

*An Error Analysis: Iraqi EFL College Learners Problems
in British Diphthongs and Triphthongs Pronunciation*

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ABSTRACT

This study investigates the difficulties that Iraqi EFL learners face in uttering English British complex vowels; diphthongs and triphthongs in connected speech. It reports on the pronunciation test performed by the fourth level college learners whose Baghdadi Arabic is their mother tongue. Gender is of interest to this study to find out if females experience more hardship and perpetrate more mistakes than females or vice versa. Poor pronunciation leads to miscommunication, that is why this study is concerned with the phonology, and how words are pronounced within sentences, as being the main channel of communication is speech, especially with correct pronunciation and as that the Iraqi college learners' most noticeable pronunciation mistakes are with English vowels chiefly diphthongs and triphthongs.

Key words: phonology, connected speech, weak forms, English diphthongs and triphthongs in a phonological aspect

تحليل أخطاء: مشكلات طلبة الكلية العراقية من متعلمي اللغة الانكليزية لغة أجنبية
في لفظ أصوات اللين البريطانية الثنائية والثلاثية المعقدة

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المستخلص

تستقصي هذه الدراسة الصعوبات التي يواجهها طلاب الكليات العراقية من متعلمي اللغة الإنجليزية لغة أجنبية في نطق أصوات اللين الإنجليزية البريطانية الثنائية والثلاثية المعقدة في الكلام المتصل. تستمد هذه الدراسة أهميتها من اختبار النطق لدى الطلبة، وهو الاختبار الذي أجراه المتعلمون من المرحلة الأكاديمية الرابعة في كلية اللغات/جامعة بغداد، ممن لغتهم الأم هي العربية. إن اختلاف الجنس هو موضع اهتمام هذه الدراسة لمعرفة ما إذا كانت الإناث يعانين من صعوبات النطق، أو أنهن يقعن في الخطأ أكثر من الذكور، أو العكس. إن سوء النطق يؤدي إلى سوء الفهم، لهذا السبب تهتم هذه الدراسة بعلم الأصوات، وكيف يجري نطق الكلمات في الجمل، إذ إن القناة الرئيسية للتواصل هي الكلام، ولاسيما مع النطق الصحيح، وأن أخطاء نطق المتعلمين الجامعيين العراقيين الأكثر شيوعاً إنما هي أخطاء النطق بحروف العلة الإنجليزية.

Introduction

Being fluent or native-like speakers is one of the main aims of the second language (L2) learners. Correct pronunciation, the most significant language skill, starts naturally with learning other language aspects; however, like other language skills a learner needs to learn how to pronounce L2 sounds correctly. It is by good pronunciation a speaker is evident in spite of many errors s(he) commits during connected speech. Phonology can be defined as the linguistic aspect of phonetics: that is, as the study of the linguistically relevant patterning of phonetic events. It deals not so much with the substantial quality of speech phones- their acoustic, auditory, or articulatory qualities - as with their use in language, their interrelations and their functions. Looked at from a different standpoint, phonology can be defined as “the phonetic aspect of grammar: that is, as the study of the way words and sentences are pronounced.” (Celce-Murcia, et al., 2007, p253)

1. Some Definitions of Phonology

Phonology is to do with something more than properties of human speech sounds per se. Phonology is “the study of certain sorts of mental organization. In particular, it is the study of certain types of mental category, mentally stored representations, and generalizations concerning those categories and representations.” (Carr, 2013, p79)

Phonology is the study of the rule system that governs how particular speech sounds are used to pronounce meaningful words. Yule (2010, p42) argues that “phonology is about the underlying design, the blueprint of each sound type, which serves as the constant basis of all the variations in different physical articulations of that sound type in different contexts”. In particular, phonology is concerned with phonemes.

Carr (2008, p130) views phonology as “The study of the sound systems found in human languages”. Some argue that phonology is concerned with the functions of speech sounds; on that definition, phonology is a “**functional phonetics**”. Another elucidation of phonology is of the **mentalist** ideation (i.e. Chomsky’s cognitive theory) which represents the sound systems, of any language, as abstract objects or images of the sounds stored in the mind of the speaker combined afterwards to make meaningful words for communication. According to Finch (1997,

p166) “Phonology is concerned with the sound structure of the language, in particular with the way in which sounds can form words structure”.

2. Sounds in Connected Speech

As it is clear earlier that speech is “the uttering, by the larynx, mouth, nose, etc., of various noises which people have agreed to regard as conventional symbols of certain meanings” (Jones, 1962, p1). Because that speech is a constant flux of phones, without apparent boundaries between words; sounds might be deleted, inserted, changed during the spoken form of communication. It is effortless for the native speaker to comprehend what is being said during conversation depending on the syntactic and the lexical items which are familiar to occur in a resemblance context, for example, “a new display” could be heard as “a nudist play”. (Cappoza & Brown, 2000, p62)

Non-native speakers (NNS), however, are rarely acquainted with the context the words appear in; they may almost depend on nothing else but the sounds which they hear. What Cappoza & Brown explain as a "devastating diminution of phonetic information at the segmental level when they encounter normal speech." (ibid)

Crystal (2003, p101) illustrates that connected speech (CS) is “A term used in linguistics to refer to spoken language when analysed as a continuous sequence, as in normal utterances and conversations”. Newton (1977) views connected speech processes as “the changes which conventional word forms undergo due to the temporal and articulatory constraints upon spontaneous, casual speech” (p. 51). In other words, these phonological processes are significant suprasegmental aspects of pronunciation, that fall into action in continuous strings of spoken language, such as linking, weak forms, elision, assimilation, and contraction, etc.

3. The Concept of Phoneme (Sound)

The abstract representation of sounds (competence or underlying representation UR) must be converted during conversation into a concrete representation (performance or surface form SF). The problem that most NNS experience is the absence of correlation between sounds and word forms. The phoneme, linguistically, is “the smallest unit of speech distinguishing one word (or word element) from another”, as the element /p/ in “tap” /tæp/ which separates that word from “tab”/tæb/, “tag”/tæg/, and “tan”/tæn/. A phoneme doesn't have any deep-rooted meaning by itself, but when put

phonemes together, they make meaningful words, and it may have more than one variant, called an allophone, which functions as a single sound; for example, the [p^h]’s of “pat” [pæt], “spat” [spæt], and “tap” [tæp] differ slightly phonetically. (Roach, 1992, p48)

4. Some Vowel Phenomena in Connected Speech

Phonological processes are rules used by native speakers to simplify the pronunciation of words in a language. But for the non-native speakers they are considered as speech errors for not being able to coordinate the lips, tongue, teeth, palate and jaws for clear speech. Only five processes concerning vowels will be considered here:

1- Elision (deletion): this process is applied when unstressed segment (sound) is not pronounced during CS. such as [fæmɪ li] (*family*) can be pronounced with an elided [ɪ]: [fæmli].

2- Smoothing (breaking) this process is a technical term used to brake the complex vowels, deletion of the non-prominent or non-syllabic glide element, into simpler or simple ones by means of which triphthongs become diphthongs or monophthongs and diphthongs become monophthongs. The overlap comes when a word like triphthong /aʊ ə/ as in *hour/our, flower, etc.*, transcribed phonemically as /aʊ ə/ shows two smoothing process; when the schwa element [ə] loses its value, this in turn creates a new diphthong which, with a falling prominence, the result would be [a u], sometimes, it is directly being broken into monophthons without passing through the diphthong tier; it is produced as *floor* [flɔ:]. (Ashby, 2011, p112-113)

3- Category Changing: A general expression used in linguistics at varying levels of abstraction. At its most general level, categorization refers to “the whole process of organizing human experience of decoding the speech signal into general concepts with their associated linguistic labels” (Crystal, 2003, p25). For example, a given speech sound can be heard as an instance of a [p] as in *played* (v.) [pleɪ d] be heard as [b] in [bleɪ d](n.). Many believe that categorization is central to perception. (Brook, 2015, p20)

4- Pauses: A pause is usually defined as the silent or filled time between two runs (a run is defined as uninterrupted speech between two silent pauses). Pike (1971) claims: "In speech sound waves, one word runs into the next seamlessly; there are no

little silences between spoken words (p159, 160)". Two types of pauses are of interest to L2 pronunciation: filled and silent pauses. Filled pauses have been described by some as having a specific function, e.g., as discourse markers used to prevent lull time, or gain some time for thought (e.g., um and uh). "Silent pauses are instances of complete silence between runs. Studies have demonstrated that a pause as short as 0.1 seconds has the ability to cue deviation from the norm" (Kang & Ginther, 2018, p119). Pauses are important because it has been shown that learners tend to produce longer and more frequent pauses in their L2 than in their L1s.

5- Linking: The concept of linking according to Roach (2009, p115) is "a way of joining the pronunciation of two words so that they are easy to say and flow together smoothly⁸⁷". In English there are different ways to make that happens; Four types of linking can be seen (a) consonant-to-vowel where the phonetic qualities between (C-V) is confined (e.g. face it), (b) an extra is glide inserted in between vowel-to-vowel (V-V) linking (e.g. blue ink), or (c) be combined in one longer sound as in same consonant-to-consonant (C-C) linking (e.g. can name), or (d) when the segment identity of the sounds is changed, as in different consonant-to-consonant linking where the first consonant may not be released or aspirated (e.g. let down). Only linking types concerning v-to v are explained below; since it is the focus of attention to this study:

The idea of linking is that no pause is detected between the sequential words in CS. For a smoother transition between the sounds and to ensure a complete pronunciation of both of the vowels, a short /j/ sound is inserted if the first of the two sequential words ends with a front vowel (such as /eɪ /, /i/, and /ai/) [j] sound at the beginning of the next word:

Words /j/
1. In the <u>early</u> 20 th century
2. The <u>body</u> of the man
3. The <u>day</u> after tomorrow
4. I want to <u>be</u> a chef
5. <u>Day</u> and night

When first word in the sequence ends with back vowels in an o, or u, vowel sounds which are produced with a rounded lips [əʊ / u:], then, [w] must be inserted before the next word:

Words /w/
1. <u>Two</u> or three
2. Blue <u>eyes</u>
3. Shall we <u>go over</u> the exam?
4. You need to <u>go under</u> the bridge
5. Hello <u>everyone</u>

- The examples of linking were collectively selected from Roach (2009) and Oxford Dictionary of English (2019) version 11.2.546.

5. Weak Forms

one of the English phonological features that can be noticed is that some syllables are more prominent (strong, loud) than others (weak, shorter). Vowels frequently reduced to either a weak form (e.g. /i:/ → /i/ and /u:/ → /u/), they can also drop their initial /h/ such as in /iz/ *his* , /i/ *he*, /ə/ *her* or to schwa, in unstressed syllables which are perceptually less salient such as in / ðə / *the* , / ə / *a* , / ə n / *and* , / ə v / *of* , / b ə t / *but* , / ð ə n / *than* , / ə s / *us* , / h ə v / *have* , / ə z / *as* , / m ə st / *must*, / ð ə / *there* , or with their long vowel being shortened such as in / ʃ i / *she* , / bi / *be* , / ju / *you* . This phenomenon occurs in almost every variety of English. For example in the word ‘*data*’ [deɪ tə] the second syllable, which is weak, is shorter than the first, is less loud and has a vowel that cannot occur in strong syllables. Many monosyllabic words in connected speech lose the stress which they have in their citational form. (Roach, 2009, p65, 66)

6. The Phonological description of Diphthongs and Triphthongs

It is important to point out that vowels play a very central role in English phonology as they occupy the nucleus of a syllable. In English, a syllable is defined as minimally being made up of at least a vowel while the consonant clusters occurring either before or after the vowel are optional. Therefore, it is entirely possible to have mono-syllabic words made up solely of vowels as in *eye* /a I/ and *ear* /ə I/, for example. Only long vowels, diphthongs and triphthongs can occur in the position of the nucleus of the syllable. Having said this, it is also possible that the vowels are deleted when they occur before syllabic /l, m, n/ and, as the name suggests, these three consonants can allow vowels before them to be deleted. Example words are: *bottle*,

summon and *button*, which can be transcribed as [bʊ tʃ], [sʌ mn] and [bʌ tn]. (Low, 2015, p47)

Another unique type of vowel articulation should be mentioned here. All vowels are voiced but in rare cases, in fast speech, British English, for example, allows for the vowel to be completely devoiced and virtually omitted. Example words are *potato* [pʰ teɪ tɔʊ] and *tomato* [tʰ mɑ tɔʊ] where the vowel is devoiced almost completely and what remains is like an aspirated version of the stop alone as in [pʰ] and [tʰ]. (Finch, 1997, p50)

6.1 Diphthongs in English

Diphthongs “refer to a tautosyllabic sequence of two vowels of different qualities, two vowel qualities can be perceived” (Levins, 1975, p61). The diphthongs might be thought of as contour vowels, in the way that affricates are contour consonants: they start out in one position and end in another. Munro & Derwing (1995, p289–306) say that a diphthong is “a vowel sound in which there is an intentional glide made from one vowel position to another vowel position, and which is produced in one single impulse of breath.” There are 8 diphthong vowels in English:

a- Three closings glide toward /ɪ /:

- 1) /eɪ / (e.g., Day /deɪ /, fail /feɪ l,
- 2) /aɪ / (e.g. time /taɪ m/, die /daɪ /, etc
- 3) /ɔɪ / (e.g. boy /bɔɪ /, toy /tɔɪ /, etc

b-The last two closings glide toward /ʊ /:

- 4) /əʊ / (e.g. so /səʊ /, go /gəʊ /, etc)
- 5) /aʊ / (e.g., how /haʊ /, town /taʊ n/, etc

c) The centering English Diphthongs glide towards /ə/

- 1) /ɪ ə/ (e.g., beard /bɪ əd/, near /nɪ ə/, etc.
- 2) /eə/ (e.g. share /ʃ ɛ ə/, air /ɛ ə/, etc
- 3) /ʊ ə/ (e.g., poor /pʊ ə/, cure /kʊ ə/, etc

As far as English language is concerned, the phonological classes are based on the type of the syllable the vowel appears in. as noted by Gleason:

Diphthongs may be considered either as vowels in which there is appreciable change of quality during the course of their pronunciation, or as sequences of vowels or of vowels and semi- vowels. Phonetically the first interpretation is generally best; phonemically they are often best treated as sequences, in other instances as single phonemes. Thus there may be a marked difference in the phonetic and phonemic significance of such a term as diphthong. (1955, p254, 253)

- The diphthong, in which case, it is called a level diphthong in which the stress is strongest at or near the beginning are called falling diphthongs. (The stress falls.) Those in which the main stress is at or near the end are rising diphthongs. English /aɪ , aʊ , ɔɪ / are falling diphthongs with the less stressed element phonemically interpreted as a semivowel, /ju/ is phonetically a rising diphthong, though not usually treated as phonemically a diphthong in English.

6.2 Triphthongs in English

O'Connor (1980, p87) describes triphthongs as “vowel sequence but less difficulty than consonant sequence; when one vowel (or diphthong) follows another, each one should be pronounced quite normally, but with a smooth glide between them”. Wells clarifies that Triphthong is “a term used in the phonetic classification of vowel sounds on the basis of their manner of articulation: it refers to a type of vowel where there are two noticeable changes in quality during a syllable, as in a common pronunciation of English *fire* and *tower* /faɪə/ and /taʊə/ (Well, 1982,p306-310)”. Triphthongs are vowels where three vowel qualities can be perceived. Each of some complex vowels are found to be made up of three monophthongs.

Triphthongs can be looked on as being composed of the five closing diphthongs described in the last section, with a /ə/ added on the end.

- 1) /eɪ / +ə = /eɪ ə/ as in layer, player
- 2) /aɪ / +ə = /aɪ ə/ as in lire, fire
- 3) /ɔɪ / +ə = /ɔɪ ə/ as in loyal, royal
- 4) /əʊ / +ə = /əʊ ə/ as in lower, mower
- 5) /aʊ / +ə = /aʊ ə/ as in power, hour

There is still no consensus regarding whether vowel sequences with three phonetic symbols such as /eɪ ə, aɪ ə, ɔɪ ə, aʊ ə, əʊ ə/ should be regarded as sequences of a diphthong followed by a schwa or a single phoneme known as a ‘triphthongs’. In general, English tends to consider /aɪ ə/ and /aʊ ə/ in words such as fire and hour to be triphthongs. What complicates the issue further is the phenomenon known as ‘levelling’ or ‘reduction’ where the middle of final element is levelled out either to a diphthong [a ə] or realised as just a long vowel [ɑ:]. In certain varieties of English even within Britain, such as Welsh English, for example, it is not uncommon for triphthongs to be separated by a linking /j/ or /w/ giving rise to the realisations [faɪ.jə] in fire. (Meireles, 2015, p185)

7. Method

7.1 Participants

The data specified for this study have been collected directly from a cross-sectional random sample drawn from 4th year Iraqi college students, both *males* and *females* in the Department of English of the College of Languages at Baghdad University during the academic year 2019-2020. The total number of samples is 30; (15) males and (15) females. The 4th academic stage students were selected to define if there is any developmental speaking skill they might gain in L2 acquisition of English production and pronunciation during their four academic years or not. All the subjects are native speakers of Iraqi Arabic with no background in any foreign language other than English.

7.2 Instruments and Materials

All tokens were analyzed manually using The Speech Analyzer program version 3.1, 2002 which can be downloaded from google website <https://software.sil.org/products/>. The test consists of two tasks: words to be pronounced first in isolation then be read again within sentences (Task one), and two underlined sequential words within sentences (Task two). Familiar words were chosen from Roach 2009, O’Connor, and words taken from the ads appear when playing games interval on mobile (see appendix 1).

7.2.1 Reading Words first with their Citational Form then within Sentences (task one).

In this task, the participants were asked to read the words from the paper in front of them in isolation, then, read them again within sentences containing them. The idea of this task is to discover whether Iraqi EFL Learners repeat the reading of the same word in isolation and within sentence, and to count how different readings a single word may have. The total items of this task consist of 13 items divided in this way; 8 items represent the 8 British diphthongs and 5 items represent the 5 British triphthongs, one examples each. The words were not chosen for a specific vowel sequence position, because task one is customized for this purpose.

7.2.2 The Analysis of Task Two

The analysis of this task is dedicated to only two of the phonological phenomena mentioned in chapter 3, which are smoothing and category changing. As will be clear that some words have two readings others have three. The analysis shows the differences between males and females. First, the 8 British diphthongs will be handled first (for more details see appendix 2):

1. Diphthongs

A. Smoothing

The smoothing process of diphthongs is recognized when they are being monophthongized; broken into a monophthong or a pure vowel in isolation and within sentences. The varying proportions of this table shows that females, generally speaking, make diphthongs undergo smoothing more than males do. Smoothing were observed in the following words:

Table 1: The Smoothing Process in British diphthongs

No.	WORD	TRANSCRIPTION	SMOOTHING			THE NEW WORD
				ISOLATED	SENTENCE	
1	Sighing	[saɪ ɪŋ]	Readings	[sɪ ɪŋ]	[sɪ ɪŋ]	Sing
			Female	4	3	
			Male	2	2	

2	Grey	[greɪ]	Readings	[ə'gri:]	[ə'gri:]	agree
			Female	10	10	
			Male	6	7	
3	Hoist	[hɔɪst]	Readings	[hɔ:st]	[hɔ:st]	no specific
			Female	5	5	
			Male	6	5	
4	Astounded	[ə'staʊndɪd]	Readings	[ə'stɔ:ndɪd]	[ə'stɔ:ndɪd]	
			Female	8	9	
			Male	9	6	
5	Care	[keə]	Readings	[ka:]	[ka:]	car
			Female	4	4	
			Male	2	2	
6	Bourse	[bɔ:s]	Readings	[bɔ:s]	[bɔ:s]	no specific
			Female	8	8	
			Male	7	7	

B. Category Changing

When changing the pronunciation of a word, the category may also change, yet the whole meaning of the sentence change too. For example, the word *know* when pronounced by the student as *now*, the category changed from noun to verb.

Table 2: The Category Changing Process in British diphthongs

No.	WORD	TRANSCRIPTI ON	CATEGORY CHANGING			
				ISOLATED	SENTENCE	Fom-to
1	Grey	[greɪ]	Readings	[ə gri:]	[ə gri:]	Adj. to V.
			Female	10	10	
			Male	7	6	
2	Know	[nəʊ]	Readings	[naʊ]	[naʊ]	V. to Adv.
			Female	10	12	
			Male	11	10	
3	Care	[keə]	Readings	[ka:]	[ka:]	V. to N.
			Female	4	4	
			Male	2	2	

This table shows that females also record higher proportions of diphthongs category changing than males.

2. Triphthongs

A. Smoothing

When triphthongs being broken during connected speech into diphthongs or monphthong, then a smoothing process is applied. All the words were smoothed to monophthongs and the word *soya* has two readings; [saja] and [sɔ ja] as shown below:

Table3: The Smoothing Process in British Triphthongs

No.	WORD	TRANSCRIPT ION	SMOOTING 1			SMOOTHING 2		type
				ISOLATE D	SENTENCE	ISOLATE D	SENTENC E	
1	1	layers	Readings	[lɔ :jə z]	[lɔ :jə z]			lawyer
			Female	4	4			

			Male	3	3			
2	Fire	[fa ₁ ə]	Readings	[feə]	[feə]			fear
			Female	4	4			
			Male	3	3			
3	Soya	[sɔ ₁ ə]	Readings	[saja]	[saja]	[sɔ ja]	[sɔ ja]	no specific
			Female	2	2	5	5	
			Male	4	4	3	3	
4	Flowers	[flaʊ ə z]	Readings	[flɔ :z]	[flɔ :z]			floors
			Female	3	3			
			Male	3	3			
5	Lower	[lə ʊ ə]	Readings	[lɔ :jə z]	[lɔ :jə z]			
			Female	2	2			Lawyers
			Male	5	3			

As it is clear in this table that both layers and lower are being smoothed from triphthong into monophthong *lawyer* [lɔ : jə z], the word *flowers* is also smoothed into monophthong *floor* [flɔ : z]. Only the word *soya* has two smoothing into monophthongs; [saja] and [sɔ ja].

The proportions of smoothing are varying between males and females again; some of males record higher than females, only in *flowers* the proportion is equal for both.

A. Category Changing

No.	WORD	TRANSCRIPTI ON	CATEGORY CHANGING			
				ISOLATED	SENTENCE	FROM-TO
1	layers	[leɪ ə z]	Readings	[laɪ ə z]	[laɪ ə z]	N. to Adj.
			Female	1	2	
			Male	4	4	
2	Lower	[ləʊ ə]	Readings	[lə :jə z]	[lə :jə z]	Adj. to N.
			Female	2		
			Male	5		

Table 4: The Category Changing Process in British triphthongs

Only two out of five triphthongs whose category were changed; one from a noun to an adjective as in number 1, the other one was changed from an adjective to a noun. Females here applied this process less than the males.

7.2.3 The Linking Process in British Diphthongs

The students failed to manage the linking process accurately; most of them read the words separated from each other with runs varying between 2 to 4 seconds. Other students did not make any runs between words but they failed to insert [w] or [j] in between. Neither any of them, females and males, have inserted a filled pause when failing achieving the linking between the underlined words. Elision was obvious; they omitted the weak vowel at the beginning of the second word. As shown in table 5:

Table 5: The Linking Process in British Diphthongs

No.	UNDERLINED WORDS	TRANSCRIPTION	GENDER	Pause		insertion		ELISION	
				Silent	filled	[w]	[j]	No.	type of Elision
1	Elsa is	[ə ^l lsa i ^l z]	female	15				1	(a) letter in Elsa
			male	13			2	(a) letter in Elsa	
2	You amuse	[ju ə ^l mju:z]	female	14		1		2	(a) letter in amuse
			male	11		4		3	(a) letter in amuse
3	Uncertainty attends	[ʌ n ^l sɜ :nti ə ^l tends]	female	15					
			male	14			1	2	(y) letter in Uncertainty

7.2.4 The Linking Process in British Triphthongs

The mistakes the students make with triphthongs in this task are kind of less than with diphthongs, but also none of them, females and males, have inserted a filled pause when failing achieving the linking between the underlined words. Again, elision was obvious; they omitted the weak vowel at the beginning of the second word (table 6 below):

Table 6: The Linking Process in British Triphthongs

No.	UNDERLINE D WORDS	TRANSCRIPTION	GENDER	pause		insertion		ELISION	
				Silent	filled	[w]	[j]	No.	type of Elision
1	Away a stone	[ə ^l we I ə ^l stəʊ n]	female	11			4		
			male	11			4		
2	Try and help	[tra I ə ^l nd]	femal	10			5		

		help]	e						
			male	11			4		
3	A boy of	[ə ^l bɔɪ ə ^l v]	femal e	12			3	1	(of) word elision
			male	12		3			
4	Allow a fairer	[ə ^l laʊ ə ^l feə rə]	femal e	14			1	2	(a) letter elision
			male	14		1		3	(a) letter in a fairer
5	Blow us	[bləʊ ə ^l s]	femal e	14			1	2	(u) letter elision
			male	13		2		1	(u) letter in us

8. Results & Conclusion

Since the study targeting the English British diphthongs and triphthongs, the pronunciation tests manifest that both females and males, generally speaking, have problems to control their speech apparatus to pronounce these sounds correctly, with a little proportion that females surpassed males. Yet, the targeted students (both males and females) failed to perform the phonological processes specified for such aim.

As for task one, the smoothing and category changing of diphthongs; in smoothing process 6 out of 8 diphthongs were smoothed into monophthongs. Females and males failed to manage the right pronunciation of the given words in their citational form and within sentences. The category changing process shows that 3 out of 8 change their category due to the incorrect pronunciation, yet their meaning affecting the meaning of the whole sentence, which leads to a miscommunication.

The smoothing task of triphthongs shows that all the five triphthongs were smoothed into monophthongs by both males and females with varying proportions. As for the category changing process; 2 out of 5 words were mispronounced by both females and males, which affects to change the meaning of the sentences too by changing the words category.

Concerning the linking process of diphthongs and triphthongs; in diphthongs, it was made clear why only 3 diphthongs out of 5 were included in the test, which with all of them most the students, males and females, did not manage this process as they made a lot of silent pauses (see.2.3). The same is repeated with triphthongs; most students, males and females, made silent pauses too.

It is concluded from these results that the selected college students though they are in their final academic stage, but they have weakness in mastering and understanding the phonological processes concerning vowels particularly diphthongs and triphthongs, and females show a little progress in this subject than males but not to be counted as a good result.

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Appendix 1

1. The transcription of task one sentences depending on Roach's (2009) sound symbols.

Task 1. pronounce the underlined words separately then read them again within the sentence containing them.

A. Diphthongs

1.	I like <u>guys</u> <u>sighing</u> nicely.	a _I la _I k ga _I z sa _I ŋ na _I sli
2.	It is a <u>grey</u> <u>day</u> Grace <u>Bacon</u> , isn't it?	ɪ t _I ɪ z ə greɪ deɪ greɪ s beɪ kə n, ɪ znt _I t?
3.	Could you <u>hoist</u> the car without a <u>noise</u> ?	kə d ju hɔɪ st □ə ka: wɪ □'aʊ t ə nɔɪ z ?
4.	You were <u>astounded</u> with his attitude, I <u>know</u> .	ju wə ə 'staʊ ndɪ d wɪ □ ɪ z ætɪ tju: d aɪ nəʊ
5.	Sincerely, it is <u>weird</u> to reveal such news to public.	sɪ n'sɪ ə li, ɪ t ɪ z wɪ ə d tə rɪ vi: l sʌ tʃ nju: z tə pʌ blɪ k
6.	People <u>care</u> for the <u>bourse</u> to export earrings.	pi: pl keə fə □ə bʊ ə s tə ekspɔ: t ɪ ə rɪ ŋz

B. Triphthongs

1.	<u>Layers</u> of <u>flowers</u> were cut with a mower.	leɪ ə z ə v fləʊ ə wə kʌ t wɪ □ ə məʊ ə
3.	As the <u>fire</u> burned higher, the wire fell <u>lower</u> .	ə z □ə faɪ ə bɜ: nd haɪ ə , □ə waɪ ə fel l ^l ləʊ ə
4.	Dams have been the <u>destroyers</u> of fish habitats.	dænz əv bi: n □ə dɪ l ^l strɔɪ ə ə v fɪ ʃ l ^l hætətæ

5.	Unfortunately, <u>soya flour</u> is sour.	ʌ n ^l fɔ : tʃ ə nətli, ^l sɔ ɪ ə fləʊ ə ɪ z saʊ ə
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Task 3- Pronounce the underlined words.

A- Diphthongs.

1- <u>Elsa</u> is a disney character that most little girls like.	ʌ l s a ɪ z ə dɪz nɪ ^l kærəktə ɪæt məʊ st ^l lɪ tl g ɜ : l laɪ k	/aɪ /
2- <u>You amuse</u> me to see politicians so eager to please at election time.	jʊ ə ^l mju : z mi : tə si : ɪ pɒ lə ^l tɪ ʃ ə ns səʊ ^l i : g ə tə pli : z ə t ɪ ^l lekʃ ə n taɪ m	/ʊ ə /
3- <u>Uncertainty</u> attends the future of the industry.	ʌ nsɜ :ntɪ ə <u>tends</u> ɪə ^l fju : tʃ ə ə v ɪə ^l ɪ ndəstri	/ɪ ə /

B-Triphthongs

1- Constant dropping wears <u>away</u> a stone.	^l kɒ nstənt drɒ pɪj weəz ə weɪ ə stəʊ n	/eɪ ə /
2- At last, we can <u>try and help</u> as much as we can.	ə t lɑ : st wi kən traɪ ə nd help ə z mʌ tʃ ə z wi kən	/aɪ ə /
3- Christen has two kids, a <u>boy of 12</u> and a girl of 10 years old.	^l krɪ sən hæz tu : kɪ dz ə bɔɪ ə v 12 ə nd ə g ɜ : l ə v 10 jɪ ə əʊ ld	/ɔɪ ə /
4- These adjustments of the figures <u>allow</u> a fairer comparison.	ði : z ə ^l dʒ ʌ stmənts ə v ɪə ^l fi g ə z ə laʊ ə feɪ rə	

kəm ^l pæ ^{sən}	/ aʊ ə /
5- A sudden draught can <u>blow us</u> easily, so be careful. ə ^l sʌ dn dra : ft kə n bləʊ ə s ^l i: zəli, səʊ bi: ^l keəfəl	/əʊ ə /