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| RESEARCH ARTICLE

Proper Noun Pronunciation Inaccuracies in English by Educated Arabic Speakers

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| ABSTRACT

Analysis of a corpus of errors in pronouncing Proper Nouns used in English collected from the spontaneous speech of a sample of Arab informants showed that Arabic speakers have the following problems: (i) mispronouncing English vowels in *Google, Moodle, Uber, Nixon, London;* (ii) replacing consonants absent in L1 *(p v)* by their equivalents (bebsi, jafa); (iii) geminating consonants in city and country names *(Peking; Venezuela, Minnesota)*; (iv); inserting a vowel in consonant clusters in Proper Nouns and acronyms *(Zelinsky, Logansk, SNAS, GMC,)*; (v) breaking words into two sub-words *(Kasper+sky, Sky+pe)*; (vi) pronouncing words the way they are spelled (Nazi, Nike, Huawei, Hyundai, Wednesday); and (vii) transferring Arabic stress rules to English words (McDonald, Mayflower). Pronunciation errors made by Arab students are attributed to transfer from the native language, i.e., Modern Standard Arabic (MSA) or the local dialect, insufficient mastery of English pronunciation rules, phonics and phone-grapheme correspondences and lack of knowledge of the differences between English and Arabic phonology. To correct pronunciation problems, the study recommends that students watch pronunciation practice videos that focus on a single error or rule at a time; raising students' awareness of English pronunciation rules, phonics, phoneme-grapheme correspondences and comparing English and Arabic vowels, consonants, syllable structure, pause, juncture and stress rules; providing direct pronunciation instruction, graded lessons and remedial exercises. Future research needs to investigate Arab students' pronunciation problems in assimilation, elision, and others.

| KEYWORDS

English pronunciation, Proper Nouns, pronunciation problems, Arabic speakers, educated Arabs, spontaneous speech.

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1. Introduction

According to Al-Jarf (1994a), Al-Jarf (1994b) and Al-Jarf (1992), English and Arabic have numerous phonetic differences in segmental phonemes (i.e., consonants, vowels, diphthongs, allophones, syllable structure), and prosodic or suprasegmental features (stress, intonation, juncture/transition). For example, Modern Standard Arabic (MSA) has three short vowel phonemes (a, i, u), three long vowel phonemes (a:, i:, u:) and 2 diphthongs (au, ay) compared to 12 long and short vowel phonemes and 8 diphthongs in English. Some Arabic consonant phonemes such as /ḍ ض; ṣ ص ; ẓ ظ; ṭ ط; ħ ح; q ق ; ṣ ص ; χ خ ; ɣ غ ; ʕ ع/ do not exist in English, and some English consonant phonemes such as /p, v, ʒ, tʃ, ŋ/ do not exist in Arabic either**.**

In addition, English and Arabic differ in their syllable structure and in the maximum number of consonants allowed in a consonant cluster in initial, medial, and final positions. MSA has the following types of consonant clusters: CV (maa ما); CCV (btasam ابتسم) if a word starts with a conjunctive hamzah همزة وصل; CVC (kam كم) and CVV (fi: في); CVVC (fi:k فيك, da:m دام); CVCC (fakk فك, ḍarb ضرب, murr مرّ, ʔiṭr عِطْرْ); and CVVCC (sa:mm سامّ) where VV represent any of the three long vowels. Arabic does not permit consonant clusters at the beginning of a syllable unless the word begins with a conjunctive hamzah همزة الوصل. Thus, Arabic consonant clusters can occur only at the end of syllables (sa:mm سامّ; fakk فك). By contrast, English syllables have many syllable types and consonant clusters which have the following patters: V (a); VC (eat); VCC (east); VCCC (asks); CV (the); CCV (tree); CCV (spree); CVC (sit); CVCC (cats); CVCCC (sixth); CVCCCC (bursts); CCV (draw); CCVC (stood); CCVCC (treats); CCVCCC (clasps); CCCV (screw); CCCVC (street); CCCVCC (streets); CCCVCCC (scripts); CCCVCCCC (strengths).

Regarding stress, both English and Arabic are stress-timed languages. English has 4 stress levels: Primary, secondary, tertiary and weak, whereas Arabic has three stress levels: Penultimate /ʃaarak/ *'he participa*ted'; antepenultimate /ʕalla'matak/ *'she taught you';* and final stress /da'rast/ *'I studied*'.

Unlike Arabic, English has falling intonation in statements, commands, wh-questions (information questions), confirmatory question tags and exclamations. Rising intonation is normally used with yes/no questions, and question tags that are real questions. In sentence types that have rising intonation in English, Arabic has falling intonation and vice versa.

Since Arabic and English are phonetically different, Arabic-speaking learners of English from Jordan, Palestine, Saudi Arabia, Oman, Egypt, Algeria, Morocco, Yemen, Iraq, Kurdistan, and the Sudan, face major difficulties with English pronunciation. Differences between English and Arabic in vowels, diphthongs, consonants, consonant clusters, and stress create mispronunciation by EFL native-speakers of Arabic (Al-Zayed, 2017).

A review of the literature has shown many studies that investigated the problems that EFL Arab students have in pronouncing English. At the vowel and diphthong level, Arab students, whether they are studying in their own country or abroad (in Malaysia, Cyprus, USA…etc), have difficulty with English front vowels /i/ - /I/- /Ɛ/ and /ae/. Arab students confuse vowel sounds in words such as *'well', 'will'; 'late', 'let'; 'sell', 'sale'; 'dot, doubt'; 'hit, heat'; 'fill, fell'; 'rival, rifle'; 'leisure, ledger'*. They pronounce both *'thought'* and *'goat'* with an [o:]. The realization of the schwa /ə/ is greatly influenced by spelling (Al-Haidari & Al-Housali, 2021; Abd Elwahab, 2020; Almuslimi, 2020; Farrah & Halahlah, 2020; Thakur, 2020; Al-Rubaat & Alshammari, 2020; Huwari, 2019; Ababneh, 2018; Al-Zayed, 2017; Kalaldeh, 2016; Ali, 2013)

At the consonant level, Arab students learning English have difficulty producing consonant sounds that do not exist in MSA or in their local dialect such as /t/ and /d/; /k/ and /g/; /z/ and /ð /; /s/ and /θ/; /b/ and /p/; / ʃ/ and / ʧ/; /dʒ/, /ʒ/, and /ŋ/. They tend to add or replace them with their counterparts (Thakur, 2020; Farrah & Halahlah, 2020; Alzinaidi & Latif, 2019; Yakout & Amel, 2019; Huwari, 2019; Hassan & Hassan, 2007; Jabali & Abuzaid, 2017; Al-Zayed, 2017; Keshavarz, 2017; Kalaldeh, 2016; Hago & Khan, 2015).

Since English and Arabic differ in their syllable structure, Arab students have difficulty pronouncing English consonant clusters containing more than 2 consonants in initial, medial and final word positions. Arabic speakers tend to insert a vowel (vocalic epenthesis) to split the consonant cluster into two. For example, some Arabic speakers pronounce the world *spring* as (sipring or ispring), *street* as (street or istreet) and *strength* as (sitringith or istrength). Some inert the vowel sound /I/ when pluralizing words (*months* monθis), syllabificate initial and final consonant clusters, delete the /s/ sound when it is the final element in a consonant cluster (Al-Rubaat & Alshammari, 2020; Almuslimi, 2020; Thakur, 2020; Farrah & Halahlah, 2020; Keshavarz, 2017; Al-Zayed, 2017; Kalaldeh, 2016; Hago & Khan, 2015; Al-Saidat, 2010).

In pronouncing English words, Arab students transfer Arabic stress rules to English words. Arabic speakers learning English very often shift the stress pattern from its trochaic English stress pattern in *isn't* to /ɪ'zɪnt/ instead of /'ɪzɪnt/. Most students do not stress the right syllable in words like *'comfortable', 'vegetables', 'development'*. They make mistakes in single and double stress in compounds as in *'Mayflower', 'dining room', 'gold watch', 'female teacher'*. Differences in stress levels and stress placement in English and Arabic words cause distortion of such English words, which in turn would lead to nuisances and communication and listening comprehension problems (Ababneh, 2018; Kalaldeh, 2016; Yurtbasi, 2017; Al-Zayed, 2017; Al-Jarf, 1994a; Al-Jarf, 1994b; Al-Jarf, 1992).

Moreover, Arab students learning English have problems with English juncture. Some students pause in *'hot dog'* but most rightfully pause in *'go on'*. A good number of the students wrongly pause in *'gentleman' (*Ababneh, 2018; Yurtbasi, 2017).

EFL Arab students also pronounce English sentences with faulty intonation. They transfer the Arabic intonation rules to English sentences (Ababneh, 2018).

Furthermore, the literature review has shown that most studies have focused on the errors that students make in pronouncing English vowels, diphthongs, consonants, and consonant clusters. Most of those studies have replicated the findings of each other. Few studies scantly anlayzed students' weaknesses in stressing English words, juncture, and intonation. There is lack of studies that analyze pronunciation problems in stressing English phrases and sentences, gemination, assimilation and elision in common words. Similarly, there is lack of studies that investigated pronunciation accuracies in Proper Nouns that are very common in the media, social media, and advertisements. Therefore, this study aims to: (i) analyze inaccuracies in pronouncing Proper Nouns used in English by native speakers of Arabic such as names of people, cities, countries, brand names, acronyms and others; (ii) classify Proper Noun pronunciation errors into vowel, diphthong, consonant, reduction and consonant sequences (consonant clusters,

gemination), stress, pause and junction errors; (iii) identify the pronunciation error sources, and which pronunciation errors are interlingual and intraligual; and (iv) give some recommendations for improving Arabic native speakers' pronunciation of commonly used Proper Nouns.

Identifying inaccuracies in pronouncing Proper Nouns used in English is significant for instructors and languages and translation students as mispronunciations sometimes lead to unintelligibility of speech or misinterpretation of the oral message/information.

Aspects of Proper Noun pronunciation in English that are difficult for Arabic-speaking students are not usually included in language proficiency standards nor systematically addressed in English language instruction. In addition, some English as a second language (ESL/EFL) teachers working with adult learners do not have training in teaching pronunciation. As a result, EFL instructors may not be able to identify the types of and causes of students' pronunciation problems in English. They may not have the right strategies for teaching the details of English phonemes, consonants, stress, and intonation in English.

Lack of knowledge of appropriate instructional strategies in pronunciation classrooms is a serious problem. EFL instructors should be aware of the latest instructional approaches for teaching English pronunciation to EFL students of all levels. They should be able to integrate some of those approaches into their EFL classes**.**

2. Methodology

2.1 Informants

The sample of informants consisted of 81 students, and instructors majoring in colleges of languages and translation, T.V. news anchors, educated Arabs with a college degree in medicine, engineering, computer science, and business. The informants were Saudi, Lebanese, Syrian, Jordanian and Egyptian. They hold a Ph.D., M.A. and B.A. degree.

2.2 The Pronunciation Error Corpus

The pronunciation error corpus was collected from spontaneous daily speech of Arab adults who are studying or have studied English as a foreign language. The author collected the pronunciation errors from observations of the informants in natural conversational situations for a year, whether the informants were speaking in Arabic and code-switching (mixing Arabic discourse with English words) or they were fully speaking in English. The author used the diary methodology as a data collection tool. Only errors in pronouncing Proper Nouns used in English were collected. Pronunciation errors in common words were ignored. The set of Proper Nouns and how they are pronounced by each informant was recorded together with a transcription of their faulty pronunciation. No tests nor questionnaire surveys were used. The informants were not prompted or given any stimuli to produce English Proper Nouns.

2.3 Data Analysis

The phonological error data collected were coded and classified in terms of the following marked thematic categories:

- **Names of cities and countries**: *Peking; Venezuela, Minnesota, Holland, Belarus, Kiev, New York, London, Michigan, Yorkshire, Saint Petersburg, Budapest, Lugansk, Donetsk*.
- **Personal names**: *Putin, Donald Trump, Robinson, Johnson, Dixon, Nixon, Charlie Hebdo, President Holand, Scholtz, Zelinski, Bill Clinton, Macron, Benedict, Joseph, Charles, Elissa, Angelina Joli, Kamala Harris*.
- **Cars and car companies:** *Uber, Renault, Peugeot*, Toyota, *Mercedes, Cadillac, Hyundai*.
- **Acronyms**: *SNAS, SPL, SMSA, MBC, SPL, CNN, GMC, OPEC*.
- **Brand names**: *Penicillin, marshmallow, Burberry, Nike, Levi, Adidas, Porsche, Ikea, Vicks, Nutella, Chaddar, Seven up, Coca Cola, Pepsi, hamburger, McDonald's, Swarovski, Clorox*.
- **Technology and social media:** *Twitter, Snapchat, Google, Moodle (model, Internet Explorer, LinkedIn, Java, iPhone, Samsung, Huawei, Kaspersky, Skype*.
- **Others:** *Netflex, Nazi, Wednesday*.

The pronunciation errors in the above words were classified into: Vowel, diphthong, consonant, consonant cluster, gemination, stress, intonation, pause and juncture errors. The informants' pronunciation was transcribed using the International Phonetic Alphabet. Results of the analysis are reported qualitatively.

3. Results and Discussion

3.1 Proper Noun Pronunciation Problems

Arabic speakers in the current study tended to mispronounce vowels in Proper Nouns such as:

- Changing the vowel in *Google to /gɔ:gɨl/, Moodle /mɔdel/, Burberry /barbari, Saint /sa:nt/ Petersburg, Mercedes /marsiydis/, uber /ɐʊbar/, Angelina Joli /ju:li/, Clorox /kiluriks/.*
- *London /lʊndʊn or landan/, Robinson /rʊbinsʊn/, Johnson /jʊnsʊn/, Dixon /diksʊn/, Nixon /niksʊn/.* In these words the o is pronounced as a schwa.
- Shortening the vowels *in iPhone /ay fʊn/, Macron /makrʊn/, Putin /putin, Donald /Dʊnald/, Coca Cola /kʊka/, Cadillac /kadilak/, Samsung /samsung/, Cheddar /shadar/, OPEC /ubek/.*
- lengthening *the* vowels in *Twɨtter /twi:tar/, COVɪD /kuvi:d/, Josɛph /dʒuzeɪf/.*
- Deleting the vowel in *Kiev /kyeiv*
- Inserting a consonant in *New York /nyu:/.*

Many informants mispronounced consonants absent in L1 and substituted them with their voiced or voiceless counterparts. For example, /p/ is pronounced /b/ in *Pepsi, Trump, Budapest, SPL, OPEC;* /v/ is pronounced /f/ in *Java, Vicks;* and /ʧ/ is pronounced /ʃ/ in *Cheddar, Balochistan, Charles, Charlie, Snapchat. In Karachi and Michigan, the* /ʧ/ is replaced by two consonants /t + ʃ/.

Many subjects tended to geminate consonants in Proper Nouns, especially names of countries, cities, personal and brand names containing double consonants such as *Morocco, Nutella, Holland, Marshmallow*, *Penicillin Elissa*. They geminate the consonant /cc, ll, ss). They also geminate single consonants on *Peking* /kk/; *Venezuela* /ll/, *Minnesota* /tt/, *Belarus* /ll/, *Toyota* /tt/ probably because the main stress falls on the syllable containing those single consonants. Interestingly, they do not geminate the double /ll/ in *Cadillac* probably because they stress the initial syllable. Arabic speakers geminate such words because gemination in Arabic occurs whenever there are double consonants in word medial and final positions (within a word), whereas in English, gemination never occurs within a word. It only occurs across word boundary e.g., *'that time', 'big gun', 'unnatural', 'immoral', 'illegal', 'irregular', 'dissatisfied';* but not in *'essay, announce, comment, connect'*.

In addition, EFL Arabic speakers insert a vowel in consonant clusters and acronyms. Since Arabic does not allow consonant clusters of 3 consonants. They tend to insert the vowel /i/ in Proper Nouns such as *Scholitz, Netfilex/Neti flex, Linkidin, Zelinisky, Internet Exɨplorer, Billi Clinton, Luganisk, Donetisk, Cilorix*. They also tend to insert a vowel to split the consonant clusters in acronyms and make them sound like words. Thus SNAS becomes /sina:s/, SPL becomes /subul/, SMSA becomes /samsa/, MBC /emi biy siy/, CNN /si: eni en/, GMC /dʒims/. The /p/ in SPL is pronounced /b/ and the resulting word sounds like the Arabic word /subul/ which means ways.

Interestingly many informants, including lecturers and T.A.s teaching EFL, split unfamiliar long words into 2 sub-words. They to break foreign words borrowed in English into two familiar words whether in English or Arabic. For example, they say Kaspersky /ka:spar + skaɪ /, Skype /skaɪ + pi:/, Swaroviski /swaro + viski/. They use the same strategy in splitting *vegetable* into vegetable /vedʒi +teibl/. This is because they do not know that such foreign words with the foreign suffix -sky cannot be broken down into 2 words. In the 3 examples, -sky is pronounced /ski/, and is unstressed and stress falls on the syllable before it.

Another faulty strategy is the many informants tend to pronounce Proper Nouns the way they are spelled. Since Arabic is a phonetic language, i.e., graphemes are pronounced the way they are spelled, Arabic speakers of English tend to pronounce *Huawei* as /hawa:wi/, *Nike* as /naɪk/, *Levi* /li:vi/, *Adidas* as /adida:s/, Hyundai as /hayundaaɪ/, *Porsche as* /po:rʃ/, *Ikea as* /i:kɪə/, *Yorkshire* as /yo:rkʃaɪər/, *Nazi* as /naazi/.

In addition, some informants pronounce silent vowels and consonants in some English Proper Nouns. They pronounce the /d/ in *Wednesday*, the /h/ in *Holand (*the former French president); and in *Charlie Hebdo (*the French magazine), probably because they do not know that the initial /h/ is silent in French words.

As for stress, some informants misplace the stress in some Proper Nouns. They tend to apply the Arabic stress rules to some English words as in *'McDonald, ham'burger, Swaro'vski, Kasper +'sky, Sky +'pe, Adi'das, Ca'mala Harris, 'Renault, 'Peugeot, Mer'cedes, Buda'pest* as they exactly do with common words such as *'deve'lopment, com'fortable* and *vege'table*.

Finally, pause and juncture constitute a problem in pronouncing Proper Nouns. Arabic speakers very often pause in compounds such as *Seven-up, Linkedin,* rather than joining the two parts of the compound together. In some cases, they insert a vowel to break the consonant cluster in compounds and to pause in between them as in *Link(i)din, Bill(i)Clinton, Net(i)flex or Netf(i)lex*.

3.2 Causes of Proper Noun Pronunciation Inaccuracies

The pronunciation error data have shown that in most cases, Arabic speakers transfer the Arabic phonological system to English words, i.e., pronunciation weaknesses are due to interference from the participants' native language, whether it is MSA or their

local dialects. Since Arabic has three short vowels, three long vowels and two diphthongs, Arabic speakers tend the change the vowel quality, vowel length, and substitute certain vowels with others. They tend to pronounce English Proper Nouns the way they are spelled, because Arabic is phonetic and native speakers pronounce words the way they are spelled in Arabic. They insert a vowel in English consonant clusters to split a long sequence of consonants into a shorter one. They apply Arabic stress rules to English Proper Nouns.

Moreover, Proper Noun pronunciation errors are due to insufficient mastery of English pronunciation rules (vowels, consonants, diphthongs, gemination, consonant clusters and stress, pause, juncture and intonation), lack of auditory identification and discrimination skill, lack of awareness of the differences between the Arabic and English phonological systems with regards to those aspects and insufficient knowledge of English phonics and phoneme-grapheme correspondences. It seems that Arabic speakers did not receive sufficient practice in their English language courses especially, listening and speaking such as auditory identification and discrimination, practicing minimal pairs, comparing, and contrasting English and Arabic segmental and suprasegmental aspects.

Pronunciation errors in Proper Nouns such as *Charlie Hebdo, Holand, Angelina Joli, Kamala Harris,* Renault, Pigeut, *Burberry, Nike, Levi, Adidas, Porsche, Ikea, Swarovski, Kaspersky, Skype. Huawei, Nazi, Scholtz, Zelinski, Michigan,* uber, *iPhone, Google, Moodle* may be due to lack of sufficient exposure to the English language and unfamiliarity with foreign words borrowed in English and how those words are pronounced in the doner language such as French, German, Russian, Chinese, Italian and others, insufficient Proper Noun etymology. Most proper nouns in the data are not taught in English language courses in college. They are commonly encountered in the media such as T.V. news. The participants might not have heard native speakers of English pronounce those. When used in English, some foreign Proper Nouns retain their original pronunciation in the doner language. Thus, *Hebdo* is pronounced as /ebdəʊ /; *Nazi* /na:tsi/; *Huawei* /wah-wei/; *Scholtz* as /ʃɒlts/. *Peking, Venezuela, Minnesota, Holland, Belarus, Elissa, Penicillin, marshmallow* should be pronounced with a single /l/ or /t/ without any germination even if they are spelled with a double /l/ because gemination in English occurs across word boundary.

Furthermore, native speakers of Arabic who are learning or have learnt English may not have received pronunciation instruction or feedback on their English pronunciation from their instructors. They may not have received any instruction in phonics and phoneme-grapheme correspondences either.

Another strategy revealed by the error data is that the informants would segment unfamiliar words into segments that are familiar to them in L1 and/or L2 as in (Kasper +sky, Sky + pe, and Swaro + viski) without thinking that the resulting pronunciation might be funny or incomprehensible by native speakers or specialists using such terms.

Finally, it seems that informants in the current study are not keen on pronouncing English Proper Nouns correctly and double-checking the pronunciation of unfamiliar words with native speakers, Google Translate or even an online dictionary on their mobile phones.

4. Discussion

The types of pronunciation errors that Arabic speakers in the current study make when pronouncing Proper Nouns used in English especially the vowels, consonants and vowel insertion in consonant clusters, stress and juncture are consistent with findings of prior studies such as Al-Haidari & Al-Housali (2021); Abd Elwahab (2020); Almuslimi (2020); Farrah & Halahlah (2020); Thakur (2020); Al-Rubaat & Alshammari (2020); Huwari (2019); Alzinaidi & Latif (2019); Yakout & Amel (2019); Ababneh (2018); Jabali & Abuzaid (2017); Al-Zayed (2017); Keshavarz (2017); Kalaldeh (2016); Hago & Khan (2015); Yurtbasi (2017) and Ali (2013) and Hassan & Hassan (2007).

In addition, the causes of Proper Noun pronunciation errors reported in the present study are consistent with those given by prior researchers such as Abd Elwahab (2020); Yurtbasi (2017) and Keshavarz (2017).

Other factors that affect pronunciation weaknesses were mentioned by Al-Rubaat & Alshammari (2020) which include limited practice time, lack of authentic materials and tasks, the need for immersion classes, and effective teaching and learning strategies.

5. Recommendations

Ability to pronounce English words correctly and accurately, especially Proper Nouns, is significant for Arab learners majoring in languages and interpreting in order to be able to communicate effectively and because such Proper Nouns are very common on social media, media, and advertisements. To master pronunciation skills in English, the current study recommends raising EFL instructors' awareness of students' pronunciation weaknesses and how to design activities to remediate those weaknesses. Special pronunciation training workshops and seminars can be organized for instructors on social media such as Facebook, using online

discussion forums, web-conferences, Periscope, and other platforms (Al-Jarf, 2021b; Al-Jarf, 2021e; Al-Jarf, 2014; Al-Jarf, 2006a; Al-Jarf, 2006b).

It is important that pronunciation instruction be part of the listening, speaking, reading, and vocabulary instruction. EFL instructors can enhance students' correct production of English sounds through explicit pronunciation instruction and training. EFL instructors can prepare and provide graded pronunciation lessons for 5-10 minutes that aim at raising students' awareness of English pronunciation rules, phonics, phoneme-grapheme correspondences and of the differences between English and Arabic vowels, consonants, allophones, geminates, consonant clusters, assimilation, elision, contraction, primary and secondary stress rules, intonation, pause, juncture, intonation and using various forms of pitch to give emotions to their utterances, taking shorter and longer pauses between meaningful thought chunks through junctures, and solidifying such suprasegmentals through constant exercises in dialogues. (Yakut, 2020; Al-Jarf, 2019, Al-Jarf, 2018; Yurtbasi, 2017Al-Jarf, 2008a; Al-Jarf, 2008b; Al-Jarf, 2005a; Al-Jarf, 2005b; Al-Jarf, 1992).

Listening and speaking instructors can prepare and use remedial activities that target specific pronunciation errors and weaknesses. For example, students can practice minimal pairs containing consonants such as /t/ and /d/ or /k/ and /g/, or vowels such as /i/ and /e/ (Thakur, 2020; Abdelaal, 2017).

The students can practice listening and speaking in a multimedia language lab. They can give oral presentation, engage in debates, and engage in task-based pronunciation activities that focus on one pronunciation subskill. The instructor provides feedback on students' pronunciation while conducting listening, speaking, reading and vocabulary activities (Al-Jarf, 2021a; Al-Jarf, 2021c; Al-Jarf, 2021d; Al-Jarf, 2007; Sakale, 2019).

Moreover, EFL instructors can integrate technology such as mobile Apps in listening, speaking and pronunciation instruction in EFL such as mobile audiobooks to enhance students' pronunciation (Al-Jarf, 2021f; Al-Jarf, 2020a; Al-Jarf, 2012a). YouTubes pronunciation videos that focus on one single pronunciation error or rule at a time; Audio Tracks Imitation YATI, Kahoot, the Vocaroo Voice Recording Service, Automatic Speech Recognition such as ASR EyeSpeak software, designing and implementing a corpus-based online pronunciation learning platform and student-created podcasts are very helpful in improving students' pronunciation skills (Xiao & Park, 2021; Al-Jarf, 2022; Al-Jarf, 2021a; Yürük, 2020; Chen & Han, 2020; Hamad, Metwally & Alfaruque, 2019; Sidgi & Shaari, 2017; Al-Jarf, 2012b; Al-Jarf, 2010).

To increase students' exposure to native speakers' pronunciation, they can watch English T.V. news channels, movies, YouTube videos and TED Talks. Such viewing activities would increase students' background knowledge (world knowledge), familiarity with neologism *(iPhone, Netflex, Java, LinkedIn)* listening comprehension skills and pronunciation noticing skills (Al-Jarf, 2021g; Al-Jarf, 2020b; Al-Jarf, 2018; Al-Jarf, 2010).

Instead of conducting studies that replicate issues that were investigated by prior researchers and graduate students such as problems that EFL students have in pronouncing vowels, consonants and consonant clusters, future researchers need to focus on further aspects of English pronunciation with which EFL Arab students have difficulties such as intonation, assimilation and elision, stress in compounds and sentences, stress shift in words that end in certain suffixes *('photograph, pho'tography; de'velopment, develop'mental)*. Researchers may also investigate the effect of using a variety of remedial pronunciation exercises and instructional strategies such as online videos, mobile apps and podcasts on students' pronunciation skill improvement. The effect of using graded phonics, and grapheme-phoneme correspondences is still open for further investigation by future researchers.

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References

[1] Ababneh, I. (2018). English pronunciation errors made by Saudi students. *European Scientific Journal, ESJ*, *14*(2), 244-261.

[2] Abd-Elwahab, W. (2020). The effect of local Arabic dialects on learning English language pronunciation. *Arab World English Journal*, *11*(1), 489-499.

[3] Abdelaal, N. (2017). Instrumental analysis of the English stops produced by Arabic speakers of English. *International Journal of Education and Literacy Studies*, *5*(3), 8-15.

[4] Al-Haidari, M. & Al-Housali, T. (2021). Pronunciation errors of English front vowels by Yemeni EFL learners. *Prole: Journal of Linguistics and Education, 11*(1), 41-56.

[5] Ali, E. (2013). Pronunciation problems: Acoustic analysis of the English vowels produced by Sudanese learners of English. *International Journal of English and Literature*, *4*(10), 495-507.

[6] Al-Jarf, R. (2022). YouTube videos as a resource for self-regulated pronunciation practice in EFL distance learning environments. *Journal of English Language Teaching and Applied Linguistics (JELTAL), 4*(2), 44-52. Google Scholar https://doi.org/10.32996/jeltal.2022.4.2.4

[7] Al-Jarf, R. (2021a). EFl speaking practice in distance learning during the coronavirus pandemic 2020-2021. *International Journal of Research - GRANTHAALAYAH, 9*(7), 179-196. DOI: https://doi.org/10.29121/granthaalayah.v9.i7.2021.4094. ERIC ED616739. Google Scholar

[8] Al-Jarf, R. (2021b). ESL teachers' professional development on Facebook During the Covid-19 pandemic. *European Journal of Education and Pedagogy (EJ-EDU), 2*(6), 75-81. DOI https://doi.org/10.24018/ejedu.2021.2.6.220 ERIC ED617967

[9] Al-Jarf, R. (2021c). Feasibility of digital multimedia language labs for interpreting instruction as perceived by interpreting instructors in Saudi Arabia. *International Journal of Linguistics, Literature and Translation (IJLLT), 4* (4), 70-79. DOI: 10.32996/ijllt.2021.4.4.8. ERIC ED613819.

[10] Al-Jarf, R. (2021d). *How instructors engage students in distance learning during the Covid-19 second wave*. TCC Online Conference. Hawaii, USA. April 13-14. Google Scholar

[11] Al-Jarf, R. S. (2021e). Issues in using Periscope for live academic lectures during the Covid-19 pandemic. *i-Manager's Journal of Educational Technology*, *18*(1), 15-25. https://doi.org/10.26634/jet.18.1.17711 Google Scholar

[12] Al-Jarf, R. (2021f). Mobile audiobooks, listening comprehension and EFL college students. *International Journal of Research – GRANTHAALAYAH, 9*(4), 410-423. https://doi.org/10.29121/granthaalayah.v9.i4.2021.3868. ERIC ED616740

[13] Al-Jarf, R. (2021g). TED talks as a listening resource in EFL college classrooms. *International Journal of Language and Literary Studies (ijlls), 2*(3), 256–267. https://doi.org/10.36892/ijlls.v2i3.691. ERIC ED615127

[14] Al-Jarf, R. (2020a). Mobile apps in the EFL college classroom. *Journal for Research Scholars and Professionals of English Language Teaching (JRSP-ELT), 4*(22),1-5. ERIC ED613138

[15] Al-Jarf, R. (2020b). *Integrating TED lectures in EFL college listening practice*. 25th TCC worldwide Online Conference. April 14-16, 2020. https://www.researchgate.net/publication/356815037. Google Scholar

[16] Al-Jarf, R. (2019). *EFL freshman students' difficulties with phoneme-grapheme relationships.* The 5th VietTESOL International Convention. Hue University of Foreign Languages, Hue, Vietnam. October 11-12. ERIC ED614068.

[17] Al-Jarf, R. (2018). *Effect of background knowledge on auditory comprehension in interpreting courses.* In Renata Jančaříková (ED.) Interpretation of Meaning Across Discourses, 2nd Edition. 97-108. Czech Republic, Brno: Muni Press.

[18] Google Scholar

[19] Al-Jarf, R. (2014). ESL teachers' online discussion forums and professional development. *ELTAM Journal, 1*, 1-10. ERIC ED613063.

[20] Al-Jarf, R. (2012a). *Mobile technology and student autonomy in oral skill acquisition*. In Javier E. Díaz Vera's Left to My Own Devices: Innovation and Leadership in English Language Teaching, 105-129. Brill. https://doi.org/10.1163/9781780526478_007 Google Scholar

[21] Al-Jarf, R. (2012b). Online videos for specific purposes. *Journal of Education and Social Research (JESR), 2*(6), 17-21. Italy. https://doi.org/10.5901/ichss-2012-vol-07 Google Scholar

[22] Al-Jarf, R. (2011). Helping medical students with online videos. International Journal of Language Studies (IJLS), 5, 3 (July), 99-110. https://files.eric.ed.gov/fulltext/ED613074.pdf. Google Scholar

[23] Al-Jarf, R. (2010). Translation students' difficulties with English neologisms. *Analele Universităţii "Dunărea De Jos" Din Galaţi Fascicula XXIV ANUL III*(2). 431-437. Romania. ERIC ED613253.

[24] Al-Jarf, R. (2008a). *Phonological and orthographic problems in EFL college spelling*. First Regional Conference on English Language Teaching and Literature (TELLIS). Islamic Azad University, Roudehen Iran. ERIC ED611115.

[25] Al-Jarf, R. (2008b). *Listening-spelling strategies in EFL Arab college students*. College of Languages of Translation, King Saud University Seminars. Google Scholar

[26] Al-Jarf, R. (2007). *From reticence to fluency: The effect of TBLT on students' speaking ability*. DOI: 10.13140/RG.2.1.2760.1362. Google Scholar

[27] Al-Jarf, R. (2006a). *Teachers' online discussion forums in Saudi Arabia*. ERIC ED497499.

[28] Al-Jarf, R. (2006b). Teachers' online discussion forums in Saudi Arabia. *iManager's Journal of Educational Technology, 3*(2),49-54. https://doi.org/10.26634/jet.3.2.732. Google Scholar

[29] Al-Jarf, R. (2005a). The effects of listening comprehension and decoding skills on spelling achievement of EFL freshman students. *English language and literature Education. Journal of the English Language Teachers in Korea (ETAK), 11*(2). Google Scholar

[30] Al-Jarf, R. (2005b). The relationship among spelling, listening, and decoding skills in EFL freshman students. *Journal of the English Language Teachers in Korea (ETAK), 1*(2), 35-55. Google Scholar

[31] Al-Jarf, R. (2003). Contrastive phonology. Google Scholar

[32] Al-Jarf, R. (1994a). *English and Arabic phonology for translation students.* Google Scholar https://www.researchgate.net/publication/281003181

[33] Al-Jarf, R. (1994b). *Phonetics for translation students*. Google Scholar https://www.researchgate.net/publication/281003427.

[34] Al-Jarf, R. (1992). *Classification of word identification exercises in elementary school basal readers.* Third Yearbook of the Saudi Educational and Psychological Association. Pp. 73-108. Google Scholar

[35] Al-Jarf, R. (1990). *English and Arabic phonology for translation students.* Google Scholar https://www.researchgate.net/publication/281003181
[36] Almuslimi, F. (2020). Pronunciation errors committed by EFL learners in the English department in faculty of education-Sana'a university. *Millennium Journal of English Literature, Linguistics and Translation*, *2*(1), 51-72.
[37] Al-Rubaat, A. & Alshammari, H. (2020). Analysis of phonetic and phonological constraints of Saudi EFL learners. *English Language Teaching*, v13 n1 p63-72.
[38] Al-Saidat, E. (2010). Phonological analysis of English phonotactics: A case study of Arab learners of English. *The Buckingham Journal of Language and Linguistics*, *3*, 121-134.
[39] Al-Zayed, N. (2017). Non-native pronunciation of English: Problems and solutions. *American International Journal of Contemporary Research*, *7*(3), 86-90.
[40] Alzinaidi, M. & Latif, M. (2019). Diagnosing Saudi students' English consonant pronunciation errors. *Arab World English Journal*, *10*(4), 180-193.
[41] Chen, H. & Han, Q. (2020). Designing and implementing a corpus-based online pronunciation learning platform for Cantonese learners of Mandarin. *Interactive Learning Environments*, *28*(1), 18-31.
[42] Farrah, M., & Halahlah, N. (2020). Pronunciation problems among Palestinian English major students in Hebron university. *International Journal of Arabic-English Studies (IJAES), 20* (1), 203-226. http://dspace.hebron.edu:80/xmlui/handle/123456789/838
[43] Hago, O. & Khan, W. (2015). The pronunciation problems faced by Saudi EFL learners at secondary schools. *Education and Linguistics Research*, *1*(2), 85-99.
[44] Hamad, M., Metwally, A. & Alfaruque, S. (2019). The impact of using YouTubes and audio tracks imitation yati on improving speaking skills of EFL learners. *English Language Teaching*, *12*(6), 191-198.
[45] Hassan, E. & Hassan, S. (2007). *Pronunciation problems. A case study of English language students at Sudan university of science and technology*. Doctoral dissertation, Sudan University of science and Technology.
[46] Huwari, I. (2019). Pronunciation errors in Egyptians' English. *Literary Endeavour, 10*(5), 31-44.
[47] Jabali, O. & Abuzaid, Y. (2017). Pronunciation errors committed by Palestinian students at An-Najah national university: An analytical approach. *Arab World English Journal (AWEJ), 8*(2), 119- 131. https://dx.doi.org/10.24093/awej/vol8no2.8
[48] Kalaldeh, R. (2016). English pronunciation errors by Jordanian university students. *Arab World English Journal (AWEJ), 7*(2), 394-416.
[49] Keshavarz, M. (2017). Syllabification of final consonant clusters: A salient pronunciation problem of Kurdish EFL learners. *Iranian Journal of Language Teaching Research*, *5*(2), 1-14.
[50] Sakale, S. (2019). The important role of teachers' feedback during speaking activities in Moroccan classes. *Arab World English Journal*, *10*(3), 344-351.
[51] Sidgi, L. & Shaari, A. (2017). The effect of automatic speech recognition Eyespeak software on Iraqi students' English pronunciation: A pilot study. *Advances in Language and Literary Studies, 8*(2), 48-54.
[52] Thakur, V. (2020). Phonological problems of Omani EFL learners: Pedagogical perspectives and implications. *Arab World English Journal*, *11*(1), 29-43.
[53] Xiao, W. & Park, M. (2021). Using automatic speech recognition to facilitate English pronunciation assessment and learning in an EFL context: Pronunciation error diagnosis and pedagogical implications. *International Journal of Computer-Assisted Language Learning and Teaching*, *11*(3), 74-91.
[54] Yakut, I. (2020). Promoting the correct production of English sounds in extensive reading-circle classes: Explicit vs. implicit pronunciation training. *Eurasian Journal of Applied Linguistics*, *6*(1), 101-118.
[55] Yurtbasi, M. (2017). Correcting English learner's suprasegmental errors. *Global Journal of Foreign Language Teaching, 7*(4), 126-131