Phonological Analysis of English Vowel Pronunciation
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Abstract
This phonological analysis investigated the English vowel sounds as the central phenomena represented by letters descriptively and qualitatively. It was supported by the theories proposed by Finegan, Hayes, Kreidler, Skandera & Burleigh, Roach and Yule. The method of data collection was observational by identifying the English articulation. The articulatory phonetic identity method was used to analyze the data with competence in differentiating. The Oxford Advanced Learner’s Dictionary was used as a standard form of British pronunciation (Received Pronunciation) to compare the sounds produced and differentiate the English alphabet letters. Some patterns of English vowel pronunciation were found, i.e. <r> positioned as a close syllable lengthens [ə:, ə:, ə:] and produces schwa, and does so similarly in diphthong. Double semivowels do not perform triphthong. The letters i, u, w and y produce triphthong when they are combined with vowels.

Keywords: phonology, Received Pronunciation, vowels

1. Introduction

The ability to speak is synonymous with knowing the language since the speaking is the most basic means of communication (Celce-Murcia, 2001). The elements of oral communication including pronunciation, grammar, vocabulary, fluency, and comprehension are the most important basic of speaking (Ambalegin et al., 2017). While involving conversation, every language has its own way to pronounce in order to have the message easily. Poor pronunciation could make the meaning conveyed different and cause errors. Good pronunciation might support the good communication, and good communication brings the good quality of a language. However, the sound of phoneme is not the same throughout languages. A sound might be a phoneme in a language but might not be so in another language (Ambalegin & Arianto, 2020). In some languages, there is a same relationship between spelling and pronunciation, and there is the same number of phonemes used in the language as there are letters in the alphabet (Kelly,
It is known as a phonetic language due to a one-to-one relationship between spelling and pronunciation. In Indonesian, every letter in the alphabet represents one sound and each letter would be a phonetic symbol and each sound has its appropriate symbol. The only the letter e has fortis e and lenis e. For example, the letters b, u, k, and u form the word buku (book). The word buku is pronounced as the letters of the alphabet as /buku/. The letter e is pronounced in the word bebek as /bebek/. The letter sound in the alphabet is as the same as in the word when is pronounced. In other words, Indonesian has consistent sound while pronouncing, for example, the letter u is pronounced as /u/ and does not change at any place, and so do the other letters.

Some linguistic developments, along with the advent of technology through the internet, a higher demand of global position of English for native and non-native speakers serves a wider scope of communication (Porras-Piorac, 2019). Since English could not be separated from the technology, English has been plodding along to the other languages. On behalf of the development of technology, English interferes Indonesian. Undeniably, English has been welcomed as an additional language by Indonesian native speakers. According to Kachruvian Circle related to the use of English in communication, there are three circles; inner, outer, and expanding circle (Kilickaya, 2009), and Indonesia is circled in expanding circle (non-dependent) where English is learnt as EFL (Crystal, 2003). As a foreign language, English is also much closer to the people as they can see, read, and listen because English is a global language with reference to the roles and users of English worldwide (Low, 2015). However, English is everywhere, and it is familiar in Indonesia. English is said anywhere nowadays in the society. Unfortunately, there was some English mispronunciation indicated in society. Some of the mispronunciation made were influenced by the L1 because all non-English native speakers bring their mother tongue-like accent to the English pronunciation (Ambalegin & Suryani, 2018).

The phenomena of English mispronunciation occur in society. Ambalegin & Arianto (2019, p. 107) captured some English mispronunciation such invite, examine, paste, entrepreneur, mild, paradise, online, mouse, finger, support, and orchid were pronounced as /infrat/, /eksəmain/, /pəste/, /enterprenər/, /ml/, /pərədəs/, /ɔnlen/, /maus/, /fɪŋər/, /səpɔrt/, and /ɒrCIt/. Seidlhofer (as cited in Carter & Nunan, 2001, p. 61) formulated that the errors of non-English native speakers’ English pronunciation from different language backgrounds made are systematic and not accidental. Moreover, people just learn new words, but they do not want to learn how to say it correctly. In fact, English is learnt in formal schools since lower high school level. Then, teaching pronunciation is the most fundamentally important for the EFL learners (Ambalegin & Hulu, 2019). The ability of speaking English embodies the correctness of pronunciation.
and intonation and directly affects the intelligible communication in conversation (Zhang & Yin, 2009). But many English teachers do not count on it, then many teaching materials still do not make clear, finally pronunciation is just one tiny piece of the whole course credits (Ambalegin & Hulu, 2019).

The alphabet is universal. There are enough symbols so that every sound in every human language could be represented. The alphabet is unambiguous. Every sound would have one symbol, and every symbol one sound (Fasold & Connor-Linton, 2006). There are 5 vowel and 21 consonant letters when writing, but contrarily, there are 12 vowel sounds, 8 diphthong sounds, 5 triphthong sounds, and 24 consonant sounds when speaking English (Kelly, 2004; Kreidler, 1993; Roach, 2012). English pronunciation does not have a fixed pattern. Ladefoged, (2006) stated that most of the sound symbols are the same letter used in spelling in the English words, but there are a few different. English shows the inconsistency of pronunciation (Ambalegin & Arianto, 2019). Pronunciation book for EFL learners showed only the phonetic symbols but does not show the appearance of a sound in different letters. It is very important to know how one sound exists in different letters. Thus, this study investigated the appearance of vowel sounds in different letter by grouping some letter into one single vowel sound. Learning to pronounce a language is a very complex task and, as with any other complex learning tasks, the learning process can be facilitated if the task is structured in some way and if the learners aware of what is involved (Kenworthy, 1987).

2. Literature Review

Human speech is like the playing of a wind instrument. Different speech sounds, in any language, are made by moving a column of air through part of the upper body and creating various kinds of vibration and noise as the air moves. Different kinds of speech sounds, different manners of articulating, are different ways of manipulating the air stream. It is recognized six kinds of speech sounds: vowels, glides, nasals, liquids, fricatives, and stops (Bauer, 2012; Kreidler, 2004).

In the production, or articulation, of a segment the vocal organs have some particular configuration; the lips are rounded or stretched, the tongue is low in the mouth or not, it has a flat surface or not, air is escaping through the mouth or through the nose or not escaping at all, the vocal cords are vibrating or not, etc. Each such position or movement is an articulatory feature. These features always occur in simultaneous bundles; no segment can consist of a single feature (Kreidler, 2004). Segmentally, there
are 12 monophthongs, 8 diphthongs, and 5 triphthongs in British English pronunciation (Low, 2015).

### 2.1. Pure Vowels

(Kreidler, 2004) defined vowels as;

1. [+ syllabic], capable of carrying stress and pitch
2. [− consonantal], made without impeding the air flow
3. [+ continuant], articulated with air going continuously out from the mouth
4. [+ sonorant], made with regular patterns of vibration
5. [+ voice], produced with vocal cords vibrating
6. [− sibilant], produced with a flat tongue surface.

Vowels or monophthongs have an open vocal tract, in which the tongue does not touch the upper surface of the vocal tract at any particular place and the term place of articulation isn’t really appropriate (Katamba, 1989). There is no obstruction to the flow of air as it passes from the larynx to the lips when vowels are produced (Finegan, 2015; Roach, 2012). Vowels differ from consonants in that they do not have “places of articulation,” that is, points of major constriction in the vocal tract. Rather, the vocal tract as a whole act as a resonating chamber. Modifying the shape of this chamber using movements of the tongue, jaw, and lips causes different timbres to be imparted to the basic sound produced at the vocal cords (Hayes, 2009).

Skandera & Burleigh (2005) stated that there are 5 long vowels and 7 short vowels; which are /i:/, /u:/, /ɔ:/, /ɔː/, /æ/, and /ʌ/, /ə/, /ɑː/, /ɒː/, /æ/, /æː/. Vowel which articulated with weak breath force is said as lax vowel and vowel which is produced with more energy is said as tense vowel. Kelly (2004) also stated that based on the characteristics of the articulation, there are three categories vowel sounds; closed vowel sounds (/iː/ /uː/ /æː/ /æː/), mid vowel sounds (/e/ /ɛ/ /ɜː/ /ɔː/), and open vowel sounds (/æ/ /ʌ/ /ɑː/ /ɒː/).

### 2.2. Gliding Vowels

A gliding vowel or diphthong is a sequence of two vowels that functions as a single sound. A diphthong forms just one syllable, whereas a two-vowel sequence forms two (Hayes, 2009). Diphthongs sound consist of a movement or glide from one vowel to
another. There is no obstruction to the flow of air as it passes from the larynx to the lips when diphthong is produced (Roach, 2012). Skandera & Burleigh (2005) divided diphthongs into centering and closing diphthongs. Centering diphthongs move towards schwa /ə/, /ʌ/, /oʊ/, and closing diphthongs move toward a closer vowel /eɪ/, /æ/, /oʊ/, /ʌ/. 

2.3. Triple Vowels

Triple vowels or triphthongs consist of three sounds; /eɪ/, /æ/, /oʊ/, /ʌ/ (Skandera & Burleigh, 2005). Triphthong is a glide from one vowel to another and the to a third, all produced rapidly and without interruption. Triphthong is composed of five closing diphthongs with schwa added; [eɪ+ə], [æ+ə], [oʊ+ə], [ʌ+ə] (Roach, 2012).

2.4. Previous Studies

Ambalegin & Suryani (2018) presented the study of the influence of mother tongue on English vowel pronunciation of Batak Toba adults in The 1st Annual International Conference on Language and Literature (AICLL) 2018. The study concluded that mother tongue like-accent is able to affect the ability to pronounce foreign language words. The Batak Toba-neses are not able to pronounce a few English vowel sounds. It is caused by the difference of phonological system. Batak Toba-neses are not able to pronounce the English vowel sounds /æ/, /ʌ/, and /oʊ/ as these sounds do not exist in Batak Toba language. Mostly Batak Toba language has short vowel sounds. Thus, the adult Batak Toba-neses do not pronounce English words correctly, due to the mother tongue-like accent interference.

Ambalegin & Arianto (2019) discussed the English pronunciation inconsistency in The 2nd Annual International Conference on Language and Literature (AICLL) 2019. This study formulated that (1) one letter can be produced by more than one sound, and one sound can be represented by more than one letter; (2) The same letter of English alphabet does not always produce the same sound; (3) The same sound is not always produced by the same letter of English alphabet; (4) Some letters of English alphabet indicated in words are not produced as sounds; <r, e, gh, c, h, g, t, b, l, s, h, d, k, w, b, lo, g, m, p, u, o, l, z, a>; and (5) The sound is produced where there is no letter of English alphabet; /j, w/.

The previous studies have the same issues as the present study that it is about English pronunciation and the theory use, but the difference is about the problem analyzed.
The present study identified the English sounds represented by the letters and the base-letter-pattern of how the sound produced.

3. Research Method

It is a descriptive qualitative research (Creswell, 2003). The English vowel sounds is the central phenomena being the data (Creswell, 2012). Method of collecting the data was observational method by heard-identifying the English articulation (Sudaryanto, 2015). The method of analyzing the data was articulatory phonetic identity method with competence in differentiating technique (Sudaryanto, 2015). In analyzing the data, the Oxford Advanced Learner’s Dictionary as a standard form of British pronunciation (Received Pronunciation) was used to compare the sound produced and differentiate the English Alphabet letters which have the same pronunciation of English sounds by presenting the phonetic symbols. The presence of a single phonetic symbol in one fixed patterned letters was concluded as one pattern of English pronunciation.

4. Result and Discussion

4.1. Result

1. The pronunciation of English alphabets is not sometimes pronounced in English words or speech sounds.

2. The English vowel sounds change due to the influence of the letters after or before the sounds or letters.

3. Each English alphabet cannot represent one fixed vowel sound due to the English pronunciation inconsistency

4. The English alphabets a, i, u, e, and o represent speech sounds /eɪ, aɪ, juː, əʊ/.

5. There are some patterns found in English vowel pronunciation.

   (a) /iː/ is pronounced in double e, final syllable sound -C<e>C<e>, -and C<i>C<e>

   (b) /ə/ is pronounced in morpheme plural form -ies, morpheme -ed followed by /t/, /k/, or /d/ close syllable, and final syllable sound -C<a>C<e>

   (c) /e/ is pronounced in one syllable word C<e>C

   (d) /ə/ is pronounced in one syllable word C<o>C<e>
(e) /ə/ is pronounced in one syllable word C<o>C

(f) /ɔː/ is pronounced when a meets ll (/l/) in one syllable word, a meets w (silent /w/) in one syllable word, o meets r (equivocal) in one syllable sound.

(g) /ə/ is pronounced in morpheme noun form -or and morpheme adjective form -ous.

(h) r positioned as close syllable influences to lengthen [əː, əː, əː] and to produce schwa, so does in diphthong

(i) /ei/ is pronounced in one syllable word C<a>C<e>

(j) /ai/ is pronounced in one syllable word C<i>C<e>

(k) /ɔal/ is pronounced in one syllable word C<u> <r> <e>

(l) /eal/ is pronounced in one syllable word C<a> <r> <e>, CVV<e>

(m) /oa/ is from letter o pronunciation, and /oa/ is pronounced when there is syllable with o

(n) /a/ is pronounced in one syllable word C<e> <e> <r>

(o) Double semivowel will not perform triphthong.

(p) Letter i, u, w, y produce triphthong when they are combined with vowels.

6. English vowel pronunciation mostly has no fixed pattern.

4.2. Discussion

4.2.1. Monophthongs

1. /iː/ is pronounced by the letters ee, ea, ie, e, i, eo, ey, (ua)y

(a) <ee> is pronounced as /iː/ seen in words such as see /siː/, deed /diːd/, need /niːd/

(b) <ea> is pronounced as /iː/ seen in words such as eat /iːt/, beat /biːt/, neat /niːt/, eagle /ɪːɡl/ 

(c) <ie> is pronounced as /iː/ seen in words such as yield /jɪːld/, field /fɪːld/, shield /ʃɪːld/

(d) <ei> is pronounced as /iː/ seen in words such as siege /siːdʒ/, receipt /rɪˈsiːt/, deceive /diːˈsiːv/

(e) <e> is pronounced as /iː/ seen in words such as complete /kəmpliːt/, Jesus, /dʒiːzəs/, supreme /suːprəm/, scene /siːn/
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(f) <i> is pronounced as /i/ seen in words such as police /pɔliːs/, machine /məˈʃiːn/, magazine /mægəˈziːn/, ski /skiː/, kiwi /ˈkiːwiː/

(g) <eo> is pronounced as /i:/ seen in words such as people /piːpəl/, peony /piˈɔnɪ/;

(h) <ey> is pronounced as /i:/ seen in word such as key /kiː/

(i) <uay> is pronounced as /i:/ seen in word such as quay /ˈkiːə/.

2. /u/ is pronounced by the letters i, y, e, ie, a, o, u, ui, oe

(a) <i> is pronounced as /u/ seen in words such as rich /rɪtʃ/, sit /sɪt/, hit /hɪt/, immigrant /ɪmˈgrəʊnt/, inch /ɪntʃ/, incident /ɪnˈsɪdənt/

(b) <y> is pronounced as /u/ seen in words such as city /ˈsɪtiː/, sorry /ˈsɒri/, symbol /ˈsɜmbəl/, lorry /ˈlɔriː/, bury /ˈbɜrɪ/, any /ˈeni/, rhythm /ˈrɪðm/

(c) <e> is pronounced as /u/ seen in words such as wicked /ˈwɪkɪd/, naked /ˈneɪkɪd/, visited /ˈvɪzɪtɪd/, pretty /ˈprɪti/, wicket /ˈwɪkɪt/.

(d) <ie> is pronounced as /u/ seen in words such as ladies /ˈleɪdɪz/, sieve /ˈsɪv/, studies /ˈstʌdɪz/

(e) <a> is pronounced as /u/ seen in words such as village /ˈvɪlɪdʒ/, manage /ˈmænɪdʒ/, garage /ˈɡærɪdʒ/.

(f) <o> is pronounced as /u/ seen in word such as women /ˈwʊmən/.

(g) <u> is pronounced as /u/ seen in words such as busy /ˈbɪsɪ/, lettuce /ˈlɛtɪs/, minute /ˈmɪnɪt/.

(h) <ui> is pronounced as /u/ seen in words such as biscuit /ˈbɪskɪt/, circuit /ˈsɜkɪt/, build /bɪld/, guilt /ɡɪlt/.

(i) <oe> is pronounced as /u/ seen in words such as oesophagus /ˌɒsəˈfɑɡəs/, oedema: /ˌɒdiˈmeɪə/.

3. /e/ is pronounced by the letters e, a, eo, ea, ei, u, ai, ie

(a) <e> is pronounced as /e/ seen in words such as egg /eg/ set /set/, get /ɡet/, beg /bɛɡ/, pet /pɛt/.

(b) <a> is pronounced as /e/ seen in words such as any /ˈɛni/, many /ˈmeni/, Thames /ˈθɛms/, ate /ɛt/.

(c) <eo> is pronounced as /e/ seen in word such as leopard,

(d) <ea> is pronounced as /e/ seen in words such as realm /ˈrɛlm/, dead /dɛd/, head /hed/, measure /ˈmiʒər/.
(e) <ei> is pronounced as /e/ seen in words such as leisure /ˈliʒər/.

(f) <u> is pronounced as /e/ seen in words such as bury /ˈberɪ/.

(g) <ai> is pronounced as /e/ seen in words such as said /sed/, again /ˈeɡən/.

(h) <ie> is pronounced as /e/ seen in words such as friend /ˈfrend/.

4. /æ/ is pronounced by the letters a, ai, ua.

(a) <a> is pronounced as /æ/ seen in words such as hat /hæt/, man /mæn/, cash /kæʃ/, cap /kæp/, gallop /ɡælˈpɒ/, mad /mæd/.

(b) <ai> is pronounced as /æ/ seen in words such as plait /plæt/, plaid /plæd/.

(c) <ua> is pronounced as /æ/ seen in words such as guarantee /ɡærənti/.

5. /ɒ/ is pronounced by the letters o, oo, u, ou, oe.

(a) <o> is pronounced as /ɒ/ seen in words such as come /kʌm/, won /wʌn/, among /əmˈɡʌm/, done /dʌn/.

(b) <oo> is pronounced as /ɒ/ seen in words such as flood /flʌd/, blood /blʌd/.

(c) <u> is pronounced as /ɒ/ seen in words such as sun /sʌn/, hut /hʌt/, cut /kʌt/, Sunday /ˈsʌndeɪ/.

(d) <ou> is pronounced as /ɒ/ seen in words such as rough /rʌf/, trouble /trʌbl/, country /ˈkʌntrɪ/, young /jʌŋ/.

(e) <oe> is pronounced as /ɒ/ seen in word such as does /dʌs/.

6. /ɑː/ is pronounced by the letters a(r), au, e(r), ea(r).

(a) <a(r)> is pronounced as /ɑː/ seen in words such as pass /pɑːs/, last /lɑːst/, art /ɑːrt/, arch /ɑːrtʃ/, archeology /ˌɑːkəˌlɔːdʒi/, calm /kæm/.

(b) <au> is pronounced as /ɑː/ seen in word such as aunt /ɑːnt/.

(c) <er> is pronounced as /ɑː/ seen in word such as clerk /klaːk/.

(d) <ea(r)> is pronounced as /ɑː/ seen in words such as heart /hɑːrt/, hearth /hɑːθ/.

7. /ɔː/ is pronounced by the letters o, au, (w)a, ou, ow(l).

(a) <o> is pronounced as /ɔː/ seen in words such as sorry /ˈsɔrɪ/, dog /dɒg/, pot /pɒt/, hot /hɒt/.

(b) <au> is pronounced as /ɔː/ seen in words such as because /ˈbɛkəz/, qualify /ˈkwɑːlɪfai/, Australia /ˈɒstrəliə/, audience /ˈædəns/.
(c) <a> is pronounced as /ʌ/ seen in words such as what /wʌt/, was /wʌz/, swan /swʌn/, want /wʌnt/

(d) <ou> is pronounced as /ʌ/ seen in words such as cough /kɒf/, through /θruːf/

(e) <ow> is pronounced as /ʌ/ seen in word such as knowledge /ˈnɒldʒɪs/

8. /ɔ/ is pronounced by the letters a(w), ou, a, o(r), oo(r), oa(r), ou(r), oa

(a) <a(w)> is pronounced as /ɔ/ seen in words such as law /lɔː/, saw /sɔː/, lawn /lɔːn/, dawn /daʊn/, yawn /jaʊn/

(b) <au> is pronounced as /ɔ/ seen in word such as bought /bɔːt/,

(c) <au> is pronounced as /ɔ/ seen in words such as taught /tɔːt/, taunt /tɔːnt/, taurine /tɔːrɪn/, taurus /ˈtɔːrəs/.

(d) <a> is pronounced as /ɔ/ seen in words such as all /ɔːl/, also /ɔːlsəʊ/, wall /wɔːl/, ball /bɔːl/

(e) <o(r)> is pronounced as /ɔ/ seen in words such as horse /hɔːs/, cord /kɔːd/, sword /sɔːd/, born /bɔːrn/, shore /ʃɔː(ɹ)/, snore /snɔː(ɹ)/, more /mɔː(ɹ)/, before /bɪfrɔː(ɹ)/

(f) <oo(r)> is pronounced as /ɔ/ seen in words such as door /dɔː(ɹ)/, floor /flɔː(ɹ)/

(g) <oa(r)> is pronounced as /ɔ/ seen in word such as hoarse /hɔːs/.

(h) <ou(r)> is pronounced as /ɔ/ seen in words such as pour /pɔːr/, four /fɔːr/, court /kɔːt/, course /kɔːs/.

(i) <oa> is pronounced as /ɔ/ seen in words such as broad /brɔːd/, boar /bɔː(r)/.

9. /ʌ/ is pronounced by the letters o, oo, u, ou,

(a) <o> is pronounced as /ʌ/ seen in words such as woman /ˈwʊmən/, wolf /wʊlf/, bosoʊm /bʊzəm/

(b) <oo> is pronounced as /ʌ/ seen in words such as good /ɡʊd/, book /bʊk/, foot /fʊt/

(c) <u> is pronounced as /ʌ/ seen in words such as full /fʊl/, put /pʊt/, push /pʊʃ/

(d) <ou> is pronounced as /ʌ/ seen in words such as could /kʊd/, should /ʃʊd/, would /wʊd/.

10. /u:/ is pronounced by the letters o, oo, ew, ue, eu, oe, ui, u, ie,

(a) <o> is pronounced as /u:/ seen in words such as who /hu:/ whose /huːz/, do /du:/, move /muːv/
(b) <oo> is pronounced as /u:/ seen in words such as fool /fu:l/, spoon /spu:n/, food fu:d/, moon /mu:n/

(c) <ou> is pronounced as /u:/ seen in words such as soup /su:p/, you /ju:/, group /gru:p/, wound /wu:nd/

(d) <ew> is pronounced as /u:/ seen in words such as few /fju:/, chew /tʃu:/, flew /flu:

(e) <ue> is pronounced as /u:/ seen in words such as blue /blu:/, clue /klu:/, queue /kju:

(f) <eu> is pronounced as /u:/ seen in word such as feudal /fju:dal/

(g) <ie> is pronounced as /u:/ seen in word such as view /vu:

(h) <oe> is pronounced as /u:/ seen in word such as shoe /ʃu:

(i) <ui> is pronounced as /u:/ seen in words such as fruit /fru:t/, juice /dʒu:s/, suit /sju:t/

(j) <u> is pronounced as /u:/ seen in words such as flu /flu:/, rude /ru:d/, June /dʒu:n/

11. /ɜ:/ is pronounced by the letters o(r), ou(r), i(r), y(r), e(r), u(r), ea(r)

   (a) <o(r)> is pronounced as /ɜ:/ seen in words such as word /wɜ:d/, world /wɜ:ld/

   (b) <ou(r)> is pronounced as /ɜ:/ seen in words such as scourge /skɜ:ʒ/, bourbon /ˈbrɔn/

   (c) <i(r)> is pronounced as /ɜ:/ seen in words such as bird /bɜ:d/, girl /ɡɜ:l/, gird /ɡɜ:d/

   (d) <y(r)> is pronounced as /ɜ:/ seen in words such as myrtle /ˈmɜ:tl/, myrrh /ˈmɜ:(r)/

   (e) <e(r)> is pronounced as /ɜ:/ seen in words such as serve /sɜ:v/, herb /hɜ:b/, her /hɜ:(r)/

   (f) <u(r)> is pronounced as /ɜ:/ seen in words such as fur /fɜ:/, furniture /fɜ:njʊtʃə(r)/, murmur /ˈmɜrmə(r)/

   (g) <ea(r)> is pronounced as /ɜ:/ seen in words such as earth /ɜːθ/, pearl /pɜːl/

12. /ɔ/ is pronounced by the letters i, (l)e, a, u, o, ar, ai, e(r), o(r), ou(s).

   (a) <i> is pronounced as /ɔ/ seen in words such as possible /ˈpɔsəbl/

   (b) <er> is pronounced as /ɔ/ seen in words such as mother /ˈmɔðə(r)/, father /ˈfɑːtə(r)/
(c) <a> is pronounced as /æ/ seen in words such as woman /wʊmən/, about /əˈbaʊt/ among /əmˈɒŋ/ particular /ˈpærətɪk/.

(d) <u> is pronounced as /ʌ/ seen in words such as possess /pəˈsɛs/ suppose /səˈpɜːs/, conjugate /ˈkɒnˌdʒəɡæt/.

(e) <or> is pronounced as /ɔː/ seen in words such as oblige /əˈblaɪdʒ/, doctor /ˈdɒkˈtər/, dictator /ˈdɪkətər/.

(f) <ou(s)> is pronounced as /ʌ/ seen in words such as famous /ˈfeɪməs/, dangerous /ˈdʒærəntʃəs/.

(g) ai is pronounced as /ɛ/ seen in words such as fountain /ˈfaʊntən/, mountain /ˈmaʊntən/.

4.2.2. Diphthongs

1. /eɪ/ is pronounced by the letters a (a-e) (a-tion), a(i)e, a(y), ea, e(y)

   (a) The combination of (a-e) seen in words such as able /əˈbobl/, ace /eɪs/, age /eɪdʒ/, amaze /ˈæmeɪz/, alien /ˈæliən/, April /ˈeɪprɔl/ (a-o) major /ˈmeɪdʒər/ chaotic /ˈkətəkl/, (a-tion) accommodation /ˌkɒməˈdeɪʃən/, accumulation /ˌækjʊˈməʃən/.

   (b) <a-y> is pronounced as /eɪ/ seen in words such as astray /ˈæstreɪ/, say /seɪ/.

   (c) <ai> is pronounced as /eɪ/ seen in words such as aim /eɪm/, claim /klaɪm/, again /eɪˈɡɛn/, hail /heɪl/, afraid /əˈfrend/, claim /klaɪm/.

   (d) <e> is pronounced as /eɪ/ seen in words such as ballet /ˈbælət/, café /ˈkæfeɪ/.

   (e) <ea> is pronounced as /eɪ/ seen in words such as break /breɪk/, great /ɡreɪt/.

   (f) <ey> is pronounced as /eɪ/ seen in words such as hey /heɪ/, obey /ˈəbɛɪ/.

2. /aɪ/ is pronounced by the letters i, (i)e, y, y(e), a(i), u(y), (u)i

   (a) <i> is pronounced as /aɪ/ seen in words such as ice /aɪs/, icon /ˈaɪkən/, idea /aɪˈdeə/, high /hɑː/, biography /ˌbaɪˈɒɡrəfi/.

   (b) The combination of (i-e) seen in words such as bible /ˈbaɪbl/, advice, advice, clime /ˈklaɪm/, arise /əˈraɪz/, fertilizer /ˈfɜːtəˌlaɪzər/.

   (c) The combination of <i>- /aɪ/ seen in words such as virus /ˈvɜːrəs/, arrival /əˈraɪvəl/ minus /maɪnəs/.
(d) <y> is pronounced as /ai/ seen in words such as July /ˈdʒʊlɪ/, why /ˈwaɪ/, by /ˈbaɪ/, try /ˈtraɪ/, cyber /ˈsaɪbər/, cycle /ˈsaɪkl/, style /ˈstайл/, dynamic /ˈdæmənik/
(e) <ye> is pronounced as /ai/ seen in words such as dye /daɪ/, bye /baɪ/, eye /aɪ/, rye /raɪ/, wye /waɪ/
(f) <uy> is pronounced as /ai/ seen in words such as buy /baɪ/, guy /ɡaɪ/
(g) <ui> is pronounced as /ai/ seen in words such as gui /ɡaɪd/, gui /ɡaɪz/, disguise /dɪsɡaɪz/
(h) <ai> is pronounced as /ai/ seen in word such as aisle /aɪsəl/

3. /əʊl/ is pronounced by the letters u(re), u(ou), u(a), oo

(a) <u(re)> is pronounced as /ʊəl/ seen in words such as sure /ˈsʊər/, endure /ˈɪndər/, lure /ˈlʊər/, pure /ˈpʊər/
(b) <u(ou)> is pronounced as /ʊəl/ seen in words such as urine /ˈjʊərɪn/, urology /ˌjʊroʊˈlæʒɪ/, urdu /ˈʊrdʊ/, uranus /ˈərænəs/
(c) <u(a)> is pronounced as /ʊəl/ seen in words such as ambiguous /ˈæmbɪɡwəs/, continuous /kənˈtɪnuəs/
(d) <u(oo)> is pronounced as /ʊəl/ seen in words such as annual /ˈænjuəl/, casual /ˈkæʒʊəl/, eventual /ˈɛvəntʃuəl/, gradual /ˈɡrædʒuəl/, graduate /ˈɡrædʒuət/
(e) <oo> is pronounced as /ʊəl/ seen in words such as poor /ˈpʊər/, moore /ˈmʊər/

4. /əʊl/ is pronounced by the letters oy, oi

(a) <oi> is pronounced as /əʊl/ seen in words such as oyster /ˈoʊstər/, boy /boʊ/, soy /soʊ/ joy /dʒɔɪ/, annoy /ˈænəʊ/, employ /ɪmˈpɔɪr/, enjoy /ɪndʒɔɪ/
(b) <oi> is pronounced as /əʊl/ seen in words such as oil /ɔɪl/, boil /boʊl/, join /dʒɔɪn/, choice /ˈtʃaɪs/, foil /fɔɪl/, exploit /ɪkˈsploɪt/, moist /moʊst/

5. /eəl/ is pronounced by the letters a(r)e, ai(r), ea(r), e(r)e

(a) <a> is pronounced as /eəl/ seen in words such as air /eər/ , are /eər/, ayr /eər/
(b) <e> is pronounced as /eəl/ seen in words such as ere /eər/, heir /eər/
(c) The combination of (a-r)e is pronounced as /eəl/ seen in words such as share /ʃeər/ , care /keər/ , ware /weər/
(d) The combination of (a-lr)e is pronounced as /eəl/ seen in words such as fair /feər/, chair /tʃeər/, hair /heər/, stair /steər/
(e) The combination of (ea(r) is pronounced as /eə/ seen in words such as bear /bɛə(r)/, wear /weə(r)/, swear /sweə(r)/.

(f) The combination of (e)r(e) is pronounced as /eə/ seen in words such as where /weə(r)/

6. /əʊ/ is pronounced by the letters o, oa ou, oe, o(w)

(a) <o> is pronounced as /əʊ/ seen in words such as go /ɡəʊ/, no /nəʊ/, cold /kəʊld/, post /pəʊst/, close klaʊz/, drove /draʊv/, home /həʊm/, phone /fəʊn/

(b) <ow> is pronounced as /əʊ/ seen in words such as show /ʃəʊ/, slow /sləʊ/, know /nəʊ/, low /ləʊ/.

(c) <ou> is pronounced as /əʊ/ seen in words such as dough /dəʊ/, slaugh /sləʊ/

(d) <oa> is pronounced as /əʊ/ seen in words such as coa /kəʊ/, goa /ɡəʊ/, boa /bəʊ/

(e) <oe> is pronounced as /əʊ/ seen in words such as toe /təʊ/, hoe /həʊ/

7. /au/ is pronounced by the letters o(w), ou,

(a) <ow> is pronounced as /au/ seen in words such as owl /əʊlw/, crowd /kraʊd/, frown /fraʊn/, browser braʊzə(r)/, allow /əʊlau/, how /həʊ/, bow /bəʊ/, cow /kəʊ/, now /nəʊ/, clown /kləʊn/

(b) <ou> is pronounced as /au/ seen in words such as ounce /əʊns/, ouch /əʊʃ/, out /aʊt/, couch /kəʊʃ/, cloud /klaʊd/, foul /faʊl/, found /faʊnd/, blouse /blaʊs/, fountain /faʊntən/, plough /plaʊ/

8. /aɪ/ is pronounced by the letters ee(r), ia, ie, iu, ea, e, io, an

(a) <ee> is pronounced as /aɪ/ seen in words such as deer /dɪə(r)/, beer /bɪə(r)/, career /kærə(r)/, engineer /ɪŋˈgɪnɪər(r)/,

(b) <ie> is pronounced as /aɪ/ seen in words such as alien /ˈaɪliən/, audience /ˈaudɪəns/, barrier /ˈbærə(r)/, frontier /ˈfrɔntɪər(r)/

(c) <ia> is pronounced as /aɪ/ seen in words such as aerial /ˈɛərɪəl/, bacteria /ˈbæktrɪəs/, cafeteria /ˌkæfɪˈteɪriə/

(d) <a(n)> is pronounced as /aɪ/ seen in words such as comedian /ˈkəmɪdɪən/, European /juəˈrɑːpɪən/

(e) <iu> is pronounced as /aɪ/ seen in words such as aluminium /ˈæljʊmɪnɪəm/, condominium /ˌkɒndəˈmɪnɪəm/
(f) <ea> is pronounced as /əl/ seen in words such as appear /əpər(r)/, cereal /ˈsɛərəl/, Korea /ˈkɔrə/.

(g) <e> is pronounced as /əl/ seen in words such as era /ˈɛrə/, bacteria /ˈbæktrɪəs/BLUE, cafeteria /ˈkæfətetrə/, cereal /ˈsɜərəl/, coherent /kəhərənt/.

(h) <ao> is pronounced as /əl/ seen in words such as exterior /ɪkstəˈrɪə(r)/, champion /ˈtʃæmpɪən/, gabion /ɡəˈbaɪən/.

4.2.3. Triphthongs

1. /aɪə/ is pronounced by the letters irl/ə/, io, ie, ia

   (a) The combination of (i-r-ə) is pronounced as /aɪə/ seen in words such as hire /hər(r)/, fire /faɪə(r)/, iron /aɪən/

   (b) <ia> is pronounced as /aɪə/ seen in words such as liar /laɪə(r)/, trial /traɪə(r)/, reliable /rɪˈlaɪəbl/, diaplar /daɪˈæplə(r)/, diamond /daɪˈændəm/

   (c) <io> is pronounced as /aɪə/ seen in words such as lion /laɪən/, riot /raɪət/, violence /ˈvɪəlɪsns/

   (d) <ie> is pronounced as /aɪə/ seen in words such as science /ˈsaɪəns/, anxiety /ˈænəsɪtɪ/, diæt /daɪət/.

2. /eɪə/ is pronounced by the letters aye(r), ayo

   (a) <aye(r)> is pronounced as /eɪə/ seen in words such as layer /ˈleɪə(r)/, player /ˈpleɪə(r)/.

   (b) <aʊə> is pronounced as /eɪə/ seen in words such as mayor /ˈmeɪər(r)/, mayonnaise /meɪˈɒnəs/ bayonet /ˈbeɪənət/, crayon /ˈkreɪən/.

3. /əʊə/ is pronounced by the letters əu(r), owe, owad

   (a) <ou(r)> is pronounced as /əʊə/ seen in words such as hour /ˈhaʊə(r)/, sour /ˈsɔːə(r)/, oun /əʊə(r)/, flour /ˈflɔə(r)/.

   (b) <owe> is pronounced as /əʊə/ seen in words such as power /ˈpaʊə(r)/, tower /ˈtaʊə(r)/, bowel /ˈbaʊəl/, flour /ˈflɔə(r)/.

   (c) <owa> is pronounced as /əʊə/ seen in word such as nowadays /nəˈdaʊədəz/, rowan /rəʊən/.

4. /əʊə/ is pronounced by the letters oya
(a) <oya> is pronounced as /ɔː/ seen in words such as loyal /ˈlɔːl/, royal /ˈrɔːl/, soya /sɔː/.

5. /ɔː/ is pronounced by the letters owe(r)

(a) <owe(r)> is pronounced as /ɔː/ seen in words such as lower /ˈləʊə(r)/, slower /ˈsləʊə(r)/, mower /ˈməʊə(r)/.

5. Conclusion

English pronunciation does not have a fixed pattern, and it shows the inconsistency of pronunciation. It makes the EL learners experience the incorrectness of pronunciation, for example lay /leɪ/ or effect /ɪˈfekt/ is pronounced as /ləʊ/ or /@fect/. While speaking, correct pronunciation is important to catch the correct meaning and avoid misunderstanding. By knowing the sounds represented by letters and the patterns how to pronounce makes easier to pronounce the English words.

English sounds are lettered by single, double and cluster. Monophthongally, /iː/ is sounded by ee, ea, ie, ei, e, i, eo, ey, (ua)y, /ʌ/ by i, y, e, ie, a, o, u, ui, oe, /e/ by e, a, eo, ea, ei, u, ai, ie /æ/ by a, ai, ua, /ʌ/ by o, oo, u, ou, oe, /aː/ by a(r), au, e(r), ea(r), /æ/ by o, oo, u, ou, /ʌ/ by o, oo, ou, ew, ee, eu, oe, ui, u, ie, /æ/ by o(r), ou(r), i(r), y(r), e(r), u(r), ea(r), and /ɑː/ is sounded by i, (l)i, e, a, o, ar, ai, e(r), o(r), ou(s). Diphthongally, /eɪ/ is sounded by a(a-e) (a-i) (a-tion), a(i) e, a(y), ea, e(y), /ɛ/ by i, y, e, a(i), u(y), /eɪ/ by u(re), u(r), u(ou), u(a), oo /ɔ/ by oi, oy, /eɪ/ by a(r)e, a(i)r, ea(r), e(r)e /əʊ/ by o, o(a) ou, oe, o(w) /əʊ/ by o(w), ou, and /ɑː/ is sounded by ee(r), ia, ie, iu, ea, e, io, an. Triphthongally, /aɪə/ is sounded by ir/əl/, io, ie, /eɪə/ by aye(r), ayo, /aʊə/ by ou(r), owe, owa(d), /əʊə/ by oya, and /ɔːə/ is sounded by owe(r).

/ɪ/ is pronounced in double e, final syllable sound -C<e>C<e>, -end C<i>C<e>. /ʌ/ is pronounced in morpheme plural form -ies, morpheme -ed followed by /t/ /k/ /d/, or /æ/ close syllable, and final syllable sound -C<e>A<C<e>. /eɪ/ is pronounced in one syllable word C<e>C. /ʌ/ is pronounced in one syllable word C<o>C<e>. /əʊ/ is pronounced in one syllable word C<o>C<e>. /eɪ/ is pronounced when a meets l (l/ɪ/) in one syllable word, a meets w (silent /w/) in one syllable word, o meets r (equivocal) in one syllable sound. /aʊ/ is pronounced in morpheme noun form -or and morpheme adjective form -ous. r positioned as close syllable influences to lengthen [əː, ɔːː, ɔː], and to produce schwa, so does in diphthong. /eɪ/ is pronounced in one syllable word C<e>C<e>. /eɪ/ is pronounced in one syllable word C<i>C<e>. /ɔː/ is pronounced in one syllable word
C<u> <r> <e>. /æ/ is pronounced in one syllable word C<a> <r> <e>, CVV<r>. /æ/ is from letter o pronunciation, and /æ/ is pronounced when there is syllable with o. /æ/ is pronounced in one syllable word C<e> <e> <r>. Double semivowel will not perform triphthong. Letter i, u, w, y produce triphthong when they are combined with vowels.

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