Chapter Five: Conclusion

5.1. Research Findings:

The most important results 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 /b/ instead of /p/, as it is proven in the observation session of 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. Likewise, the learner is affected by the dialect they use, so 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 through the data collected in this 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 /ɪ/, 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 session.
6. We also 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.

5.2. Implications:

After reviewing the literature, conducting the researcher's observation of the students' real experiences in the speaking and reading skills, and analyzing the data collected, the following implications are evident:

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 at classrooms or in self-learning at home.
2) EFL teachers 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 they always look at the phonetic transcription of words in order to learn their pronunciation accurately. 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) 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.

5.3. Research Limitations and Suggestions for Further Research:

There were some limitations of this research, including the number of consonant sounds investigated. The study was also limited to only one English classroom in one of secondary schools in Syria, and it included only female participants. Furthermore, the objective of the study was only to describe and analyze the data collected to identify the pronunciation errors made by EFL learners and predict their sources, but there was no experimental study to try some treatment and find concrete solutions to make EFL learners avoid such errors in the future. Accordingly, the researcher recommends that an experimental study be conducted on more than one English class and suggests using minimal pairs and other similar strategies that help in improving students' pronunciation of consonant sounds and consonant clusters.

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Appendices:

The Referees of the Research Tool

The researcher sought the advice of two experts to guarantee the validity of the research tool:

- The first referee is Dr. Jalal Raii, who is an assistant professor at Tishreen University and a specialist in linguistics.
- The other one is Ms. Sahar Attal, who is an English teacher at one of Jableh's secondary schools and works for the Syrian Ministry of Education.

ملخص

يستقصي هذا البحث مشاكل متعلمي اللغة الإنكليزية كلغة أجنبية بلفظ بعض الأصوات الساكنة، ومن بينها الأصوات /θ/ ,/v/ ,/p/ و/ð/ بالإضافة إلى المزائج الساكنة. ويتبنى هذا البحث المنهج الوصفي التحليلي، وذلك باستخدام طريقة الملاحظة في إحدى المدارس الثانوية في مدينة جبلة لتحديد الأخطاء اللفظية التي يرتكبها الطلاب بما يتعلق بالأصوات الساكنة السابق ذكرها والمزائج الساكنة، بحيث يمكن للباحث تحليل هذه الأخطاء واستكشاف مصادرها، معتمداً على التحليل التقابلي وتحليل الأخطاء ونظرية التعلّم السلوكية. وقد ضمت عيّنة الدراسة 40 طالبة من الصف العاشر في العام الدراسي 2022–2023. وأظهرت النتائج بأن 92.5% منهم لم ينجح بلفظ الفونيم /p/، بينما لم ينجح فقط 12.5% منهم بلفظ الصوت /v/ من ناحية أخرى. وعلاوةً على ذلك، فقد لفظ 83% من الطلاب الصوت /z/ بدلاً من /ð/ ولفظ حوالي 70% منهم الصوت /s/ بدلاً من /θ/. وأخيراً، أظهرت قوائم التقييم أنه لدى الطلاب مشاكل كبيرة بلفظ المزائج الساكنة في بداية المقطع الصوتي، ولكنهم كانوا أفضل بلفظها في نهاية المقطع الصوتي عندما لا يكون هناك أحرف صوتية صامتة. ويأتي في نهاية الدراسة اقتراحات الباحث لتحسين لفظ الطلاب وتوصياته من أجل البحوث المستقبلية.

الكلمات المفتاحية:

الأصوات الساكنة، العناقيد الصوتية الساكنة، سوء اللفظ، تداخل اللغة الأم، مدارس الثانوية السورية، الازدواجية اللغوية

الإهداء

إلى من يباركني الله بفضله وبفضل دعائهما.. وأدعو دوماً ربّي أن يطيل بقائهما..

أمي وأبي الغاليين (حفظهما الله وأكرمهما)

إلى من كنّ خير داعمٍ لي طيلة حياتهنّ.. وأغدقنني بمحبة الأمهات لولدهنّ..

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إلى من وهبني الله إياها خير زوج حنون.. وجعل معها كل صعبٍ يهون..

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إلى كل أساتذتي الدكاترة الأعزاء في **برنامجَي اللسانيات التطبيقية وإدارة الأعمال** في **الجامعة الافتراضية** وفي **قسم اللغة الإنكليزية** في **جامعة حلب وقسمَي اللغة الإنكليزية واللغة الفرنسية** في **جامعة تشرين**

وإلى كل أصدقائي وطلابي الأعزاء

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إلى هؤلاء جميعاً أهدي هذا البحث المتواضع

شكر وتقدير

الحمد والشكر لله أولاً على نعمه التي لا تُحصى وتوفيقه لي في الوقت والعمل والنجاح بالوصول إلى هذه المرحلة، ولا يسعني وأنا أضع اللمسات الأخيرة في هذه الدراسة إلا أن أتقدم بالشكر الجزيل إلى كل من كانت له فيها مساهمة أو بصمة ولو بسيطة، وأخصّ بالشكر **الأستاذ الدكتور علي سعود حسن** المشرف على هذا البحث، والذي لولا توجيهاته وإرشاداته القيّمة لما رأى هذا البحث النور، فأسأل الله أن يكرمه ويجزيه الخير.

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محمد مهند مكي

الجمهورية العربية السورية

وزارة التعليم العالي

الجامعة الافتراضية السورية

ماجستير اللسانيات التطبيقية

الصعوبات لدى متعلمي اللغة الإنكليزية كلغة أجنبية في لفظ بعض السواكن والمزائج الساكنة

بحث مقدم لنيل درجة الماجستير في اللسانيات التطبيقية MAL

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