

**UNIVERSITY OF GHANA
COLLEGE OF HUMANITIES**

**ACQUISITION OF ENGLISH SYLLABLE STRUCTURE THROUGH
EXPLICIT TEACHING AMONG HAUSA SPEAKERS**

BY

MOHAMMED SADAT

(10328156)

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DECLARATION

I hereby declare that apart from the quotation and the references to other works which have been duly acknowledged, this dissertation is the result of my own research, and that it has neither in whole nor in part been presented for any degree elsewhere.

Mohammed Sadat
(Candidate)

Sign;  ..

Date: 1st October, 2020

Dr. George Akanlig-Pare
(Supervisor)

Sign.....  ..

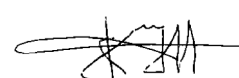
Date: 6th October, 20220

Professor. Thomas J. Conners
(Supervisor)

Sign:  ..

Date: 2nd October, 2020

Dr. John T. Agor
(Supervisor)

Sign:.....  ..

Date: 2nd October, 2020

ABSTRACT

The debate between the effectiveness of explicit and implicit teaching has taken a center stage in the second language acquisition literature over a long period of time. Most of such debates center on grammar teaching and very few discuss suprasegmental features especially, syllable structure. All languages have some sort of syllabicity; however, the phonetic characteristics of syllables differ across languages. The difference can be seen in the types of sounds that can cluster together around a single syllabic nucleus. The current work examines the effects of explicit instruction on the acquisition of English syllable structure among native Hausa speakers. The work investigates the efficiency of interventions through explicit teaching on the English syllable structure in a classroom setting. English syllables have some structures that are absent in Hausa and these structures pose some difficulties for Hausa speakers who learn English. This work explores the structures and adopts explicit instruction as an intervention to remedy the difficulties through explicit teaching. The investigation was done on participants who are Ghanaian Hausa speakers learning English. Generally, the work adds to the literature on the efficacy of explicit teaching, and specifically on the teaching of English syllable structure among Hausa speakers. Finally, the work investigates some of the constraints that learners and teachers are faced with in Teaching English as a Second Language (TESL) and offers suggestions for improving the teaching of English pronunciation to Hausa learners. The study discovers that in disyllabic word, there is preference of trochaic syllable over iambic syllable, acquisition of onsets is easier than acquisition of codas and finally, explicit teaching is very effective in classroom.

DEDICATION

To my family, for patiently enduring and persevering during my long absence from home in my quest for knowledge and wisdom.

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CHAPTER ONE

INTRODUCTION

1.0 Background

Languages have a number of prosodic features such as syllable, stress, intonation, and pitch. In all these prosodic features, the syllable is one of the most obvious prosodic features in a language. A syllable is a unit that can be found in all languages and both first and second language speakers can access it. It is obvious that all languages have some kind of syllabicity but the features differ from one language to another. The features largely depend on the sound type that can cluster around a single sonorant peak. The cluster of sounds around a single sonorant peak are the consonants. A syllable in every language has definite rules about the specific onset and coda.

Some languages operate open syllables in their sound systems. The syllables in these languages always end in a vowel but not a consonant. On the other hand, other languages operate closed syllables where a syllable must end in a consonant. Interestingly, in the mix of all these preferences, some languages allow a variety of syllabic structures. English is an example: a syllable may contain only a vowel, or consonant cluster + vowel + consonant cluster. The most extreme examples are *fourths*, *fifths*, *strengths*, *streams*, *glimpsed*.

The structure of the syllable in Hausa is different from that of English. For example, Hausa does not operate consonant clusters but English does. Also, open syllable is permissible by the phonological rules of Hausa. (Sadat, 2016).

English is used by a number of countries as a second language for many years. It is the official language of many countries in the world, including Ghana. English as a Second Language (ESL) exhibits some levels of innovations by the second language speakers which may not be known to the native English speakers. In Ghana, since the main source of acquisition is through the formal school system through teachers who are non-native speakers, the acquisition of target pronunciation is far from reached. A number of factors are identified as having different effects on the perceived status of pronunciation: language learning purpose, language context, learners' age, and first language (L1).

Geographically, English has always had its regional pronunciations. It is therefore to be expected in Ghana that English speakers would have peculiar pronunciations depending on their language background. This is because we have many languages spoken by the people. In Ghana, the RP does not matter for Ghanaian English speakers. Ofori (2012) is of the view that Ghanaian English speakers do not give attention to the RP; the RP is only used as a reference point for measuring the pronunciation of Ghanaian English. Huber (2008:90) confirms that "an accent that sounds too British is usually frowned upon or even ridiculed".

The issue of nativization in relation to English has been given much attention in the literature. Nativization is considered as the modification of a language in relation to a socio-cultural context. Nativization occurs through language contact and language acquisition. Language contact has to do with the contact

of two or more languages as a result of their setting whereas language acquisition means the learning of a language in addition to the first language.

In Ghanaian English, one can observe the local culture of Ghanaianism being reflected in the English, especially in pronunciation. This phenomenon of innovations in Ghanaian English is found at various levels of linguistic construction, namely: phonology, morphology, syntax, and lexicosemantic. Sey (1973) made mention of some words used in Ghanaian English to justify his position for nativization. His argument is that once the words used in Ghanaian English are English words, and yet their meaning are not known to the native speakers, that is enough to confirm the existence of non-native variety of English. For instance, Sey (1973:80) claims in the northern part of Ghana, traditional rulers sit on a skins of animals, so the use of the word ‘enskin’ to mean ‘installation of a chief’ is in order.

Again, among the Akans, words like ‘enstool’ and ‘destool’ are used for both enthrone and dethrone a traditional ruler respectively. Sey (1973) added that coinages such as ‘bush meat’ (game), ‘gate fee’ (entrance fee), ‘stinking fish’ etc. are all words peculiar to speakers of non-native varieties, specifically Ghanaian English and are borne out of nativization. These words are clearly not found in the repertoire of the native speakers and there would not be any appropriate words that will fit exactly the concepts Ghanaians want to express.

Dako (2001:107) describes Ghanaian English as “a mode of speaking English that is recognized by the geographic territory Ghana and can therefore be

identified as Ghanaian”. Adika (2012) mentions that English in Ghana, as an outer circle phenomenon, has gone through the level of adaptation and innovation over the years at all the linguistic levels, including vocabulary, idiomatic usage, and pronunciation. English in Ghana is considered as a second language and it is very clear that most Ghanaians who use English use it as their second language. Since these people are from different ethnic backgrounds, it is expected that their English will display some levels of innovation, deviation or interference based on their ethnic background. These interferences are bound to occur at all levels. Generally, in these kinds of situations, the second language acquisition may be characterized by simplification, overgeneralization and transfer which may not be known to a native speaker.

Görlach (1988) argues that the most effective test to identify a speaker is pronunciation. Dolphyne (1995:31) has this say on recognition of Ghanaian English; “When one considers the spoken language, it is clear that there is a distinct accent that can be identified as Ghanaian English, one can tell, from their spoken English on radio without knowing who the speakers are, that one of them must be Ghanaian”. The unique feature about Ghanaian English is seen more in the spoken English. Huber (2008:90) concludes that “Ghanaianness is expressed in spoken English more than any other area of English use”.

My considerable experience as a trained teacher reveals that some teachers ignore teaching pronunciation, especially at the primary and junior high levels in Ghana because they have never had any training in pronunciation and secondly, pronunciation is not examinable at those levels.

Studies evaluating phonological interference usually investigate the interferences in terms of phonological features of languages that are closely related. Even with those studies that investigated language specific interferences, just a few have looked at the impact of the phonological differences on instruction in an explicit classroom setting. Again, with works that have studied phonological differences in a classroom setting, none have considered English and Ghanaian Hausa. Therefore, this current study is unique because it discusses the influence of Ghanaian Hausa on Ghanaian English pronunciation in a classroom setting. More importantly, the study will add to the literature on the linguistic interferences of Hausa on English in Ghana.

Again, the study discusses the difficulties in the pronunciation of English syllable structure among Hausa speakers and identifies those suprasegmental features that can be remedied through explicit teaching. Hausa learners display a set of unique characteristics in pronunciation of English syllables, and the aim of this study is to see which of these can be remedied through explicit teaching. Cunningham (2013) establishes that if we are aware of what kinds of phonetic features are learnable and teachable, these features can then be targeted and that will lead to efficient teaching. Finally, the work will investigate some of the constraints that the learners and teachers are faced with in Teaching English as a Second Language (TESL) and to make some suggestions for ways of improving the teaching of English pronunciation to Hausa students.

1.1 Ghanaian English

Since Ghanaians are from different ethnic backgrounds, it is expected that their English will display some level of innovations, deviations or interferences based on their ethnic backgrounds. These interferences are bound to occur at levels of language. Generally, in these kinds of situations, the second language acquisition may be characterized by simplification, overgeneralization and transfer which may not be known by a native speaker. In other words, there may be traces of LI transfer in the second language acquisition.

Crystal (2008) explains transfer as the influence of a person's first language on the second language. In Ghanaian English, the transfer that is conspicuous in relation to the sound system is the substitution of both voiceless and voiced alveolar stop /t/ and /d/ for the dental fricatives /θ/ and /ð/ respectively. This occurs in the pronunciation of the 'th' sound in words like 'thank', 'think', 'this' etc. The transfer occurs because the local languages do not have the dental sounds in their consonant inventories. The speakers therefore fall on the nearest available sound which are the voiced and voiceless alveolar stops /t/ and /d/. In speech therefore, it is very difficult for a listener to differentiate between the initial sounds in these morphemes: 'tin'- 'thing', 'tank' – 'thank', 'dose'- 'those', 'dis' – 'this'.

Ghanaian English has a unique pronunciation that is peculiar to Ghanaians. A Ghanaian can therefore be identified through pronunciation even when speaking on phone. As we are trying to make a case for Ghanaian English, we should

also recognize the fact that RP still stands out in terms of recognition among the world Englishes. Gimson (2001:8) opines that

“Despite the discrepancy in numbers, RP continues for historical reasons to serve as a model in many parts of the world; if a model is used at all, the choice is still effectively between RP and General American. Most teaching textbooks describe one of these two types and, of the two, RP seems to be the more widely acceptable; certainly some form of British English is more generally referred to in Europe, in Africa, in the Indian Subcontinent, and increasingly in other parts of Asia and in South America”.

Ghanaian are not particularly focusing on the RP because it is not heard on local television or radios. Secondly, the RP is hardly used in English examinations in schools. More importantly, people frown on others who deliberately sound foreign, since speaking like British is not the aim of the educated Ghanaian (Sey 1973; Saah 1986; and Dako, 2001). Huber (2008:90) also says “an accent that sounds too British is usually frowned upon or even ridiculed”. Quartey (2009: 5) confirmed that the RP is not the choice in Ghana “where RP cannot be effectively taught or examined because there are only a handful of people, if any at all, in the whole country, who can be said to use this accent. The teachers in the schools most definitely do not”. Ofori (2012: 10) added “RP does not play any major role now in Ghana except when used as a reference point for measuring the pronunciation of Ghanaian speakers of English”.

1.2. Phonology of Ghanaian English

It is important to note that there are so many languages in Ghana, but these individual languages have a very minute individual effect on the generality of sound system of Ghanaian English. In a related development, Dako (2001) examines the speech of respondents from different ethnic backgrounds: Akan (Akuapem and Asante Twi), Ga, Ewe and Dagare. She finds out that there are features which are common to all Ghanaians irrespective of their native languages.

The sound system of Ghanaian English exhibits forms that are uniquely different from the target language and these forms have been extensively dealt with in the literature (Sey 1973; Dako1991; Ahulu 1994; Asante 1996; Dako 2001; Koranteng 2006; Okyere 2013; Ofori 2012; Huber, 2008; etc.).

For instance, Asante (1996) discusses features such as spelling pronunciation, syllable-timed rhythm, and substitution of alveolar stops for dental fricatives. The spelling is not much of a problem in Ghanaian English, only that some students mix the British spellings with that of American spellings. In the past, the West African Examination Council (WAEC), the body that is mandated to conduct examinations at the junior and senior high levels for all the Anglophone Countries in the West Africa, accepted only the British spellings, therefore, the body expected students to go strictly by the British spellings. However, the body has now accepted the American spellings as part of its requirements. Eventually, what WAEC does not want is the mixture of the two in an easy. Candidates are therefore advised to stick to one in writing their essays.

1.2.1 Vowels of Ghanaian English

Koranteng (2006) describes the sound system and phonological features of Ghanaian English and, in her work, she tries to find the standard of English pronunciation in Ghana which can serve as a reference point for teachers and examiners. She wanted the speakers of Ghanaian English to have a standard which will be distinctly Ghanaian and acceptable to the Ghanaian as well as to other users of English elsewhere. Koranteng (2006:323- 326) describes the pure vowels of Ghanaian English into details by providing the environment in which the vowels occur. Below is the description:

/ i / as in ‘sit’

/ e / as in ‘day’

/ ε / as in ‘pen, nurse, care, problem’

/ a / as in ‘cat, cart, about, one’

/ ɔ / as in ‘lot, more, result’

/ o / as in ‘go’

/ u / as in school, good, during.’

Koranteng (2006: 327) added that while some consider / i: / and / ɪ / or / ʊ / and / u: / as free variants, others see them as separate phonemes. Huber (2008) also identifies 5 vowels [i,ε,a,ɔ,u] in Ghanaian English . He added that “the half close /e/ and /o/ which results from the monophthongization of the British diphthong /eɪ/ and /ou/ are added, making it seven Ghanaian English monophthongs. Quartey (2009:51) also identified 5 pure vowels in Ghanaian English:

/ɔ:/ - / / --- as /ɔ/

/u:/ and /ʊ/ --- as /u/

/ɑ: / and /æ/, /ʌ/ and /ə/ --- as /a/

/ɜ:/ --- as /ɛ/
/i:/ and /ɪ/ realized as /i/

In the related study of the segmental features of spoken English in Ghana, Ofori (2012) suggests that the high front vowels / i / and / ɪ / should not be treated as one vowel as Koranteng (2006) suggests but they should rather be considered as two distinctive phonemes in Ghanaian English. He based his argument on the works of Dako (2001) and Adjaye (2005) who have the two vowels as separate phonemes in the vowel inventory. Again, Ofori (2012) argues that the high back vowels / u: / and / ʊ / should also be separated as two distinctive phonemes and not as free variants as discussed by the Koranteng (2006).

Ofori (2012) argues that the long central vowel /ɜ:/ is part of the vowel inventory so it should not be left out in the discussions of the sound system of Ghanaian English as other researchers have done. I, however, do not agree with Ofori (2012) when he mentions that the way forward is for speakers to be educated on these vowel sounds, once a vowel exists in a language, speakers will produce it. It is up to researchers to identify the sounds and describe them for people to know that the sound actually exists in the language.

According to Ofori (2012), the following 10 vowels are in the inventory of Ghanaian English:

/ i / ɪ / e / ɛ / a / ɔ / o / u / ʊ / ɜ /

Koranteng (2006) identifies six diphthongs in Ghanaian English:

/aɪ ~ ai / as in 'find'
/aʊ ~ au / as in 'now'
/ɔɪ ~ ɔi / as in 'joy'

/iɛ ~ iə / as in year'
/ uə ~ ua / as in actual'
/ ɪə / as in sure.'

Huber (2008:81) however argues that the diphthongs of Ghanaian English are not categorical because the same person may vary between monophthongs, slight diphthong or may retain the RP diphthong. Quartey (2009:51) agreed with Huber (2008) in relation to the diphthongs, Ghanaians vary in pronunciation of diphthongs.

1.2.2. Consonants

Koranteng (2006) identifies twenty two consonants in Ghanaian English and says all the twenty two consonants in Ghanaian English are found in the target English except velar nasal /ŋ/ and voice postalveolar fricative /ʒ/. According to Koranteng (2006:332), the dentals (θ and ð) are phonemic in Ghanaian English but there is an alternation in their use as individuals switch to / t / and / d / in their place of articulation and this often happens unconsciously in rapid speech. Huber (2008:85) confirms that / θ / and /ð/ are often replaced by the alveolar plosives / t/ and /d/ or they are dropped all together in a word final position. Ofori (2012) did a good work by recognizing the existence of the voiced postalveolar fricative /ʒ/ which the other researchers failed to notice. He said even though, the sound may not be heard in words such as television or confusion, it exists in words like treasure, measure and pleasure. This is a sound that is missing in the consonant inventory of Koranteng (2006). Ofori (2012) confirmed that the preferred substitute for the voiceless dental fricative / θ / is the voiceless alveolar plosive /t/ while that of voiced dental fricative /ð/ is the voiced alveolar plosive /d/.

In relation to spelling pronunciation, Asante (1996) discusses that in Ghanaian English the final letters in the following words are pronounced in the speech: ‘tomb’, ‘comb’ and ‘sing’. She added that the glottal sound /h/ is heard in words such as ‘what’ and ‘when’. Again, Okyere (2013) identifies that consonantal variations in the realization of the affricates and the fricatives contribute to the unique pronunciations of Ghanaians. He said there is the tendency for Ghanaians to approximate the sounds and choose the one nearest to them, which happens to be /d/ for /ð/ and /t/ (or sometimes /f/) for /θ/. For instance, ‘thick’ [θɪk], ‘path’ [pæθ], ‘they’ [ðeɪ] etc are usually realized as [tik], [pat] or [paf], and [dei] respectively.

1.3. The morphological and the syntactic level.

Few works have been done on the structure of words in Ghanaian English (Sey, 1973; Asante, 1995). In these works, a distinction is made between inflectional and derivational affixes in Ghanaian English. With regard to derivational processes, a few observations have been made by Sey(1973). Sey makes mention of ‘enstool’ and ‘enskin’. These are terms commonly used in Ghanaian English to refer to the installation and dethronement of a traditional ruler from the Akan ethnic group and that of the Dagombas from the northern part of Ghana. The root of the words are nouns and a derivational morpheme en- has been added to it to form a verb. The reason for this transfer of culture in the adoption of these words indicates that the target English words cannot decode the meaning of kinship in Ghana with the use of such words as ‘enthroned’/’dethrone’.

Asante (1995) discusses the inflectional morpheme used in plural formation and argues that there seems to be overgeneralization of the plural morpheme in non-count contexts. Forms such as the following have been observed to occur in the written productions of educated Ghanaians as observed by (Asante 1995; Bokamba 1982; Sey 1973, etc); ‘Equipments’, ‘luggages’, ‘machineries’, and ‘jewelleries’.

A lot has been said at the level of syntax (Anderson, 2009; Sey 1973; Ahulu, 1994; Gyasi, 1990). Anderson (2009) identifies deviant usages such as: articles, relative pronoun, deviant adjectival use of the present participle, idioms and idiomatic expressions etc. For instance, it is observed the divergence in the use of articles, like *‘the’* and *‘a’*. These articles are being interchanged in both speech and writings of some Ghanaians. According to Platt et al (1984), the interchanging of articles can be a phenomenon of transfer. Tingley (1981) confirmed the deviances concerning the use of articles, prepositions, phrasal verbs, mass nouns, concord and modal auxiliaries.

1.4. Lexico-semantic feature

Language contact situation is one of the common linguistic phenomena that are responsible for the adaptation of vocabulary to new socio-cultural settings. Some of these devices are semantic restriction, coinages and borrowing, semantic extension, and semantic shift. Adika (2012:157) confirms that “Ghanaianisms have arisen mainly through coinages, and semantic processes involving semantic extension or restriction, or a combination of both, semantic transfer and semantic shift. In the related work, Quarcoo (1994) added that these

linguistic devices are new expressions created to convey indigenous ideas or experiences.

These devices have great influence in the languages of the world and Ghanaian English is no exception. They help expand the number of words found in a language and this can be seen in the repertoire of the speakers in their interactions. In Ghanaian English, nativization of the lexicon has been discussed in a number of studies. (see Bokamba 1991; Kachru 1982; Sey 1973; etc). In the ensuing sub-sections, I provide a list of such cases and their sources.

1.4.1 Semantic extension

According to Crystal (2008), extension is used in the classification of types of semantic change that refers to a widening of meaning in a lexical item as opposed to narrowing. He gave the example of ‘virtue’ in Latin which was a male quality which today applies to both sexes. Ghanaian English has many words whose meanings have been extended to cover additional events or phenomenon. These words have acquired semantic extensions and these extensions of meaning are not known in the target English. Some of the words are illustrated in the **table 1.1** below:

Table 1.1: Semantic extension

<i>Word</i>	Semantic extension in Ghanaian English
<i>Linguist</i>	spokesman for a chief.
Artificial	women’s wig”.
Balance	change (money)
Colonial /Colo	old fashion
“herbalist”	one with supernatural powers

1.4.2. Semantic shift

Semantic shift happens when a lexical item gradually or suddenly moved from the use of one meaning to another. This process also increases the stock of vocabulary items in a language and the process renders the central meaning marginal.

Table 1.2: Semantic shift

Word	Semantic shift in Ghanaian English
Family	a group of people descended from a common ancestor, kindred or lineage.
Park	a football field
Mate	a bus conductor

1.4.3 Semantic restriction

According to Adika (2012), semantic restriction is a situation where the meaning of a word is constrained to a restricted environment within Target English semantic field.

Table 1.3: Semantic restriction

Word	Semantic restriction in Ghanaian English
Smock	a tunic of coarse cotton traditionally worn by people from the northern part of Ghana
Fitter	restricted to a motor mechanic
Guys	for only men

1.4.4 Coinage

Coinage, as a word-formation device, occurs when a new word is created either deliberately or accidentally to serve a purpose. Most of the coinages in Ghanaian English are compound words.

Table 1. 4: Coinage

Word	Target meaning	Sources
bush meat	Game	Sey (1973)
chewing stick/sponge	a kind of twig used for cleaning the teeth	Sey (1973)
gate fee	entrance fee	Sey (1973)
coal pot	a kind of brazier, with an upper and lower chamber separated by a grate, in which charcoal is lighted for cooking	Sey (1973)
stinking fish	fish specially treated in brine and used for seasoning soups and stew	Sey (1973)
chop bar	Restaurant	Dako (2003)
chop box	A wooden box for students in the bearding house	Dako (2003)
Outdooring	Christening	Dako (2003)
Small room	Toilet	Adika (2012)
enstool/destool	Enthroned	Dako (2003)
Enskin	Enthroned	Dako (2003)

It is very clear at this stage that English spoken in Ghana is somehow distinct from the Target English. This difference is largely seen in spoken than in written English. Nevertheless, it is intelligible to a native speaker and it hardly affects comprehension and meaning.

1.5. Ghanaian Hausa

According to Dakubu (1996), there are 50 indigenous languages in Ghana. Apart from English as the official language, she considered the following languages as the major ones: Ga, Dagaare, Akan, Dagbani and Ewe. Yankah (2006) added that a language like Hausa, even though considered as non-Ghanaian, it is the lingua franca among the zongo habitants, and in northern Ghana. Also, Arabic, which is learnt in Islamic schools across Ghana but mainly used for religious purposes.

The Hausa community in Accra dates from the middle of the nineteenth century, (Dakubu 1997). Dakubu (1997:14) also attributes the use of Hausa as a lingua franca in Ghana to partly the extensive trading activities by the Hausa and partly to the British in colonial times. Sadat (2011) confirms that Hausa came into Ghana via trade and military activities during the colonial era and it has still remained one of the major lingua francas in the trading sector. Huber (1999:137) established the fact that Hausa is widely spoken as a second language in Ghana, but it is hard to estimate the number of its first and second language speakers. According to Huber (1999), in the immigrant quarters of the urban centres, up to 70-80% have some level of proficiency in the language.

There is not much documentation on Ghanaian Hausa especially, on the sound system. Tijani (2008) attributes this to the fact that the language is not identifiable with a particular geographical location as do the other native language. The first major work on Ghanaian Hausa was done by Dakubu (1977) where she discussed some peculiarities of Ghanaian Hausa as against Nigerian Hausa. Sadat (2011) also identifies some phonological and morphological features of Ghanaian Hausa. He identifies 7 vowels, 3 diphthongs and 20 consonants in Ghanaian Hausa. Since this current work discusses the sound system of both Ghanaian English and Hausa, it is prudent the sound systems are put together for easy clarification. The table below contains the sounds of Ghanaian English and Ghanaian Hausa.

Table 1. 5: IPA, Ghanaian English and Ghanaian Hausa.

IPA	Gh.E	Gh.H	IPA	GhE	GhH	IPA	GhE	GhH
/p/	/p/	/p/	/θ/	/t/	/t/	/a/	/a/	/a/
/b/	/b/	/b/	/ð/	/d/	/d/	/ɑ/	/ɔ/	/o/
/t/	/t/	/t/	/ʃ/	/ʃ/	/ʃ/	/æ/	/a/	/a/
/d/	/d/	/d/	/ʒ/	/-/	/-/	/ʌ/	/a/	/a/
/k/	/k/	/k/	/r/	/r/	/r/	/ə/	/a/	/a/
/g/	/g/	/g/	/l/	/l/	/l/	/e/	/e/	/e/
/f/	/f/	/f/	/w/	/w/	/w/	/ɔ/	/ɔ/	/o/
/v/	/v/	/-/	/r/	/-/	/-/	/ɜ/	/ɜ/	/e/
/s/	/s/	/s/	/j/	/j/	/j/	/u/	/u/	/u/
/z/	/z/	/z/	/ɸ/	/f/	/-/	/u/	/u/	/u/
/m/	/m/	/m/	/β/	/v/	/-/	/i/	/i/	/i/
/n/	/n/	/n/	/tʃ/	/tʃ/	/tʃ/	/ɪ/	/i/	/ɪ/
/ŋ/	/-/	/ŋ/	/dʒ/	/dʒ/	/dʒ/			
/h/	/h/	/h/						

Cross-linguistically, the unmarked sounds are usually more common in a language than the marked ones. Therefore, it is expected that the sounds that are common in one's first language would be easier to produce in a second

language. According to Eckman (1977), the Markedness Differential Hypothesis explains how the unmarked forms are common in languages of the world. Gass and Selinker (2008:180) predict that “a speaker of a language with more marked forms in the NL structure than that which occurs in the TL structure will have easier time learning the TL structure than a speaker whose NL is less marked than the TL”.

It is therefore important to acknowledge the role played by transfer in the SLA, because our L1 forms the basis of our thought. It is in this direction that Gass and Selinker (2008) mention the importance of Contrastive Analysis and that it could not be abandoned in phonological analysis.

1.6 Statement of the Problem

Segmental and suprasegmental dissimilarities between English and Hausa are enormous. These differences pose challenges for Ghanaian Hausa speakers learning English as well as teachers who teach English to native Hausa speakers. A comparison of the phonology of Ghanaian English and Ghanaian Hausa shows that each of them has unique features of pronunciation. The English sound inventory has sounds that are absent in Hausa. Some of these sounds are the dental fricatives /θ and ð/, the central vowels /ɜ:, ʌ, ə/, the voiced labiodental fricative /v/ and the voiced palato-alveolar fricative /ʒ/. As a result of this, Ghanaian Hausa learners find it challenging to pronounce these sounds. It is therefore normal for speakers to substitute those sounds with similar ones in their L1. The challenges may arise because of the L1 interference. Again, Ghanaian Hausa operates an open syllable and speakers normally add an

epenthetic vowel to English syllables that end with a consonant. Also, Hausa does not accept consonant clusters.

Ghanaian Hausa does not have ‘silent letters’. The speakers pronounce every letter in a word. Unlike English where we have some letters (eg. **bomb**, **dumb**, **muscle**, **Wednesday**, **vegetable**, **honest**, **calm**, **listen**) in a word but we do not pronounce them, Ghanaian Hausa speakers pronounce every letter of a word. Again, stress plays a very significant role in English. Unlike Hausa, English allows that one syllable is stressed more than others in each word. Wrong use of stress will therefore lead to unintelligibility. In other words, a change in the stress pattern of a word may change some of its sounds and eventually its word class and meaning. For instance, the word ‘import’ has the stress on the first syllable when it is a noun, and on the second when it is a verb. These and many more features will be examined and explicit teaching will be applied in order to remedy the challenges they pose to the Hausa learner.

1.7 Objectives

The main objective of this work is to investigate the acquisition of English syllable structure through explicit teaching.

To achieve this objective, this study aims to answer the following **research questions**:

1. What are the English syllable structure types that pose difficulties to a Hausa learner of English?

2. Can a Hausa learner acquire all the English syllable structure types in a classroom?
3. Is explicit teaching effective in the acquisition of the syllable structure of a second language?
4. Can intervention help solve the pronunciation difficulties that Hausa learners encounter in the learning of the syllable structure of English?

1.8 Contribution to Knowledge

The study identifies the features of English syllables that pose difficulties to a Hausa learner of English and identify those that are learnable and teachable to Hausa learners of English. It is also hoped that the study will help teachers to take note of the teaching methods they should employ to meet the interest of the pupils in the learning of pronunciation. Furthermore, it will assist teachers to understand the aspects of the pronunciation that are learnable and teachable in order to make the teaching process beneficial to their pupils. More importantly, it will test the efficacy of the explicit teaching on suprasegmentals and this will contribute greatly to the insight of theories used in TESL.

1.9 Structure of the thesis

The thesis contains seven chapters. Chapter 1 comprises the following: background to the study, objective, research questions, contribution to knowledge, and the structure of the research. Chapter 2 reviews the relevant literature. This comprises an overview of teaching pronunciation, why teach pronunciation, factors influencing pronunciation in the classroom, the problem of syllable definition syllable perception and syllable production. Chapter 3

discusses the theoretical framework; contrastive analysis, teachability, Noticing hypothesis and Explicit teaching. It also explains the methodology which contains the steps by which the data was gathered, the participants involved in the process and the materials used.

Chapter 4 presents the analysis: the results and the discussions of the segmental pronunciation. Chapter 5 talks about the results and the discussions of the suprasegmental pronunciation. Chapter 6 discusses the effectiveness of explicit instruction on the acquisition of syllable margin in the class room. Lastly, chapter 7 presents the recommendations and conclusion of the research. It also suggests the further research on related the topics such as the effect of motivation on, classroom atmosphere, teachers experience etc. on language acquisition in the classroom.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

There are lots of teaching models for pronunciation in Teaching English as a Second Language (TESL). These models are intended to increase the intelligibility among various English speakers especially, the second language speakers. A lot of discussions has taken place as to which pronunciation model to use in classrooms. These sections discuss works on some of the models used in teaching pronunciation.

2.1 An Overview of Teaching Models

2.1.1 English as a Lingua Franca (ELF)

English as a Lingua Franca (ELF) is an approach proposed by Jenkins (2000) to teaching English pronunciation to second language learners. The core mandate of ELF is to focus on phonological features that are central to intelligibility. Dauer (2005) argues that the status of ELF has become a known area of study in Applied Linguistics. It is always important to consider what students need most from their language class because in doing so, it will affect how teaching could be carried out. In teaching pronunciation for instance, a teacher must encourage his students to interact with other speakers, non-natives. In this regard, English becomes a Lingua Franca (ELF).

Davies and Patsko (2013) consider ELF as an approach that will lead to usage of a language by individuals who have different native languages. They added that such students' demands are not the same as students who visit England

because those who study in England may want to integrate within the culture. However, this is not the case in most of the ESL countries where the focus is intelligibility.

It is therefore important to consider the priority of the learners of ELF which is the intelligibility. They just want to be understood whenever they communicate. Therefore, the teachers should focus more on the core features that can distort communication rather the non-core features which do not have any effect on communication, (Jenkins 2000). The ELF students just want to sound intelligible in order to be understood. This does not necessarily mean sounding like a native speaker.

In relation to intelligibility, Jenkins (2000) lists four major areas considered to be fundamental for learners focus in order to sound intelligible. These are:

1. Most consonant sounds
2. Appropriate consonant cluster simplification
3. Vowel length distinctions
4. Nuclear stress

In the ELF approach, English is considered as an international language than a language of a country. “It is generally acknowledged that English occupies the role of lingua franca in a globalized world and the goal of language learners is more often nowadays to be able to use English in communication with other ‘non-native’ speakers (NNSs) as an international language than as a foreign language in communication with its ‘native speakers’ (NSs)” (Spicer 2011:1)

Walker (2010: 71) added “Teaching pronunciation for ELF is primarily about re-thinking goals and redefining error as opposed to modifying classroom practice”. Those who have reservation for EFL, ask the question that need to be answered: ‘Can we have teaching materials designed for ELF? This question has arisen because almost all the pronunciation materials for teaching contain the voice of a native speaker. Again, almost all the major English examinations that we take are foreign which contain the accent of a native speaker.

Therefore, in trying to sound intelligible, we should not bother about some of the sounds that do not affect intelligibility in teaching pronunciation. In this regard, a respondent wrote “As a Cambridge oral examiner and trainer I have always been dismayed by the amount of value attached to native-speaker-like production of certain sound values e.g. voiced/voiceless ‘th’. Not only do context and co-text disambiguate the majority of ‘problematic’ pronunciations but the crucial issue of functional load is rarely addressed.” (Spicer, 2011:4). In other words, contextual meaning helps in intelligibility.

Again, Jenkins (2000) encourages that the new approach to pronunciation teaching should focus on intelligibility among non-native speakers, rather than copying native speakers. In relations to intelligibility, Tennant (2007) encourages the adoption proposal of a model that would serve as lingua franca and guidelines for helping learners towards intelligibility. The model should aim at making teaching of pronunciation easier and increase intelligibility among various speakers of different backgrounds. In view of this, Jenkins

(2000) proposes a *lingua franca core* (LFC) model which seeks to expound pronunciation error (see below for more of LFC).

In teaching English, it is very important to raise the awareness of learners on the widespread use of English because this helps in the acquisition. Davies and Patsko (2013) explain some of the appropriate ways to raise awareness of English as a lingua franca (ELF) to learners. According to Davies and Patsko (2013), this can be done by introducing the concept of ELF by the use of statistics. Some of the statistics are:

1. English has official or special status in at least 75 countries, with a total population of more than two billion
2. One out of four of the world's population speak English to some level of competence;
3. More than two thirds of the world's scientists read in English
4. Three quarters of the world's mail is written in English
5. 80 per cent of the world's electronically stored information is in English. (Davies and Patsko, 2013:1).

2.1.2 Lingua Franca Core (LFC)

Lingua Franca Core model takes into account the sociolinguistic information of speakers based on regional variation. The LFC recognises the fact that non-native speakers have the right to their accent and language practitioners should see it as such. Again, non-native accents should not be considered as deviation from native speakers' pronunciation norms but rather accent on its own. There is no doubt that some aspects of pronunciation are more difficult than others and

the aim of LFC is to unravel aspects of pronunciation considered to be troublemakers from the view of language intelligibility (Jenkins 2000).

Spicer (2011) conducted a study among teacher trainers and educators to investigate the impact of LFC on the teaching of pronunciation on Cambridge CELTA and DELTA courses. Spicer's study was against the backdrop that the most appropriate model for English pronunciation comes from its native speakers (British or American). Spicer engages his participants with elements of Jenkins' LFC. Participants were made to select from a 16 item inventory those features which they thought will likely impede mutual intelligibility for native speakers (NS) and non-native speakers (NNS).

In his findings, Spicer (2011:2) concedes that "familiarity with the LFC was limited and its impact on pronunciation teaching negligible". In other words, LFC was not popular among the participants. However, Spicer finds out that participants were interested in the LFC proposal because it stimulated critical thinking amongst trainers about their own settled beliefs and assumptions in respect of pronunciation teaching. Spicer (2011:3) therefore suggested that the LFC should be promoted as a model for students to imitate. Again, teachers must consider the rationale of LFC by highlighting "the phonological features that are central to intelligibility and the non-LFC items with the reasons underlying their non-core status".

As stated earlier, the key factor of LFC is to identify features of pronunciation that might affect intelligibility between NNS and NS. Spicer (2011) therefore

distinguishes between the core features and non-core features. The core features are those features whose mispronunciations might affect intelligibility in an interaction between NNS and NS. On the other hand, the mispronunciation of non-core features has very little impact on intelligibility.

2.1.2.1 The core features

According to Spicer (2011), the core features that affect intelligibility that language teachers should focus on in teaching language are:

1. Aspiration after word-initial /p/, /t/ and /k/ e.g. ‘pen’ /p^hen/ not /ben/
2. Vowel length distinctions e.g. ‘beans’ /bi:nz/ not /binz/
3. RP (not GA) pronunciation of the intervocalic ‘-nt-’ when it occurs before an unstressed syllable e.g. ‘winter’ /wɪntə (r)/ not /wɪnə (r)/
4. Full articulation of consonants in word initial clusters e.g. ‘strong’ /strɒŋ / not /srɒŋ/
5. Epenthesis (i.e. insertion of a sound into a word in consonant clusters) is preferable to consonant deletion e.g. ‘street’ /sətə ‘ri: t / not / ‘sri: t /
6. Nuclear (tonic) stress production and placement within tone units
7. Adoption of the rhotic variant /r/ e.g. ‘here’ pronounced /hi: r/ not / hɪə / (Spicer, 2011:2).

2.1.2.2 The *non-core* features:

The *non-core* features do not affect intelligibility and therefore need little attention during teaching. They are :

1. Substitutions of ‘th’ e.g. ‘think’ / θɪŋk / resulting in ‘tink’, ‘sink’ or ‘fink’, and ‘this’ / ðɪ s/ resulting in ‘dis’, ‘zis’ or ‘vis’

2. Pitch movement on the nuclear syllable
3. Weak forms e.g. 'to' pronounced / tu: / not / tə /
4. Vowel quality e.g. 'cake' / keɪk / pronounced / kɑ:k /
5. Word stress
e.g. 'perfectionist' per **FEC** tionist pronounced **PER** fectionist
6. Features of connected speech such as elision e.g. 'facts' /fæks / pronounced /fæktz/, and assimilation e.g. 'good girl' /gʊg gɜ:l/ pronounced /gʊd gɜ:l/ . (Spicer, 2011:2).

The LFC as a method will help make teaching pronunciation easy in classroom because the core features will be targeted and this will lead to intelligibility which is the key in second language acquisition. Mikulastikova (2012:2) asserts that in terms of pronunciation teaching the activities for word stress, sentence stress, rhythm and intonation does not matter and what really matters is "quality of vowel length, well pronounced consonant sounds clusters and good tonic stress". All these are part of LFC. In the same vein, Walker (2001) added that using LFC in a classroom reduces the number of pronunciation exercises and it focuses on vowel quality.

Walker (2010) identifies the following pronunciation features that teachers focus on in the traditional syllable but which are not part of the LFC because they have no effect on ELF intelligibility:

1. / ð / as in the 'th' in 'mother', / θ / as in the 'th' in 'thumb', and dark 'l' as in the end of 'little' in most British accents.
2. Word stress .

3. Stress-timing.
4. Exact vowel quality (as opposed to vowel length, which is a core item).
5. Pitch movement (tone).

The reason why the features mentioned above have no effect on intelligibility is that most of them can be identified based on the context. We should remember that conversation takes place with the use of sentences but not sounds in isolation.

On the other hand, Walker (2010) classifies another pronunciation feature that teachers usually teach but which are not included in the LFC. According to her, these features negatively affect ELF intelligibility. The features are:

1. vowel reduction, schwa and weak forms
2. certain features of connected speech – linking, assimilation, coalescence.

Despite all the positives of LFC, some teachers are still reluctant to use it in their teaching. Jenkins (2007) admits the fact that many teachers remain skeptical about the teachability of the LFC. However, in trying to debunk the skepticism, Zoghbor (2011) introduces the concept of the LFC and its benefits in classroom and outside classroom. In this regard, Zoghbor (2011) identifies three main dimensions of LFC. The first has to do with the identification of the inventory of the core phonemes. This is very crucial because it has the capacity to influence intelligibility. The second centered on the classroom

practice which focuses on learners' errors and in reference to the LFC. The third dimension touches on the LFC outside classroom environment. The third dimension discusses the second language acquisition studies in relation to intelligibility and sociolinguistics.

2.2 Why teachers neglect the teaching of pronunciation.

It is an undeniable fact that English is one of the most used global languages in the world. This height could not be achieved without the use of proper pronunciation of the English words by both first and second languages speakers. Unfortunately, some instructors do not see the need to teach pronunciation in their lessons and this unfortunate situation is attributable to so many factors including lack of final examinations on pronunciation at the various levels of education. In Ghana, pronunciation is not examinable at the Basic Examination Certificate Examination (Junior High School) and in the universities. This makes the teachers ignore the teaching of pronunciation at that level.

Cunningham (2009) attests that acquisition of pronunciation is more difficult for Vietnamese learners of English than the acquisition of acquisitions of grammar. She attributes it to the fact that pronunciation test is not included in the national university entrance examinations therefore, the teachers do not teach pronunciation in schools.

Again, practising pronunciation activities are not found in some of the English course books. According to Harmer (2005), many EFL teachers concentrate on teaching of grammar and vocabulary but abandon teaching of pronunciation.

Tenant (2007:1) has this to say on the neglect of pronunciation:

Pronunciation is one area of teaching which is often neglected. This is evident in the way that pronunciation is treated in most course books. Flicking through half a dozen books on my desk, I found only one which has regular pronunciation activities in the units! I also notice that when I talk to teachers, there are a few who say they try and do some pronunciation in most lessons, but the majority either do very little or none at all! Why is this?

In answering the question, Tenant (2007) enumerated three reasons: the first is that teachers claim that many aspects of pronunciation are difficult to teach. Secondly, building a lesson around pronunciation is quite difficult unlike the other aspects of language such as the grammar. This is because pronunciations are considered as add-ons to a unit in a textbook. The third reason is that some teachers themselves struggle with the phonemic alphabet let alone teaching it. They eventually do not prepare well during pronunciation lessons.

Upon all the importance attached to pronunciation, some classrooms' timetable sees a little or no slot for pronunciation. According to Kelly (2007, 13) teachers obviously neglect pronunciation when planning a timetable of English lessons. He added that their focus is on organization of grammatical structures and lexical syllabus. In addition, Baker (1990:1) confirmed that majority of lesson planning is devoted to vocabulary and grammar lessons and very little or no time is allocated to teaching pronunciation. This is a global phenomenon. In Ghana, especially at the basic level, there is no time for teaching pronunciation. The argument that they normally make is that pronunciation is not examinable.

Their concentration has always been on vocabulary development and grammar usage.

In order to develop learners' interest in pronunciation, more pronunciation activities must be given to them. The activities can be designed in a way that students will see it as fun and this may arouse their interest in learning pronunciation. Laroy (1995: 5) is of the view that the pronunciation activities that help learners to acquire the right pronunciation skills should involve fun activities. Teachers of second language need not teach learners with the mind that they will be native speakers but they should rather focus on intelligibility. Tennant (2007:2) claims that intelligibility is the key element teachers must look at in teaching. In other words, learners' speech must sound intelligible and that should be the ultimate aim.

Pronunciation is integral part of communication and learners needs to understand it. There is the need therefore to teach pronunciation because a lot of people use English as a second language. It means there will be variations in the pronunciation of these people. Lichtkoppler (2008) confirms that the users of English as their second language are more than the number of first language speakers.

The international character of English has made it develop different kinds of pronunciation based on the speakers' background. However, one needs to sound intelligible in order to fit properly in the international communication circle. In doing so, lots of second language learners are still prone to mispronouncing

sounds, misplacing stress and misusing intonation patterns. Another point is that most of the materials used in the second language classroom are foreign materials written mostly from the UK or USA. This makes learning process difficult. In this regard, Sadat and Kuwornu (2016) encourage the use of local materials in the classroom. According to them, this will make the learners see themselves as part of the teaching and learning process and that enhances understanding of the item thought in class.

In this direction, Crystal (2010) advocates that the foreign materials need to be complemented with other varieties that will expose learners to other various English varieties. This will make the learners aware of the existence of other varieties other than the variety in their text books. Even though, Crystal (2010) admits that students cannot be shown all the varieties that exist but they should be exposed to the variety around them and this should be a variety they hear on the streets. In fact, this will ease and facilitate intelligibility among learners because they would be familiar with those ones because of their intelligibility.

2.3 Reasons for Teaching Pronunciation

It is quite clear that the role played by pronunciation in language acquisition cannot be underestimated. Pronunciation forms the basis upon which other aspects such as vocabulary and grammar rely on for intelligibility. Therefore, there is the need to pay particular attention to pronunciation. Tenant (2007) is of the view that teachers should first of all think about the main aim of pronunciation; received pronunciation or intelligibility. The former is not achievable for many students but the later can be achieved. Therefore, the main aim of pronunciation should be intelligibility.

Pronunciation increases confidence level of a speaker. According to Gilakjani (2012), there is no doubt that pronunciation teaching is an essential part in language acquisition. He added that pronunciation does not only increase the confidence level of speakers but also it improves their spoken ability therefore it needs to be considered as an essential part of communication. Knowledge of pronunciation will definitely increase the confidence level of a speaker in a conversation especially, public speaking. Crystal (2010) argues that confidence encourages a learner to speak and this will prepare the learner to face the English speaking world.

Teaching pronunciation increases the receptive skills of learners. Tenant (2007) encourages that pronunciation teaching should not only target speaking, but also listening skills. This will definitely increase the listening ability of students. In that case they can understand any communication well and this will bring about effective communication.

Pronunciation is an integral part of communication. There will not be intelligibility without a good pronunciation. There is a misconception that pronunciation cannot be effectively taught in the classroom. This is because some teachers do not include it in their lesson plan at all, let alone teach it. However, research has proven that pronunciation can be taught in the classroom and learners can understand and gradually improve upon their pronunciation difficulties.

In this regard, Derwing, Munro & Wiebe (1998) conducted a pronunciation training over several weeks for L2 speakers. They divided the participants into three groups: segmental, suprasegmental, control group. The first two groups received instructions on both segmental and suprasegmental elements. The control group did not receive any instruction on pronunciation. The activities they measured before and after were sentence reading and extemporaneous picture description.

The listeners rated sentences for comprehensibility on a 9 point scale: (1 = very easy to understand; 9 = extremely difficult to understand). On the picture narrative task, the L2 speakers use their own lexicon and grammar. Here too, the same scalar ratings were applied. The outcomes on reading aloud indicate a massive improvement for both suprasegmental and segmental groups, with no improvement on the control group.

However, the outcome on extemporaneous speech indicates an improvement on the suprasegmental group with no improvement on both the improved segmental group and control group. Derwing, Munro, & Wiebe (1998) therefore confirmed that pronunciation can be improved through instruction.

2.4 Factors influencing acquisition of pronunciation

It is obvious that some learners do better than others in learning a second language. Gass and Selinker (2009:395) confirm this by saying “One of the most widely recognized facts about second language learning is that some individuals are more successful in learning a second language than other individuals.” They

added that this difference can be attributed to some factors, such as age, aptitude, motivation, attitude, and socio-psychological influences. Once the same student will be taught by the same teacher and one will acquire the expected pronunciation while the other will not, that is a clear indication that there are some factors playing a role in acquisition. Human beings may have control over some of these factors while others are beyond their control.

Mikulastikova (2012) also divides the factors affecting pronunciation into internal and external. According to him, the internal factors are integrated into learner's individual language and they are: age, personality, motivation, experience, cognition and native language. On the other hand, the external factors are factors that characterize the particular language learning situation. Examples are motivation, curriculum, instruction, culture and status, access to native speaker.

2.4.1. Motivation

The role played by motivation in language learning is enormous and this is not only in language acquisition but also in other areas of endeavor. Gass and Selinker (2009:520) describe motivation as “the characteristics that provide the incentives for learning”. Motivation is an internal process that stimulates and maintains human behavior over time and offers direction to individuals. Motivation is therefore not a static phenomenon. Dornyei (2000 and 2001) projected a motivation model that recognizes changes over time. The model contains three temporal steps with three components. According to Gass and Selinker (2009:429) the model explains “how initial wishes are transformed into

goals, how intentions are operationalized, then how they are enacted, and finally how a goal is accomplished and evaluated.”

The three phases are:

1. Preactional stage. This is the stage during which motivation is generated. This leads to the selection of the goal that will be pursued;
2. Actional stage. This is referred to as *executive motivation* and it relates to the sustaining of the activity even with distracting influences;
3. Postactional stage. The third phase follows the completion of the action. This refers to as motivational retrospection. This is the stage that evaluates how the activity goes and feeds into future activities that might be pursued in the future. (Gass and Selinker, 2009:429).

Motivation pushes individuals to do great things. Csizer & Magid (2014) are of the view that the way people envisage themselves in the future plays a significant role in motivating their learning behavior in the present. According to Gass and Selinker (2009:426), motivation is “a social-psychological factor frequently used to account for differential success in learning a second language”. From the above, it is obvious that a motivated individual is likely to be successful in second language acquisition than unmotivated individual. Motivation is therefore a key factor in acquisition (Gardner, 2001; MacIntyre, 2002; Ushioda, 2003). Gardener (2001) argues that in language achievement, both motivation and aptitude play a very significant role. That is why Skehan (1989) claims that in terms of success, the only predictor that is ahead of motivation is aptitude.

Again, Marinova-Todd et al. (2000) argue that in the development of native-like pronunciation, there are other factors that need to be considered more than the age of acquisition. These factors are the environment and motivation. There is enough evidence to indicate that a learner with a target goal in learning a language do well in the acquisition, (Marinova-Todd et al. 2000). Marinova-Todd et al. (2000) added that through motivation adults may acquire proficiency in second languages and they can even speak like native speakers if they receive the right motivation.

2.4.2 Age

In language acquisition, age is one of the key factors to be considered. There has been a debate between child acquisition and adult acquisition. Comparatively, adults may have an initial advantage in acquisition particularly with grammar. With time however, children are likely to overtake adults due to enough exposure to the L2. Therefore, adults' advantages over children in acquisitions seem ephemeral. Evidently, Snow and Hoefnagle-Hohle (1978) researched on naturalistic acquisition of Dutch by English speakers in the Netherlands. They categorized their participants in three groups of (children, adolescents, and adults). After three months, the participants were tested and the results showed that adolescents and adults did better than children. However, after 10 months the children did extremely well in the acquisitions in most areas. The results confirmed that children can be slow-starters but eventually win the race.

Gass and Selinker (2009) added that at the early stages of acquisition, adults are likely to do better on most tests of second language learning hurriedly than children. DeKeyser and Larson-Hall (2005) argue that adults have the tendency to exhibit an early improvement because of the shortcuts embedded in the explicit structure, therefore when it comes explicit learning adults perform well. On the other hand, Children do not use shortcuts methods in their learning but will progressively acquire all the needed competence through long-term implicit learning when they are given more and appropriate input.

Although, it is possible for children to receive enough and appropriate input and still do not attain a native-like accent. Gass and Selinker (2009:405) confirmed that “It is commonly believed that children are better language learners than adults in the sense that young children typically can gain mastery of a second language, whereas adults cannot”. This brings the issue of Critical Period Hypothesis (CPH).

According to Crystal (2008:123), the CPH refers to “a particular time span during which a first language can be most easily acquired.” Crystal argues that the critical period for language expires at puberty. This is because by puberty, our brain has become focused in its functions, the brain at this stage is not flexibility as it used to be before adolescent period. Birdsong (1999:1) added that "the CPH is a limited developmental period during which it is possible to acquire a language be it L1 or L2, to normal, nativelylike levels. Once this window of opportunity is passed, however, the ability to learn language declines".

There are many works (O'Connor, 1980; Schaetzel and Low, 2009; Gass and Selinker, 2009; Mikulastikova, 2012) on the role played by age in second language acquisition. O'Connor (1980) argues that our first language really influences the way we acquire second language and this has to do with age of acquisition. He is of the view that as we grow, our capacity to acquire a language declines. It is with this reason that children of ten years or less can acquire native-like pronunciation but very difficult for an adult to acquire a native-like pronunciation. In a study conducted on learners of Spanish, Shively (2008) found that age played a very significant role in their production accuracy. This is due to the fact that the participants started learning before the critical period so their age helps a lot in the acquisition.

Again, Moyer (1999) investigated graduate students in the U.S. who were highly proficient NNSs of German. These students possessed both in-country experience and classroom instruction in German. According to the research, the students were very motivated and they did not have any major preadolescent acquaintance to German. The findings indicate that they could not achieve native-like accents. Mayer (1999:82) therefore claimed that "late learners may face neurological or motor skill constraints, such as entrenched articulatory habits or restricted perceptual targets for phonetic categories, that render the possibility of natively like attainment highly unlikely or impossible" (p. 82). In other words, their non-native like accent was caused by age-factor.

However, some researchers have argued against the CPH. According to Crystal (2008:123) "The hypothesis has proved to be extremely difficult to test, and

remains controversial”. Crystal added that “Adults moreover have certain cognitive abilities which facilitate language acquisition, such as increased motivation and greater metalinguistic awareness” (Crystal, 2008:123). Despite the fact that many researchers are familiar with the term CPH, Gass and Selinker (2009) are of the view that CPH is ‘somewhat misnomer’. They added that the problem with the CPH is that it predicts certain amount of discontinuity. In other words, there will be a time where there will be “dramatic drop-off” in language learning. According to Long (1990), another term used is *sensitive period* which is slower in its end point and permits variation in achievement. Gass and Selinker (2009) argues that the Sensitive Period Hypothesis is more critical and that language learning decline might be gradual.

2.4.3 Exposure

The amount of input one is exposed to facilitates the acquisition rate. Hewings (1993) established that if learners are exposed to many pronunciation exercises as possible, the exposure will translate into a very effective acquisition. O’Connor and Fletcher (1989:6) added that practice is very crucial in learning English because the sounds that are not found in the learners’ native language must be carefully repeated several times in order to stick in the minds of the learners. They added that the production of unfamiliar sounds in the target language has to do with the brain and movements of the muscles.

Tennant (2007) argues that similar features in both first language and second language helps in the acquisition. In other words, when learners first language has to some extent similarities of the target language it eases the acquisition

process. He added that if a learner's native language is a syllable-timed language, it will be difficult for that learner to adopt the English stress-time patterns. According to O'Connor and Fletcher (1989), the learner must first of all focus on words that have different sounds which will be easier for the learner to produce. They, however, admitted that learners may not sound like native speakers but there will be intelligibility among the first and second language speakers. Therefore, there is a need for teachers to encourage their students to speak outside the classroom.

Pitt (2009) also supports the role played by exposure by saying that learners should be given the chance to hear conversation and in the process, they will be exposed to variation in pronunciation. In addition, Schaetzel and Low (2009:3) have this to say "in addition to focusing on pronunciation and accent in class, teachers will want to encourage learners to speak English outside the classroom and provide them with assignments that structure those interactions".

It is important to know that the more input a learner is exposed to the greater the acquisition. We should not forget that repeated exposure is a significant factor in language learning. According to Saragi et al. (1978), repeated exposure eases learning process because learners are made to meet new forms in a number of contexts.

2.4.4. Affect

Some individuals may have a very unique attitude towards a language and its speakers. The attitude towards a language may positively or negatively affect the rate of acquisition. Crystal (2008:15) sees affect as “the expression of attitude”. Gass and Selinker (2009:398) describe affect as “feelings or emotional reactions about the language, about the people who speak that language, or about the culture where that language is spoken.”

It is obvious that if an individual has a positive attitude towards a particular language or its people, the individual will draw closer to them and that may result in acquisition. However, if the attitude of an individual is negative towards a language community, the individual will distance himself from the people that may negatively affect the rate of acquisition. This leads to a concept of ‘**social distance**’. Gass and Selinker (2009) describe social distance as a situation where an individual may not feel attracted to the target language environment and this may largely affect the amount of input an individual may acquire.

According to Gass and Selinker (2009) the realization of social distance and psychological distance formed the basis of Schumann's (1978a, 1978b) acculturation model. The model explains that “if learners acculturate, they will learn; if learners do not acculturate, they will not learn. Thus, acculturation initiates a chain reaction including contact in the middle and acquisition as its outcome.”, (Gass and Selinker, 2009: 404).

In relation to 'affect' Krashen (1982) introduced the concept of affective filter. This is part of the monitor model which is an impediment to learning or acquisition. This impediment is caused by negative emotional responses to learner's environment. According to Krashen, factors such as self-confidence, motivation, attitude, and anxiety affect the acquisition. In other words, individual's language acquisition depends on the filter. Again, this same filter is responsible for the differences between child language acquisition and second language acquisition. This is because in child language acquisition, the affective filter is always low therefore there is nothing like anxiety. But adults may have a chunk of responsibilities and these may ignite the high filter.

2.5 Special time for teaching pronunciation

There is no hard and fast rule on when exactly to teach pronunciation. However, teaching of pronunciation will largely depend on the instructor. This is because pronunciation is the bedrock of other aspects of language such as vocabulary acquisition, grammar, reading etc. According to Harmer (2005), teaching pronunciation does not involve only the pronunciation activities but also listening skills or vocabulary stock. Practice in connected speech, sentence stress and intonation can also be practised as part of the training in pronunciation. The important thing is that pronunciation should be deemed as a fundamental part of communication but not a distinct skill. That is why some teachers treat pronunciation as part and parcel of every item they teach. Especially, when teaching comprehension, the key words in the text are drilled with the learners before the actual reading takes place. This occurs in both written and listening comprehension.

2.5.1. Aspect of pronunciation needed

Just like the debate on grammar teaching, there is also the issue of the type of pronunciation to be taught. Any layman would think that a standard pronunciation should be taught. Standard pronunciation in a layman's view will have been either British English or the American English. Mikulastikova (2012) argues that the issue of Standard English has gotten the general agreement from all quarters. There is still a debate on the acceptance of the variety of English considered the standard. Mikulastikova (2012) however, concedes that English speakers will always consider British Standard English or American Standard English as the standard English.

Following Fisher (1996) and Trudgill (2000), Standard English has to do more with of writing than spoken. According to Fisher (1996: 9), Standard English started as a graphemic copies of clerks. The clerks were those who used to write in the same way and their style of writing became the standard. Trudgill (2000: 5) adds that standard English started with the type of English used by people in the upper-class in London and this type of English was lately considered as the standard. It is important to note that despite the existence of the various varieties of English with their peculiarities, no one is more important than the other, (Trudgill, 2000). It is therefore important to note that each variety is special on its own and it should be considered as such.

The issue of standard English is linked more to the codified rules of grammar. The received pronunciation (RP) is the pronunciation that is associated with standard English. According to Trudgill (2000: 7), it is difficult to distinguish

the origins of RP speakers but it is associated more with the accent of British English and American English. These two varieties have so many features in common as well as many differences. Following Tioukalias (2010: 10) cited in Mikulastikova (2012), the most noticeable difference between the British and American English can be seen in pronunciation of postvocalic /r/ in words like father, car. The postvoalic /r/ is silent in British English but it is heard in American English.

Most teachers introduce phonemic symbols to their students as a first step towards learning pronunciation. This has a lot of advantages on the acquisition of pronunciation. Harmer (2005) argues the introduction of phonemic chart is useful for both the teachers and the students because teachers can use it to explain pronunciation mistakes. One huge benefit of the phonemic symbols is that it enables students to recognize sounds in a word and read even without hearing it. This will make it easier for a student to do self-word recognition without any instructions.

Harmer (2005) encourages teachers to focus on the vital features of pronunciation: sounds, words stress, sentence stress, intonation and connected speech. These are the crucial areas in teaching pronunciation that help learners to acquire the needed skills of pronunciation. Again, there are numerous activities used in teaching pronunciation.

Firstly, students can be asked to pay particular attention on a sound especially the articulation and the spellings. By so doing, student would be able to identify

treated sounds with ease. Also, they can be introduced with the minimal pairs and this will aid them to contrast two words that are very similar in everything but differ in one position. The position could be initial, media and the final. Example: ship and chip, boy and toy. Baker (2006) suggested various minimal pairs activities that aid students in sound identification.

Discussing the activities, Harmer (2005) added that students may be asked to find out which sound they hear. This activity involves using a tape recorder by asking students to listen to a recording and to differentiate which word they hear.

For example: Small shops/chops are often expensive.

The dishes/ditches need cleaning (Harmer 2005:188).

Again, it is also important to teach stress in words, phrases and sentences as part of teaching pronunciation. This is crucial because placing stress on a wrong syllable may lead to mispronunciations and this may lead to a change of meaning or change of word class. English words do not have same stress pattern on all syllables. This poses some difficulties to learners especially non-native speakers. This is because of the influence of the first language on English acquisition. That is why teachers of second languages should focus more on word stress. In support of word stress, Tennant (2007) argues that learning the word stress can be considered more important than learning individual sounds.

Moreover, teaching of intonation cannot be left out in pronunciation. According to Harmer (2005), intonation activity can be executed by the use of pictures that

express emotions. Students can therefore be asked to match the intonation to a picture conveying different sentiments. The picture should express emotions students are familiar with. The success of this exercise largely depends on the instructor.

Furthermore, since communication is not about individual sound, it is therefore proper to give attention to a connected speech in teaching pronunciation. Identification of connected speech aids the second language learner to understand the kind of discourse going on in an environment. That is why Tennant (2007) says learning connected speech is one of the significant part that facilitates all aspect of pronunciation teaching areas. Connected speech should be part and parcel of teaching of pronunciation and should be practiced at the very start of learning the English language.

2.6. Syllable

Every language may have a syllable, stress, intonation, pitch as part of prosodic feature. One of the obvious in all these prosodic features is syllable and it is a unit that is found in all languages. Even though it is an identifiable feature to both first and second language speakers, it does not have a single definition. It is defined based on the following phenomena: articulation, acoustic, physiology and psychology.

Roach (1988:67) established that there are two possible definitions of a syllable: phonetically and phonologically. Phonetically, the definition has to do with the way they are produced and the way they sound. This is the articulation of the

speech sounds based on where they are produced with little or no obstruction in their production. Phonologically, the syllable has to do with different distribution of vowels and consonants.

Again, the syllable is phonologically considered by looking at the possible combination of sounds. This is where we consider the type and combination of onset, the nucleus and the coda of a syllable. In other words, we look at the sounds that can occur at the initial position, medial position and the final position of a syllable.

Crystal (2008: 467) defines the syllable as “a unit of pronunciation usually larger than a single sound and smaller than a word”. Phonetically, Roach (1991:67) describes a syllable as “consisting of a centre which has little or no obstruction to airflow and which sounds comparatively loud.”

Ladefoged (2006:237) establishes that ‘there is no agreed phonetic definition of a syllable’. Ladefoged (2006) discusses syllable in terms Sonority and Prominence. Sonority defines syllable in terms of properties of sounds, such as sonority while prominence consider syllable in terms of length, stress and pitch.

The sonority begins with the open vowels as the most sonorous, continues in order, through the close vowels, the liquids and nasals, the voiced fricatives, the voiced plosives, the voiceless fricatives and ends with the voiceless plosives as the least sonorous. Accordingly, the word plant /plant/ starts with the minimally sonorous /p/ through /l/ with a medium degree of sonority to the maximally

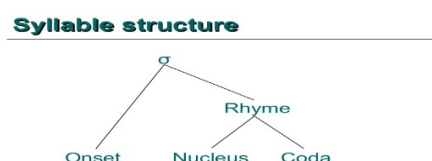
sonorous / a/; it continues with a decreasing sonority through /n/ to a second minimum with /t/.

The syllable is therefore considered as a pronounceable unit of a word. It is the various units that a word can be broken into to facilitate pronunciation. Generally, a syllable indicates the rhythms of words which can be beaten to indicate the various segments of words and it contains one peak of sonorant. In other words, syllables must contain a vowel or syllabic consonant.

Phonetically, the syllable can be grouped into strong and weak. Their difference centers on the vowel found in them. According to Roach (1991:75), a strong syllable has “its peak on one of the vowel phonemes. Weak syllable, on the other hand, can have four types of peak – the vowel “schwa”; a close front unrounded vowel in the general area of i: and ɪ; a close back rounded vowel in the general area of u: and ʊ; or a syllabic consonant”. Another distinguishing feature Roach (1991) has identified is that unlike the vowel in a strong syllable, the vowel in a weak syllable tends to be shorter, has lower intensity and is different in quality.

Generally, a syllable has the following structure:

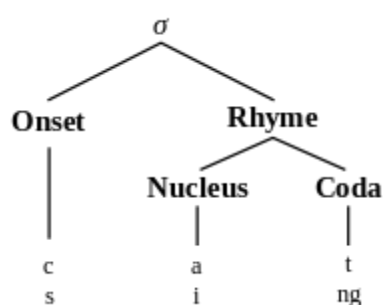
Diagram 1: Syllabus structure



Most syllables start with Onset. Onset is a consonant or consonant sequences.

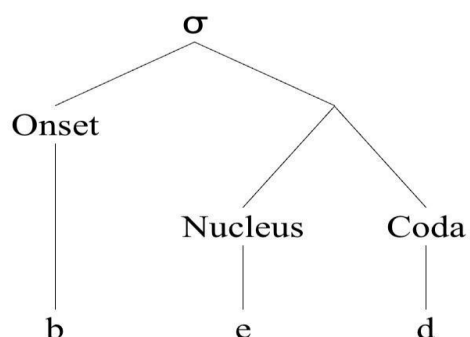
For example: ‘s’ in sing. The rest of the syllable is called rhyme: ‘ing’ in sing.

Rhyme contains obligatory nucleus (usually a vowel) and an optional coda.

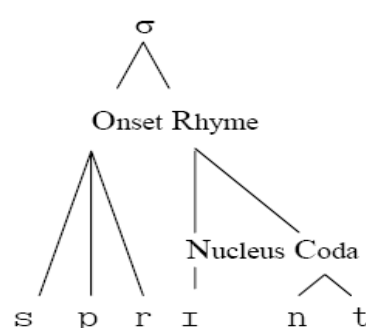


Basically, a syllable can be simple when the onset and coda have one consonant each as in (a). The word ‘bed’ is a monosyllabic word that has as a simple onset, a nucleus and a simple coda. A syllable can also be complex when the onset and coda have two or more consonants as in (b). The word ‘sprint’ is a monosyllabic word which consists of a complex onset, nucleus and a complex coda.

A.



B.



Again, every language may have additional constraints. These constraints may affect types of consonants or vowels that may appear in specific positions. In Hausa for instance, all consonants may appear at onset position except the velar nasal /ŋ/. In Japanese CVC syllable, only nasals may appear in coda position. English disallows voiced alveo-palatal /[ʒ]/ and velar nasal /ŋ/ at onset position. Also English disallows glottal sound /h/ in coda position.

Languages may also have constraints on specific sound sequences. In other words, among the sounds that constitute an onset or coda, there may be special arrangement for each language. Although, English allows CC and CCC clusters in onset and coda positions, they just do not occur haphazardly, they are highly regulated.

English may have a maximum of 3 consonants in onset position as in ‘spray’ [sprei]. However, Hausa does not allow such a number. In English onset consonants cluster, the first C has to be /s/; followed by a voiceless stop /p, t, k/ and then liquid or glide /r, l, j, w/. Therefore, it is impossible in English phonotactics to have words like ‘pdon’ where two stops occur at the onset position. Normally, the phonotactics can only be violated in borrowed words such as ‘tsunami’.

The following table shows the syllable structure of some languages

Table 2. 1: Syllable structure of other languages

	onsets	codas	possible syllables (excluding complex onsets and codas)
Arabela, Siona, Piro, Hua	required	forbidden	CV
Totonac, Klamath, Nisqually, Tunica, Sedang, Dakota, Thargari	required	allowed, but not required	CV, CVC
Pirahã, Mazateco, Fijian, Cayuvava	allowed, but not required	forbidden	V, CV
English, Gilyak, Finnish, Tamazight Berber, Cairene Arabic, Spanish, Italian, Mokilese, Cuna	allowed, but not required	allowed, but not required	V, CV, VC, CVC

(Blevins, 1996)

Although, syllables are governed by various constraints, there are some observable universal tendencies. The first universal tendency is the nucleus. A syllable usually consists of one vowel and this vowel is the heartbeat of the

syllables. That is why we can have a syllable of only a vowel such as eye /ai/. The second tendency is that syllables usually begin with onsets. A consonant that begins a syllable such as /b/ in 'bad'. The third tendency is that syllables often end with codas. Considering above mentioned tendencies, it could be deduced that the most common syllable structure in human language is CV and CVC. Usually, it is quite easy for native speakers to count the number of syllables in a word without any difficulties. For example, a.na.lo.gy. Native speakers may also have a clear intuition about where to put the syllable boundary.

The role played by syllable in phonology is discussed extensively in the literature of phonology (Ur, 2001; Aquil, 2013; Hahn, 2004). Phonologists have agreed that the syllable is a prosodic feature that plays major role in the study of language. Aquil (2013) investigates the Cairne Arabic syllable structure through different phonological theories (Autosegmental and Optimality) and finds out that the syllable has always been a significant aspect not only in the phonology of classical Arabic but also colloquial Arabic. Aquil (2013:259) discovered that "syllable structure is the domain of some phonological processes, such as emphatic spread, limitations on consonant clusters in certain positions of a word, and epenthesis of a vowel." The epenthetic vowel is used to break consonant clusters if it happens to be more than two consonants in word concatenation. This is the case of Hausa where consonant cluster is broken through vowel insertion.

2.7. Stress.

There is enough evidence (Vihman, 1996; Bernhardt & Stemberger, 1998) that the literature of phonology has focused its attention more on segmental, rather than suprasegmental aspects of speech. Crystal (2008:466) defines suprasegmentals as “a vocal effect which extends over more than one sound segment in an utterance, such as a pitch, stress or juncture pattern.” According to Snow (1997:1), suprasegmentals add information to the listener’s phonemes, segments, syllables, words, and sentences.

Stress plays a very important role in the analysis of syllable. Crystal (2008: 454) defines stress as “the degree of force used in producing a syllable. It is therefore a prominence given to a syllable in a word when pronouncing it. The usual distinction is between stressed and unstressed syllables, the former being more prominent than the latter”. Also, there are word stress and sentence stress. According to Ladefoged (2001), stress usually refers to the prominence given to a syllable in a word or to a word in a sentence. In other words, stress relates to syllables as well as words in sentences. A speaker cannot influence the pronunciation on word stress because it is inherent and a natural feature of speech. On the other hand, a speaker may change sentence stress to convey a particular information in communication.

Langrova (2012:14) identifies two possible ways in discussing stress: perceptual perspective and production perspective. In discussing these two possibilities, Roach (1991:85) opines that from the perspective of production, the greater muscular energy used for stressed syllables as opposed to unstressed

syllables and prominence is the key element within the perceptual point of view. Prominence is therefore very important in stress identification. According to Langrova (2012:14), scholars have agreed that “prominence is characterized by the following factors or components: loudness, length, pitch, and a quality of a vowel.” He added that it is important to say that these factors do not work in isolation but they complement each other.

Roach (1991: 86) is of the view that pitch is one of the strongest effects that makes recognition of syllable stressed easy. Langrova (2012:17) is of the view that stress signals the boundaries of phonetic words and this helps in differentiating words with identical combination of phones. He added that stress plays a great role in distinguishing words semantically or syntactically, as is the case with 'pɜ:mit (noun) and pə'mɪt (verb) for instance. It is therefore clear that stress plays a significant role in speech because it can distort the natural sound of English and teachers should not neglect it in their teaching. In this vein, Fudge (1984: 4) maintains that “wrong stressing will inevitably lead to wrong and misleading rhythm”

Assignment of stress relates to the following: the number of the syllables in a word and the internal prosodic structure of the syllable. There are number of evidence (Watson, 2002; Welden, 1980; Hayes, 1995; McCarthy, 1979) that have observed that an analysis of stress depends on the analysis of the syllable. English distinguishes between trochaic stress pattern and iambic stress pattern. However, the predominant stress pattern in English is trochaic (Cutler & Carter, 1987). While in the trochaic stress pattern, the first syllable is stressed, in the

iambic stress pattern the second syllable is stressed. The trochaic stress pattern is also known as strong/weak pattern. On the other hand, an iambic stress pattern is referred to as weak/ strong pattern. Aquil (2013) asserts that the trochaic syllable pattern plays a significant role in the early stages of acquisition of the English Language. This is because children like to put a stress on initial syllable more than second syllable.

In a research conducted by the Jusczyk et al. (1993) on infants, it was discovered that English learning infants have a listening preference for a strong-weak pattern around the age of 9 months. This indicates that the strong-weak pattern is the preferred pattern in the early acquisition of the English Language. The preference of children for strong-weak pattern is seen in all aspects of acquisition including words in fluent speech. According to Jusczyk et al. (1999), English-learning infants also rely on the strong-weak pattern to segment words in fluent speech.

It is understandable that the stress pattern of an infant at the early stage of acquisition and that of a second language adult learner would not be identical to some extent. This may be as the result of different approaches the two may adopt in their quest for acquisition. Adult speech varies in many ways. Ladefoged (2001) identifies that the stressed syllable in adult English speech does not only change in the quality of the vowel but also it is marked by increment in the following: magnitude of fundamental frequency (pitch), syllable duration (length) and amplitude (loudness).

Kimberly (2005) studied the development of prosody in American English with the focus on the acquisition of stress patterns. In his study, he examines the connection between segmental phonology and morphology. His study was a longitudinal case study on the development of speech and language of one male child and he focused mainly on the acquisition of stress patterns. Kimberly (2005) found out that the second syllable in child acquisition of phonology was in general longer than the first syllable.

There is no doubt stress as part of pronunciation has received a lot of attention in the current literature (Hahn, 2002, Tenant 2007 Walker, R. 2011). The debate has to do with the relationship between stress and instruction; whether stress can be effectively taught in the classroom or not. In trying to motivate the teaching of suprasegmental, Hahn (2004) establishes that stress is teachable and errors in stress can have a negative effect on listeners' comprehension. Hahn (2002) supported his argument by observing the progress of students in a pronunciation class over time, focusing on stress patterns. The students were tested before instruction, after instruction and delayed posttest. The results show a significant improvement which buttresses the argument that there is a significant relationship between stress and instruction.

2.8. Teaching pronunciation to adult English language learner.

It has been established that the pronunciation of adults is not the same as the pronunciation of children. According Gass and Selinker (2009:34) "It is clear that the pronunciation of children's words is not exactly identical to that of adult speech". This is because children apply substitutions, deletion of syllables and

simplification in their pronunciation. On the other hand, in adult learning, the phenomenon of fossilization may set in. Gass and Selinker (2009:395) explain fossilization as “the idea that no matter what learners do, they do not progress to the same extent as do children learning their first language.” In other words, there will be a period where learners of a second language get ‘stuck’ and there would not be any improvement. Crystal (2008:197) defines fossilization as “the stabilization of a level of achievement in the use of a linguistic form which falls short of the norms of the target language. No further learning takes place, and the form becomes a fossilized error in the usage of the learner’s part of the learner’s interlanguage”.

Again, the issue of implicit and explicit learning is discussed in adult second language acquisition. Implicit learning is linked with children while the explicit learning goes for adults. DeKeyser (2000) examined the perceptual structures that are easy or hard among Hungarian learners of English. These learners arrived in the U.S with different ages. In the study, DeKeyser (2000) considered word order and pronoun gender in simple sentences as examples of easy structures. On the hand, articles and subcategorization were examples of difficult structures. The findings indicate that there are no age-related effects with easy structures however there is age difference in the difficult structures. DeKeyser therefore argue that children possess implicit learning ability but adults possess the explicit learning ability.

In addition, aptitude plays a key role in adult second language acquisition. Aptitude is one’s ability to learn new things. According to Gass and Selinker

(2009:417) language aptitude “refers to one's ability to learn another language; there is no talk of language aptitude for learning one's first language, at least not for children without cognitive deficits.” However, it is generally agreed that aptitude has not always been the focus of language research.

There is no doubt that some aspects of pronunciation are more difficult than others. In the case of a second language learner, it is always effective to target those aspects that are not found in the learner's sound system. In the light of this, it is prudent for an instructor to study the similarities and the differences between the learner's first language and their target language. This may lead to a fruitful learning of pronunciation. Cunningham (2013:3) confirms that “some of the features appear to be more difficult to learn to avoid than others”. This is when the phonotactic constraints in one's native language appear to be persistent in L2. In other words, there are some of the features in L1 that may interfere in the L2 acquisition of pronunciation.

Jenkins (2002) argues that some features of English pronunciation need more attention than others as far as intelligibility is concerned. For instance, she identifies interdental fricatives as not being important for intelligibility and yet very difficult to acquire fricatives. In discussing learners' preference, Scales et al (2006) for example found that learners preferred more intelligible accents. Intelligibility is a core element of communication and therefore every language learner would want to sound as more intelligible as possible. In the same vein, Kennedy and Trofimovich (2008) have also found that listeners prefer speech that is intelligible to them.

It is argued that learning second language at a certain age cannot let one sound like a native speaker. Schaetzel and Low (2009:1) argues that “adult English language learners approach the learning of English pronunciation from a wide variety of native language backgrounds”. This put much pressure on the teacher who handles such learners. They added that the “goals and needs of adult English language learner are diverse” (Schaetzel and Low 2009:1). In other words, every learner may have a specific reason for learning a language at a particular time. The reason may include job purposes, examination, relationship, and promotion.

Even though, pronunciation is generally neglected but it is even forgotten in the adult class. According to Levis (2005), pronunciation is often not addressed in adult instruction by the instructors even though it is part of the curriculum in many adult education programs. In addition, Levis (2005) laments that some ESL teachers who teach adult learners do not have training in teaching pronunciation. This is very problematic because if the instructor is handicapped how can he impart knowledge to the learner. As a result, teachers may not even make an attempt to teach pronunciation in their classroom and this leads to mispronunciation by the learners.

In order to achieve our aim as teachers, Schaetzel and Low (2009:3) have outlined the following instructional strategies for teaching pronunciation that can help students meet their personal and professional needs:

- a) Cultivate positive attitudes toward accuracy
- b) Identify specific pronunciation features that pose problems for learners

- c) Make learners aware of the prosodic features of language (stress, intonation, rhythm)
- d) Focus on developing learners' communicative competence
- e) (Schaetzel and Low 2009:3)

2.9. Pronunciation difficulties of Ghanaian Hausa Speakers

Hausa is one of the major lingua francas in Africa especially in sub-Saharan Africa. It is spoken in all the zongos in Ghana, (Sadat, 2011). Jaggar (2001) and Caron (2013) argue that Hausa has three possible syllable structures: CV, CVV and CVC. According to Caron (2013:7), "Hausa syllable structure is divided into light (CV) and heavy (CVV and CVC)". He adds that "the initial vowels and consonant clusters, as well as syllable-internal long vowels do not exist in Hausa". Therefore, Caron (2013:7) maintains that "all words that are written with an initial vowel in the standard orthography begin with an initial glottal stop: aiki: 'work' is in fact pronounced [ʔaiki:]. One can therefore say that CVC type are not common in the language. Also, Jaggar (2001: 23) states that "all the syllable structures of Hausa are consonant initial". Below are examples of the syllable structure types taken from Jaggar (2001):

CV wa.ta 'someone' da.ki 'room'

CVC rum.far 'the stall' has.ken [has.ken] 'the light'

CVV yaa.roo 'boy' kaa.wo 'bring'

Also, Sadat (2011) argues that Ghanaian Hausa has CV and CVC syllable structures. However, the CVC syllable structure is very rare (*hal* "until"). Morphologically, the determiners {-n and -r} in Hausa are written together with

their lexical item. However, some of the examples cited by Jagar (2001) adds the determiners as part of the lexical item to generate CVC structure.

From the above, it is clear that Hausa does not allow consonant clusters. In other words, complex onset and codas are not allowed in the language. In this direction, Jaggar (2001: 34) argues that epenthesis is used to break the English loanwords that have consonant clusters e.g. ‘brake’ – [bireki], ‘bench’- [ben.tʃi], and ‘plot’ (of land) – [fu.lo.ti].

As mentioned earlier, English and Hausa are two languages from two different language families. It is therefore expected that their features will not be the same. However, since this work is strictly on pronunciation, I will stick to that by looking at the pronunciation difficulties of Hausa speakers of English.

The accent of a Hausa speaker of English is easily noticeable because of its peculiarities. Crystal (2003: 3) defines an accent as “the cumulative auditory effect of those features of pronunciation that identify where a person is from, regionally or socially”. Accent is linked directly to pronunciation and this is very conspicuous when one compares a Hausa speaker’s pronunciation of English words with that of the native English speaker. The pronunciation of Hausa speakers learning English is easily recognizable. According to Derwing & Munro (2005:383) accentedness is the “normal consequence of second language learning”. It is therefore to be expected that a first language speaker can easily recognize a second language speaker who has a different accent.

Low (2006) mentions that languages can be grouped into either stress based or syllable based and that a language may have both features but one feature may be dominant than the other. The implication is that if a learner's first language belongs to one category that is different from the target language, the learner may face some challenges in pronunciation. It is therefore very crucial in adult learning. According to Schaetzel and Low (2009:2),

“distinction between stress- and syllable-based languages is important, especially if an adult English language learner speaks a first language that is different rhythmically from stress-based British or American English. An understanding of whether a learner's first language is stress based or syllable based will help a teacher plan appropriate pronunciation exercises”.

It is quite clear that the syllable structure of English will pose some challenges to the Hausa learner. This is because the concept of phonemic patterning as well as the permissible and non-permissible sequences in the English language is different from Hausa. In other words, some of the phonotactic rules that guide phonemic patterning in English differs from that of Hausa.

The onset in English takes a maximum of three consonant cluster. The maximum onset sequence of the phoneme is as follows: voiceless alveolar fricative /s/, followed by any of the voiceless stops /p, t, k/, and an approximant /w, r/ or liquids /j, l/ as in: /spr/, /spl/, /skr/, /stj/, /skw/. Examples can be seen in words such as *sprain, screw, stew, square* etc. On the contrary, the patterning /srp/, /rks/, /spk/, /tnr/, /trs/ are not permissible combinations in English”, (Logogye & Ewusi-Mensah 2016:66).

On the other hand, English coda take a maximum of four consonants as can be seen in the following words: strengths [streŋkθs], exempts [ɪgzɛmpts], tempts [tɛmpts] texts [teksts *twelfths* [twelfθs] etc. However, these combinations are not allowed at the onset position.

Hausa does not have consonant clusters in both onset and coda positions. Besides, some of the phonemes (θ, ð) in English are not found in Hausa. and this makes it difficult for a Hausa speaker of English to produce some English words correctly. There is therefore the propensity for a Hausa learner to drop some phonemes and substitute them with others. Moreover, the Hausa speaker of English may insert an epenthetic vowel in English words to break the consonant cluster, (Sadat, 2016).

Hausa phonotactic constraints put some restriction on English pronunciation of certain words by Hausa speakers. These restrictions do not allow some combinational possibilities of the sound segments in English as well as the maximum number of possible consonant sequences. Again, Hausa speakers do not have ‘silent sounds’. The speakers therefore pronounce every sound in a word. This poses a great challenge on the speakers in their quest to pronounce English words with such a feature. Talking about the universal difficulty with an L2 English pronunciation feature, Jenkins (2002) identifies the final clusters of English which she describes as ‘complex and unteachable’. She added that initial clusters seem to be easier for learners to acquire than final clusters.

2.10. Conclusion

This chapter reviews the relevant literature. It gives an overview of models of teaching pronunciation. These models are intended to increase the intelligibility among various English speakers especially, the second language speakers. For instance, English as a Lingua Franca (ELF) is a teaching model proposed by Jenkins (2000) for teaching English pronunciation to second language learners. The core mandate of ELF is to focus on phonological features that are central to intelligibility. ELF is an approach that may propel people to acquire a common language if even they do not understand each other. The second model is Lingua Franca Core (LFC) which takes into accounts the sociolinguistic information of speakers based on regional variation. The LFC considers the unique pronunciation of non-native speakers. With this model, non-native speakers have the right to their accent and language practitioners should see it as such. Again, non-native accents should not be considered as deviations from native speakers' pronunciation norms but rather accent on its own. The LFC therefore classifies pronunciation between the core features and non-core features. The core features are those features whose mispronunciations might distort intelligibility in a conversation. On the other hand, the mispronunciation of non-core features has very little impact on intelligibility.

CHAPTER THREE

THEORETICAL FRAMEWORK AND METHODOLOGY

3.0. Introduction

The study made use of three theories at different stages: Contrastive Analysis (CA), Teachability Theory and Noticing Hypothesis. First of all, CA was used at the beginning of the study to compare the features of English and Hausa. This offered the opportunity to understand the difference between the two languages. Secondly, teachability theory was employed to ascertain which of the sounds and syllables are teachable. This offered the opportunity to identify which segments can be remedied through explicit teaching. Lastly, Noticing Hypothesis was used to draw the attention of the participants on the targeted sounds and syllables intended to be remedied through the explicit teaching.

3.1 Contrastive Analysis

Contrastive analysis (CA) as a theory was popular in the 1950s and 1960s. CA was used in finding out the errors of the participants in their quest of learning English. Fries (1952) describes Contrastive Analysis Hypothesis as a theory that contrasts the features of two languages.

Brown (1992) added that CA) is used to describe the phonological system of two languages. This is done with the aim of focusing on the major differences between the systems. This will enable the teacher and the syllables writer to focus their attention on the major phonological difference. The theory presents the sound system of L1 language learner and the sound system of the target

language. It then describes accordingly from where they are more likely to transfer the L1 system in an attempt to learn the target language.

This description helps to anticipate the difficulties that a language learner might encounter. According to Crystal (2003) and Fries (1952), comparing the features of two languages will offer the opportunity for one to envisage the difficulties that a language learner might encounter. CA therefore focuses on identification of potential pronunciation difficulties of non-native speakers of a language. This caused linguists to catalogue the features of many languages. Many of these catalogued languages were European languages. This made it difficult for earlier African linguist to use CA in these analysis because most of the African languages were not even documented let alone catalogued. The goal of CA is pedagogical in nature. The theory has created the opportunity to observe and anticipate the difficulties Hausa speakers are faced with in learning English as a second language.

For example, it was predicted that Hausa speakers will break consonant cluster through vowel insertion or consonant deletion. For instance: album becomes alibum. In the same vein, Reed (2014) realized from the speech of Thai that there was deletion of coda; <rice> became <rye>. In Japanese, there is the addition of a syllable: <gift> <dog> <hot> and <shop> become <gifuto> <dogu> <hoto> and <shoppu>.

However, Brown (2000) later explains that CA paid attention to cross-linguistic influence which made CA to become less predictive. Subsequently, language

researchers came out with the lists of English sounds that will be problematic for native speakers of other languages. Some of these sounds are what Jenkins (2000) described as core features and non-core features which has been discussed extensively in chapter two.

Contrastive Analysis is therefore considered as a method for the study of Second Language Acquisition (S.L.A) which focuses on the difficulties a learner may encounter by predicting and explaining the phonological systems of the learner's L1 and L2. This comparison is to establish similarities and differences between the two languages. The theory was heavily influenced by Structuralist and Behaviourist theories which were dominant in Linguistics and Psychology.

3.1.1 Structuralist.

Ferdinand de Saussure developed Structuralism as a theoretical framework in linguistics in the late 1920s, early 1930s. According to Johnson (2007), De Saussure proposed that language practitioners are unable to articulate the rules of language because of its hidden rules. Although, people speak their languages, they are not able to fully articulate the grammatical rules that govern the use of their languages. Johnson (2007) added that language speakers are aware of the rules implicitly but cannot explicitly explain them.

In relation to CA, Structuralist Linguistics focuses on the surface forms of both the L1 and L2. Structuralists are interested in describing and comparing the languages on one level at a time. In other words, they first of all focus on

juxtaposing the phonology of L1 and L2. The next focus is morphology, followed by syntax, and then lexicon which receive relatively little attention.

Generally, CA deals with smaller to larger units. It looks at the language learning of structures before looking at the meaning. According to Fries (1952), in learning a new language, the principal problem is not learning vocabulary items but it is the mastery of the sound system. He added that the mastery of the features of arrangement constitutes the structure of the language.

Considering the procedures involved in this argument of contrasting the sounds, words and structural arrangement of the words of both the L1 and L2, it is prudent to say that this procedure will help in many ways when it comes to the study of Second Language Acquisition (S.L.A.). This will be easier if the L1 and L2 are closely related in terms of structure.

3.1.2. Behaviourist

Behaviourist theory is concerned with the objective and observable components of human behaviour. The core assumption is that human and animal behaviour are determined by learning and reinforcement (Ellis 1985). In other words, a performer of an action is likely to continue to repeat his action if the action proves to have a positive outcome, and vice versa.

In relation to language learning, the best known proponent of this approach is Skinner (1957). He claims that language is not a mental phenomenon. Language is behaviour and, like other forms of behaviours, it is learnt by a process of

imitation, habit-formation and repetition. Basically, the environment of the individual is the stimulus conditions and the ultimate controllers of individual behaviour. The environment provides the input for any operation to be carried out.

The patterns of sound in the child's environment affects the child. The environment considers the child's efforts as being similar to adult models and reinforces the sounds. In order to acquire more rewards, the child repeats the sounds and patterns, and these sounds and patterns will gradually become habits. With time, the child will start to behave like an adult. It is therefore natural for children to learn the language of their social surroundings. According to Skinner (1957), actions followed by good outcomes are likely to recur, and actions followed by bad outcomes are less likely to recur. Punishment creates negative emotions such as anxiety and fear. Quantity and quality of the input affect learner's success.

Behaviourist's suggestion of how language is acquired appears to generate more questions by some scholars. It is attacked by Chomsky (1959) who argues that studies of animal behaviour in the laboratory conditions has no correlation on how human beings learn language in natural conditions. In addition, Ellis (1985) says the concept of analogy which Skinner had evoked undermined the creative use of language and individual's competence. The concepts of 'limitations' and 'reinforcement' were rejected as inadequate because they could not account for the creativity of language itself and language learners. The approach does not make room for individual differences in language learning. But we have a

situation where some children perform better than others when given the same language input from the same environment.

Behaviourist theory is basically on spoken language and it is the habit formation theory of language teaching and learning. It builds from simplest conditioning response to more complex behaviours. Each stimulus serves as an initiator for a response. All learning is the establishment of habits as the result of reinforcement and reward and punishments. Since the learning is socially conditioned it can be the same for each individual.

3.1.3 Pedagogical implication of Contrastive Analysis.

Brown (2000) argues that contrastive analysis (CA) describes the phonological system of two languages in order to expose the differences between the systems. The pedagogical implication is that the differences will constitute a major focus of attention for the language teacher, syllabus writer and language researcher. Also, it will supply the learner with sufficient input and the right model in areas of listening skills, speaking skills, reading skills, and writing skills. Again, teachers are advised to accompany their teaching with repetition, drill, and many exercises. More importantly, children should be allowed to participate fully and teachers must attach rewards in their teaching.

In the L2 learning process, transfer will take place from L1 to L2. The transfer will be positive when the L1 and L2 are similar. In this, case no errors will occur. The transfer will be negative when the L1 and L2 habits are different. In

other words, the similarity of structures in these languages will ensure easier and faster acquisition and learning of the target language.

Also, teachers may use CA by observing learners' interaction. This will help them to notice the breaks in their communication and determine the pronunciation features that caused miscommunication. Subsequently, teachers can provide a remedy through explicit instruction that may result in acquisition. Considering the pros and cons of CA, it helps the learner to acquire the target language more effectively. This is because the teacher targets the core features that may distort communication and this gives the learner the opportunity to focus on the target elements.

3.2 Teachability Theory

This study used Pienemann's Teachability Theory which establishes that learning is like a pyramid where we start with the less difficult aspects and gradually move to the more difficult areas. It also suggests that in L2 learning, a learner has to start with the less difficult items, (Pienemann 1989). The theory argues that in language learning and teaching, some features can be learnt and taught through explicit teaching and in doing so, the learner should be placed at the center of the teaching and learning process. Moreover, instruction can easily be facilitated if learners are ready for the new item and this can speed up the rate of progress in the acquisition. Pienemann (1984) mentions that instruction has an accelerating effect on acquisition for learners who are ready for it.

Pienemann and Johnston (1987) claim that students should be psychologically ready to enter into the stage of learning new rules of the target language and this is the best way to predict the skills of students when they are learning a new item. Pienemann's Teachability Theory is a very important guideline to second language instruction because it guides instructors to bear in mind that when it comes to assessing learners' second language levels or correcting errors, learnability is the first consideration, and then comes the teachability. The theory buttresses the point that learning takes place from known to unknown. In other words, learning must follow certain orderly pattern.

Learnability simple means the quality of being learnable. In language learning, some items can be learnt. On the other hand, teachability is the ability to learn under instruction. It is the state of being teachable.

This theory is applicable to classroom teaching because it helps the teacher to understand the learner in order to carve the teaching and learning process to suit the needs of the learner. The theory is applicable to aspects of language teaching in the classroom. According to Taylor (1993) and Jenkins (2000), Pienemann's model can be applied to pronunciation because while some features of L1 accents can be acquired through explicit instruction, others cannot be affected by explicit teaching. Furthermore, Kumaravadivelu (2006) maintains that the role of the teacher as the facilitator of the learning process will be easy and smooth provided the teacher is enthusiastic enough to benefit from the hypotheses established in educational pedagogy. Again, a competent and qualified teacher with an adequate knowledge of the tenets of the

teachability/learnability theory is cognizant that in the learner-centered settings, learners are put at the center of learning. Learners play a vital role in the teaching and learning process.

In this theory, the teacher is the controller of the theory. Green et al (1997) are of the view that teachers can manipulate the learner-centered instruction by applying activities founded in terms of teachability/learnability theory to develop higher-order thinking skills as well and to encourage students to become increasingly independent and self-directed in their learning. It is a theory that puts the learner at the centre of the learning process. Therefore, teachability and learnability theory will be used to ascertain the features of English syllable structure that are learnable and teachable to Hausa learners of English.

In studying Vietnamese who were learning to speak English, Cunningham (2013) established that anyone who has attempted to study a language with a very different sound system would understand the challenges faced by speakers of a second language. According to Cunningham (2013), the difficulty is caused by two things: “Many learners have very limited opportunity to hear model pronunciations other than their teacher’s”, and secondly, learners have “no opportunity at all to speak English outside the classroom.” (Cunningham, 2013:3).

Importantly, individual differences play a key role in language acquisition. Therefore, there is no doubt that some individuals do better than others in

achieving their targets for the learning of pronunciation. Indeed, Cunningham (2013) confirms that some people are able to acquire native-like pronunciation despite facing challenges such as late start and limited opportunities for interaction with native speakers of the target language. She added that motivation and identity are also important factors in the acquisition of pronunciation.

However, there are some critics who are against the native-like accent approach. As Cunningham (2013:6) affirms that some “individuals feel that attempting to acquire a native-like accent is a rejection of their own culture which endangers their personal identity”. Cunningham (2013:6) added that “English speakers in Nigeria and Pakistan believe that the local variety is the only legitimate target for their pronunciation and they do not care about any problems this might cause when using English with speakers from outside their community”. She said however that there might be others with less phonetic sensitivity, who feel that a native-like accent is the obvious target for a motivated language learner.

In Ghana, the RP does not matter for most Ghanaians. As Ofori (2010: 10) observes, “RP does not play any major role now in Ghana except when used as a reference point for measuring the pronunciation of Ghanaian speakers of English”. Saah (1986) and Dako (2001) added that most people frown on others who deliberately sound foreign since speaking with a native-like British accent is not the aim of the educated Ghanaian. Moreover, Huber (2008:90) opines that ‘...an accent that sounds too British is usually frowned upon or even ridiculed’.

People have their various ways of ranking pronunciation targets. Also, some features of English pronunciation are more difficult to learn than others. It is therefore important for an instructor to identify those features in order to make the teaching and learning efficient. It becomes more difficult if the features of the learner's first language and the second language are far apart in terms of similarities. Cunningham (2013:3) confirms that some of these features appear to be more difficult to learn to avoid than others. This is when the phonotactic constraints in L1 appear to be persistent in L2. In other words, some of the features may interfere in the acquisition while others may not. Jenkins (2002) confirms that some features of English pronunciation need more attention than others as far as intelligibility is concerned. For instance, she identifies interdental fricatives as not considered important for intelligibility and yet very difficult to acquire.

In discussing learners' preference, Scales et al (2006) for example found that learners preferred more intelligible accents. Intelligibility is a core element of communication and therefore every language learner would want to sound as more intelligible as possible. Expectedly, Kennedy and Trofimovich (2008) have also found that listeners prefer speech that is intelligible to them. It is therefore important to understand that to prefer intelligibility is one thing but to sound intelligible is another.

It is important to know that the more input a learner is exposed to the greater the acquisition. Also, repeated exposure is a significant factor in language

learning. According to Saragi et al. (1978), repetition eases learning process if learners are made to meet new forms in a number of contexts.

3.2.1. Teachability of pronunciation.

Research has revealed that some teachers ignore teaching pronunciation especially at the primary and junior high school levels in Ghana for a number of reasons: some teachers have never had any training in pronunciation and secondly, pronunciation is not examinable at those levels. Therefore, learners will grow up having difficulties in pronunciation. This absence of pronunciation test is not happening only in Ghana. Cunningham (2009) attests that Vietnamese learners of English typically have a tougher time with pronunciation than with syntactic or lexical acquisition. She attributed it to the fact that English pronunciation is not tested in national university entrance examinations in Vietnam so little effort is put into pronunciation in Vietnamese schools.

There is not much work on the effectiveness of pronunciation teaching in L2. Derwing et al (2010) observe that little work has, until recently, been carried out on examination of the efficacy of pronunciation teaching. However, there are more recent works which have been looking at the relationship between accent and intelligibility, prosodic influences, and the role of ethnic affiliation and identity in L2 speakers' oral production, Derwing & Munro (2010). Talking about the universal difficulty with an L2 English pronunciation feature, Jenkins (2002) identifies the final clusters of English which she describes as complex and unteachable''. She added that initial clusters seem to be easier for learners to acquire than final clusters.

Demuth and McCullough (2009) supported this argument by saying that French-speaking infants acquire initial clusters before final clusters. According to them complexity is found at the beginning of words before at the end of words because French does not have heavy word-final morphophonology, unlike English. They added that final clusters are typologically more marked than initial clusters and therefore likely to be acquired later. However, Kirk and Demuth (2005) argue that in children's L1 acquisition of clusters in English, studies have shown that final clusters are acquired before initial clusters.

Cunningham (2013) establishes that teachability as a theory can only be considered within a given educational context where teaching and learning process is carried out. I strongly agree that there are factors other than the order of acquisition of pronunciation features that may also affect the teachability of a particular pronunciation feature. Cunningham (2009) mentions the availability of pronunciation models, students' access to the model, teachers experience etc. as some of the factors. She added that it might be possible to alter the outcome of teaching by changing one or more of such factors.

In teachability, there are many activities that are involved in pronunciation teaching. Cunningham (2013:5) listed the following as some of the activities:

- a. Lectures and exercises on the phonetics of the model variety,
- b. Extensive listening activities (listening for content),
- c. Extensive speaking activities in a communicative learning context,
- d. Real communication outside the classroom (with or without feedback),
- e. Intensive listening activities (listening for form) and noticing activities,

- f. Listen and repeat activities with different kind of feedback:

Cunningham (2013) recognizes the fact that there may be other factors not mentioned above that may have effect on pronunciation. Again, it is very difficult for one to measure the effectiveness of the activities mentioned because learners may be exposed to other factors that may help in acquisition. The point made by Cunningham (2013) on noticing activities is very crucial and it buttresses the use of Noticing Hypothesis to achieve the objective of this study.

3.3. Noticing Hypothesis

Noticing hypothesis is one of the popular hypotheses in Second Language Acquisition (SLA). The Noticing Hypothesis was introduced by Richard Schmidt and it has been around for about two decades and continues to generate experimental studies, suggestions for L2 pedagogy, and controversy, Schmidt (2010). He based his arguments on two case studies he carried out in those years. The first was a case study of an adult naturalistic learner of English from Japan who immigrated to the U.S. at age 30, Schmidt (2010). The second case study was his own learning of Portuguese during a five month stay in Brazil.

The results of the studies showed that classroom instruction was very useful, however we should not neglect frequency in communication. The studies also found that some forms that were frequent in input were still not acquired until they were consciously noticed in the input. These studies triggered the Noticing Hypothesis. It basically states that if a learner wants to learn a feature of a

language, he must make a conscious attempt to notice the linguistic features, Schmidt (2010).

The Noticing Hypothesis says that input does not become intake for language learning unless it is noticed, (Schmidt, 2010). It suggests that one should be conscious of the input before the input can be considered intake. The noticing hypothesis explains the idea that SLA is principally determined by what learners pay attention to and become aware of. Schmidt (2010) says learners learn about the things that they pay attention to and do not learn much about the things they do not attend to. It means a learner therefore must be conscious of the learning process.

In his explanation of the term ‘consciousness’, Schmidt (1990) gives a three label description of consciousness: consciousness as intention, consciousness as attention, and consciousness as awareness. Consciousness as intention is reflected in the distinction between *incidental* learning vs. *intentional* learning. It has to do with learning things without having any particular intention to learn them. We sometimes learn most vocabulary acquisition through reading, although our objective in reading is not based on vocabulary but usually understanding and enjoyment.

Consciousness as attention (Schmidt 2010) is considered to be the heart of the Noticing Hypothesis. Attention here refers to a variety of mechanisms including alertness, orientation, facilitation etc. The question of whether *all* learning requires attention remains problematic. Can more attention lead to more

learning? Baars, (1988) maintains that the difficulty has nothing to do with whether there can be any learning without attention but whether conscious involvement results in more learning. I however agree that deliberately paying attention may be necessary in some cases.

Talking about consciousness as awareness, Leow (2000) found that there were levels of learning: those who exhibited a higher level of awareness learned the most; secondly, those are who noticed instances but attempted no generalization learned; thirdly, perhaps the worst group, are those from whom there was no learning in the absence of noticing instances. Learners who exhibited more noticing developed more than those who exhibited less noticing.

Noticing as a prerequisite for learning involves both explicit and implicit learning. With explicit learning, the learner must be aware and notice instances and these serve as yardsticks for explicit learning. Implicit learning is uninstructed learning, where there is learning without the rule explanation. It can also happen that learning can take place without instruction, but that does not mean that learning takes place without awareness at the point of learning.

Evidence for implicit second language learning without awareness and without the ability to express them, is actually quite limited. Very few language studies have even attempted to establish that implicit knowledge was acquired in the absence of awareness.

3.3.1 Challenges of Noticing Hypothesis

Although Noticing Hypothesis has generated interest and support from many in the fields of both SLA and language teaching, it has also encountered some objections. Others consider the hypothesis to be undesirably vague and incompatible with well-grounded theories, Schmidt, (2010). Noticing is criticized based on the grounds that attention may be necessary for some kinds of learning but not others. Also, attention may be crucial in learning linguistics features but some learnings do not even need input. However, it is certainly true that some kinds of learning require more focused attention than others.

Language learning is something observable in the environment, whereas things like phonemes, morphemes, nouns, etc. exist in the mind and not in the environment at all. If not present in the external environment, there is no possibility of noticing them. In Krashen's (1981) sense, noticing is to 'learning but not 'acquisition'. In other words, noticing is linked with metalinguistic knowledge but not to linguistic knowledge (competence). Schmidt (2010) admits that some of these objections to the Noticing have merit. Some forms of learning do require more focused attention and higher levels of awareness than others.

3.3.2 Learner characteristics and the role of individual in noticing

Learner characteristics such as motivation, attitude, and language learning history affect what learners notice and become aware of when processing L2 input. This implies that some language learners apply noticing more while others do not. Therefore, individual differences in noticing ability may affect

the rate of learning. One's personality, motivation, daily life and accomplishments in language learning may negatively or positively affect communicative interaction. There are a number of characteristics that may have impact on the individual difference in second language learning.

3.3.2.1 Motivation

Motivation activates behaviour and plays a key role when it comes to second language learning. The strength of motivation serves as power predictor for L2 achievement. In every human endeavor, if an individual has the zeal and enthusiasm in learning a skill, knowledge or even a trade, the kind of importance that the individual attaches to his learning is fascinating. In second language learning, the interest and commitment that urges a learner to learn more will vary from person to person. If an individual is motivated in life, he will go extra mile to learn a language and vice versa.

Motivated learners learn more than unmotivated learners. Schmidt (2010) identifies positive motivation and negative motivation. Motivation is negative if it prevents input from reaching that part of the brain where the language acquisition device is located, Krashen (1985). It becomes positive if it makes learners active, Gardner (1988). Gardner added that motivated learners are successful in their learning because they are very active during the learning process. In other words, motivated learners learn better than unmotivated ones because they pay more attention to the linguistic features. It means their concentration is not only the information. Therefore, paying attention will result in more noticing and enhanced learning as a result.

Motivation can be improved by the identification of mediators that explain why one variable affects another. Therefore, a learner needs to work on his effort, persistence, and attention. Learners with greater motivation will manifest greater effort and perseverance in learning. In classroom situation, learner's motivation may be positively or negatively affected by the teacher.

3.3.2.2. Attitude

Attitude is the general feelings about something and it varies from person to person. Attitude of a learner towards the second language plays a very critical role in acquisition. We have positive and negative attitudes. If the learners' attitude is positive towards the second language, he will socialize with the native speakers. Socialization with the native speakers will open an avenue for the learner to acquire the language and acquire the right pronunciation. Once the learner acquires good pronunciation, it will increase his confidence level and the learner becomes an intelligible speaker. Although non-native pronunciation and intonation are not necessarily obstacles to successful communication with native speakers, too much accented or distorted speech will lead to negative attitude. If the attitude is negative, the learner will undermine the second language and that will drive him away from the natives and consequently may negatively affect the second language.

Learners have different views about languages. These differences sometimes reflect on their past experience such as learning style and personality. LoCastro (2001) suggests that students exhibit positive attitudes towards learning a second language and their language-related behaviours often do not match. It

means that every learner has different attitude towards a second language. Learner's interest in second language may be influenced by number of factors. LoCastro (2001) observes that Asian students study English with positive attitudes for their future careers or for study abroad. Potter and Wetherell (1987) claim that attitudes are not 'enduring entities'. It means that attitude is not permanent and it can fluctuate based on the circumstances. LoCastro (2001: 72) says "the connection between attitudes and behaviour is notoriously difficult to predict and assess; social pressure from peers, for example, can radically change an individual's attitude towards the object".

3.3.2.3 Language learner history

Language learner history plays a crucial role in noticing, and awareness. If a learner has previously learnt a language, noticing the forms of the second language will not be much of a problem. Generally, in learning, applying the relevant previous knowledge is very helpful in getting the attention of the learner. This enhances the chance of the learner to notice and become aware of the new topics. In second language, a learner with relevant previous knowledge is more likely to notice the structure of the second language.

Noticing plays a facilitating role between input and memory systems. If the learner's memory has undergone training in language before, the learner is likely to notice with ease. It means that a learner who has gone through language learning instruction will find it easy to apply those instructions in the second language. On the other hand, those who have not gone through any form of instruction may find difficulties in coping for the first time. Instruction offers

organized input that enhances noticing and this draws the attention and awareness of the learner to the needed features in the language.

Noticing also has to do with frequency, when an item does appear more frequently in the input and the learner has seen it before, the likelihood is that the item will be noticed and integrated into the interlanguage system. Therefore, the more frequent an item, the greater number of opportunities for noticing. The less salient a form, the less likely it is to be noticed.

Awareness will be enhanced based on how well individuals are able to routinize previously met structures, Schmidt (2010). This processing ability in turn determines how ready learners are to notice new forms in the input. An instructional task causes learners to notice particular features that are necessary in order to carry out that task. Also, noticing may depend on the level of similarities between the first language and the second language. The higher the similarities, the higher the noticing and vice versa. Language learner history may also depend on the structures of what has been learnt already and what is being learnt. After all, we learn from known to unknown.

Attention and noticing play a very vital role in understanding second and foreign language learning. Paying attention is to becoming conscious of something and this seems to be the remedy for learning anything. Paying attention is seen as the universal solvent of the mind, Baars (1988). For SLA, the allocation of concentration is the pivotal point at which learner external factors (including interactional context) and learner internal factors (including motivation and

aptitude) come together. It means consciousness largely determines the course of language development, including the growth of knowledge and the development of fluency.

I strongly agree that noticing has a convincing impact on second and foreign language learning. Also, individual differences are important part of the SLA, and both inclinations and abilities affect who notices what. Motivation, Attitude and language learner history in explicit learning play a role in implicit learning.

3.4 Explicit teaching.

In order to maximize students' academic growth, one of the best tools available to educators is explicit instruction. Explicit instruction is a structured, systematic, and effective methodology for teaching, Anita and Charles (2011). Anita and Charles (2011:1) describe explicit teaching as "unambiguous and direct approach to teaching that includes both instructional design and delivery procedures." Explicit instruction is therefore a systematic technique of teaching which follows steps by examining student's understanding. This is done by allowing and achieving active and successful participation by all students".

Explicit knowledge consists of the features of language that are learnable. In other words, there are facts about language that speakers have made conscious effort to learn. We therefore have explicit and implicit knowledge. Ellis (2006:102) describe implicit knowledge as "procedural, held unconsciously, and can only be verbalized if it is made explicit. It is accessed rapidly and easily and thus available for use in rapid, fluent communication. In looking at the

efficacy of explicit knowledge in teaching, Ellis (2006:96) considered three separate questions:

1) Is explicit knowledge of any value in and of itself?

Ellis supports the view that learning explicit knowledge is not effective if there is absence of opportunities for practising the target feature.

2) Can explicit knowledge transfer into implicit knowledge?

To answer this question Ellis provides three positions:

- i. Non- interface position: It means there is no way that explicit knowledge development can facilitate the development of implicit knowledge.
- ii. Interface position: This is the situation where there is correlation between the explicit knowledge and implicit knowledge. Explicit knowledge may assist language development by facilitating the development of implicit knowledge. This can only occur if the learners have ample opportunity for communicative practice.
- iii. Weak- interface position: Ellis (2006) claims that explicit knowledge can convert into implicit knowledge if the learner is ready to acquire the target feature and that this conversation can occur priming a number of key acquisitional processes in particular *noticing* and *noticing gap*.”

According to Ellis, teaching explicit knowledge can be done in any of the following ways:

1. focus-on-forms approach
2. focus –on- form approach
3. deductive
4. Inductive

Focus on form consists of primarily meaning-focused interaction in which there is brief, and sometimes spontaneous, attention to linguistic forms. In contrast, **focus on forms** involves a primary emphasis on linguistic structures, often presented as discrete grammar rules or other metalinguistic information.

In addition, Ellis (2006:98) differentiates **input-based** and **production-based** instructions. According to Ellis (2006:98), the input- based takes place when the learners comprehend and process the input they have acquired. On the other hand, the production based occurs when learning occurs out of social interaction. This approach aids learners to produce new structures in their environment. Ellis is also of the view that corrective feedback plays a vital role in learning. It is best conducted using a mixture of implicit and explicit feedback types that are both input based and output based.

3.5 Methodology

This section discusses how the data were gathered for this work. First of all, the biodata of the entire population size of the school were collected through questionnaires in order to get the target participants. Then, an observation was carried out in the classroom to ascertain the participants' performance in pronunciation. After the observation, the participants were taken through an

elicited imitation task and an oral production task. There were three testing times: a pretest, an immediate posttest, and a delayed posttest two weeks after the treatment. The target phonological forms were segmental and suprasegmental.

I planned a set of classroom activities which were focused on the acquisition of English syllable. Every activity was planned separately and it was prepared before the beginning of each lesson. Some of the activities were inspired by pronunciation course books while others were created by me. I started with the segmental acquisitions before suprasegmental acquisition. This is because segmental features are the bedrock of suprasegmental (Fries, 1952:16). The activities were orderly executed according to their focus and the level of difficulty.

All the activities used in this work can be found in the appendices with a detailed description of ways in which each activity was implemented in the classroom. The activities were incorporated in a lesson plan adopted by the Ghana Education Service with some modification to suit the needs of the participants and their classroom setting. The lesson plan was organised taken into consideration the topic, available time and the objective study.

3.5.1. Participants

The participants were students of a private university college situated in Madina, a suburb of Accra. All the students in the college are Male. The school was selected because out of the total population of 178 students, 133 speak

Hausa. Out of these 133 who speak Hausa, 87 speak Hausa as their first language. 20 students from the second year students were selected to take part in the study. This number was chosen not only because of the importance of class control in teaching pronunciation but also the numerous exercises the participants were engaged in. This offered the time and the chance for the participants to receive the needed feedback. Secondly, the participants were chosen because the study needed first language speakers. After the intervention, 10 participants out of the 20 were randomly selected for the analysis. Only the odd numbers were chosen. This is because the performance of the participants were almost the same.

I had a brief interaction with the students and their English instructor. In the course of the interaction with the students, my interest tilted towards their pronunciation difficulties and I decided to find out which of these features can be remedied through explicit teaching. All participants used in this work were healthy and had normal or correct hearing and speech ability. After explaining the nature and the reason of the study, they gave their informed consent. They were not given any monetary compensation for taking part in the study. Their educational background varies as far as English Language is concerned. While some have primary education, others have secondary education in English. They were taught English once a week by a teacher who had his first degree in Arabic-English Translation from University of Azhar in Egypt and the second degree in Arabic from University of Ghana.

A background questionnaire showed that the majority 133 speak Hausa but 87 speak Hausa as their first language (L1). The average number of years they had

spent in an English classroom was five years, ranging from less than one year to 5 years. The mean age was 20. The mean age at which they started learning English was 10 years. Difficulty in pronunciation was observed in all the participants before the beginning of the intervention.

3.5.2. Procedure

After using the questionnaire to ascertain the biodata of the participants, pre-intervention exercises were given to the participants and the scores were measured. A tape recorder was also used in all the processes of the data collection. Copies of the questionnaire were distributed among the participants and it sought among other things their self-efforts and approaches to pronunciation course learnt before, the words that they think they have mostly mispronounced and their feelings when they mispronounced those words.

I then observed teaching and learning process in their classrooms for a week and I went through their syllabus and acquainted myself with the topics being taught. I then conducted a pre-test on segmental pronunciation and suprasegmental pronunciation. I measured the test and compared the result with the post-tests I conducted.

Participants were introduced to the importance of pronunciation, identification of speech sounds, syllabification, stress, and changing status of pronunciation teaching in order to attract their attention to the issue of pronunciation. It is important to know that in language acquisition, while some features may seem to be particularly difficult for speakers of a given language to acquire other

features may appear easy to acquire. Therefore, the approach I adopted in this study was an attempt to optimize the exposure of students to a limited set of pronunciation challenges faced specifically by Hausa learners of English.

The procedures were observation, before and after each intervention test. Before the interventions, an observation was conducted, followed by data collection through tests that were conducted based on the observation. Each lesson began by explaining the importance of pronunciation and concluded with the drilling of sounds and then words. Practice quizzes were conducted for each point made in the drilling section so as to reinforce the focus of each lesson.

I largely incorporated aspects of DeKeyser's (1998) output-based instruction whereby explicit instruction is followed by form-focused activities. The form-focused instruction is a pedagogical practice that offers the second language (L2) teachers the opportunity to draw their students' attention to language form. This provided the opportunity to notice the target forms needed for intelligibility (segmental and suprasegmental.) The descriptions of the lesson plans are provided in the appendix 1-18.

Exercises were given to them in the course of the intervention and after the intervention, and the results were compared to see those syllable structures that can be easily acquired. The taught course was organized in sessions (for three months). Each session concentrated on a particular aspect of the pronunciation of English, such as vowel quality, vowel duration, consonant articulation, final consonants, final clusters and initial clusters, stress etc.

3.5.3 Observation

I conducted an analysis to find out whether the participants used or were planning to use English as a Lingua Franca (ELF). I realized that they just wanted to sound intelligible. I then conducted a diagnostic test to find out which areas of the Lingua Franca Core (LFC) participants need to work on in their pronunciation. In this case, I needed to know the language background of the participants whose language information I had already gathered.

I compared the pronunciation features of LFC with the pronunciation difficulties of the participants as Hausa speakers. This helped me target the features that are important for maintaining intelligibility in Jenkins (2005) data. I then matched those areas to the needs of the participants. I skipped the irrelevant pronunciation difficulties that will not affect intelligibility and focused more on LFC priority areas, such as syllabification, nuclear stress, and by taking extra pronunciation activities into the classroom.

English II

3.5.4. Pre-intervention

In the classroom, I made an observation of a teacher reading a passage; “The responsibility of family”. He later asked them to pronounce words they had come across in the passage. Their pronunciation drew my attention to investigate their difficulties. Using dictation and responses of pupils during lesson presentation process was what prompted me to investigate into the matter and to develop a lasting solution to the problem.

I observed the class for a week to discover the intensity of the problem on the ground, I then made a recording of the pre-intervention exercise and after a careful analysis of the class exercise conducted on pronunciation, it was realized that out of 10 participants only 2 had more than 5% scored. The rest had below 5%. Another pre-intervention test was conducted and the results was not different from the first one. The words were pronounced to the hearing of the pupils. Words that were pronounced correctly attracted one mark. The words given out to be pronounced were mostly not more than ten.

3.5.5. Intervention

The intervention is a series of concrete measures in the form of approaches or techniques put in place to solve the problem of pronunciation. I used traditional techniques for teaching pronunciation. I adopted two methods: eliciting data based on the individual sounds and eliciting data based on syllable. The method on eliciting data based on individual sounds focused on individual sound production while the method on syllable emphasized on the individual syllables of the words meant to be pronounced as a unit.

3.5.6. Post Intervention

The post -test were designed to test the pupils' progress in pronunciation. Before paying attention to the pronunciation tasks, it is important to distinguish between the pronunciation activity on a segment and the pronunciation task on suprasegment. Whereas a pronunciation activity on a segment focused on practising a concrete sound, a pronunciation on suprasegment task sets up the rules for practicing syllabification. A great number of sounds can be practiced

through one pronunciation task. I based my intervention on the aspects of teaching pronunciation that are crucial and needed to be focused on. According to Harmer (2005, 187-198), teachers should draw their students' attention to teaching pronunciation of sounds, words stress, sentence stress, intonation and connected speech. These encompass all the aspects of pronunciation needed by students. This can be described as a pyramid; it starts from the production of individual sounds to a production of connected speech.

3.6. The approach

In conducting the classroom activities, I chose the Modular Approach to teaching pronunciation. This approach is widely used and tested. One of the activities under this approach is perception training. Perception training is based on the auditory phonetics which focuses on listening activities. This activity creates awareness of the particular features in the pronunciation lesson. According to Roccamo (2014:183), the modular approach "has been tested with L2 learners of German and was successful at providing them with the tools to improve their comprehensibility and reduce their accentedness to a greater extent than learners who did not receive training". Roccamo (2014) used the Modular Approach to test the comprehensibility of German L2 speakers in his study and the result showed an improvement in their understanding, therefore approach the minimized their accentedness.

The modular has some merits that attract instructors to use it. I chose it because of the issues of time, adaptability and teacher confidence. The participants' timetable was so loaded and I needed to respect their time in order not to bore

them because they had so many things to be learned. The participants received intensive instruction on each aspect of pronunciation treated in class. Bearing in mind that they had other things to learn, I didn't take much time from them. Within each module, pronunciation activities were designed to be used as a warm-up activity for the first ten minutes of class in each meeting.

Furthermore, this model was chosen because of its adaptability. According to Roccamo (2014), preferably, pronunciation activities in the module combine the practice of many language skills such as: speaking, listening, reading, writing grammar and vocabulary. However, there is room for customization to suit the state of affairs in the class. This will largely be based on the teacher's experience, students' interest and nature of the classroom. I always began with the pronunciation activities before beginning anything else I wanted to discuss with the participants. Therefore, I chose to focus heavily on one or two modules to focus heavily on based on the objectives of the study and the needs of the students.

Another advantage about this model is the teacher's confidence. Roccamo (2014:184) argues that "many foreign language instructors who were not trained in linguistics or phonology may feel that they simply do not know enough to teach pronunciation." My confidence level was very high throughout the activities I undertook in the classroom. This is based on my background as a phonologist with special interest in teaching pronunciation.

3.6.1. Things I considered

Given their background as basic-level language learners, I importantly considered two skills the participants should acquire:

1) The ability to produce what is currently being trained in a more accurate manner.

2) The ability to notice and attend to their own pronunciation and that of others.

Roccamo (2014:184) added that this type of considerations coming from an instructor can improve student's pronunciation "By noticing the differences between what they produce and what native and advanced speakers do, and by learning how to actually produce the new or similar sounds themselves." Therefore, in acquisition noticing plays a key role. It offers the opportunity for learners to be aware of what is being taught. Noticing allows the participants to focus on the target elements in the teaching and learning process.

I therefore set up models for each topic and each focused on one aspect of pronunciation that needs attention: vowel quality, consonant identification, syllabification and stress. Prosody was added because of its prominence in comprehension as Hirschfeld (1994) recommends the need to incorporate prosody as errors in prosody can be more detrimental to comprehensibility than errors in individual sounds.

I also provided training in both perception and production. Perception activities heighten attention and noticing of the features in focus. The activities in each module were designed to follow the optimal progression for pronunciation training. In other words, students begin with auditory phonetics and end with articulatory phonetics.

3.6.2. Perception training

Sound in focus. The perception training consists of awareness training, which creates the consciousness of a feature and how it is used in the L2. According to Rocco (2014: 184), “listening and perception training consists of awareness training, which outlines what the feature is and how it is used in the L2. It followed by discrimination and identification training, respectively.”

The discrimination training is where participants are made to hear the similarities and differences of two words. The third activity under the perception training is the identification exercise. The identification training allows students to apply their knowledge to decide exactly which word they hear. In all perceptual training activities, students were provided with speech samples with many different features. Below are the outlines of the activities in perception training:

Awareness Training

Discrimination Training

Identification Training

3.6.2.1. Awareness Teaching

The main target of this exercise was to raise students’ awareness about the pronunciation of a certain feature in the L2, its articulation, and how it is marked orthographically. In this exercise, participants were made to listen to a short story. The story contained a prominent target sound and prosodic features which would attract students’ attention. Their attention was focused on orthographic-phonetic connections and differences between L1 and L2 pronunciation of similar sounds. Subsequently, the participants were asked about the targeted features and their representation in the text.

3.6.2.2. Discrimination Teaching

The primary target of this exercise was to train participants to be able to distinguish the contrast between two sounds or prosodic features. Participants were made to play a discrimination game where they heard a pair of words pronounced out loud. They were then asked to decide whether the pair consists of the same word said twice or two different words. Participants were asked to mark their answer by circling “same words” or “two different words. The words used here were identical except for the sounds that are being contrasted, such as the example thank and tank.

This game was used for both checking individual sounds and stress patterns. For example, short and long vowels (e.g., sit and seat). This activity can also be used for intonation patterns, such as statements and questions.

3.6.2.3. Identification Teaching

The target here was to test participants’ identification ability of contrasts between sounds. This exercise is similar to discrimination activity, but here participants heard different words and had to identify which word was heard. Participants listened to words pronounced aloud and then ticked the correct word. This exercise helped students listen for contrasts between similar sounds.

At times the participants were grouped into two and each member of the group was asked to pronounce the target contrast starting from the first participant to the last participant. If the last participant in a group produces the same word as the first participant in the group, that group has won the competition. This

exercise provided the participants the opportunity to listen carefully to the relevant contrasts and pay close attention to which sounds they are forming as they speak.

The main challenge I faced here was the unavailability of textbooks in the classroom. The participants were not using any text book. The teacher would just do his readings and teach the students according to his wish.

3.6.3. Production training

After taking the participants through a comprehensive perceptual training, their focus was then turned to articulatory phonetics where the participants started practicing how to produce the individual pronunciation features. At this stage, traditional pronunciation training methods were chosen. This method involves drills and mimicking. The traditional pronunciation training methods assist students realize the movement of the speech articulators whenever a sound is being produced. The participants observed the instructor's pronunciation and that of their colleagues. The participants in turn produced what they hear through the perception and listening skills they have acquired in the early weeks. It was realized that they enjoyed listening to their peers. Counselman (2010) established that students can improve on their pronunciation when they focus on their colleagues' pronunciation.

The activities were based on form-focused instruction and this drew their attention to the relevant features and those features affected comprehensibility, intelligibility, and meaning. This particular instruction improved their pronunciation tremendously. Participants were taken through the individual

features that posed difficulties to them based on LCF. They were then moved from more simple words, such as those with just one or two syllables, through sentence- and paragraph-level speech. In other words, the production activities started from more simple to more complex in order to promote stabilization and maintain the focus of the training. At this stage, the participants level of awareness on the targeted features was very high. They were able to distinguish the differences in pronunciation between the L1 and L2 after playing a recorded speech of a native English speaker in a spontaneous speech. The production training is outlined below:

Production Training—individual sounds

Production Training—syllabification

Pronunciation -stress

Pronunciation- words in sentences

I made it a point that the participants began each training module with active listening exercises and ended with production exercises.

Each activity started as a warm-up training at the beginning of each lesson on their class timetable. The activities were divided into perception and production training. The first three activities presented are listening and perception while the rest fall under the production training. In the production activities participants were given a group exercise and test their partner's pronunciation abilities within the same activity. It was realized that they gave a very critical feedback. In their exercises, the participants discussed a wide range of topics by producing target features in many different communicative situations and discourse levels.

3.7. Conclusion

This chapter discusses the various theoretical frameworks used in the study; Contrastive Analysis, Teachability, Noticing Hypothesis. Contrastive Analysis (CA) was used at the beginning of the study to compare the features of English and Hausa. This made it easier to identify the difference between the two languages. Secondly, teachability theory was used to ascertain which of the sounds and syllables are teachable. This offered the opportunity to identify which segment can be remedied through explicit teaching. Lastly, Noticing Hypothesis was used to draw the attention of the participants to the targeted sounds and syllables intended to be remedied through explicit teaching.

The chapter also explains the methodology which is the steps by which the data were gathered, the participants involved in the process and the materials used.

CHAPTER FOUR

SEGMENTAL ANALYSIS

4.0 Introduction

This chapter presents the analysis of segmental features based on the data gathered. The chapter begins with an examination of vowel sounds followed by an examination of consonant sounds. In order to describe the pronunciation difficulties of Hausa learners, the first thing I did was to focus on the differences in both languages (English and Hausa). Even though, the main focus of this dissertation is the acquisition of English syllables through explicit instruction, there is a need to look at individual sounds first, because the individual sounds form the syllables in a language. Moreover, the participants in the study have difficulties in identifying some of the individual sounds. There is therefore the need to consider the segmental analysis first before moving to the suprasegmental analysis.

In pronunciation lessons, teachers introduce phonemic symbols to their students as a first step towards learning of pronunciation. This has a lot of benefits on the acquisition of pronunciation. In this regard, Harmer (2005) argues the introduction of phonemic chart is useful for both the teachers and the students because teachers can use it to explain pronunciation mistakes. This is because the phonemic symbols enable students to recognize sounds in a word and read even without hearing it. This increases the chances for a student to do self-word recognition without any instructions.

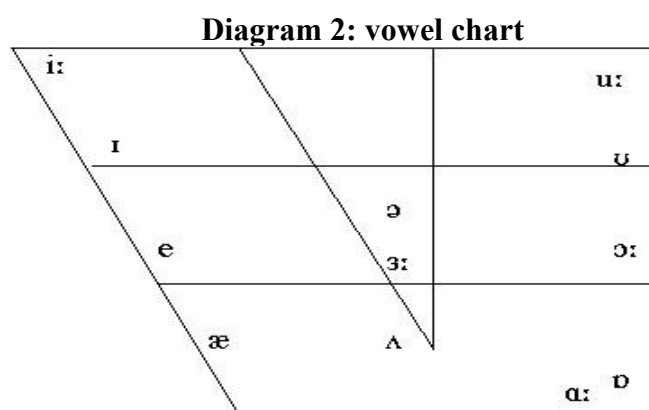
Harmer (2005) encourages teachers to focus on the vital features of pronunciation: sounds, words stress, sentence stress, intonation and connected speech. These are the crucial areas in teaching pronunciation that help learners to acquire the needed skills of pronunciation. Again, there are numerous activities used in teaching pronunciation.

The participants were taken through the various orthographies and the sounds represented on the International Phonetic Alphabet (IPA). They were made to understand that orthographies are written, and sounds are spoken. In other words, orthographies are noticed in normal spelling, and sounds are noticed in speech. In English, the relationship between the orthography and pronunciation is not always direct because some spellings do not correspond directly to the sounds they represent. For instance, the vowel 'a' in the following words (*fat*, *father* and *fate*,) have different sounds. Orthography 'c' may also represent the following sounds: /k/ in 'come', /s/ in 'cite', and tʃ in 'chain'. In order to represent pronunciation, each speech sound is represented with an IPA symbol. The participants were therefore taught the sounds on the IPA and their orthographic representations.

In discussing the sixteen elements of explicit instruction, Archer and Hughes (2011) established that explicit teaching should be executed sequentially and logically. According to Archer and Hughes, explicit instruction needs to "consider several curricular variables, such as teaching easier skills before harder skills, teaching high-frequency skills before skills that are less frequent in usage, ensuring mastery of prerequisites to a skill before teaching the skill

itself, and separating skills and strategies that are students' awareness about the pronunciation of certain English speech sounds" (2011: 2).

In the light of this, I considered the articulation of speech sounds, and how it is marked orthographically. Short stories (see **Appendix: Lesson Plan 1**) that contained target sounds and prosodic features which would attract students' attention were presented. The participants were asked about the targeted features and their representation in the text. Their response was not encouraging so I began with awareness training of sounds. According to Harmer (2005 :187), there are several ways on how the individual sound(s) can be trained. Harmer first of all mentioned the identification of sound(s) in words. Before I started with an intervention on vowel quality, the participants were shown the positions of the various vowels on the vowel chart. Again, the various vowel sounds and words in which they can be found were discussed with the participants. The chart below represents the English vowel chart:



Distribution:

/ɪ/ as in sit bit divorce, direct.

/i:/ as in seat beat, see.

/e/ as in says, wet, set.

/æ/ as in cat, man, fan.
 /ɑ:/ as in farm, palm, calm.
 /ɒ/ as in spot, got, dog.
 /ɔ:/ as in court, store, talk.
 /ʊ/ as in book, look, put, push.
 /u:/ as in food, fool, pool.
 /ʌ/ as in but, love, much.
 /ɜ:/ as in learn, bird, verb.
 /ə/ as in above, mother, ago

4.1 Vowel quality.

Vowel quality identification has been demonstrated to be a problem for many Ghanaians, especially for those learning English as a second language. The long and short vowels are sometimes used interchangeably in Ghanaian English. Koranteng (2006: 327) established that while some speakers consider / i: / and / ɪ / or / ʊ / and / u: / as free variants, others see them as separate phonemes that can bring about meaning change. In the related study of the segmental features of spoken English in Ghana, Ofori (2012) suggests that the high front vowels / i / and / ɪ / should not be treated as one vowel as Koranteng (2006) made us understand, but they should rather be considered as two distinctive phonemes in Ghanaian English. He based his argument on the works of Dako (2001) and Adjaye (2005) because they have separated the two vowels as separate phonemes in the vowel inventory. For instance, ‘fill and feel are distinguished based on the vowel quality. Again, Ofori (2012) argues that the high back vowels / u: / and / ʊ / should also be separated as two distinctive phonemes and not as free variants as discussed by Koranteng (2006).

4.1.1 Treatment: vowel quality /ɪ/ and /i:/

In order to resolve the problem that short and long vowels pose, participants were taken through the difference between the quality of the /ɪ/ and /i:/ vowel sounds. They were then given contrasting words (heed-hid, sheep-ship, beat-bit) and were asked to identify the vowels. The activity started with high front vowels [ɪ and i:]. They were made to understand that the front vowel is articulated with spread lips. The results showed an excellent performance from the participants. They did very well because during the treatment, they were made to understand that in most cases they would observe the following: the long vowels may have the following in orthography: {ee, ea, ei , etc.} while the short may have {i, y} as in 'ski' and 'me'. The participants were asked to categorise the following words into short and long vowels: heed, hid, sheep, ship, beat, bit, feel, fill, seat, sit. The y-axis includes the 10 participants (P1-10) while the x-axis contains the various tests (pretest, post-test and delay post-test). The blue colour represents the pretest, the brown colour represents the post-test and the grey represents the delayed post-test. Seven of the participants (1,2, 5,6, 8, and 10) had 100% after the intervention while two of the participants (4 and 9) got 90%. Only one participants (3) had 80% of the total performance.

Exercise 1: pre, post and delayed performances of participant 3:

14th/feb/17

Pronounce and group the following words: head hid sheep +
beat bit feel sit seat, under the vowels below:

P (3) (Pre)

/I/	/i:/
head ✓	hid ✓
sit ✓	seat ✓
beat ✓	bit ✓
feel ✓	teek ✓
ship ✓	sheep ✓

22nd /Feb/ 17

P 3 (after)

/I/	/i:/
hid ✓	head ✓
sit ✓	seat ✓
beat bit ✓	beat ✓
feel ✓	teek ✓
ship ✓	sheep ✓

7th /Feb/ 17

P (3) (delayed)

/I/	/i:/
hid ✓	head ✓
sit ✓	seat ✓
beat bit ✓	beat ✓

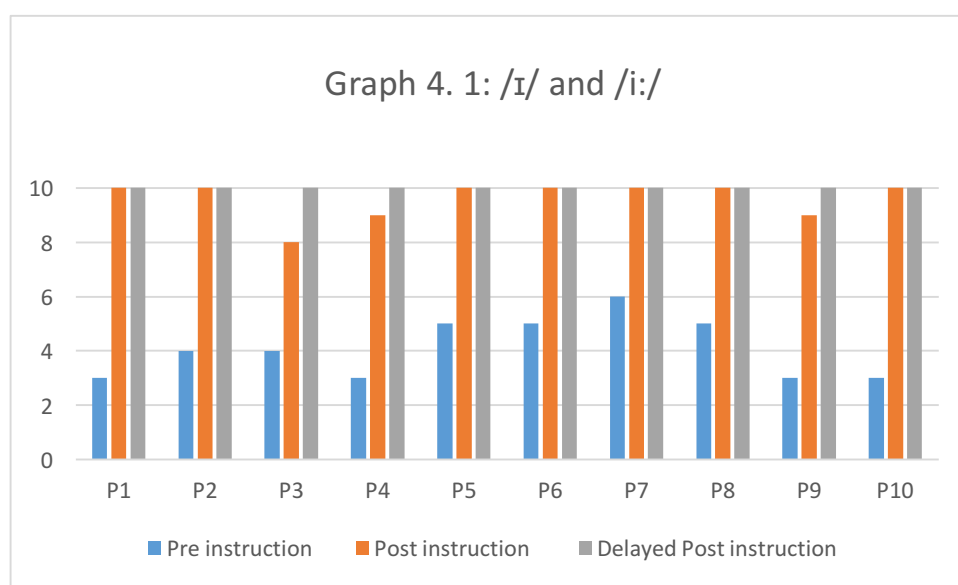
4th /Feb/ 17

/I/	/i:/
hid ✓	head ✓
sit ✓	seat ✓
beat bit ✓	beat ✓

Handwritten scores: 4/10, 9/10, 10/10

The results of the treatment of the ten participant are represented on the **Graph 4. 1** below. The results clearly support the effectiveness of explicit teaching. The activity can be found in appendix: Lesson Plan 2

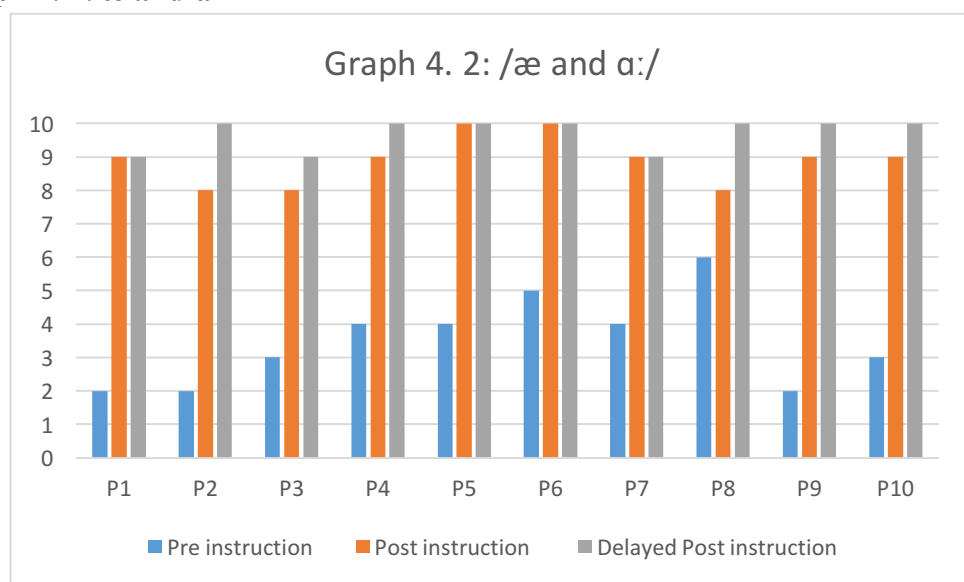
Graph 4.1: Performance on /ɪ/ and /i:/



4.1.2. Treatment: vowel quality /æ/ and /ɑ:/

The next vowels treated in the class were /æ/ and /ɑ:/. Participants were taken through the pronunciation of these vowels in order to differentiate between the two. They were made to understand that both vowels are unrounded therefore they are pronounced with spread lips. Their difference is found in their quality; while /æ/ is short, /ɑ:/ is long vowel. /æ/ can be heard in words such as cat, man, fan, bank, bad, pack, gang. On the other hand, /ɑ:/ is heard in the following words: farm, palm, calm, market, father, star. The exercise can be found in **Appendix: Lesson Plan 3**. Below is the graph indicating their performance.

Graph 4. 2: æ and ɑ:



Exercise 2: Pre, post and delayed performances of participants .

15th February, 2017
Pronounce and categorise the following words (cat, man, farm, bank, head, fog, palm, calm, market, feather) under the vowels ~~below~~ below:

P₁ (Pre)

/æ/	/ɑ:/
farm	cat
palm	man
calm	bank
fan	feather
market	bank

2/10

18th February, 2017

P₂ (Post)

/æ/	/ɑ:/
cat	palm
man	farm
calm	bank
fan	feather
market	market

10/10

7th March, 2017

P₂ (Delayed)

/æ/	/ɑ:/
cat	palm
man	farm
bank	market
fan	feather
bank	calm

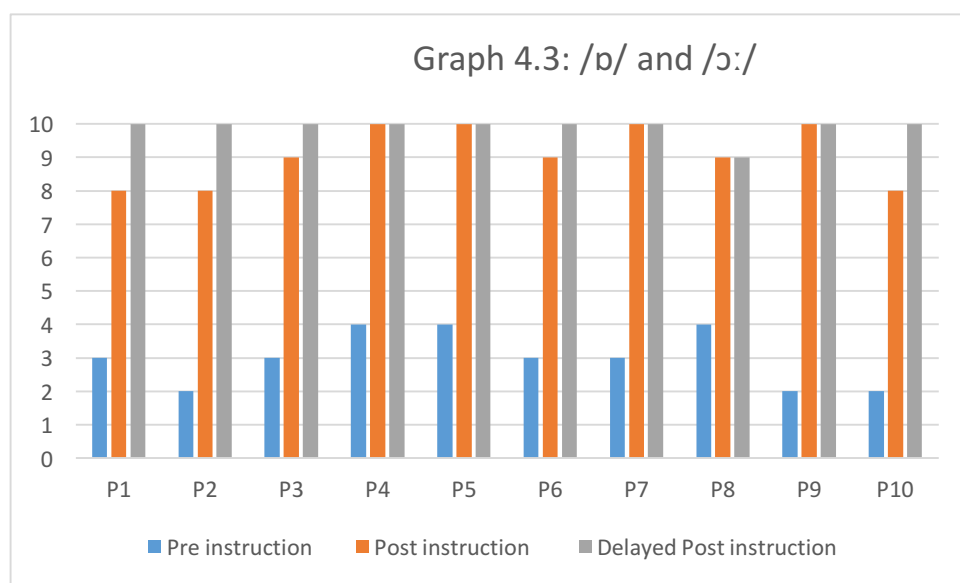
10/10

4.1.3 Treatment: vowel quality /ɒ/ and /ɔ:/

The next vowels treated in the class were /ɒ/ and /ɔ:/. Participants were taken through the pronunciation of these vowels in order to differentiate between the two. Participants were made to understand that both vowels are rounded, therefore they are pronounced with protruding lips. While the /ɒ/ is a open and short vowel, /ɔ:/ is closed mid and long. The exercise is found in **Appendix:**

Lesson Plan 4. Below is the graph indicating their performance.

Graph 4.3 : /ɒ/ and /ɔ:/



Exercise 3: pre, post and delayed performances of participants 10:

8TH FEBRUARY, 2017
Pronounce and put the following words (honour, spot, got, dog, court, store, talk, fought, sport, raw) under the vowels below:

P10 (Pre)

/ɒ/	/ɔ:/
Store ✓	Honour ✓
Talk ✓	Spot ✓
Sport ✓	Dog ✓
Fought ✓	Court ✓
	Got ✓
	RAW ✓

2/10

22ND FEBRUARY, 2017

P10 (after)

/ɒ/	/ɔ:/
Honour ✓	Store ✓
Spot ✓	Fought ✓
Dog ✓	Sport ✓
Talk ✓	Court ✓
Raw ✓	
Got ✓	

4TH MARCH, 2017

P10 (delayed)

/ɒ/	/ɔ:/
Honour ✓	Store ✓
Sport ✓	Fought ✓
Dog ✓	Sport ✓
Got ✓	Court ✓

raw ✓

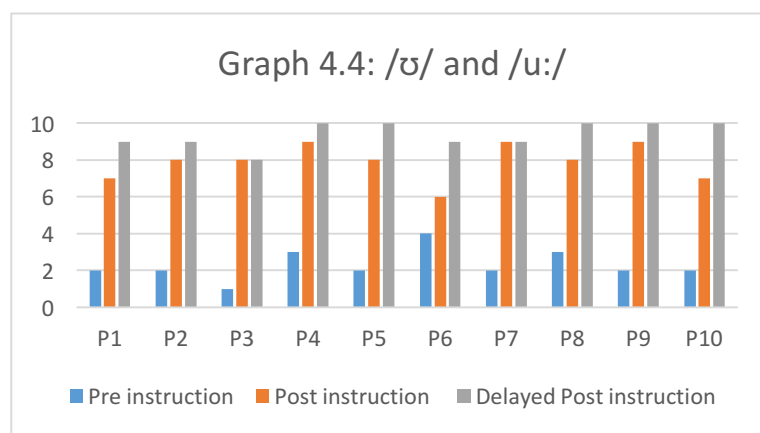
Talk ✓

4.1.4 Treatment: vowels quality /ʊ/ and /u:/

The participants were trained in the pronunciation, of /ʊ/ and /u:/. They discovered that the vowels are rounded but /ʊ/ is shorter while /u:/ is longer and higher vowel. Words that contained these vowels were used in the drilling processes. After satisfied with the drilling process, participants were given an exercise to identify the treated vowels. The exercise is found in **Appendix:**

Lesson Plan 5.

Graph 4.4: /ʊ/ and /u:/



Exercise 4: pre, post and delayed performances of participant 10:

17th FEBRUARY, 2017
Pronounce and group the following words under the vowels below:
book, look, put, push, pull, pool, lose, fool, cool under the appropriate vowels

P10 (Pre)

/ʊ:/	/u:/
book ✓	Put ✓
cool ✓	Push ✓
fool ✓	Put ✓
lose ✓	Full ✓
pull ✓	look ✓

2/10

24th FEBRUARY, 2017
P10 (offer)

/ʊ:/	/u:/
Put ✓	Book ✓
Push ✓	Look ✓
Pool ✓	Fool ✓
Full ✓	Loose ✓
Pull ✓	Cool ✓

7/10

9th MARCH, 2017
P10 (delayed)

/ʊ:/	/u:/
Put ✓	cool ✓
Push ✓	pool ✓
Look ✓	lose ✓
Book ✓	fool ✓

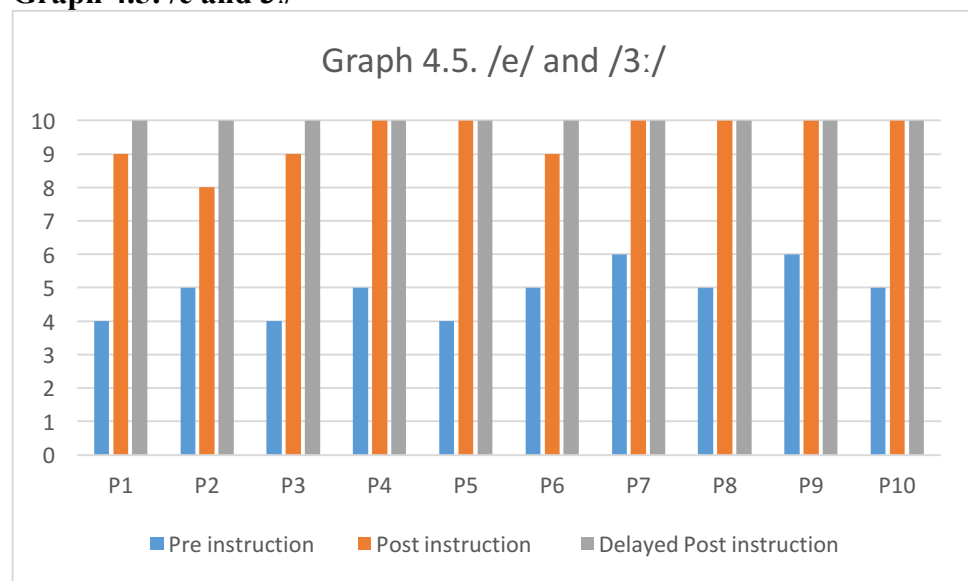
Pull ✓	
Full ✓	

10/10

4.1.5 Treatment: vowel quality /e/ and ɜ:/

The next vowels treated were /e/ and /ɜ:/. The participants at this point were familiar with vowel quality differences, this made the rest of the work easier than expected. The quality here is tense and lax. **Appendix- Lesson Plan 6** shows the performance.

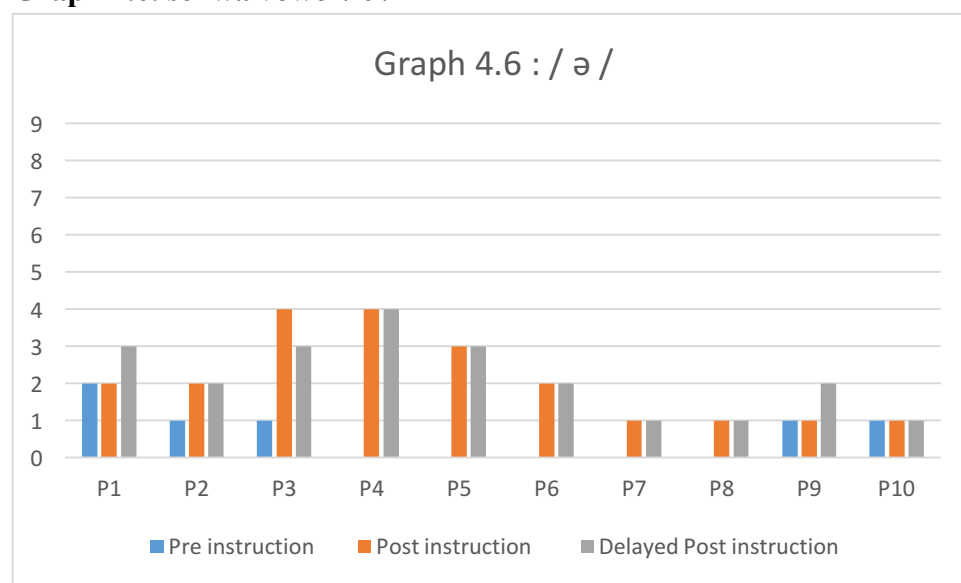
Graph 4.5: /e/ and ɜ:/



4.1.6 Treatment: Schwa vowel / ə /

At the pre-intervention stages (see Appendix Lesson Plan 7), it was realized that the participants always stressed schwa vowels in every situation. They were then told that the schwa vowel is an unstressed vowel therefore it should be pronounced with less effort. Exercises were given and the results indicate that explicit instruction did not remedy the pronunciation of schwa among the participants. The results indicate an abysmal performance which rendered the intervention unsuccessful. This may be attributed to the fact that Ghanaian English speakers stress the schwa vowel in pronunciation. For instance, /əbəv/ is pronounced /abΛv/. Secondly, the instructional time was insufficient considering the fact that it was the first time the participants were introduced to the schwa vowel quality. Below is the result on schwa training. It is very clear that there was not much difference in all the three tests (pre-test, immediate post-test and the delayed post-test)

Graph 4.6. schwa vowel / ə /

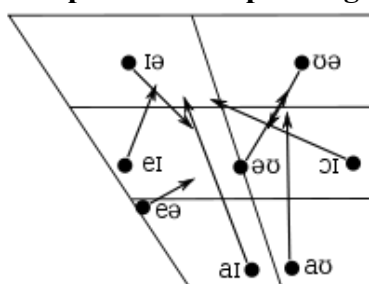


4.1.7 Treatment: diphthongs

The participants were made to understand that in producing diphthongs the tongue moves from one position to another. Diphthongs contain double sound quality. There are eight diphthongs in English and they are divided into two groups: closing diphthongs and centering diphthongs. The closing diphthongs are five /aɪ, eɪ, ɔɪ, əʊ, aʊ/ while the centering diphthongs are three /ɪə, eə, ʊə/. In the articulation of closing diphthongs, the tongue moves towards a close vowel /ɪ / and /ʊ/. On the other hand, there is a movement of the tongue in the production of centering diphthongs direct towards the central vowel, [ə].

After I have applied Jenkins' LFC¹ to the analysis of the data, the following diphthongs were found to be missing in their pronunciation: /ɪə, eə, ʊə/. Therefore, the attention of the participants was focused on the missing diphthongs. The participants were made to understand that diphthongs are a combination of two vowel sounds such as [aɪ], [aʊ], [eɪ] etc. Therefore, in their articulation the tongue moves from one position to another in the mouth. The diagram below was discussed and it indicates the position of diphthongs in the mouth.

Diagram 3: position of diphthongs



Roach (2004, p. 242)

¹ Jenkins (2005). It has been explained in details in chapter 2

An exercise was given to the participants to provide five words that contain diphthongs. The participants only provided words that contain closing diphthongs. The results confirmed the earlier studies (Koranteng, 2006; Huber, 2008; Quartey, 2009) that Ghanaian English speakers make use of only the following closing diphthongs: aɪ, eɪ, ɔɪ, əʊ, aʊ. The participants performed better with the pronunciation of closing diphthongs. The table 4.1. presents the words the participants mentioned. The activity can be found in **Appendix: Lesson-Plan 8**

Table 4.1. performance on diphthongs

Participants	1	2	3	4	5
1	buy	boy	high	fine	kite
2	high	bow	nice	sigh	how
3	high	wow	buy	cow	brown
4	fine	boy	joy	toy	high
5	soil	found	boy	coin	kite
6	coin	boy	high	how	nigh
7	toy	found	coin	joy	joy
8	bow	boy	brown	fine	how
9	high	how	bow	brown	coin
10	cow	joy	cow	toy	high

The above result was not surprising because the participants had difficulties in pronouncing centering diphthongs. The difficulty was seen in the pronouncing of schwa vowels which happens to be the last sounds of the centering diphthongs.

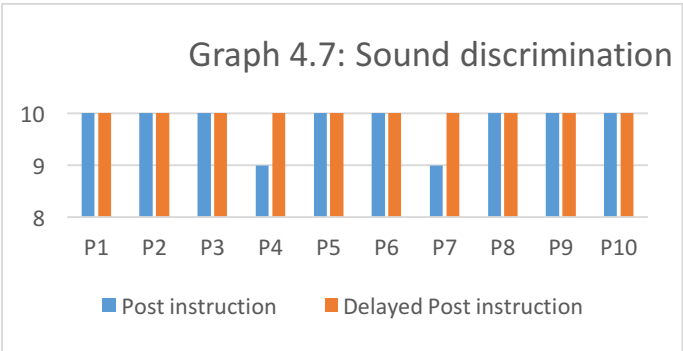
4.2 Discrimination Training

This is training that focuses on sound discrimination, not word discrimination. The discrimination training offers the participants the opportunity and knowledge to distinguish between sounds. In other words, the discrimination training drills participants to differentiate between phonemes and this increases their knowledge about sounds. In this training, the participants were made to listen to similarities and differences of two sounds that are similar.

4.2.1. Activity: Contrasting two sounds that are similar

Participants were taught how to discriminate between sounds that are similar but differ slightly in terms of the medial vowel. Subsequently, participants were asked to choose from a given group of sounds according to their similarities. This was to ascertain how far the participants had grasped the pronunciation of vowels. The sounds are found in **Appendix: Lesson Plan 9** where participants were asked to differentiate the sounds that have / ε:/ from those that do not have / ε:/. Similar tasks were given by Hewings (1993: 7) where students were asked to match the words from a box to the correct sound. The participants performed well and this is attributable to the fact that the vowel /ε:/ were treated at the initial stages. Therefore, this exercise is a repetition of knowledge known already.

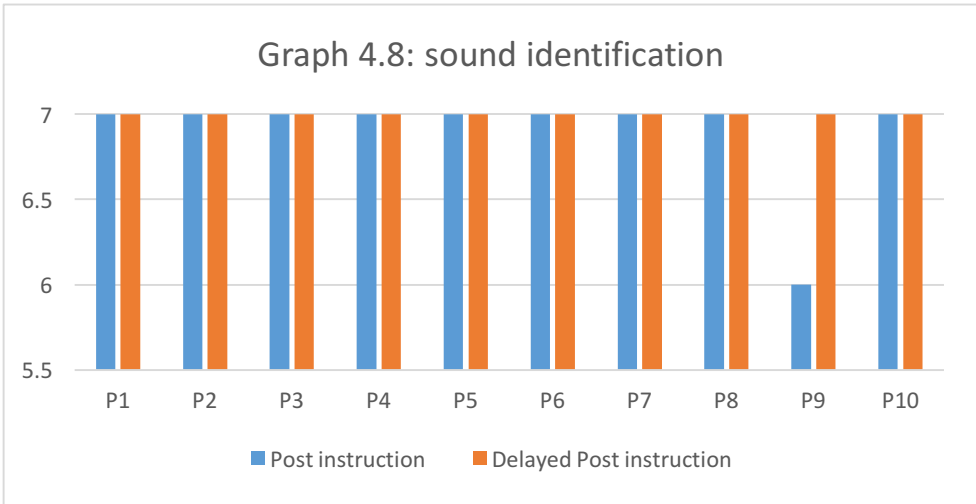
Graph 4. 7: Sounds Discrimination



4.2.2 Sound Identification

The target here was to test participants’ ability to contrasts between sounds, as carried in complete words. This exercise is similar to the discrimination activity, but here participants heard different words pronounced and had to identify which word was heard. In this activity, the teacher pronounced a word and asked the participants to provide words with similar sounds they heard from the teacher. This activity was repeated five times. Participants were asked to fill in the blanks and they were told that the letters in bold form a word that answers the question at the end of the sentence.

Graph 4. 8: sound identification.



All the participants were able to provide the words appropriately. This buttressed the efficiency of explicit instruction because the participants were able to perform the given task as expected.

4.2.3 Identification of epenthetic vowels

In treating vowels, it was realised that participants used epenthetic vowels to break consonants clusters. It is very common for speakers of languages which do not accept consonant clusters to break these clusters by inserting epenthetic vowels in order to conform with the phonology of their language. The epenthetic vowel always adds a syllable to the already existing syllable(s) for instance: /skɪl/ will become /sɪkɪl/. I therefore wanted to find out which of the vowels the participants mostly used as their epenthetic vowels.

In order to examine which epenthetic vowels the participants utilize in pronouncing English words, an analysis of pronunciation was conducted in some English words. It indicated that the participants utilize both the front high unrounded vowel [i] and back high rounded vowel [u] as the context-dependent epenthetic vowels. Perhaps they are less sonorous and shorter in duration because high vowels are less sonorous and shorter in duration than low vowels, (Carr 1999 and Blevins 1995). Between the two vowels, it was realized that [i] occurs more than the [u] and this is normal because the front vowels are more marked than back vowels (Lombardi, 2002).

It is a well-known fact that one of the fundamental motivation for epenthetic vowels in pronunciation is that speaker's languages do not allow codas and

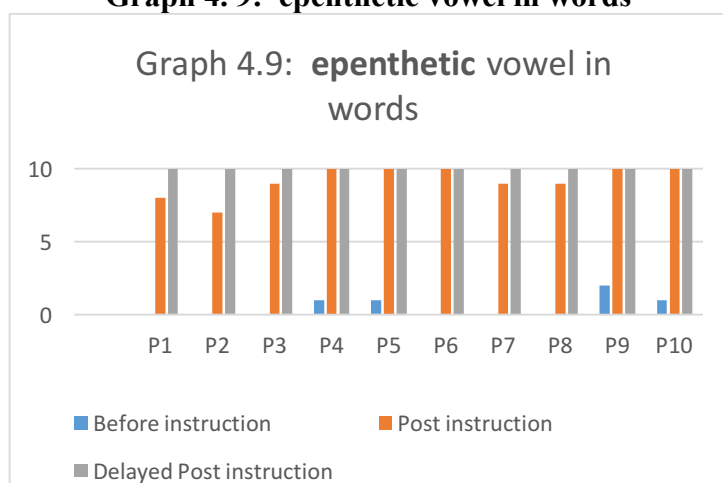
consonant clusters. In order to repair codas and consonant clusters, speakers of languages apply deletion or epenthesis to suit the phonotactics of their interlanguage. There is empirical evidence that a majority of the languages in the world preferred epenthesis over deletion in order to preserve the input features (Paradis & Lacharité, 1997 and Kang, 2011). It was observed that most of the epenthesis occurs after dorsal consonants. Secondly, rounding features affect the epenthesis process. If the preceding vowel is [-round] the epenthetic vowel takes the [-round] feature and if the preceding vowels are [+round] the epenthetic vowels adopt [+round] feature.

Words were given to the participants to pronounce them. After the treatment, it was realized that the participants were able to pronounce the words in isolation correctly but they could not do so when the words are used in sentences (see Lesson Plan 11 and 12). Graph 11 below represents their performances from the pre-instruction test to post delayed-test. The participants performed well in isolated words but did not do well when the words were used in sentences. Table 4.2 below represents the performance of participants 2 who started poorly:

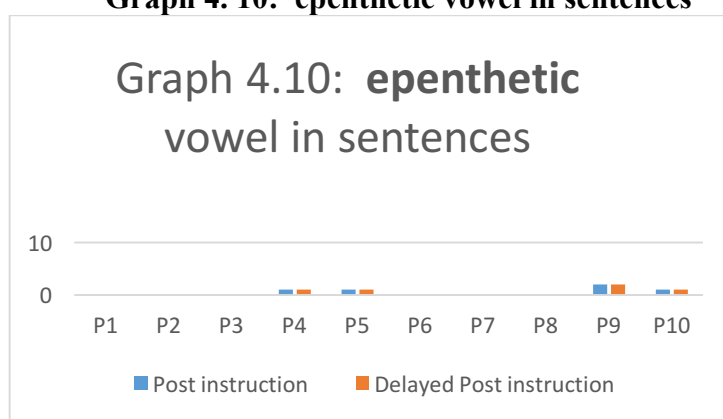
Table 4.2: performance of participants 2 on epenthetic vowel

Words	Before	After	Delayed
cake	ke:ki	ke:ki	keɪk*
stick	stɪkɪ	ste:ki	stɪk *
brake	bre:ki	bre:ki	breɪk *
ink	ɪŋki	ɪŋk *	ɪŋk *
block	blɔ:kɪ	blɔ:k*	blɔ:k*
book	bʊk *	bʊk *	bʊk *
fork	fɔ:ki	fɔ:k*	fɔ:k*
tick	tɪki	tɪk*	tɪk*
meek	mɪ:ki	mɪ:k*	mɪ:k*
seek	sɪ:ki	sɪ:k*	sɪ:k*

Graph 4. 9: epenthetic vowel in words



Graph 4. 10: epenthetic vowel in sentences



Since words are not always used in isolation, the words were then put in sentences and the participants were asked to read the sentences aloud. After the recordings, it was realized that the explicit instruction did not work for the epenthetic vowel when the words were used in sentences. This is because the participants were not paying attention to the individual words as they did with words in isolation. It was realized that the epenthetic vowels have been inserted in all the words in the sentences. Apart from the insertion, I also noticed that the diphthongs were realised as long monophthongs where ‘ei’ has become ‘e:’

The following were the sentence given to them to read. Our attention was focused on the words that end with the voiceless stops. I did not do pre-intervention exercise because the words used are the same as the ones in the previous exercise.

- a. I gave the **cake** to the girl
- b. The **stick** is very long
- c. You need to use a car **brake**.
- d. I need the black **ink**
- e. Give me the **block**
- f. The **book** is mine
- g. The **fork** is in the kitchen
- h. We do not need a **tick** line
- i. The **meek** will be rewarded
- j. We **seek** refuge in your hands

4.3. Consonants

All the English consonants were first of all treated and exercises were given afterwards. It was realized that some of the consonants were very easy to produce by the participants because they are found in their Hausa. Therefore, the treatment targeted those consonants that posed difficulties to the participants such as: dental sounds /θ and ð/, unpronounced sounds (silent sounds) such as /t/ in 'listen, and also targeted orthographic forms that represent more than one sound. For instance: 'ch' is pronounced as voiceless palato-alveolar [tʃ] in all situations eg. chord, chef, and cheese, 's' was pronounced as [s] in all situation. Eg. sugar, sugarless, sure.

Before the treatment of the consonants, English consonant chart was shown to the participants with the various sounds and their places of articulation.

Table 4. 3: English consonant chart

	Bilabial	labiodental	Dentals	Alveola r	Alveopalatal	Palatal	Velar	glottal
Plosive	p b			t d			k g	
Fricative		f v	θ ð	s z	ʃ ʒ			h
Affricate					tʃ dʒ			
Nasal	m			n			ŋ	
lateral				l				
Tap/tril				r				
Glide	w					j		

4.3.1 Treatment of dental sounds /θ and ð/

Participants had difficulties in producing dental sounds during the pre-intervention test. Dental sounds were therefore introduced to them at the treatment stage. It was mentioned that dentals are ‘th’ words that are produced with the tip of the tongue against the upper teeth or slightly projected between the teeth. The two dentals sounds /θ and ð/ are similar but they only differ in voicing. The voiced dental sound [ð] possesses the following features:

Activity in the vocal cords (phonation/ voicing). During its production, the vocal cords vibrate (voiced).

Where it is produced (place of articulation). It is articulated with the tip of the tongue against the back of the upper teeth (dental).

How it is produced (manner of articulation): It is produced by allowing air flow through a narrow channel at the place of articulation (fricative).

After this explanation, participants were given opportunity to listen to examples in several instances and they were asked to demonstrate by observing the following features: place the tip of your tongue against the back of your upper teeth, produce a little air flow and let your vocal cords vibrate. They were then given words (the, these, thy etc.) to try their articulation.

Secondly, the participants were taken through ‘th’ as the sound /θ/ which has the following features:

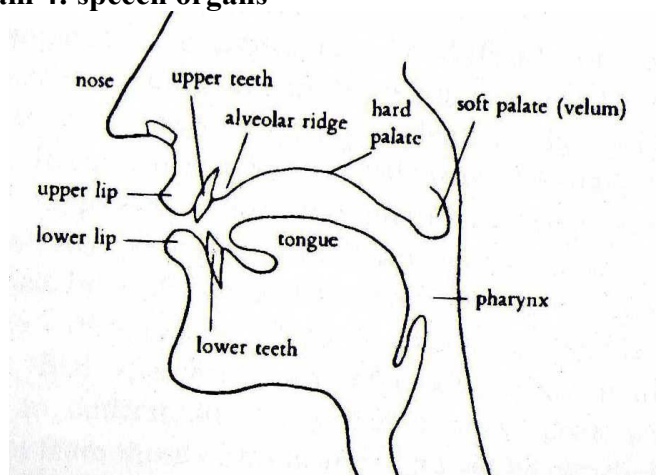
Activity in the vocal cords (phonation/ voicing). During its production, there is no vibration in the vocal cords (voiceless).

Where it is produced (place of articulation). It is articulated with the tip of the tongue resting against the lower part of the back of the upper teeth. The tip of the tongue sticks out of the mouth slightly

How it is produced (manner of articulation): It is produced by allowing air flow through a narrow channel at the place of articulation (fricative). This requires more airflow than the voiced counterpart.

An articulatory tract was displayed for the participants to observe the organs responsible for the production of the dentals.

Diagram 4: speech organs



Sketch of the articulators (Roach 2000, p. 8)

In order to get the correct pronunciation, a lot of examples were discussed. I used examples based on the various positions in which dentals can occur: initial, medial and final positions. Some of them are:

/θ/ - voiceless

word-initial – e.g. thief, thick, thought, thumb, thirty, third

word-medial – e.g. method, author, anthem, atheist, deathly, worthless

word-final – e.g. health, breath, path, cloth, earth

in word-initial clusters – e.g. three, throw, thwart

in word-final clusters – e.g. /θt/ earthed, /nθ(s)/ month(s).

/ð/ - voiced

word-initial – in the definite article, pronouns and certain adverbs, e.g. the, this, that, these, those, they, there, than, then

word-medial – e.g. breathing, leather, father, mother, feather, without

word-final – e.g. smooth.

in word-final clusters – e.g. /ðm(z)/ rhythm(s)

The table 4.4. below summarizes the discussions

Table 4.4: Interdentals

interdentals	initial	medial	final
θ	thing	method	cloth
ð	these	father	smooth

Words were then given to the participants to group them under the two dental sounds. Participants did very well in this exercise. The results below indicate their performances. The words used in this exercise were the ordinal number and cardinal numbers. The participants were asked to look at the pairs of words and distinguish those with dental sounds. The words were:

a) seven/ seventh

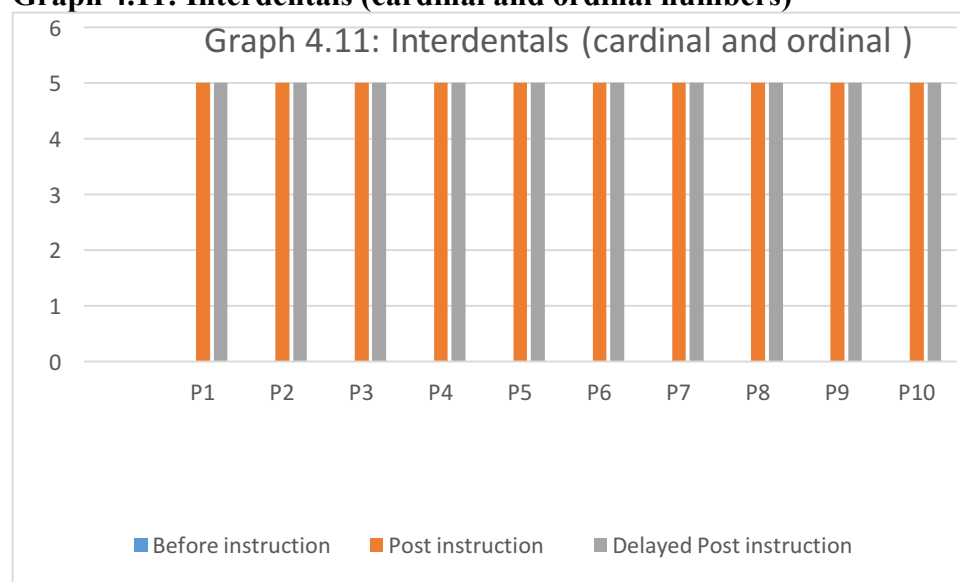
b) three/ third

c) five/ fifth

d) eight /eighth

e) ten /tenth

Graph 4.11: Interdentals (cardinal and ordinal numbers)



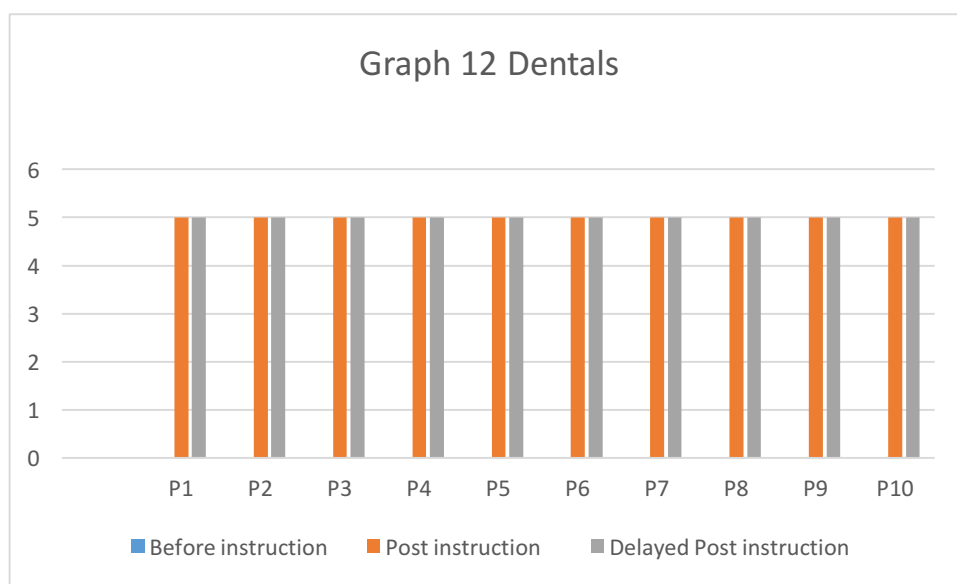
Another task was given to them and the words involved here were not cardinal nor ordinal numbers. Ten words of which five contained dental sounds were pronounced to the participants to group them under dental and non-dental sounds. These were the words used:

1. thin
2. tin
3. they
4. day
5. tank
6. thank
7. thought
8. taught
9. strength
10. straight

The results of this activity and that of the cardinal and ordinal numbers buttressed the efficacy of explicit instruction. All the participants were able to identify the words with the dentals sound appropriately. It was realized from

both graphs that before the explicit instruction, the participants had zero in all the task given to them. In other words, they pronounced the dental sounds as either voiceless labio-dental fricatives /f/ or voiceless alveolar plosive /t/

Graph 4. 12: Dentals (words).



4.3.2 Treatment of silent sounds

Some languages do not have silent sounds in their pronunciation and Hausa is not an exception. The participants therefore applied the idea of pronouncing every sound in the English words. This made me to apply the explicit teaching in order to curb the situation. Silent letters are very tricky to understand. The participants were told that silent sounds are not always silent. It means they could be silent in one word but heard in another. For example, ‘k’ may be silent in know, but heard in ‘key’. Likewise, ‘p’ is silent in ‘psychology’, but heard in ‘pocket’. The participants were told to observe the connection between the following word in order to recall the spelling of words with the silent letter:

1. debt and debit
2. sign and signal

3. crumb and crumble,
4. column and columnist,
5. resign and resignation.

Three different positions of silent sounds were discussed: initial position, medial position and the final position. With the initial position, we discussed the sound /n/ that normally becomes silent when it immediately follows sounds like /p/k/g/. Also, it was discussed that the 'pn' words are usually medical terms such as, 'pneumonia'. Secondly, there are a few 'gn' words that are less common compared to 'kn' words. Some of the 'gn' words are gnu, gnostic, gnat, gnaw, gnarl and gnash. On the other hand, the kn words are the common words found in English and the following are the examples: know, knife, knack, knob, knight etc.

The second position, treated was the medial position where the participants were made to understand that some sounds found in the middle can also be silent sounds. Some of them are found in words such as: debt, receipt, resign etc. Some of the final silent sounds are found in words such as: column, crumb, comb etc. After the treatment of the various silent sounds, the participants were given the task to write 10 words which contain silent sounds.

The results show that only three of the participants were able to get all the ten words with silent sounds. Most of the words provided by the participants were similar as can be found in their responses'. The only word the three participants provided which the others did not get was 'gnaw'. Four of the participants provided nine words with silent words appropriately. Two of the participants

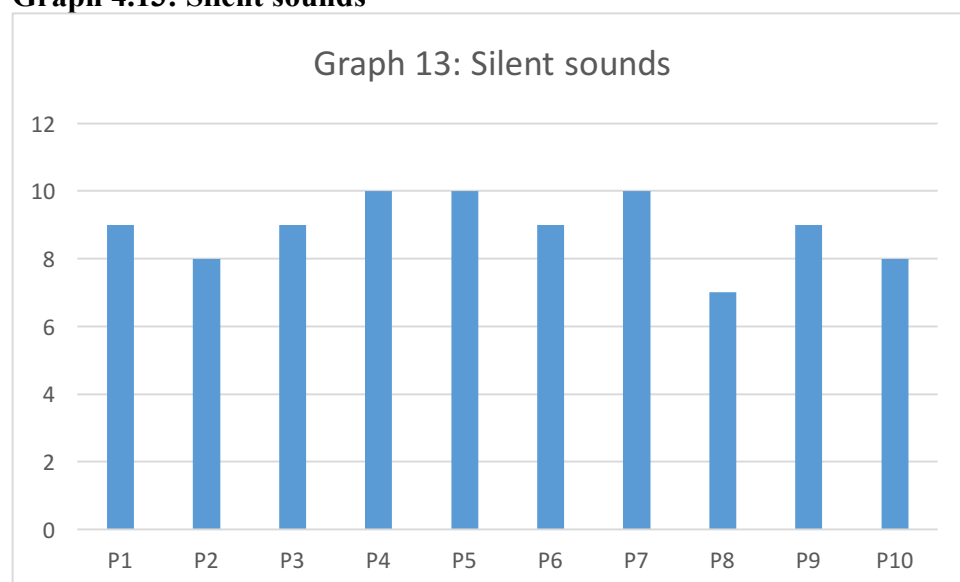
had eight words correct while only one participants got seven words correctly.

This results show that the explicit instruction was successful and it needs to be encouraged in the classroom. The following table 3 shows the performance and the words used by the participants.

Table 4.5ilent sounds Results:

Participants	Word 1	Word 2	Word 3	Word 4	Word 5	Word 6	Word 7	Word 8	Word 9	Word 10
P1	know	knife	debt	knob	knight	knew	knee	knelt	gnash	
P2	know	knife	debt	knob	knight	knew	knee	knelt		
P3	know	knife	debt	knob	knight	knew	knee	knelt	gnash	
P4	know	knife	debt	knob	knight	knew	knee	knelt	gnash	gnaw
P5	know	knife	debt	knob	knight	knew	knee	knelt	gnash	gnaw
P6	know	knife	debt	knob	knight	knew	knee	knelt	gnash	
P7	know	knife	debt	knob	knight	knew	knee	knelt	gnash	gnaw
P8	know	knife	debt	knob	knight	knew	knee			
P9	know	knife	debt	knob	knight	knew	knee	knelt	gnash	
P10	know	knife	debt	knob	knight	knew	knee	knelt		

Graph 4.13: Silent sounds



It is a general knowledge that there are ways of testing contrastive units of speech production and one of the test is the use of the minimal pair. After taking

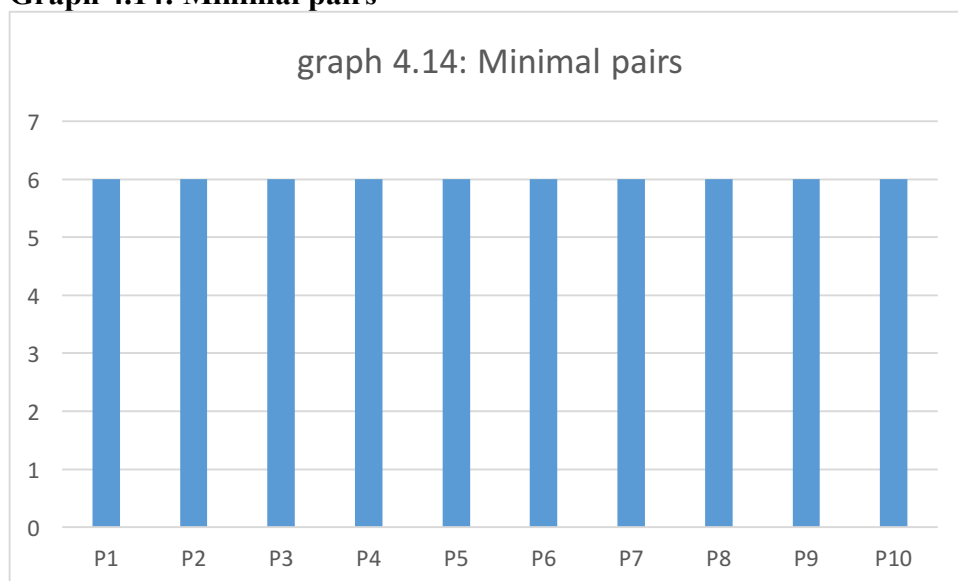
the participants through vowels and consonant treatment, I decided to test their knowledge on recognition and identification of contrastive units of speech production. I therefore introduced minimal pairs to them. Minimal pairs discuss a pair of words which have different meanings and whose pronunciation differs by only one sound. This difference occurs in the same positions and the positions could be initial, media or the final.

After explicitly teaching the minimal pairs, six words were given to the participants for them to provide minimal pairs for each word. Their performance indicates a very high recognition of the minimal pairs which in turn support the effectiveness of the instruction in acquisition of the syllables. The words given to them were: *bin knit bit pull full pill*. The participants were asked to provide minimal pairs for each word. The following table shows the minimal pairs each provided.

Table 4.6: Minimal pair

Participants	<i>bin</i>	<i>knit</i>	<i>bit</i>	<i>pull</i>	<i>full</i>	<i>pill</i>
P1	<i>bit</i>	<i>nit</i>	<i>sit</i>	<i>push</i>	<i>boot</i>	<i>fill</i>
P2	<i>bit</i>	<i>pit</i>	<i>sit</i>	<i>push</i>	<i>bull</i>	<i>fill</i>
P3	<i>ban</i>	<i>nit</i>	<i>sit</i>	<i>push</i>	<i>boot</i>	<i>meal</i>
P4	<i>lean</i>	<i>nit</i>	<i>sit</i>	<i>push</i>	<i>boot</i>	<i>Pin</i>
P5	<i>bit</i>	<i>nit</i>	<i>sit</i>	<i>push</i>	<i>boot</i>	<i>kill</i>
P6	<i>bit</i>	<i>nit</i>	<i>sit</i>	<i>push</i>	<i>boot</i>	<i>fill</i>
P7	<i>sin</i>	<i>nit</i>	<i>sit</i>	<i>push</i>	<i>boot</i>	<i>pin</i>
P8	<i>bit</i>	<i>nit</i>	<i>sit</i>	<i>push</i>	<i>boot</i>	<i>pin</i>
P9	<i>sin</i>	<i>kit</i>	<i>lit</i>	<i>put</i>	<i>fall</i>	<i>kill</i>
P10	<i>bit</i>	<i>nit</i>	<i>sit</i>	<i>push</i>	<i>boot</i>	<i>fill</i>

Graph 4.14: Minimal pairs



4.4 Conclusion

This chapter discusses the results of the study. It centered on the segmental features based on the data gathered. The chapter begins with an examination of vowel sounds followed by an examination of consonant sounds. It focuses on the differences in both languages (English and Hausa). This is done because the participants in the study had difficulties in identifying some of the individual sounds. The analysis targets the sound that posed difficulties to Hausa speakers learning English. After the identification of the difficulties, an explicit instruction was employed to remedy the difficulties encountered by the participants in the classroom. Since it was a classroom situation, a lesson plan was designed for each lesson. Ghana Education Service's (GES) lesson plan was adopted but I effected slight modifications in order to suit the participants, their classroom setting and the objective of the research. Participants were effectively engaged in each process.

Before each lesson, a pre-intervention exercise was given to the participants. Based on the error analysis, a treatment was developed and applied through explicit instruction. Then an immediate post intervention test was administered. The outcome revealed that explicit instruction is effective in acquisition of segmental features of language. In order to justify the efficacy of explicit instruction, a post delayed test was conducted after two weeks of the treatment. The results buttress the point that explicit instruction can be very effective in the classroom.

CHAPTER FIVE

SUPRASEGMENTAL ANALYSIS

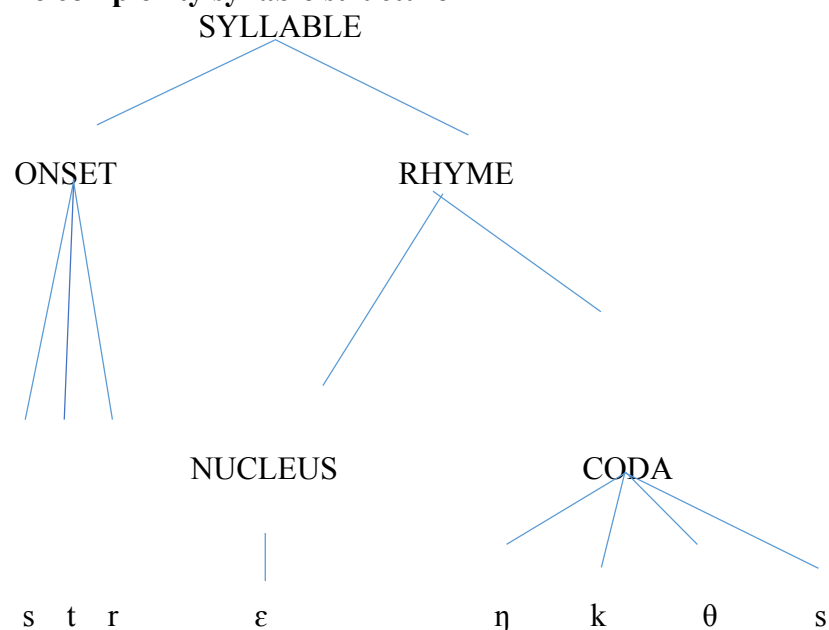
5.0 Introduction

This chapter discusses the analysis of suprasegmental features based on the data gathered. The chapter deals with the following: syllabification (syllable identification, syllable production and syllable type) and the stress. It is an undeniable fact that incorrect pronunciation largely affects intelligibility. Sometimes the incorrect pronunciation emanates from the pronunciation of a non-native speaker of English. Derwing & Rossiter, (2002) attest to the fact that inaccuracy in pronunciation negatively impact the non-native prosody on speaker intelligibility.

5.1 Dealing with complexity of English syllables.

It is normal for L2 speakers of English to consider English syllables as complex because the syllables in English do not match with what the non-native speakers have in their L1. The complex nature of English syllables arises from the number of onsets and codas in the syllable structure. According to Reed (2014:190), “the complexity of the English syllable allows onsets of up to three consonants phonemically and codas of up to four consonants phonetically in monosyllabic words – for example, strengths”. This poses a great challenge to L2 speakers whose language do not have such complex onset and coda. Gimson (1970) added that English has a very complex structure. This position was affirmed by Maddieson (2013) who maintained that out of 486 languages surveyed, English is reported among the languages as having a complex syllable structure. This complexity is crystal clear in the following diagram:

Diagram 5: The complexity syllable structure



5.1.1 The complexity of English syllables faced by the participants

It is undoubted that the speakers of a language whose syllable structure is moderately complex will face some difficulties when learning a second language with complex syllable structure. Hausa has a moderately complex structure while English has a very complex syllables structure. Newman (2000) argues that unlike English, Hausa has a moderately complex syllable structure. According to Caron (2012:7), “there are three types of syllable structure in Hausa, divided into light (CV) and heavy (CVV and CVC). Initial vowels and consonant clusters, as well as syllable-internal long vowels do not exist”. After the measurement of the pre-intervention activities, it came to my realization that the participants did the following when they were faced with complex syllable:

- I. Dropping of some consonants in a cluster.
- II. Insertion of vowel into consonant clusters.
- III. Interchanging the positions of consonant in some English words.

IV. Substituting some of the phonemes for others

V. Assigning stress on wrong syllables

In relation to the challenges faced by the participants, Reed (2014:191) also observed a similar situation when she researched on intelligibility of Thai, Japanese and Chinese. She found out that the following two possible strategies were:

1) Final consonant deletion or consonant cluster reduction, eliminating some or all coda consonants; and

2) Epenthesis, inserting vowels to restore a C-V syllable structure.

She added that learners use these phonological processes unconsciously as they seek to conform to their L1 syllable structure and this has an adverse impact on intelligibility, either singly or in combination with morpho-syntactic errors. Below are the challenges Reed (2014) realized from the speech of Thai and Japanese.

In Thai, the coda of ‘like’ is deleted:

Thai	<u>Speech sample</u>	<u>Sounds like</u>
	You like white rice?	You lie why rye?
	CV CVC CVC CVC	CV CV CV CV
	/ju laɪk waɪt raɪs/	/ju laɪ waɪ raɪ/

In Japanese, it is observed that a syllable has been added to ‘gift’ and ‘shop’ through an insertion of an epenthetic vowel.

Japanese	gift	shop	——	gifuto	shoppu
	CVCC	CVC		CVCVCV	CVCV
	/ɡɪft	ʃɔp/		/ɡɪfuto	ʃɔp /
	hot	dog	——	hoto	dogu

CVC CVC	CVCV CVCV
/hət dɔg /	/hətɔ dɔgu/

The above observations are not unique to Asians but also Africans especially, Hausa speakers. It was realized from the data that the Hausa speakers produced the following speech samples:

You beat him	you beati him
CV CVC CVC	CV CVCV VC
/yu bi:t him/	/yu bi:ti him/
Photo album	photo alibum
CVCV VCCVC	CVCV VCVCVC
/fɔtɔ albəm/	/fɔtɔ alibəm/

Also, the commonly mispronounced nouns and verbs are the regular inflectional endings (-es; -ed) which the participants mispronounced as two syllable: kicked [kikɛt] washed [wɔʃɛd] cooked [kʊkɛd]. Apart from making them two syllabic words, the coda is also mispronounced as /d/ instead of /t/ in all situations. Again, the regular plural marker for nouns is pronounced in all instances.

5.2 Syllabification.

Syllabification plays a critical role in intelligibility. During the pre-intervention, it was startling to observe how much difficulty the participants encountered in counting syllables. Counting syllables posed the greatest challenge for the participants and this is attributable to their local language because of its syllable structure. Participants demonstrated both internal and external epenthesis in their pronunciation. According to Fischler (2009), internal epenthesis happens when a speaker adds vowels to break up a consonant cluster (e.g. substitution of [alibəm] for [albəm]) while external epenthesis occurs when a speaker adds

a vowel, and consequently a syllable, to the outside of a consonant (e.g., substitution of [milk for mɪlɪkɪ].

5.2.1. Activity on syllabification

Knowledge of syllabification is a bedrock for understanding word stress. Therefore, syllabification requires absolute ‘noticing’ that is necessary to decipher boundaries of syllables and count out syllables. Participants began with simple exercises on syllabification. In order to promote group work which is one of the positives of explicit teaching, participants worked in pairs taking turns to pronounce polysyllabic words while their partners counted the syllables on their fingers. As expected, participants made numerous errors in counting at pre-intervention stage, but they improved significantly at the post intervention stage.

Participants were then given worksheets for practice. They were asked to divide words into syllables. The activity begun orally, and followed by the written form (e.g., pa-la-ver). After practicing for a while they were presented with worksheets containing spaces for words ranging in length from one to five syllables.

Table 5.1: Syllabification work sheet

1 syllable					
2 syllables					
3 syllables					
4 syllables					
5 syllables					

In order to limit them by allowing them to focus on a particular group of words, they were then given classifications such as fruits or sport teams. The aim here

was to write as many words as possible within the given category with the proper number of syllables. They were then timed for three minutes and no points were given if syllables were miscounted. This activity was repeated throughout the intervention period because the participants enjoyed the activity (see Appendix – Lesson Plan 17)

Exercise 5: pre, post and delayed performance of participant 9

Observe the following diagram and provide a word to each column. Note that the words should start from one to five syllables.

17th February 2017
P9 (Pre)

1 Syllable	ea				
2 Syllables	be	eat			
3 Syllables	the	men	boy		
4 Syllables	mamm	elate	sent	house	
5 Syllables	great	shall	winter	fight	going

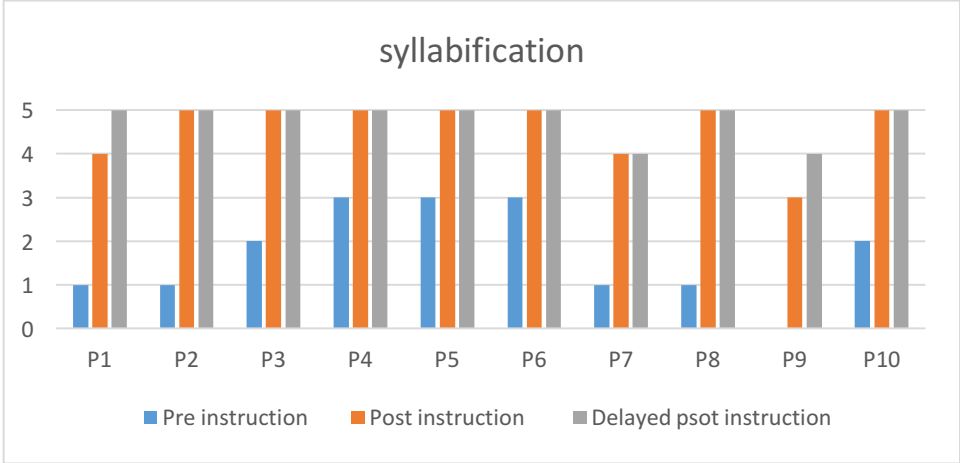
24th February 2017
P9 (Post)

1 Syllable	me				
2 Syllables	ma	ma			
3 Syllables	sy	der	le		
4 Syllables	rich	ty	u	ty	
5 Syllables					

5th March 2017
P9 (Delayed)

1 Syllable	good				
2 Syllables	man	go			
3 Syllables	ba	na	na		
4 Syllables	po	u	ti	can	
5 Syllables					

Graph 5.1: syllabification.



The results indicate a significant recognition of syllable boundaries. Even though, participant nine scored zero during the pre-intervention, but there was a significant improvement in his performances on syllable recognition after the

treatment. This activity created the awareness of the participants on syllabification. They were able to notice that there is always one syllable within a word that receives the strongest stress and length. The power of Noticing Hypothesis made the participants to become more comfortable with counting syllables and at the end created happiness in them. Moreover, Noticing Hypothesis stimulated their attention towards the syllabification and thereby lowered their anxiety. This facilitated the rate of acquisition as argued by Krashen and Terrell (1983). Participants were able to internalize the sound and feel of syllabification. The results showed a significant improvement in the performance of all the participants. What really helped was the elements of repetition. This really increased their awareness skills and in turn yielded the needed results.

5.2.2 Word stress

After the participants had understood the concept of syllabification, word stress was then introduced. Word-level stress is very important because it serves as a starting point for creating learners' awareness leading to phrase, sentence and discourse level stress as Murphy (2004) noted.

5.2.2.1 Intervention

Participants were presented with the following simple patterns governing word stress as offered by Fischler (2009):

1. One word has only one primary stress.
2. If you hear two primary stresses, you are hearing two words.
3. Only vowels are stressed, not consonants.

The various patterns were discussed thoroughly with several examples. According to Fischler (2009), approximately 75% of two-syllable words receive stress on the first syllable. (e.g., CANdy, MOtehr, MANhood). Below are the examples of some patterns.

- I. Cardinal numbers (e.g., FIFty, fifTEEN)
- II. Reflexive pronouns (e.g., herSELF, themSELVES)
- III. Compound words that function as nouns (e.g., DRUGstore, BATHroom)
- IV. Functional shift: words with identical spellings but different functions. (IMport; imPORT)

Here the participants were made to understand that nouns carry stress on the first syllable while verbs carry stress on the second syllable and these fall into two categories:

1. Categories with the same general meaning, but change from noun to verb when the stress moves from the first to the second syllable as in:

Noun	Verb
AD-dict	ad-DICT
CON-flict	con-FLICT
CON-test	con-TEST

2. Categories which change their meaning completely and most of them change from noun to verb, but a few change to an adjective.

Noun	Verb
AD-dress	ad-DRESS
CON-duct	con-DUCT
CON-sole	con-SOLE

Noun	Adjective
IN-val-id	in-VAL-id

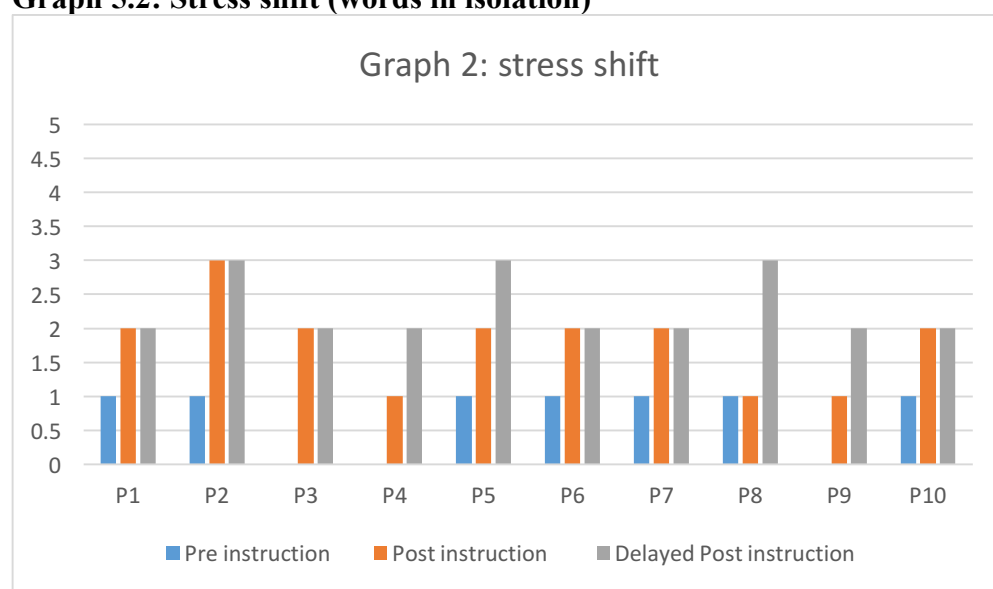
5.2.2.2 Activity on functional shift syllables in isolation

A very simple activity was presented to the participants where they were given different cards that contained different words with different stress. The participants were asked to pick a card that has the correct stress marking as I pronounced the words one after the other. Some of the words are: DE-fault, de-FAULT, DE-sert, de-SERT etc as in **Appendix: Lesson Plan 18**

5.2.2.3 Measurement analysis

The participants were asked to identify stress patterns that were the same and to group them under one category. Here there was no significant improvement on the part of the participants as compared to the pre-intervention as indicates by the bar chart below.

Graph 5.2: Stress shift (words in isolation)



Exercise 6: pre, post and the delayed performance of participant 5

PS (Pre) 16th February, 2017

Listen to the pronunciation of the following words and group them under nouns or verbs.

Nouns	Verbs
CON-vert ✓	DE-crease ✓
con-VERT ✓	DE-fault ✓
deCREASE ✓	DES-ert ✓
de-FAULT ✓	CON-trast ✓

PS (Post) 21st February, 2017

Nouns	Verbs
CON-vert ✓	DE-crease ✓
con-VERT ✓	DE-fault ✓
deCREASE ✓	DES-ert ✓
de-FAULT ✓	CON-trast ✓

PS (Delayed) 8th March, 2017

Nouns	Verbs
CON-vert ✓	DE-crease ✓
con-VERT ✓	DE-fault ✓
deCREASE ✓	DES-ert ✓
de-FAULT ✓	CON-TRAST ✓

The low performance on this activity was attributed to the words used in isolation. In other words, the non-context use of words has posed difficulties on the performance of the participants. This buttresses the point that words are best identified in context. This shows the power of contextual usage in recognition of words. It is realized that there is a sharp contrast between the results of stress shift in words used in isolation from that of words used in context.

5.2.2.4 Activity on functional shift syllables in sentence.

Due to the low performance in the previous exercise, it was reiterated that if one changes the stress pattern, one changes the part of speech and possibly the entire meaning of the construction.

As discussed above, these are pair of words in English with the same root but stress patterns categorized them under noun, verb or adjective. These kinds of words are many in English as observed by Cutler (1986:204), “stress oppositions between verb and noun forms of the same stem {decrease, conduct,

import} are common...”. Following Reed & Michaud (2005:61), I adopted the exercises below to highlight these contrast between English nouns and verbs. I also employed this ‘ah-hah’ moment and maintained a focus on normal as well as contrastive stress. Below is the exercise and the entire exercise is found in

Appendix-Lesson Plan 19

Table 5.2: Guide exercise on Sentence stress

	Stressed Syllable	Part of Speech
1.a) What an insult!	1 st	Noun
b) Don’ insult me!		
2.a) Round up the suspects.		
b) I think he suspects you.		
3.a) Do I need a permit?		
b) We don’t permit that.		

Exercise 7: performance of participant 5 on sentence stress

PS

27th February 2017.

Read the following sentences and put the stress on the right syllables. The first one has been done for you.

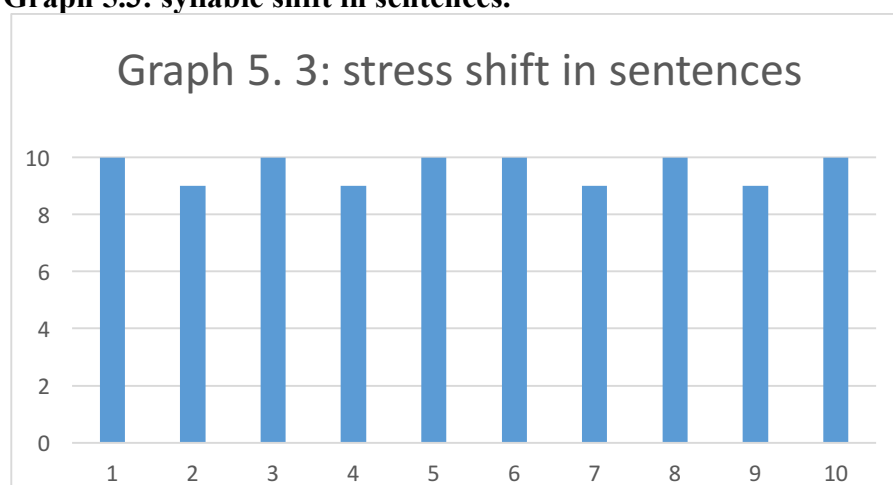
Sentences	stressed syllable	Part of speech
1.a) What an insult!	1 st	Noun ✓
b) Don't insult me!	2 nd	Verb ✓
2.a) Round up the suspects.	1 st	Noun ✓
b) I think he suspects you.	2 nd	Verb ✓
3.a) Do I need a permit?	1 st	Noun ✓
b) We don't permit that.	2 nd	Verb ✓
4.a) Yaw is a drug addict	1 st	Noun ✓
b) Don't addict yourself	2 nd	Verb ✓
5.a) The two boys are in conflict	2 nd 1 st	Noun ✓
b) The stories conflict each other	2 nd	Noun/Verb ✓

10/10

5.2.2.5 Measurement

Comparatively, their performance was high in this exercise. All the participants did very well. Even the participants 9 who performed poorly at the beginning also performed as well as other participants. This clearly indicates that language is best understood within a context. That is why language expert prefers contextual meaning to dictionary meaning.

Graph 5.3: syllable shift in sentences.



If the two performances are compared, it is realized that the scores for the words used in the sentences are higher as seen in **table 5.1** below.

Table 5. 3: words in isolation and words in sentence

Candidates	Words in isolation	Words in context
1	2	10
2	3	9
3	2	10
4	2	9
5	3	10
6	2	10
7	2	9
8	3	10
9	2	9
10	2	10

5.2.3. Monosyllabic words

After drilling the CV tokens with the participants, contrastive stress was then introduced. This was under the topic ‘Antonyms’. Monosyllabic words were used in the activity. Participants were encouraged to practice contrastive stress in class in order to hear it when used by others outside the class. A contrastive stress is used to highlight specific information in contrast to something else. Again, a contrastive stress is used to point out the difference between one thing and another.

5.2.3.1. Activity

In the following activity, participants listened to sentences and identified which piece of information is being highlighted. Here are the exercises;

1. If it is not **good**, it is
2. If it is not **small** , it is
3. Don't turn the volume **up**, turn it
4. If it is not the **best**, it is the
5. If a student is not **bright**, he is
6. If the food is not **hot**, it is
7. If the room is **dark**, there is no
8. If the clothes are not **wet**, they are...
9. The work will be done from **dusk** to.....
10. If the story is not **true**, it is.....

Exercise 8: Performance of Participant 5 on contrastive stress

P5 31 March, 2017.

Listen to the following sentences and identify which piece of information is being highlighted.

Provide words that are opposite in meaning.

- ① If it is not good, it is bad.
- ② If it is not small, it is big.
- ③ Don't turn the volume up, turn it slow.
- ④ If it is not the best, it is good.
- ⑤ If a student it is not bright, he is dull.
- ⑥ If the food is not hot, it is cold.
- ⑦ If the room is dark, there is no lighter.
- ⑧ If the clothes are not wet, they are dry.
- ⑨ The work will be done from dark to dawn.
- ⑩ If the story is not true, it is false.

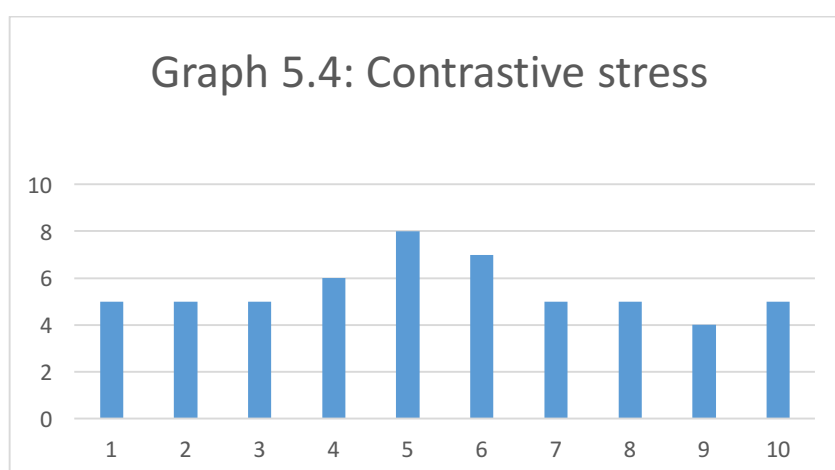
8/10

5.2.3.2. Measurement

The participants showed a zeal in this activities despite their low performance.

Here their performance was not good. Perhaps that was the first time they were presented with antonyms. The chart below shows that only three participants (4,5, and 6) did well in this assignment. All the other participants had 50% except participant 9 who had below 50%.

Graph 5.4: Contrastive stress



5.2.3.3. Self-practice of monosyllabic words

After taking the participants through the guided and controlled exercise, they were given the chance to say their words in an unguided activity. This activity increased their confidence level. In an explicit instruction, it is necessary to offer learners the opportunity to self-practice because it gives the instructor the chance to measure the success or otherwise of the lesson.

5.2.3.4. Activity: Clap or tap once per syllable

Here the participants were asked to mention one-syllable words for things they see around the classroom. They were then asked to clap as they say them. Participants were asked to mention at least ten words.

5.2.3.5. Measurement.

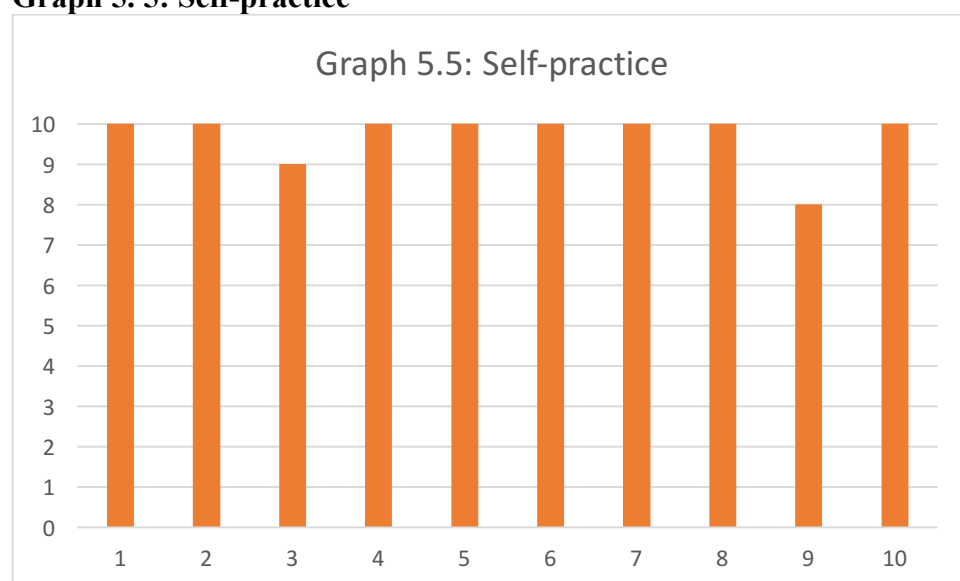
All the participants were able to mention one syllabic words with exception of participants 3 and 9 who did not get ten out of ten. Participant 3 had nine correct while the participant 9 had eight correct. Despite these shortfalls, the general performance was good. At this point it was crystal clear that the participants had grasped the knowledge of syllabification and word stress.

The following words were provided by the participants:

Table 5. 4: Self-practice Results

Participants	Word 1	Word 2	Word 3	Word 4	Word 5	Word 6	Word 7	Word 8	Word 9	Word 10
P1	chalk	Pen	class	boy	girl	teach	late	door	tools	school
P2	shoe	paint	red	green	draw	pen	gate	chalk	fan	light
P3	teach	break	bell	neat	fail	out	bag	zip	*table	red
P4	door	tools	school	chalk	pen	bag	white	board	chair	late
P5	chalk	fan	light	shoe	paint	board	march	girl	boy	clock
P6	zip	blue	red	neat	fail	black	chair	clock	chalk	pen
P7	red	green	draw	pen	gate	chalk	clock	art	shoe	paint
P8	bell	neat	fail	out	bag	zip	art	chalk	pen	class
P9	pen	*teacher	chalk	board	clock	art	pen	shoe	paint	*table
P10	out	bag	zip	pen	board	clock	chalk	teach	break	bell

Graph 5. 5: Self-practice



5.2.4 Disyllabic words

It was realised during pre-intervention that participants were faced with difficulties in assigning a stress on the right syllable. It is widely known that L2 learners of English find difficulty to acquire word stress (Guion, 2005; Guion, et al., 2004; Wayland et al., 2006). Wrong assignment of primary stress may

cause change in word class and meaning of a whole sentence. Basically, stress is the relative emphasis that may be given to certain syllables in a word, or to certain words in a phrase or sentence. Stress may also be noticed in properties such as increased loudness, vowel length and changes in pitch.

According to Reed (2103), the alternation of stressed and unstressed syllables as the foundation for English prosody possess a challenge in syllabification and therefore affects intelligibility. What makes it more difficult is the unpredictable pattern of the lexical stress. This has a greater consequence on intelligibility. Prominence is the noticeable characteristic of stressed syllables and in order to identify these features, Roach (2009) opines that the following must be considered: loudness, height, clarity and length. In other words, a stressed syllable is louder, has higher pitches, is clearer and longer.

Here, the participants were made to understand that:

- A syllable is a beat.
- But not all syllables (beats) are equal.
- Some syllables are strong (stressed), and some are weak (unstressed).

Following Murphy and Kandil (2004), Stress Pattern Notation System was adopted. This system assigns two numbers on a word: The first number indicates the number of syllables while the second number indicates where the primary stress falls. For instance,

BEAting 2,1

PICTure 2.1

HEAting	2.1
toDAY	2.2
aHEAD	2.2
aLLOW	2.2

5.2.4.1. Activity

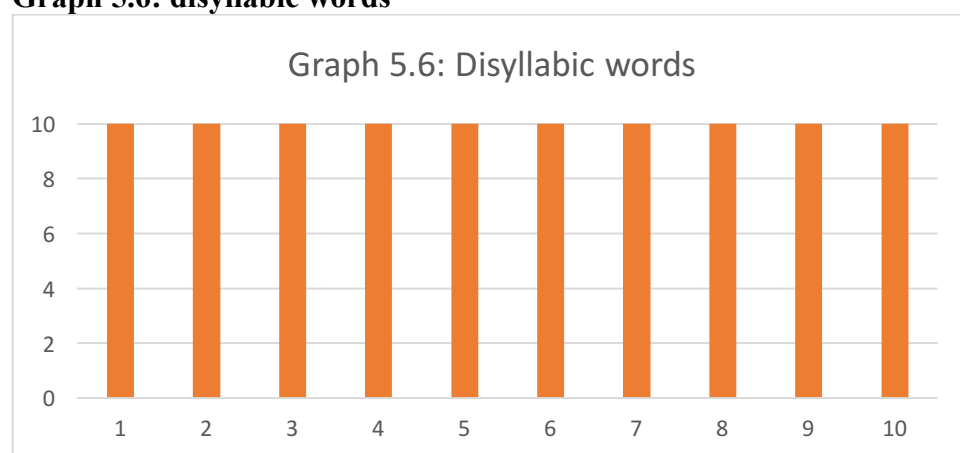
By the use of Stress Pattern Notation System, participants were asked to identify the stress pattern of the disyllabic words for things they see around their classroom. Again, they were to identify which syllable is stressed and clap as they say them. Lastly, they were asked to stand up the mentioned stressed syllable.

5.2.4.2. Measurement

All the participants performed well. This is because the exercise on syllabication had been done several times. The use of the Stress Pattern Notation System also eased matters for the participants. They were able to mention the two syllable words around them. The table 5.5 below shows the words the participants mentioned:

Table 5.5: Disyllabic words.

P	Word 1	Word 2	Word 3	Word 4	Word 5	Word 6	Word 7	Word 8	Word 9	Word 10
P1	pencil	table	blackboard	classroom	teacher	madam	ground floor	staircase	whiteboard	crayon
P2	table	crayon	pencil	table	blackboard	classroom	prefect	duster	front roll	back roll
P3	classroom	teacher	madam	prefect	cupboard	maker	break over	lesson	window	math set
P4	pencil	table	blackboard	classroom	prefect	ground floor	staircase	whiteboard	Lazy	clever
P5	madam	prefect	cupboard	pencil	table	under	teacher	classroom	clever	lazy
P6	blackboard	classroom	prefect	ground floor	staircase	upstairs	clever	teacher	madam	students
P7	teacher	madam	pencil	exam	classroom	prefect	ground floor	staircase	learning	lazy
P8	writing	clever	madam	exam	teacher	pencil	table	blackboard	classroom	students
P9	teacher	break time	table	exam	brilliant	madam	students	clever	prefect	pencil
P10	teacher	lazy	pencil	madam	teacher	marker	madam	students	classroom	clever

Graph 5.6: disyllabic words

5.3. Investigating the sound of an unstressed syllable.

After taking the participants through syllabification and stress, they were introduced to the unstressed syllable. Participants were made to understand that in looking at unstressed syllables, the following will be observed:

1. Spelling doesn't matter.
2. The vowel sound in an unstressed syllable sounds like the vowel in the word "but" or in the first syllable of "about."
3. Unstressed syllables can sometimes be difficult to hear.

5.3.1. Treatment

Participants were asked to observe the following sentences, practise them and mention the sentence in which they heard them.

1. a) They have to change plans.
b) They have a change of plans.
2. a) He has the right of way.
b) He has the right way.

After the practice, the participants realized that function words usually contain unstressed syllables therefore are not as loud as the content words.

5.4. Stress Matters

According to Reed (2014:200), “The prosody of English begins with the alternation of stressed and unstressed syllables in disyllabic and polysyllabic words. The complexity of the English syllable poses challenges.” Paunović & Savić (2008:72) added that “Students often do not have a clear idea of why exactly ‘the melody of speech’ should be important for communication, and therefore seem to lack the motivation to master it, while teachers do not seem to be theoretically or practically well-equipped to explain and illustrate its significance”

Participants were made to understand that whenever they learn a new word, they should know the following:

1. meaning (not just translation)
2. part of speech
3. etymology and/or related words
4. usage (phrasal verb, count/non count noun, transitivity, irregular

forms, etc.)

5. number of syllables

6. stress pattern

Since the objective of this work cantered on acquisition of syllables, the attention of the participants was drawn to the last two above (5 and 6):

- a. How many syllables does a word have?
- b. Which syllable gets the (primary) stress?

5.4.1. Free style Activity

Participants were asked to list new words they have learnt, how many syllables they have and their stress patterns. They were then instructed to use the notation system to indicate the pattern. Here the participants were able to list the words with the correct number of syllables and the primary stress. This indicates the effectiveness of explicit teaching which drills the participants with mimicking. They were able to identify various words with their stress patterns. Here are the words used by the participants:

Table 5.6: Free style

Participants	Word 1	Word 2	Word 3	Word 4	Word 5	Word 6	Word 7	Word 8	Word 9	Word 10
P1	pencil ½	table ½	blackboard ½	classroom ½	teacher 1/2	madam 1/2	ground floor 1/2	staircase ½	whiteboard 1/2	crayon 1/2
P2	table ½	crayon ½	pencil 1/2	table ½	blackboard	classroom 1/2	prefect 1/2	duster ½	front roll 1/2	back roll 1/2
P3	classroom ½	teacher ½	madam 1/2	prefect ½	cupboard 1/2	maker 1/2	breakover 1/3	lesson 1/2	window 1/2	math set 1/2
P4	pencil ½	table ½	blackboard 1/2	classroom ½	prefect 1/2	groundfloor 1/2	staircase ½	whiteboard 1/2	lazy 1/2	clever 1/2
P5	madam ½	prefect ½	cupboard 1/2	pencil ½	table 1/2	under 1/2	teacher ½	classroom 1/2	clever 1/2	lazy 1/2
P6	blackboard ½	classroom ½	prefect 1/2	ground floor ½	staircase 1/2	upstairs 2/2	clever ½	teacher 1/2	madam 1/2	students 1/2
P7	teacher ½	madam ½	pencil 1/2	exam 2/2	classroom 1/2	prefect 1/2	ground floor 1/2	staircase 1/2	learning 1/2	lazy 1/2

The above table buttresses the preference for strong-weak syllable over the weak-strong in disyllabic words.

5.5. Distinguishing between trochaic and iambic

Participants were taught the difference between trochaic and iambic.

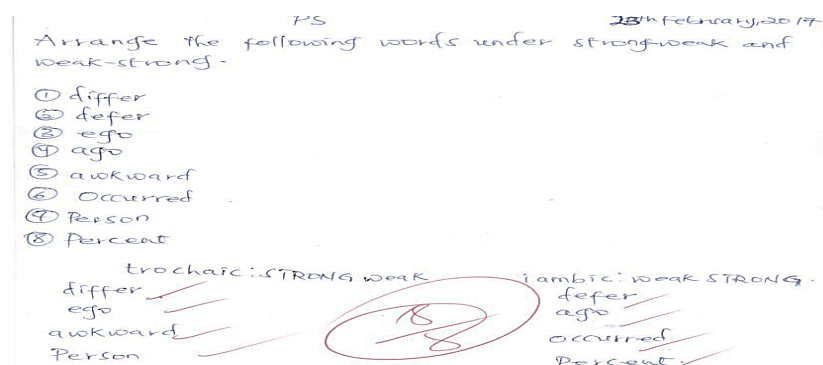
Trochaic and iambic are two stress patterns in English. The common between the two is the trochaic. The participants were made to understand that in the trochaic stress pattern, the first syllable is stressed while in the iambic stress pattern the second syllable is stressed. Again, they were taught that the trochaic stress pattern is also known as strong/weak pattern while the iambic stress pattern is referred to as weak/ strong pattern.

5.5.1. Activities

Participants were asked to arrange the following words under **strong**-weak and weak-**strong**

1. differ
2. defer
3. ego
4. ago
5. awkward
6. occurred
7. person
8. percent

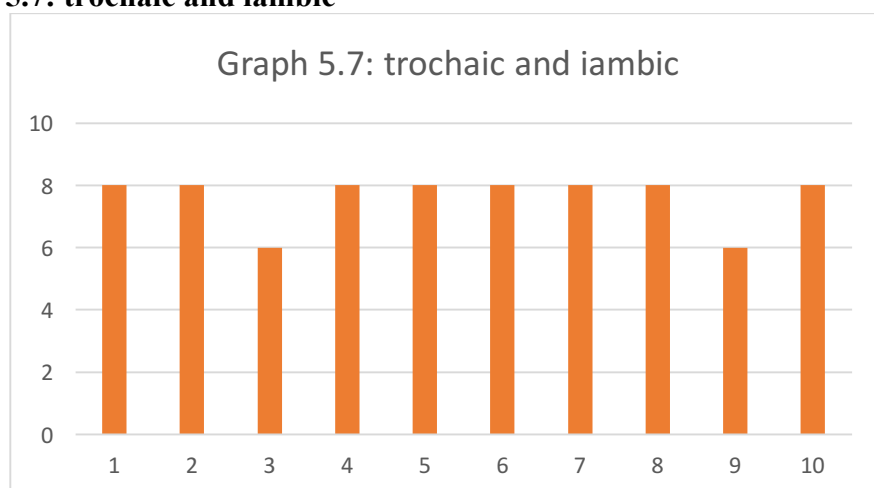
Exercise 9: responses of P.5 on strong and weak syllables



5.5.2. Measurement.

The participants performed well in this exercise. Gradually we observed the impact of the explicit teaching on pronunciation which I consider very effective in teaching and learning process.

Graph 5.7: trochaic and iambic



5.6 Intervention: polysyllabic words.

Because the lexical stress patterns in most polysyllabic words in English are unpredictable, I adopted 'Stressed Syllable/Number of Syllables system' where the first number indicates the stressed syllables while the second number

indicates the number of syllables. For instances, the word consumption /kən.səmp.jən/ is 2/3. Participants were therefore instructed to provide the stress pattern of the following words:

1. energy
2. operate
3. organizer
4. memorial
5. assumption
6. canadian
7. employee
8. japanese
9. volunteer

The participants did well in this exercise. All the participants scored all except the participants 3 and 9 who scored 8/10.

Exercise 10: responses of P.5 on Polysyllabic words.

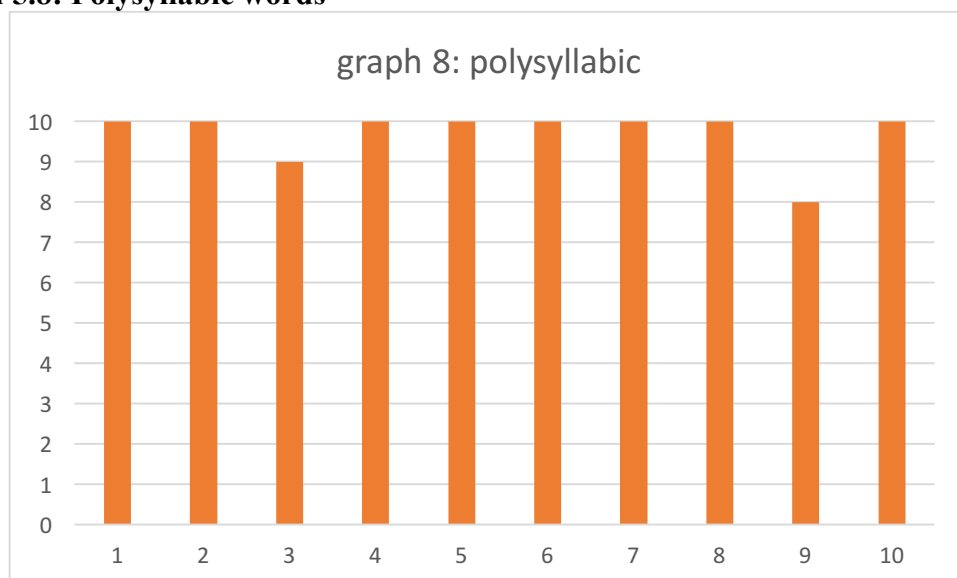
8th March, 2017

P5
Provide the stress pattern of the following Polysyllabic words:

① Energy	1/3 ✓
② Operate	1/3 ✓
③ Organizer	1/3 ✓
④ Memorial	2/3 ✓
⑤ Assumption	2/3 ✓
⑥ Canadian	2/3 ✓
⑦ Employee	3/3 ✓
⑧ Japanese	3/3 ✓
⑨ Volunteer	3/3 ✓
⑩ Develop	2/3 ✓



Graph 5.8: Polysyllabic words



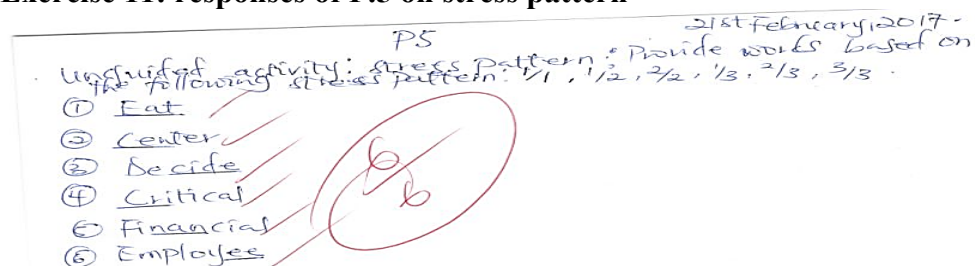
5.6.1. Unguided activity: stress pattern

Considering their performance in the activities so far, I decided to test them on unguided activity. This is an activity that makes learners more independent in their mind. I provided a stress pattern and asked the participants to find words that match those stress patterns. I provided the following stress pattern and asked the participants to produce the word. The table 5.7 below shows the stress patterns.

Table 5.7: Unguided activity

Words	Stress patterns
1	1/1
2	1/2
3	2/2
4	1/3
5	2/3
6	3/3

Exercise 11: responses of P.5 on stress pattern



5.6.2 Measurement

The performance here too was encouraging. Below is the chart indicating their performance on the unguided exercise. The denominators show the number of syllables. Seven of the participants were able to provide the needed words that match Number of Syllables system given for each column. Participant 2 had only one wrong, while participants 3 and 9 had two wrong. The syllable type they had wrong were the three syllabic words.

Table 5.8: stress pattern

Participants	1/1	1/2	2/2	1/3	2/3	3/3
P1	✓	✓	✓	✓	✓	✓
P2	✓	✓	✓	✓	✓	✗
P3	✓	✓	✓	✓	✗	✗
P4	✓	✓	✓	✓	✓	✓
P5	✓	✓	✓	✓	✓	✓
P6	✓	✓	✓	✓	✓	✓
P7	✓	✓	✓	✓	✓	✓
P8	✓	✓	✓	✓	✓	✓
P9	✓	✓	✓	✓	✗	✗
P10	✓	✓	✓	✓	✓	✓

5.7 Derivational prefix

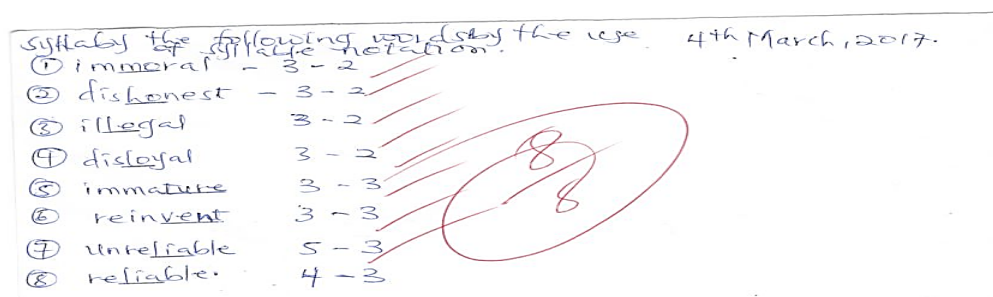
Considering their enthusiasm and confidence level, I introduced derivational prefixes that do not affect the primary stress of words. (see **appendix: lesson plan 26**)

5.7.1. Activity

Provide the syllabification of the following words. Remember the derivational prefix will add to the syllable count, but not affect primary stress assignment.

1. immoral
2. dishonest
3. illegal
4. disloyal
5. immature
6. reinvent
7. unreliable
8. reliable.

Exercise 12: Responses of P.5 on stress derivational prefix.



5.7.2 Measurement

Again, the participants perform well in this exercise. All of them were able to assign stress on the appropriate syllable. The chart below indicates their performance on the derivational prefix.

Table 5. 9: Derivational prefix

Particip ants	Immo ral	Disho nest	Illeg al	dislo yal	immat ure	Reinv ent	unrelia ble	Relia ble
1	✓	✓	✓	✓	✓	✓	✓	✓
2	✓	✓	✓	✓	✓	✓	✓	✓
3	✓	✓	✓	✓	✓	✓	✓	✓
4	✓	✓	✓	✓	✓	✓	✓	✓
5	✓	✓	✓	✓	✓	✓	✓	✓
6	✓	✓	✓	✓	✓	✓	✓	✓
7	✓	✓	✓	✓	✓	✓	✓	✓
8	✓	✓	✓	✓	✓	✓	✓	✓
9	✓	✓	✓	✓	✓	✓	✓	✓
10	✓	✓	✓	✓	✓	✓	✓	✓

5.8 Dealing with the dropping of consonant phoneme in a cluster

It was realized during the pre-intervention activity that participants dropped some consonant phonemes in a cluster. This is because those clusters do not occur in Hausa. Examples are as follows:

Table 5.10: dropping of consonant phoneme

words	Number of syllable	Before intervention	What was my mistake?
1. post	Post (1 syllable)	pos(1 syllable)	Deleting the final consonant
2. first	First (1 syllable)	firs(1 syllable)	Deleting the final consonant
3. test	Test (1 syllable)	tes(1 syllable)	Deleting the final consonant
4. kiosk	kiosk(1 syllable)	kios(1 syllable)	Deleting the final consonant
5. ask	ask(1 syllable)	as (1 syllable)	Deleting the final consonant

It is observable from the data that when a [+continuant] consonant precedes [–continuant] one, the [–continuant] consonant is deleted and therefore not heard. The deletion process that takes place here is very revealing. In trying to remedy the situation through drilling and mimicking, another insertion also appeared. It was found out that in an attempt to make the plosive heard, the participants created another syllable by inserting a vowel after the final consonants. It was also realized that the preceding vowels always influenced the added vowel in terms of rounding feature. In other words, if the preceding vowel is [+round] the added would be [+round] and vice versa.

After taking the participants through drilling and mimicking, only four of them were able to pronounce the final consonants without adding a vowel. Exercise 15 below presents the performance of participants 5.

Exercise 13: responses of P.5 Consonant dropping

P.5

8th March, 2017

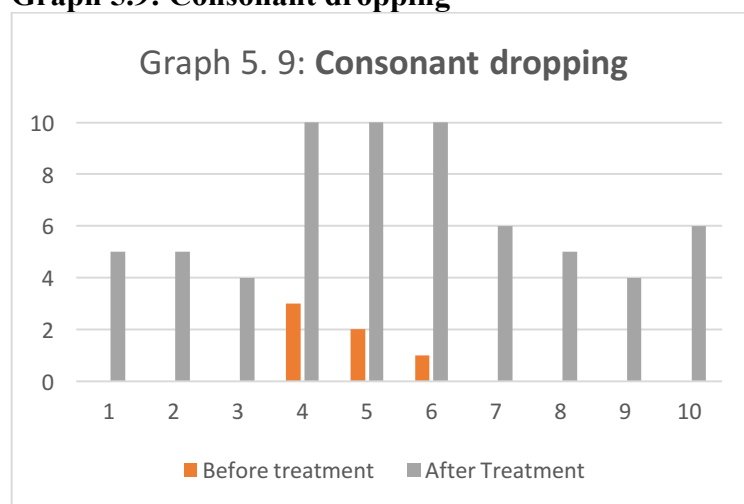
Dealing with the dropping of consonant phoneme in cluster
Pronounce the following words.

Words	Before treatment	After treatment
Post	Pos ✓	Post ✓
Past	Pas ✓	Past ✓
First	firs ✓	first ✓
Fist	fist ✓	fist ✓
Best	best ✓	best ✓
Test	test ✓	test ✓
Kiosk	kios ✓	kiosk ✓
Ask	as ✓	ask ✓
Task	tas ✓	task ✓
Socks	sos ✓	soks ✓

(P.5)

The results below indicated the performance of the entire participants.

Graph 5.9: Consonant dropping



Both the consonant deletion and vowel insertion are problematic but the latter is preferred because it is more intelligible than the formal.

5.9 Conclusion

This chapter discusses the results of suprasegmental pronunciation. It deals with syllable identification, syllable production and syllable type. It discusses the complexity of the English syllables. The complex nature of English syllable arises from the number of onsets and codas in the syllable structure. English

syllables allow onsets of up to three consonants and codas of up to four consonants. This poses a great challenge to L2 speakers whose language do not have such complex onset and coda. Through interventions in the classroom, the pronunciation difficulties of the participants were resolved considerably.

CHAPTER SIX

ACQUISITION OF SYLLABLE BOUNDARIES

6.0 Introduction

This chapter discusses the efficiency of explicit instruction on the acquisition of syllable margins. Syllable margins have been discussed extensively in the literature (Jenkins, 2000; Demuth and McCullough, 2009; Belvins, 1996). While some are of the view that final codas are the boundaries that are difficult to acquire others claim that onsets are the difficult boundaries to acquire especially in L2 acquisition (Jenkins 2002; Demuth and McCullough 2009).

Syllabification is important because it plays a role in pronunciation through stress assignment, complex cluster division, and determination of the number of underlying syllables. It is also realized that unlike second language speakers, native speakers may not have difficulty in syllabification. Native speakers' knowledge on syllable structure can be seen in several ways. One of the ways is that a native speaker may easily count the number of syllables in a word and simply identify syllable boundaries. In other words, the native speaker can recognize the number of syllables without difficulties.

Also, a native speaker can base syllabification on implicit phonological rules of the language and determine the combination of sounds that do exist in the language as permissible units or combinations in a syllable as a unit of syllable. Therefore, the understanding of phonotactics of a language is part of a native speaker's subconscious knowledge. That is why a native speaker is able to

differentiate between acceptable syllable structure and the unacceptable syllable structure. However, the second language speakers may have difficulties in syllable identification. There can therefore be a disparity between the native speaker and second language speaker in terms of syllable identification. This performance disparity between native speakers and second language learners can be caused by structural differences in syllables between the L1 and the target language. In the current study, the two languages, English and Hausa take very different approaches to syllabification.

The primary distinction in syllabification between English and Hausa has to do with complex clusters in onsets and codas. English allows up to three consonants in onset position and up to four consonants in coda positions. On the other hand, Hausa allows only one consonant in onset and one in coda positions. This is the case in many languages of Africa and Asia. This structural difference in syllables between the languages is seen as the key reason causing difficulty for syllable identification in speech perception by the learners of English.

6.1 Arguments on acquisition of syllable boundaries

Recall that Jenkins (2002) discusses a universal difficulty with an L2 English pronunciation feature and she identifies the final clusters of English as the major difficulty for L2 learners. Jenkins (2002) describes the final clusters as complex and unteachable. She adds that initial clusters seem to be easier for learners to acquire than final clusters. Recall also that Demuth and McCullough (2009) supports this argument by saying that French-speaking infants acquire initial clusters before final clusters. According to Demuth and McCullough (2009),

complexity is found at the beginning of words before at the end of words because French does not have heavy word-final morphophonology, unlike English. They add that final clusters are typologically more marked than initial clusters and therefore likely to be acquired later.

It is also clear that in many languages onset and coda restrictions are asymmetric. Yoneyama and Tajima (2017) investigated onset-coda asymmetry in/among two groups of Japanese listeners (Japanese college students and Japanese teachers of English). Their participants were asked to count syllables in spoken English words and non-words. Yoneyama and Tajima (2017:1) found out that “performances of both groups declined as the number of consonants in the target item increased, but onsets led to a more drastic decline in performance than did codas.” Their study further revealed that in second-language speech, syllable onsets and codas are asymmetric. Therefore, it strengthens the arguments that acquisition of onsets is less difficult than acquisition of codas. Yoneyama and Tajima (2017:2) therefore conclude that “native English listeners correctly identified the number of syllables in spoken English words without being affected by consonant clusters in either onset or coda position, whereas Japanese college students were strongly affected by consonants in onset and coda positions.” This highlights the difference in the acquisition of syllable boundaries between native speakers and the second language learners.

6.2 Resolving difficulties in syllable margin constraint

Different languages have different ways of solving the syllable constraint. Some languages allow consonant clusters in onset and coda positions, others allow

only a single consonant in both onset and coda positions. Also, there are constraints on the number and kinds of consonants that occur in these clusters. These language specific constraints that allow particular sounds to sequentially occur in either onset or coda positions is termed as the phonotactics. In order to resolve constraints, speakers apply deletion, epenthesis, and assimilation.

These three processes are exemplified below:

1. Deletion; ‘next stall’ /nekststol/ becomes /nekstol/.
2. Insertion: ‘sprit’ becomes /sipirit/.
3. Assimilation: ‘cook + ed/ becomes /cookt/. This assimilation happens when English disallows adjacent stops if they differ in voicing.

6.2.1 Activity 1: Identification of syllable boundaries using dot

In this activity, the participants were tutored to observe the following in order to acquire the appropriate syllable margins:

- I. Scanning from left to right, identify the vowels in the word, and project a syllable node for each;
- II. For each syllable node, link to a consonant to the left of the vowel, if any;
- III. Then, for each syllable node, link to a consonant to the right of the vowel, if any.

The participants were then asked to use a dot (.) to represent the syllable boundaries. The following exercise was given to them. They were to apply the above instructions to mark syllable boundaries of the following words:

1. mama
2. founder
3. better
4. apology

5. abnormal
6. syllable

The participants were able to use the dot to appropriately mark the syllable boundaries correctly in all cases, with the exception of participant number 3 and participant number 9 who could not get the boundaries of the word ‘abnormal’ correctly. This was how the said participants marked the syllable boundaries: a.bi.nor.mal. It was realized that was how they pronounced the word therefore produced the same in writing. They inserted a vowel in between the consonant cluster (/a.bi.nor.mal/) as can be seen in the table below. After taking them through the intervention, the participants were able to use the dot to appropriately mark the syllable boundaries.

Exercise 14: responses of P.5 on identification of syllable boundaries using dot.

Use dot (.) to represent the syllable boundaries of the following words. 17TH/02/18

P3 (before)

1. Mama
- 2) ~~Sounds~~ Sounds
- 3) better
- 4) Apology
- 5) Abnormal.
- 6) Syllable.

ma.ma
 Foun.der
 be.tter
 a-p:logy
 a-bi-nor-mal
 Sy-lla-ble



P3 (after) 23RD/02/18

7. Mama
- 8) Sounds.
- 9) better
- 10) Apology
- 11) Abnormal
- 12) Syllable.

ma-ma
 Foun.der
 be.tter
 a-po-logy
 ob-nor-mal
 sy-lla-ble



Table 6.1 and 6.2 below illustrates their performance.

Table 6. 1: Syllable boundaries using dot before intervention

Participants	mama	founder	better	apology	abnormal	syllable
1	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
2	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
3	ma.ma	foun.der	be.tter	a.po.lo.gy	a.bi.nor.mal	sy.lla.ble
4	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
5	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
6	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
7	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
8	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
9	ma.ma	foun.der	be.tter	a.po.lo.gy	a.bi.nor.mal	sy.lla.ble
10	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble

Table 6.2: Syllable boundaries using dot after intervention

Participants	mama	founder	better	apology	abnormal	syllable
1	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
2	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
3	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
4	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
5	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
6	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
7	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
8	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
9	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble
10	ma.ma	foun.der	be.tter	a.po.lo.gy	ab.nor.mal	sy.lla.ble

6.2.2 Activity 2: Identification of syllable boundaries using C & V

In order to ensure that all the participants perform creditably well, they were asked to perform different tasks on another set of words. They were asked to use the symbol C and the V this time to mark the syllable boundaries. Some of the words used in the previous exercise were repeated especially the one that some of them did not get right previously. The following words were given to them to mark the syllable boundaries. The participants were able to use the C

for consonants and V for vowels to mark the syllable boundaries correctly as shown in the table below.

abnormal
incidental
ability
acquisition
understand

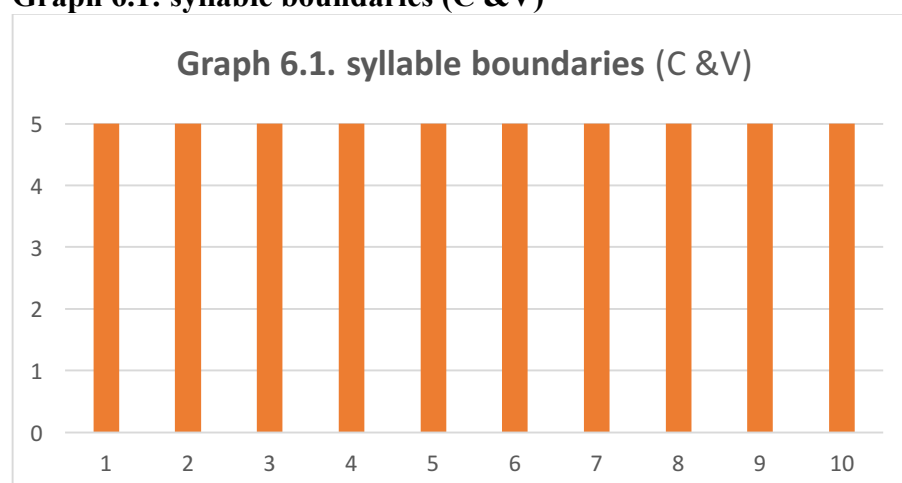
Exercise 15: responses of P.5 on identification of syllable boundaries using C and V.

PS		22nd February, 2017
Identification of syllable boundaries using C and V.		
Use C and V to mark the syllable boundaries of the following words:		
Abnormal	VC.CVC.CVC ✓	
Incidental	VC.CV.CVC.CVC ✓	
Ability	V.CV.CV.CV ✓	
Acquisition	V.CCVV.CV.CVC ✓	
Understand	VC.CVC.CCVCC ✓	

Participants performed very well in this exercise. They were able to successfully identify the syllable boundaries of all the given words. Their performance is attributable to the flexibility of the exercise and the repetitive nature of the exercise. The exercise was almost the same as the previous one but in this one, the participants were asked to use CV and the dot. It also indicates the power of repetition as a tool to establish understanding in the classroom. **Table 6.3** below illustrates their performance:

Table 6.3: Syllable boundaries using C and V

P	Abnormal	Incidental	Understand	Ability	Acquisition
1	VC.CVC.CVC	VC.CV.CVC.CVC	VC.CVC.CCVCC	V.CV.CV.CV	V.CCVV.CV.CVC
2	VC.CVC.CVC	VC.CV.CVC.CVC	VC.CVC.CCVCC	V.CV.CV.CV	V.CCVV.CV.CVC
3	VC.CVC.CVC	VC.CV.CVC.CVC	VC.CVC.CCVCC	V.CV.CV.CV	V.CCVV.CV.CVC
4	VC.CVC.CVC	VC.CV.CVC.CVC	VC.CVC.CCVCC	V.CV.CV.CV	V.CCVV.CV.CVC
5	VC.CVC.CVC	VC.CV.CVC.CVC	VC.CVC.CCVCC	V.CV.CV.CV	V.CCVV.CV.CVC
6	VC.CVC.CVC	VC.CV.CVC.CVC	VC.CVC.CCVCC	V.CV.CV.CV	V.CCVV.CV.CVC
7	VC.CVC.CVC	VC.CV.CVC.CVC	VC.CVC.CCVCC	V.CV.CV.CV	V.CCVV.CV.CVC
8	VC.CVC.CVC	VC.CV.CVC.CVC	VC.CVC.CCVCC	V.CV.CV.CV	V.CCVV.CV.CVC
9	VC.CVC.CVC	VC.CV.CVC.CVC	VC.CVC.CCVCC	V.CV.CV.CV	V.CCVV.CV.CVC
10	VC.CVC.CVC	VC.CV.CVC.CVC	VC.CVC.CCVCC	V.CV.CV.CV	V.CCVV.CV.CVC

Graph 6.1: syllable boundaries (C &V)

6.2.3 Activity 3: Naming the parts of syllable

In order to strengthen the participants' knowledge of syllable margins, the participants were taught the names of the syllable constituents (onset, nucleus, coda). The idea is that explicit teaching of these concepts will increase participants' abilities to identify them, and hence aid with syllabification. The participants were asked to consider the following monosyllabic words and answer the following questions for each word.

What is the nucleus?
 What is the onset?
 What is the coda?

- i. milk
- ii. street
- iii. wealth
- iv. man
- v. train

Exercise 16: responses of P.5 on Naming of syllable constituents.

PS 24th February 2017

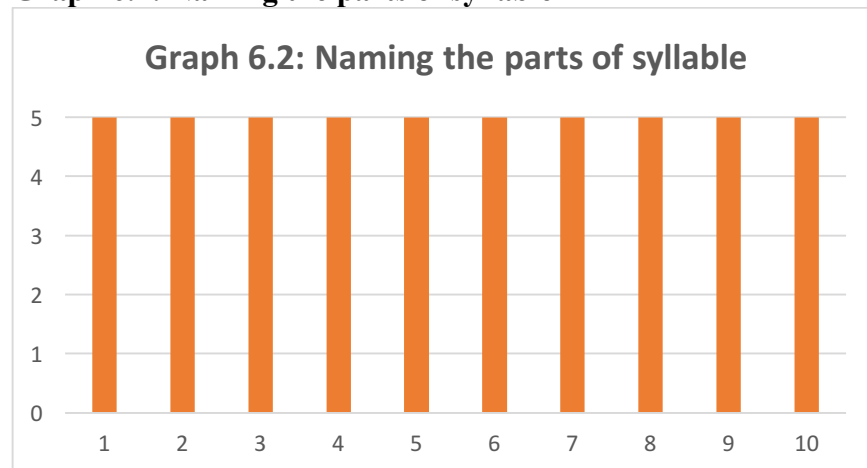
Naming of syllable constituents
 Consider the following monosyllabic words and answer the following questions for each word.
 What is the nucleus?
 What is the onset?
 What is the coda?

Milk
 Street
 Wealth
 Man
 Train

Word	onset	Nucleus	coda
Milk	m	i	lk
Street	str	ee	t
Wealth	w	ea	lth
Train	tr	ai	n
Man	m	a	n

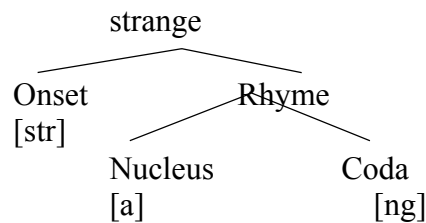
At the end of this exercise the participants did well as shown in the graph below:

Graph 6.2: Naming the parts of syllable



6.2.4Activity: hierarchical analysis

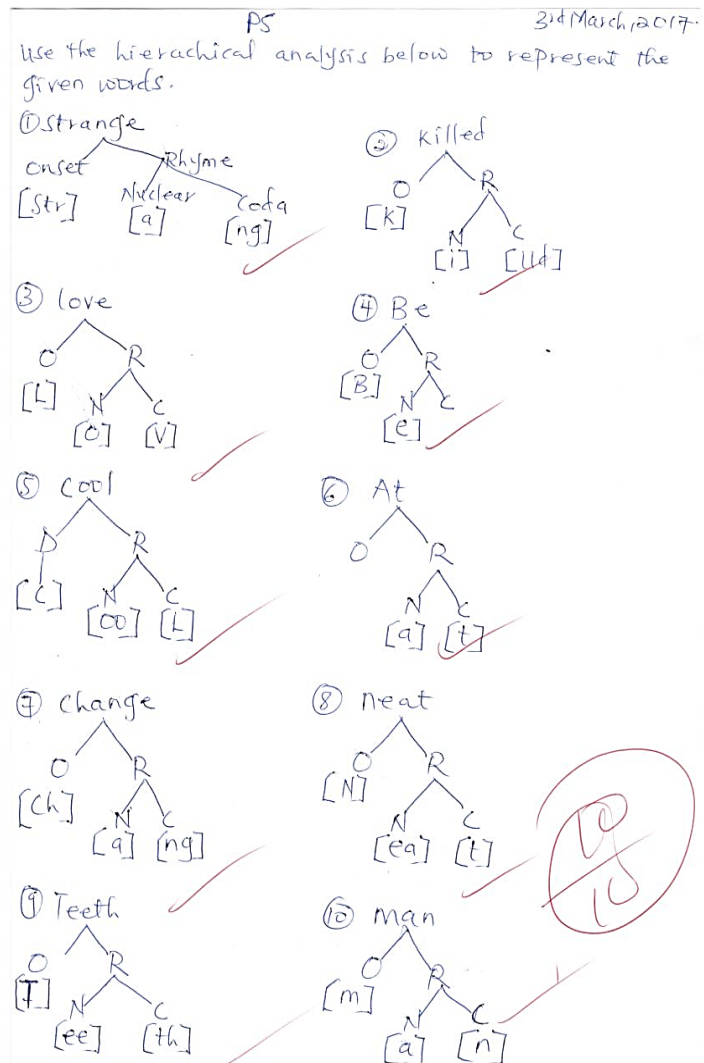
In the next part of the study, I introduced the tree drawing style to explain the internal structure of the syllable margins. I explained that every segment of a syllable takes one node. The participants were therefore asked to use the hierarchical analysis below to represent the given words. The first one was done for them. They were reminded that diphthongs count as one V slot, and affricates count as one C slot; they had also been instructed on the differences between pronunciation and orthography.



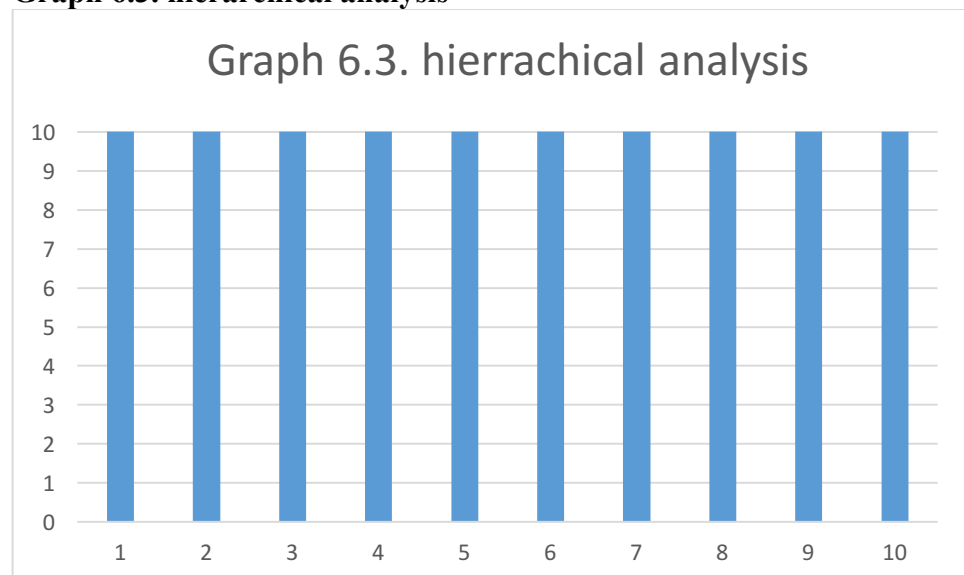
1. strange
2. killed
3. love
4. be
5. cool
6. at
7. neat
8. change
9. teeth
10. man

Their performance was very encouraging after the activity with all participants scoring perfectly on the task. The participants further exhibited a high sense of enthusiasm and readiness in performing the exercise as seen in exercise 19 from participants 5.

Exercise 17: responses of P.5 on hierarchical analysis



Graph 6.3. hierarchical analysis



6.3 Syllable margins controversy

Roach (1998:67) argues that even among the LI English speakers, there is always a considerable amount of “disagreement” in counting syllables. Roach cited ‘extra’/ekstrə/ as an example of one of the difficult words for speakers to determine the boundaries. English speakers will always consider ‘ekstrə’ as having two syllables. However, they may differ in terms of the boundaries. The following are the possible boundaries:

1. e.kstrə
2. ek.strə
3. eks.trə
4. ekst.rə
5. ekstr.ə.

According to Roach, even though it is not easy to conclude which of them is the correct one, the second and the third are the most frequent.

According to Steriade (1982), syllabification is basically done in three steps. The first step is the identification of the appropriate nuclei; the second is the assigning of pre-nuclear consonants (onsets) to the syllable as many as possible (according to native phonotactics); then the third is the assigning of any remaining unassociated consonants as coda segments. This seems to be the standard practice in syllabification (Baertsch 2010) because this approach to syllabification has the advantage of encompassing several universal tendencies associated with syllables typologically. For example, this obeys the maximal onset principle (Blevins 1995). I therefore tried testing the participants on the word ‘extra’ in the subsequent activity.

6.3.1 Activity 5: pronunciation of ‘extra’

Participants were tested on the syllable boundaries of the word ‘extra’. Before being given any instruction, this was how most of them pronounced it /es.ti.rə/. They chose what was close to the fourth possibility listed above, which was not among the most frequent in what Roach observed. I observed both deletion and insertion in the participants’ pronunciation. Moreover, they had three syllables instead of the two syllables. However, after the intervention, the participants had two syllables in the word ‘extra’. In the illustration below, every participant had similar syllabification with the exception of participants 3, 9 and 10. Surprisingly, participant 10 had 4 syllables (e.kis.ti.rə) in their pre-intervention pronunciation. Their performance improved tremendously after they had received instruction. Even for those who did not reach the target pronunciation (3, 9, 10), they did successfully produce the target number of syllables (this has been doubled ticked in in 6.5 below).

Table 6.4: Pronunciation of ‘extra’

Participants	Pre instruction	Post instruction	Delayed Post instruction
P1	es.ti.rə	eks.trə	eks.trə
P2	es.ti.rə	eks.trə	eks.trə
P3	eks.ti.rə	ekst.rə	ekst.rə
P4	es.ti.rə	eks.trə	eks.trə
P5	es.ti.rə	eks.trə	eks.trə
P6	es.ti.rə	eks.trə	eks.trə
P7	es.ti.rə	eks.trə	eks.trə
P8	es.ti.rə	eks.trə	eks.trə
P9	eks.ti.rə	ekst.rə	ekst.rə
P10	e.kis.ti.rə	ekst.rə	ekst.rə

Table 6.5: Results of performance

Participants	Pre instruction	Post instruction	Delayed Post instruction
P1	✗	✓	✓
P2	✗	✓	✓
P3	✗	✓✓	✓✓
P4	✗	✓	✓
P5	✗	✓	✓
P6	✗	✓	✓
P7	✗	✓	✓
P8	✗	✓	✓
P9	✗	✓✓	✓✓
P10	✗	✓✓	✓✓

The above result supports the literature because in VCV words cross-linguistically, the C is likely going to be considered as onset not a coda because intervocalic consonants are normally considered to be onsets even though they could also possibly be codas. Baertsch (2010) claims that there is a general expectation that any consonant in a language can fill an onset position and that any segment allowed in coda position must also be allowed as an onset. In addition, Prince and Smolensky (1993:160) established that “there are languages in which some possible onsets are not possible codas, but no languages in which some possible codas are not possible onsets”.

6.4 Activity: Treating interdentals in syllable margins

In order to examine the asymmetry between onsets and codas, participants were taken through a drill with monosyllabic words. They were then asked to pronounce the following words: **bath, bank, thank, tank, meet, walked, talked, washed, booked, and banged.**

It was realized that participants had no difficulties in pronouncing words with single consonant onsets and codas for all the given words except the interdental fricatives /θ and ð/. They either changed all the interdental fricatives and replaced them with the voiceless labiodental stop /f/ or the voiceless alveolar stop /t/. However, when the dentals appeared in the onset positions the participants did not have difficulties in identification and pronunciation. I also noticed that even those who had difficulty with the onset will only change to voiceless alveolar plosive /t/ but not voiceless labio-dental fricatives /f/.

Table 6.6: Interdental fricatives in syllable margins for P5

Words	Before	After
bath	baf	baθ
think	tink	θink
thank	tank	θank
myth	mif	miθ
these	dis	ðis
wealth	wealf	wealθ
thy	dai	ðai
strength	strenf	strenθ
health	healf	healθ

It is evident that syllable onsets and codas are not identical in terms of their phonology and in terms of acquisition. There are lots of discussions on asymmetry of onset and coda positions in the literature (Blevins, 1995; McCarthy, 1979; Beckman, 1998; Jenkins, 2002; Low, 2006; Demuth, & McCullough, 2009; Shizuka, 2014, inter alia). Onsets seem to have greater phonological complexity than codas. Beckman (1998) established that there are

more phonological structures that are complex in onsets than it is in codas. However, the acquisition of onsets is less difficult than the acquisition of codas because in simple CVC structures, the onset is more prominent than the coda. Steriade (2001) added that in realization of the asymmetry between onsets and codas, onsets are more “perceptually salient” than codas.

However, it is not always the case that the formation of syllable margins gives preference to onsets over codas as Baertsch (2010) argues for Taimyr Pidgin Russian, Japanese and Lama. Baertsch (2010:39) establishes that “coda formation overrides onset formation, preventing high sonority segments from being parsed as onsets, often resulting in violations of the maximal onset principle.” Baertsch (2010:1) further explains that “in Taimyr Pidgin Russian and in some children’s’ acquisition of Japanese, rhotics are allowed only in coda position, driving epenthesis and neutralization, respectively. In Lama, metathesis and obstruent sonorization work together to maximize sonority in codas while minimizing sonority in onsets”

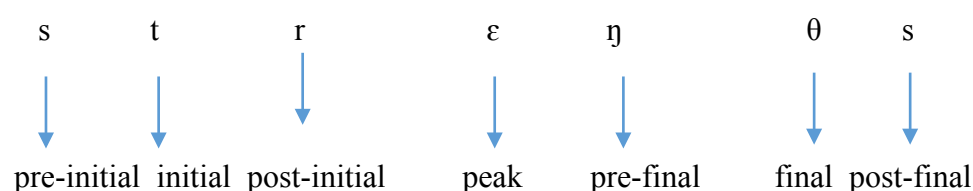
6.5 Activities: 6 Margin categories

In this activity, participants were taken through the structure of onsets and codas. They were made to understand the following:

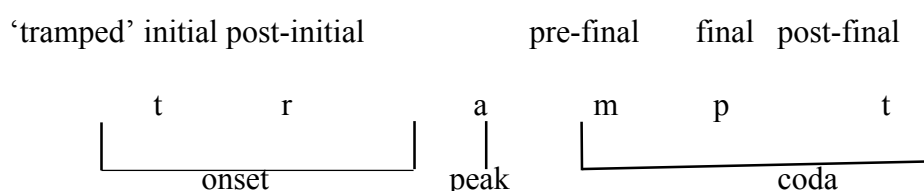
1. Onsets can take a maximum of three consonants.
2. The first consonant in the onset is called pre-initial and it is always represented by /s/, if available.
3. The second consonant in the onset is called initial and most English consonants can appear in the initial position.

4. The third consonant in the onset is called post-initial and the following consonants can occupy the post initial position /l/, /r/, /w/ and /j/.
5. Codas can take a maximum of four consonants.
6. The first is the pre-final consonant (/m/, /n/, /ŋ/, /l/, /s/)
7. The second is the final consonant (most consonants in English)
8. The third and fourth are post-final consonants (/s/, /z/, /t/, /d/, /θ/)
9. Example: strengths /streŋθs/.

This is how the names of the parts are presented:



The participants were asked to use the analysis of the word ‘tramped’ given below as a model to do the analyses:



They were then asked to use this model to show the structure of the following words:

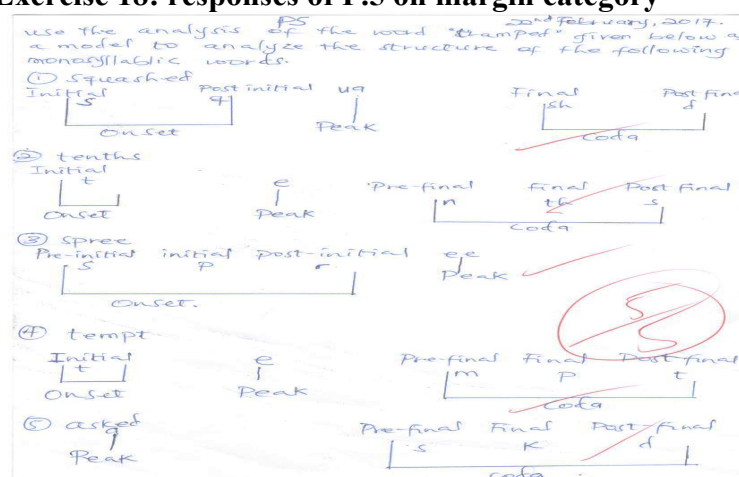
- I. squashed
- II. tenths
- III. spree
- IV. tempt
- V. asked

In general, the participants performed well, however, participant 9 only got 4 out of 5 correct. He used two syllables for ‘asked’. When he was asked, he said that he thought the vowel ‘e’ in ‘asked’ is audible. The participant did not know that the ‘e’ is silent. On the whole, they all did very well as indicated in the scores below:

Table 6.7: Margin categories

Participants	Score (5)
P1	5
P2	5
P3	5
P4	5
P5	5
P6	5
P7	5
P8	5
P9	4
P10	5

Exercise 18: responses of P.5 on margin category



6.6. Conclusion

This chapter discusses the effectiveness of explicit instruction on the acquisition of syllable margin in the classroom. Participants were made to count the number of syllables in a word and simply identified syllable boundaries. It was

realised that acquisition of onsets are easier than acquisition of codas. The difficulty the participants had was the codas with dental sounds. These sounds were sometimes substituted with the voiceless labiodental fricative /f/ or the voiceless alveolar plosives /t/.

CHAPTER SEVEN

CONCLUSION

7.0 Introduction

This chapter summarises the findings of the dissertation and offers recommendations based on the findings gathered from the dissertation. The initial investigation revealed that the participants were taught English once a week by a teacher who had his first degree in translation (Arabic and English) from the University of Azhar in Egypt and his second degree in Arabic Literature from the University of Ghana. The teacher was not a professional instructor and never had any training in teaching. Secondly, there was not any syllabus used by the teacher. He decides on what topics to teach at any point in time. I requested the syllabus but never got one from the teacher, nor the management of the school.

Generally, adults always find it difficult to grasp the pronunciation of their target language because the frame in adult speech has been fossilized to a certain extent. The Frame/Content theory of speech production argues that that jaw cycle provides structural support for segmental production (MacNeilage & Davis, 2005). Unlike adults, the jaw supports the speech of babies because babies do not have good control over their articulators. That is why the theory also accounts for babbling. However, in the case of sound combination of adult speech, the articulators do not rely heavily on the jaw but other factors such as frequency of practice and motivation may play a role in the acquisition.

Impediments that arise out of fossilization provide difficulties to the participants before the application of explicit instruction.

The dissertation discussed in detail the models of teaching pronunciation. These models are designed for second language English speakers to increase their intelligibility. One of the models discussed was English as a Lingua Franca (ELF)² and it was proposed by Jenkins (2000). This model is designed to focus on phonological features that are very crucial to intelligibility among people who do not share the same native language. The second model is Lingua Franca Core (LFC)³ which takes into account the sociolinguistic information of speakers based on regional variation.

The LFC takes into account the unique pronunciation of non-native speakers. With this model, the non-native speakers have the 'right to their accent' and language practitioners should see it as such. Again, in this approach, non-native accents should not be considered as deviation from native speakers' pronunciation norms but rather as valid accents on their own. The LFC therefore classifies pronunciation under core features and non-core features. The core features are those features whose mispronunciations might distort intelligibility in a conversation, with say a native speaker of the target language. On the other hand, the non-core features have very little impact on intelligibility.

² cf. chapter 3: theoretical framework

³ cf. chapter 3 theoretical framework

After examination of the acquisition of segmental features, it was realised that the participants had difficulties in identifying some of the individual sounds because those sounds are missing in Hausa. Therefore, the intervention targeted the sounds that posed difficulties to the participants. An explicit instruction was then applied to remedy the difficulties encountered by the participants in the classroom. Also, a teaching lesson plan was developed and adopted for all the processes for each lesson. The result revealed that explicit instruction is effective in the acquisition of segmental features of a language in the classroom.

Also, the analysis reveals that the complex nature of English syllables arises from the number of consonants in the onsets and codas in the syllable structure. English syllables allow complex onsets (three consonants) and codas (four consonants) which is not the case in Hausa, which does not allow any consonant clusters in either onsets or codas. This complexity poses a great challenge to L2 speakers whose language does not have such complex onsets and codas. Through interventions in the classroom, the pronunciation difficulties of the participants were resolved considerably, (see chapters 4,5 and 6).

Most importantly, the participants were able to count the number of syllables in a given word and identified syllable boundaries that hitherto were difficult for them. Also, the participants had difficulties in pronouncing codas with interdental fricatives. These sounds, which do not exist in Hausa, were sometimes substituted with the voiceless labiodental fricative /f/ or the voiceless alveolar plosive /t/, which do exist in Hausa.

The current work buttressed some general assertions (Redford and Diehl 1999) made earlier about the pronunciation of syllables that suggest that because syllables are found in all languages therefore they are likely to behave similarly in most languages. For instance, it was realized that syllable with onset cluster were of greater duration than those without onset cluster. This happens because every consonant in the cluster needs attention during the pronunciation and this makes the duration of the pronunciation longer. The duration also affects not only the onset but also the nucleus. It was observed that the low vowels enjoyed greater duration than the high vowels. When the syllable nucleus is a low [a] vowel, the duration is greater than when the syllable is either of the high vowels [i] or [u]. The low vowel is more open and this makes the pronunciation duration a bit greater than the close counterparts.

Furthermore, in the acquisition of syllable boundaries, onsets are acquired more easily than codas. This is so because the initial syllables are the unmarked ones and are preferred over the codas because of the perceptual saliency of onset consonants. According to Redford and Diehl (1999), there is a perceptual advantage for initial consonants over the final consonants and this advantage may emanate from production factors. This is because syllable-initial consonants are less reduced and less variable on a variety of articulatory and acoustic measures than final consonants. Moreover, onsets are the ones that are always pronounced first, before the coda consonants. Redford and Diehl (1999) support this by showing that in running speech initial consonants are longer than final consonants.

Again, it is important to note that the production of consonant clusters appears to be affected by syllable position. The analysis of my data indicates that there was overlap and intra-speaker variability in coda pronunciation. After the examination of articulatory variability in the onsets and codas orthographically represented by ‘th’⁴. The results of the study show that articulatory overlap and variability was greater in coda position than onset position. The variability realized with the onset is either voiceless interdental fricatives [θ] is replaced with voiceless alveolar [t] or the voiced dental [ð] is replaced with voiced alveolar plosive [d]. On the other hand, the same ‘th’ in the coda position is replaced alternately with [t] and [f]. In other words, the variability in the coda position can take two different forms [t] and [f]. This variability in the coda position was also discovered by Byrd (1996) when she examined the articulatory overlap and variability between onset offset clusters. She realized that articulatory overlap and variability was greater in coda position than onset position.

There is a formalization of the preference for initial consonants over final consonants. The initial consonants are easier to produce by the L2 learners than the final consonants. This is because the variability and the overlap in the final consonants is greater than that of initial consonants. Again, a simplex onset and simplex coda are preferred over complex onset and complex coda, as they are less difficult in their production. This is because they carry one pronunciation quality therefore easy to pronounce. More importantly, complex

⁴ cf. 4.3.1 Treatment of dental sounds

onsets are preferred over complex codas. Onsets are more easily learned and acquired than codas. This is clearly seen in the acquisition of L2 learners.

The role played by explicit instruction in language acquisition cannot be overemphasized. Considering the greater impact instruction has on the pronunciation of the syllable, one could only conclude that it is very effective. The instruction in the current study had a great impact on the pronunciation of the participants, as discussed in chapters 4, 5 and 6. The results that emanated from their performance before the intervention indicated that the participants lacked many pronunciation skills. However, after the intervention was conducted, their performance drastically improved.

Therefore, there is evidence on the need to pay attention to prosodic information in the language classroom at all levels (Gil, 2007; Lahoz, 2012; Santamaría, 2007). According to Roccamo (2013), L2 pronunciation skills are a very important aspect of communicative competence, yet they are notoriously difficult to acquire. This is because most L2 learners appear unable to identify and improve their pronunciation on their own, (Derwing & Munro, 2013). It is therefore indispensable to provide learners with instruction in pronunciation in order for them to sound intelligible to others. There is enough evidence that proves the efficacy of instruction on pronunciation skills (Hardison, 2004; Lord, 2008; Saito & Lyster, 2012). The evidence indicates a significant reduction in accent and increasing comprehensibility of L2 learners.

Teachability as a theory⁵ has proven that it can be effective in a classroom because it has helped participants to acquire the needed pronunciation. Also, the current study demonstrates that the role of the teacher is very critical in the classroom. Again, the teacher must acknowledge that in classroom activities, the learner is placed at the centre of the learning process.

7.1 Summary of the major findings

1. Treatment of segmental features were easier than the treatment of suprasegmental.
2. Dentals (/θ/and /ð/) and vowel quality (/ ɪ:/ and /ɪ/) posed difficulties to the participants.
3. Dentals are either substituted with voiced alveolar plosive /d/ or the voiceless alveolar plosive /t/ at word initial. Or voiceless alveolar plosives /t/ voiceless labiodental fricative /f/ at word final
4. Acquisition of diphthongs: closing diphthong /aɪ, eɪ, ɔɪ, əʊ, aʊ/ were acquired faster than centering diphthong / /ɪə, eə, ʊə /
5. The use of fun aids in acquisition. Counting number of syllable by clapping.
6. More input results in acquisition.
7. Word stress are better identified in sentence.
8. In disyllabic, there is preference of trochaic syllable over iambic syllable.

⁵ cf. chapter 3

9. Simplex onset & coda are preferred over complex ones as they are less difficult in their production. This is because they carry one pronunciation quality.
10. Participants have difficulties with consonant clusters syllables.
11. In order to repair codas and consonant clusters, speakers apply deletion or epenthesis to suit the phonotactics of their interlanguage.
12. There are empirical evidences that (Paradis & Lacharité, 1997 and Kang, 2011), majority of the languages preferred epenthesis over deletion in order to preserve the input features.
13. The rounding feature affect the epenthetic process. If the preceding vowel is [-round] the epenthetic vowel takes the –round feature and vice versa.
14. Acquisition of onsets were easier than acquisition of codas. Jenkins (2000) Yoneyama and Tajima (2017) Demuth and McCullough (2009),
15. Onset cluster were of greater duration than those without onset cluster (Redford and Diehl 1999)
16. The use of dot and CV aids in syllable acquisition.
17. Naming the part of syllable, margin categorization and hierarchical analysis also help in syllabification.
18. Unguided activities make learners independent.
19. Noticing plays a major role in acquisition
20. Explicit teaching is very effective in classroom.

7.2. Contribution to knowledge

The study contributes to knowledge by identifying and analyzing the features of English syllables that pose difficulties to Hausa learners of English and identify those that are learnable and teachable to Hausa learners of English. It furthermore developed and validated an instructional intervention to achieve these goals. It is hoped that the study will help teachers to take note of the teaching methods they employ to meet the interest of the pupils in the learning of pronunciation. Furthermore, it will assist teachers understand those aspects of the pronunciation that are learnable and teachable in order to make the teaching process beneficial to their students. More importantly, the current study has tested the efficacy of explicit teaching on suprasegmentals and this will contribute greatly to the insight of theories used in TESL.

7.3. Conclusion

The main objective of this work was to test the efficiency of explicit instruction in acquiring English syllable structure among Hausa speakers in the classroom. In applying explicit instruction, it was demonstrated that the main syllable structure challenges faced by the participants were consonants clusters, interdental fricatives at the coda position and the variations in the pronunciation of the past tense marker. It was also shown that some of the syllable structure challenges are created by the phonotactics of the first language, in this case, Hausa. This syllable structure constraint has affected the learning of L2, especially the pronunciation. Obviously, the phonotactics of a language are an integral part of the sound system, and they are language specific phenomena. Phonotactics dictate the possible sound sequences and syllable structures in a

language. Differences in phonotactics between an L1 and an L2 can impede language learners to successfully learn an L2.

L2 learners are prone to L1 interference in their quest for learning an L2. The L1 interference may affect every part of the syllable: onset, nucleus and coda. The results in this study support the idea that differences in production of speech sounds can be partly attributed to differences in the L1 sound system. This interference may lead to accented speech. However, the performance of the participants suggests that constant provision of explicit instruction in the classroom can help mitigate the accented speech of L2 speakers.

Among the differences between Hausa and English is the syllable structure and it is one of the main causes of the high accentedness; while English accepts consonant clusters, Hausa does not. Of the three common strategies to reduce consonant clusters cross-linguistically, deletion, vowel insertion, and assimilation, native speakers of Hausa primarily relied upon vowel insertion when speaking English as an L2. This was true among the participants in the current study.

The data also revealed that some English syllable structures posed particular difficulties to participants. Before the intervention, the participants used to break the consonants clusters by inserting vowels between them to conform to the phonotactics of their native language. This situation was resolved through the explicit instruction. This indicates that some pronunciation difficulties of L2 learners can be remedied through the explicit teaching. The problem with the

interdental fricatives remains very difficult for the participants, even following intervention. Secondly, the Hausa learner can acquire all the English syllable structure types in a classroom except those with interdental fricatives which were used interchangeably with either voiceless labiodentals /f/ or voiceless alveolar stop/t/.

Again, it is very clear from the discussions that explicit teaching is effective on the acquisition syllable structure of a second language. This is because the participants scored very high marks during the immediate test and delayed test. Moreover, intervention really helped in solving the pronunciation difficulties of syllable structure of Hausa learners of English. The intervention was a series of concrete measures, approaches or techniques put in place to solve problems of pronunciation.

In language acquisition, some aspects of pronunciation are more difficult than others. In the case of a second language learner, it is always effective to target those aspects that are not found in the learner's native sound system. In the light of this, it is prudent for an instructor to study the similarities and the differences between the learner's first language and their target language through the use of Contrastive Analysis⁶. This may lead to a fruitful acquisition. This is when the phonotactic constraints in L1 appear to be persistent in L2. In other words, there are some of the features in L1 that may interfere in the L2 acquisition.

⁶ cf. chapter 3

7.4. Recommendation

Walker (2010: 71) established that the main feature to consider in teaching pronunciation for ELF is primarily about “re-thinking goals and redefining error as opposed to modifying classroom practice”. In this regard, many exercises were executed during and after the interventions.

I therefore recommend that English textbooks with lots of activities should be made available for the participants because the activities would have a positive effect on their language acquisition. In order to develop learners’ interest in pronunciation, the activities can be planned in a way that students see as fun and this would stimulate their interest in learning pronunciation. Laroy (1995: 5) supports the idea that the pronunciation activities that help learners should contain the right pronunciation skills that involve fun activities.

Again, the activities on pronunciation skills should not focus on native-like pronunciation but rather on intelligibility. Teachers of second language need not teach learners with the mind that they will sound like native speakers but they should rather focus on intelligibility. Tennant (2007:2) claims that intelligibility is the key element teachers must look at in teaching. In other words, learners’ speech must sound intelligible and that should be the ultimate aim.

Furthermore, there is the need to teach pronunciation because it is an integral part of communication and learners need to understand it, especially those learning English as a second language. In second language learning, there will be variations in the pronunciation of the learners. Lichtkoppler (2008)

establishes that the users of English as their second language are more than the number of first language speakers. Therefore, the international character of English has made it to develop different kinds of pronunciation based on the speakers' experience. However, one needs to sound intelligible in order to fit properly into the international communication circle. In this direction, Crystal (2010) advocates that the learning materials need to be localized to suit the demands of learners, especially the L2 learners.

The results of the studies showed that classroom instruction is very useful, but frequency in communicative input was more important. The studies also found that some forms that were frequent in input were still not acquired until they were consciously noticed in the input. These studies triggered the Noticing Hypothesis⁷, which states that the learner must notice linguistic features of the input that they are exposed to if those forms are to become intake for learning.

Again, it was shown that the participants have never had a chance of listening to any kind of English pronunciation in the classroom apart from their teacher's. I therefore recommend that students be provided with audio in their practice, especially the language class. This will enhance their listening as well as speaking skills. It will also offer them the chance to listen to pronunciation other than their teacher's which is very key in language learning.

Furthermore, participants should be provided with training textbooks that contain many exercises on pronunciation. The pronunciation tasks in the

⁷ cf. chapter 3

textbooks should contain a well-planned design, selection and sequencing of phonetic exercises. The textbooks should offer instructors an opportunity to deal with issues in their own way to suit the needs of the learners by providing additional materials and exercises. This approach will accelerate the rate of acquisitions and learning and it will also raise the learners' awareness towards phonetic differences between their first language and the target language.

The current work investigated the acquisition of syllable structure through explicit teaching in the classroom. There are other aspects such as motivation, classroom atmosphere, teachers experience etc. that affect acquisition in the classroom. I recommend that future studies look at those aspects. This would add knowledge to the various factors that affect language learning in classrooms.

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APPENDIX

LESSON PLAN 1

Topic : Sound Diagnosis

Objective: By the end of the lesson, participants should be able to read the given passage and pronounce the words correctly.

Relevant Previous Knowledge: Participants have been reading in classroom and outside classroom

Teaching Learning materials. Short story retrieved from www.english-for-students.com/betty-botter.html

Betty Botter

One day, Betty Botter wanted to bake a cake. She bought some cheap butter to bake it. But something was wrong with the butter.

"This butter is bitter," said Betty Botter as she tasted the butter.

"If I put it in my cake batter, it will make the batter bitter. But if I put a bit of better butter that would make my batter better." So, she went off to buy a better butter than her bitter butter. She mixed a bit of better butter into her cake batter. She tasted the batter and was happy that the batter was not bitter. She adopted the best way to solve the problem. Because there will be always one.

Bye Baby Bunting

One fine morning, a hunter was getting ready to go hunting. Before departing, he went to see his little baby. His baby was awake in a baby crib. He looked at his baby's blanket and thought the blanket might not be thick enough for the coming winter.

“Bye, my little baby. Daddy is going hunting. Daddy is going to fetch some rabbit skin to make you a new blanket," said the hunter to his baby.

He kissed his baby and went off hunting. After the hunting, he bought a blanket which saved his child from the severe winter that followed.

Activity:

Participants were given the short story which was printed on a sheet a paper and were asked to silently study and underline the words that are difficult to pronounce. They were then asked to read the story aloud one after the other. The mispronounced words were then identified and written on the board. These mispronounced words gave the clue as to which areas the participants had pronunciation difficulties. Some of the difficulties are:

1. There was no difference between long and short vowel (cheap, this)
2. Schwa vowel is always stressed (hunter, winter)
3. Some diphthongs were missing (go, might)
4. Difficulties in identifying a single letter that represents more than one phoneme.
Eg. ‘ch’ was pronounced as voiceless palato-alveolar [tʃ] in all situations eg. chord, chef, and cheese ‘s’ was pronounced as [s] in all situation. Eg. sugar, sure.
5. There was absence of dental sounds [θ and ð] in words such as this, that, thought.
6. There was absence of voiced palato-alveolar [ʒ].
7. They pronounced silent sounds (listen).
8. They insert vowels between consonants cluster (skin, blanket).

LESSON PLAN 2:

Topic: vowel length /ɪ/ and /i:/

Objective: To be able identify the difference between /ɪ/ and /i:/

Relevant Previous Knowledge: Participants pronounce some words that have /ɪ/ and /i:/

Teaching Learning materials. Created by the researcher.

Activities: The participants were taken through words that contain /ɪ/ and /i:/. The pronunciations were made and they were asked to imitate the pronunciation the way the teacher mentioned them. They were then asked to say them one after the other to the satisfaction of the researcher. Exercises were given to them and they were asked to tabulate the given words under /ɪ/ and /i:/

Evaluation: Pronounce and group the following words: heed, hid, sheep, ship, beat, bit, feel, fill, sit, seat, under the vowels below:

/ɪ/	/i:/

Core points: Sound identification

Results: identification of [i and i:]

Participants	Pre instruction	Post instruction	Delayed instruction	Post
P1	3	10	10	
P2	4	10	10	
P3	4	8	10	
P4	3	9	10	
P5	5	10	10	
P6	5	10	10	
P7	6	10	10	
P8	5	10	10	
P9	3	9	10	
P10	3	10	10	

Remarks: Successful

LESSON PLAN 3

Topic: vowel length /æ/ and /ɑ:/

Objective: To be able identify the difference between /æ/ and /ɑ:/

Relevant Previous Knowledge: Participants have been pronouncing words with /æ/ and /ɑ:/

Teaching Learning materials: Created by the researcher.

Activities. After drilling the participants through /æ/ and /ɑ:/ with needed sounds, they were tasked to group the given words under the vowels they treated vowels

Evaluation: pronounce and categories the following words (cat, man, fan, bank, bad, farm, palm, calm, market, father) under the vowels below.

/æ/	/ɑ:/

Core points: vowel identification

Results of /æ/ and /ɑ:/

Participants	Pre instruction	Post instruction	Delayed Post instruction
P1	2	9	9
P2	2	8	10
P3	3	8	9
P4	4	9	10
P5	4	10	10
P6	5	10	10
P7	4	9	9
P8	6	8	10
P9	2	9	10
P10	3	9	10

Remarks: successful

LESSON PLAN 4:

Topic: vowel length / ʊ/ and / ɔ:/

Objective: To be able to identify the difference between / ʊ/ and / ɔ:/

Relevant Previous Knowledge: Participants have been pronouncing words with / ʊ/ and / ɔ:/

Teaching Learning materials: Created by the researcher.

Activities. After drilling the participants through / ʊ/ and / ɔ:/sounds, they were tasked to group the given words under the treated vowels.

Evaluation: pronounce and put the following words (honour, spot, got, dog court, store, talk, fought, sport, raw) under the vowels below:

/ʊ/	/ɔ:/

Core points: vowel identification

Results: / ʊ/ and / ɔ:/

Participants	Pre instruction	Post instruction	Delayed Post instruction
P1	3	8	10
P2	2	8	10
P3	3	9	10
P4	4	10	10
P5	4	10	10
P6	3	9	10
P7	3	10	10
P8	4	9	9
P9	2	10	10
P10	2	8	10

Remarks: successful

LESSON PLAN 5:

Topic: vowel length /ʊ/ and /u:/

Objective: To be able to identify the difference between /ʊ/ and /u:/

Relevant Previous Knowledge: Participants have been pronouncing words with /ʊ/ and /u:/

Teaching Learning materials: Created by the researcher.

Core points: vowel identification

Activities. After drilling the participants through /ʊ/ / u:/ sounds, they were tasked to perform the task below.

Evaluation: Pronounce and group the following words under the vowels below:
book, look, put, push, full, , pull, pool, lose, fool, cool) under the appropriate vowels:

/ʊ/	/u:/

Results: /ʊ/ /u:/

Participants	Pre instruction	Post instruction	Delayed Post instruction
P1	2	7	9
P2	2	8	9
P3	1	8	8
P4	3	9	10
P5	2	8	10
P6	4	6	9
P7	2	9	9
P8	3	8	10
P9	2	9	10
P10	2	7	10

Remarks: successful

LESSON PLAN 6:

Topic: /e/ and 3:/

Objective: To be able to identify the difference between /e/ and 3:/

Relevant Previous Knowledge: Participants have been pronouncing some words with

/e/ and 3:/

Teaching Learning materials: Created by the researcher.

Core points: vowel identification

Activities. After taken the participants through pronunciation of /e/ and 3:/ sounds, they were tasked to perform the task below:

Evaluation: pronounce and group the following words under the vowels below:

learn, bird, verb, work, nurse, bed , girl, wet, set,

/ e/	/ 3: /

Results: e and 3:

Participants	Pre instruction	Post instruction	Delayed Post instruction
P1	4	9	10
P2	5	8	10
P3	4	9	10
P4	5	10	10
P5	4	10	10
P6	5	9	10
P7	6	10	10
P8	5	10	10
P9	6	10	10
P10	5	10	10

Remarks: successful

LESSON PLAN 7

Topic: schwa vowel identification

Objective: To appropriately pronounce schwa vowel

Relevant Previous Knowledge: Participants pronounce words with schwa vowel wrongly.

Teaching Learning materials: Created by the researcher

Activities: Participants were first of all drilled with words containing schwa vowels. It was made clear to them that schwa vowel is an unstressed vowel therefore it should be pronounced with less effort. At most times, it is found in words that end in -er. Some of these -er are suffixes that indicate an agent (player, teacher, singer, dancer, reader etc). Exercises were given to the participants to execute.

Evaluation: pronounce and identify the unstressed vowel in the following words: above, mother, ago, London, physical, baker, famous, cupboard, sister.

Results: schwa vowel

Participants	Pre instruction	Post instruction	Delayed Post instruction
P1	0	2	1
P2	0	2	2
P3	0	4	3
P4	0	4	4
P5	0	3	3
P6	0	2	2
P7	0	1	1
P8	0	0	0
P9	0	1	2
P10	0	1	1

Remarks: unsuccessful

LESSON PLAN 8

Topic: diphthongs

Objective: To pronounce words containing various diphthongs

Relevant Previous Knowledge: Participants pronounced some of the closing diphthongs

Teaching Learning materials. Created by the researcher

Activities. Participants were first of all taken through closing diphthong. They were allowed to practice with a lots of words. They were then asked to provide words that contain the diphthongs.

Evaluation: Pronounce the 5 words that contain closing diphthong.

Results: diphthongs

Participants	Scores
1	5
2	5
3	5
4	5
5	5
6	5
7	5
8	5
9	5
10	5

Core points: Diphthong identification

Remarks: successful

LESSON PLAN 9

Topic: Contrasting two sounds that are very similar

Objective: should be able to group the given vowel sounds according to their similarities.

Relevant Previous Knowledge: Participants have been taught how to pronounce the various vowel sounds.

Teaching Learning materials. Created by the researcher.

Activities. Participants were allowed to practice all the taught vowel sounds. They were then asked to pronounce and identify the given words

Evaluation: Choosing words (bird, word, worm, curl, heard, first, lurch caught, beard, learn) which contain the /ɜ:/ sound. (Harmer 2005, 187).

Results: sound discrimination.

Participants	Post instruction	Delayed Post instruction
P1	10	10
P2	10	10
P3	10	10
P4	9	10
P5	10	10
P6	10	10
P7	9	10
P8	10	10
P9	10	10
P10	10	10

Core points: sound discrimination

Remarks: unsuccessful

LESSON PLAN 10

Topic: sound identification

Objective: should be able to identify the given sound.

Relevant Previous Knowledge: Participants have been taught how to pronounce the various vowel sounds.

Teaching Learning materials. Created by the researcher.

Activities. The teacher pronounced a word and asked the participants to provide a word with similar sounds they heard from the teacher. This activity was repeated five times in order to draw attention to the needed sounds.

Evaluation: Fill in the blanks. The letters in bold form a word that answers the question at the end of the sentence.

1. It sounds like a **meet**. It is an eatable animal product
2. It sounds like a **roast**. It is a part of the land near the sea.....
3. It sounds like a **feed**. It is something you plant.....
4. It sounds like a **coat**. You can sail in it.....
5. It sounds like a **reach**. It has a lot of sand.....
6. It sounds like a **sweet**. You wear socks on them.....
7. It sounds like a **pail**. It is the temporary release of an accused person.....

Results: sound identification.

Participants	Post instruction	Delayed Post instruction
P1	7	7
P2	7	7
P3	7	7
P4	7	7
P5	7	7
P6	7	7
P7	7	7
P8	7	7
P9	6	7
P10	7	7

Core points: sound identification

Remarks: successful

LESSON PLAN 11

Topic: Epenthetic vowel in words

Objective: The researcher should be able to identify the type of epenthetic vowel the participants used.

Relevant Previous Knowledge: Participants have been taught how to pronounce the various vowel sounds.

Teaching Learning materials. Created by the researcher.

Activities. The teacher pronounced a word and asked the participants to repeat after him. This activity was repeated several times in order to acquire the needed sounds.

Evaluation: Pronounce the following words

cake

stick

brake

ink

block

book

fork

tick

Meek

Seek

Results: Epenthetic vowels in words.

Participants	Before instruction	Post instruction	Delayed Post instruction
P1	0	8	10
P2	0	7	10
P3	0	9	10
P4	1	10	10
P5	1	10	10
P6	0	10	10
P7	0	9	10
P8	0	9	10
P9	2	10	10
P10	1	10	10

Core points: sound identification

Remarks: successful

Table 1. Epenthetic

Words	Without epenthetic vowel	With epenthetic vowel
Cake	[keɪk]	[keɪk]
Stick	[steɪk]	[steɪk]
brake	[breɪk]	[breɪk]
Ink	[ɪŋk]	[ɪŋk]
block	[blɒ:k]	[blɒ:kɪ]
Book	[bʊk]	[bʊk]
Fork	fɔ:k	fɔ:k
Tick	tɪk	tɪk
meek	mɪ:k	mɪ:k
seek	sɪ:k	sɪ:k

LESSON PLAN 12

Topic: Epenthetic vowel in sentences

Objective: The researcher should be able to identify the type of epenthetic vowel the participants used.

Relevant Previous Knowledge: Participants have been taught how to pronounce the various vowel sounds.

Teaching Learning materials. Created by the researcher.

Activities. The teacher wrote sentences and asked the participants to read them.

Evaluation: Read the following sentences.

I gave the cake to the girl
The stick is very long
You need to use a car brake.
I need the black ink
Give me the block
The book is mine
The fork is in the kitchen
We do not need a tick line
The meek will be rewarded
We seek refuge in your hands

Results: Epenthetic vowels in sentences.

Participants	Post instruction	Delayed Post instruction
P1	0	0
P2	0	0
P3	0	0
P4	1	1
P5	1	1
P6	0	0
P7	0	0
P8	0	0
P9	2	2
P10	1	1

Core points: Sound identification

Remarks: unsuccessful

LESSON PLAN 13

Topic: dental sounds (cardinal and ordinal numbers)

Objective: Participants should be able to pronounce dental sounds correctly.

Relevant Previous Knowledge: Participants have been taught how to pronounce the various consonant sounds.

Teaching Learning materials. Created by the researcher.

Evaluation: Look at the pairs of words and distinguish words with dental sounds from others.

- a) seven /seventh
- b) nine /ninth
- c) five /fifth
- d) eight/ eighth
- e) ten /tenth

Results: Dental sounds (cardinal and ordinal numbers)

Participan ts	Before instructio n	Post instructio n	Delayed Post instructio n
P1	0	5	5
P2	0	5	5
P3	0	5	5
P4	0	5	5
P5	0	5	5
P6	0	5	5
P7	0	5	5
P8	0	5	5
P9	0	5	5
P10	0	5	5

Core points: Sound identification

Remarks: successful

LESSON PLAN 14

Topic: dental sounds (words)

Objective: Participants should be able to pronounce dental sounds correctly.

Relevant Previous Knowledge: Participants have been taught how to pronounce the dental sounds in cardinal and ordinal numbers

Teaching Learning materials. Created by the researcher.

Evaluation: Pick out the dental sounds in the following words.

Thin

Tin

They

Day

Tank

Thank

Thought

Taught

Strength

Straight

Results: Dental sounds (words)

Participan ts	Before instructio n	Post instructio n	Delayed Post instructio n
P1	0	5	5
P2	0	5	5
P3	0	5	5
P4	0	5	5
P5	0	5	5
P6	0	5	5
P7	0	5	5
P8	0	5	5
P9	0	5	5
P10	0	5	5

Core points: Sound identification

Remarks: successful

LESSON PLAN 15

Topic: Silent sounds

Objective: Participants should be able to identify silent words in given words.

Relevant Previous Knowledge: Participants have been pronouncing words with silent sounds.

Teaching Learning materials. Created by the researcher.

Evaluation: Write ten words with silent words.

Result:

Participants	Words
P1	9
P2	8
P3	9
P4	10
P5	10
P6	9
P7	10
P8	7
P9	9
P10	8

LESSON PLAN 16

Topic: Minimal pairs identification

Objective: Participants should be able to identify minimal pairs

Relevant Previous Knowledge: Participants have been pronouncing words that are minimal pairs.

Teaching Learning materials. Created by the researcher.

Evaluation: Observe the following pairs of words and provide minimal pairs for each word:

bin knit bit pull full pill

Results

Participants	Minimal pairs
P1	6/6
P2	6/6
P3	6/6
P4	6/6
P5	6/6
P6	6/6
P7	6/6
P8	6/6
H P9	6/6
P10	6/6

LESSON PLAN 17

Topic: Syllabification

Objective: Participants should be able to identify syllable boundary

Relevant Previous Knowledge: Participants have been pronouncing syllables in words

Teaching Learning materials. Created by the researcher.

Evaluation: Observe the following diagram and provide a word for each column. Note that the words should start from one to five syllables.

Results

Identification of syllable boundaries (syllabification)

Participants	Pre instruction	Post instruction	Delayed Post instruction
P1	1	4	5
P2	1	5	5
P3	2	5	5
P4	3	5	5
P5	3	5	5
P6	3	5	5
P7	1	4	4
P8	1	5	5
P9	0	3	4
P10	2	5	5

LESSON PLAN 18

Topic: Word stress

Objective: Participants should be able to put stress on the right syllable

Relevant Previous Knowledge: Participants have been taught syllable boundary

Teaching Learning materials. Created by the researcher.

Evaluation: Listen to the pronunciation of the following words and group them under nouns or verbs.

CON-vert
con-VERT
DE-crease
deCREASE
DE-fault,
de-FAULT
DES-ert
des-ERT
CON-trast
ConTRAST

Results : Stress shift

Participa nts	Pre instructi on	Post instructi on	Delayed Post instructi on
P1	1	2	2
P2	1	3	3
P3	0	2	2
P4	0	1	2
P5	1	2	3
P6	1	2	2
P7	1	2	2
P8	1	1	3
P9	0	1	2
P10	1	2	2

Lesson plan 19

Topic: Sentence stress

Objective: Participants should be able to put stress on the right syllable in sentences

Relevant Previous Knowledge: Participants have been taught syllable boundary

Teaching Learning materials. Created by the researcher.

Evaluation: Read the following sentences and put the stress on the right syllables. The first one has been done for you.

Sentences	Stressed Syllable	Part of Speech
1.a) What an insult!	1 st	Noun
b) Don't insult me!		
2.a) Round up the suspects.		
b) I think he suspects you.		
3.a) Do I need a permit?		
b) We don't permit that.		
4.a) Yaw is a drug addict.		
4.b) Don't addict yourself		
5.a) The two boys are in conflict		
5.b) The stories conflict each other		

Result: Words in sentences

Candidates	Scores
1	10
2	9
3	10
4	9
5	10
6	10
7	9
8	10
9	9
10	10

Lesson plan 20

Topic: Contrastive stress

Objective: Participants should be able to provide a words with contrastive stress.

Relevant Previous Knowledge: Participants have been taught syllable

Teaching Learning materials. Created by the researcher.

Evaluation: Listen to the following sentences and identify which piece of information is being highlighted. Provide words that are opposite in meaning.

11. If it is not good, it is
12. If it is not small , it is
13. Don't turn the volume up, turn it
14. If it is not the best, it is the
15. If a student is not bright, he is
16. If the food is not hot, it is
17. If the room is dark, there is no
18. If the clothes are wet, they are...
19. The work will be done form dusk to.....
20. If the story is not true, it is...

Results: Contrastive stress

Participants	Scores
1	5
2	5
3	5
4	6
5	8
6	7
7	5
8	5
9	4
10	5

Lesson plan 21

Topic: Monosyllabic words

Objective: Participants should be able to provide monosyllabic words.

Relevant Previous Knowledge: Participants have been taught contrastive stress

Teaching Learning materials. Created by the researcher.

Evaluation: Mention one-syllabic words for things you see around the classroom. Clap as you say them. Mention at least ten words.

Results: Monosyllabic words

Candidates	scores
1	10
2	10
3	9
4	10
5	10
6	10
7	10
8	10
9	8
10	10

Lesson plan 22

Topic: Disyllabic words

Objective: Participants should be able to provide disyllabic words.

Relevant Previous Knowledge: Participants have been taught syllabification

Teaching Learning materials. Created by the researcher.

Evaluation: Mention two-syllable words for things you see around your classroom. Which syllable is stressed? Clap as you say them. Stand up on the stressed syllable.

Results: disyllabic words

Participants	scores
1	10
2	10
3	10
4	10
5	10
6	10
7	10
8	10
9	10
10	10

Lesson plan 23

Topic: Strong and weak syllable

Objective: Participants should be able to differentiate strong syllable from weak syllable.

Relevant Previous Knowledge: Participants have been taught stress.

Teaching Learning materials. Created by the researcher.

Evaluation: Arrange the following words under **strong**-weak and weak-**strong**

differ

defer

ego

ago

awkward

occurred

person

percent

Results

Candidates	scores
1	8
2	8
3	6
4	8
5	8
6	8
7	8
8	8
9	6
10	8

trochaic: STRONG weak

differ

ego

awkward

person

iambic: weak STRONG

defer

ago

occurred

percent

Lesson plan 24

Topic: Polysyllabic words.

Objective: Participants should be able to assign stress to polysyllabic words.

Relevant Previous Knowledge: Participants have been taught stress marking on disyllabic words.

Teaching Learning materials. Created by the researcher.

Evaluation: Provide the stress pattern of the following polysyllabic words

ENergy
Operate
Organizer
meMORial
aSSUMption
caNAdian
employEE
japanESE
volunTEER
deVELOp

Result: **Polysyllabic words.**

Participants	scores
1	10
2	10
3	9
4	10
5	10
6	10
7	10
8	10
9	8
10	10

Lesson plan 25

Topic: stress pattern

Objective: Participants should be able to assign stress based on the given syllable notation.

Relevant Previous Knowledge: Participants have been taught stress marking on words.

Teaching Learning materials. Created by the researcher.

Evaluation: Provide words based on the following stress pattern.

Words	Stress patterns
1	1/1
2	1/2
3	2/2
4	1/3
5	2/3
6	3/3

Lesson plan 26

Topic: Derivation prefix

Objective: Participants should be able to syllabify the given words.

Relevant Previous Knowledge: Participants have been taught syllabification.

Teaching Learning materials. Created by the researcher.

Evaluation: syllabify the following words by the use of syllable notation

1. immoral
2. dishonest
3. illegal
4. disloyal
5. immature
6. reinvent
7. unreliable
8. reliable.

The participants were made to understand the following:

- 3-.-2: immoral; dishonest; illegal; disloyal (derived from 2-.-1 roots)
- 3-.-3: immature; reinvent (derived from 2-.-2 roots)
- 5-.-3: unreliable (derived from a 4-.-2 root).

Lesson plan 27

Topic: Dealing with the dropping of consonant phoneme in cluster

Objective: Participants should be able to pronounce consonants cluster.

Relevant Previous Knowledge: Participants have been taught consonants articulation.

Teaching Learning materials. Created by the researcher.

Evaluation: Pronounce the following words.

Results: dealing with consonants deletion

Participants	Before treatment	After Treatment
1	0	5
	0	5
3	0	4
4	3	10
5	2	10
6	1	10
7	0	6
8	0	5
9	0	4
10	0	6

Lesson plan 28

Topic: Identification of syllable boundaries using dot

Objective: Participants should be able to identify syllable boundaries of the given words by using dot (.)

Relevant Previous Knowledge: Participants have been taught syllables.

- IV. **Activities.** Scanning from left to right, identify the vowels in the word, and project a syllable node for them.
- V. For each syllable node, link to a consonant to the left of the vowel if any
- VI. Then for each syllable node, link to a consonant to the right of vowel if any.

Teaching Learning materials. Created by the researcher.

Evaluation: Use dot (.) to represent the syllable boundaries of the following words:

7. Mama
8. founder
9. better
10. Apology
11. Abnormal
12. Syllable

Result:

Participants	Scores
1	6
	6
3	5
4	6
5	6
6	6
7	6
8	6
9	5
10	6

Remarks: Successful

Lesson plan 29

Topic: Identification of syllable boundaries using C and V

Objective: Participants should be able to identify syllable boundaries of the given words by using C for consonant and V for vowels

Relevant Previous Knowledge: Participants have been taught syllables boundaries using dot.

Activities. Use C and the V to mark the syllable boundaries of the following words:

Teaching Learning materials. Created by the researcher.

Evaluation: Use C and V to represent the syllable boundaries of the following words:

Abnormal
Incidental
Ability
Acquisition
Understand

Result:

Participants	Scores
1	5
	5
3	5
4	5
5	5
6	5
7	5
8	5
9	5
10	5

Remarks: Successful

Lesson plan 30

Topic: Naming of syllable constituents

Objective: Participants should be able to name the various syllable boundaries of the given words

Relevant Previous Knowledge: Participants have been taught syllables boundaries using dot and C & V.

Activities. The participants were taught the various names of syllables: onset , nucleus and coda

Teaching Learning materials. Created by the researcher.

Evaluation: Consider the following monosyllabic words and answer the following questions for each word.

What is the nucleus?

What is the onset?

What is the coda?

Milk

Street

Wealth

man

Train

Result:

Participants	Scores
1	5
	5
3	5
4	5
5	5
6	5
7	5
8	5
9	5
10	5

Remarks: successful

Lesson plan 31

Topic: hierarchical analysis

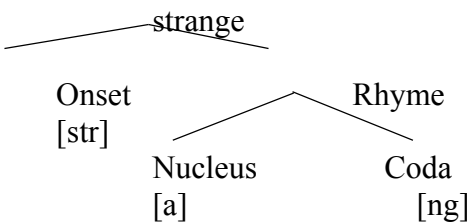
Objective: Participants should be able to use a tree drawing style to explain the internal structure of syllable margin

Relevant Previous Knowledge: Participants have been taught syllables boundaries using dot and C & V.

Activities. The participants were introduced to a tree drawing style to explain the internal structure of syllable margin. They were taught that in tree drawing every segment of a syllable takes one node. They were reminded that diphthongs count as one V slot, and affricates count as one C slot.

Teaching Learning materials. Created by the researcher.

Evaluation: Use the hierarchical analysis below to represent the given words. The first one has been done for you.



Strange
Killed
Love
Be
Cool
At
Neat
Change
Teeth
Man

Results

Participants	Scores
1	10
	10
3	10
4	10
5	10
6	10
7	10
8	10
9	10
10	10

Remarks: Successful.

Lesson plan 32:

Topic: Pronunciation of ‘extra’

Objective: Participants should appropriately pronounce the word ‘extra’

Relevant Previous Knowledge: Participants have been taught syllables boundaries.

Activities. The participants were introduced to the pronunciation of ‘extra’. The word was chosen because according to the literature, it is one of the difficult words in syllabification. They were taught the various possible pronunciation according the Roach (1991):

6. e.kstrə
7. ek.strə
8. eks.trə
9. ekst.rə
10. ekstr.ə

Teaching Learning materials. Created by the researcher.

Evaluation: Pronounce “extra”

Results of pronunciation

Participan ts	Pre instructio n	Post instructio n	Delayed Post instructio n
P1	es.ti.rə	eks.trə	eks.trə
P2	es.ti.rə	eks.trə	eks.trə
P3	eks.ti.rə	ekst.rə	ekst.rə
P4	es.ti.rə	eks.trə	eks.trə
P5	es.ti.rə	eks.trə	eks.trə
P6	es.ti.rə	eks.trə	eks.trə
P7	es.ti.rə	eks.trə	eks.trə
P8	es.ti.rə	eks.trə	eks.trə
P9	eks.ti.rə	ekst.rə	ekst.rə
P10	e.kis.ti.rə	ekst.rə	ekst.rə

Results of performance

Participan ts	Pre instructio n	Post instructio n	Delayed Post instructio n
P1	✗	✓	✓
P2	✗	✓	✓
P3	✗	✓	✓
P4	✗	✓	✓
P5	✗	✓	✓
P6	✗	✓	✓
P7	✗	✓	✓
P8	✗	✓	✓
P9	✗	✓	✓
P10	✗	✓	✓

Remarks: Successful

Lesson plan: 33

Topic: Treating dentals in syllable margins

Objective: Participants should appropriately pronounce dentals sounds in onset and coda positions.

Relevant Previous Knowledge: Participants have been taught various types of syllables boundaries.

Activities. The participants were taken through the revision exercise on pronunciation of dental sounds.

Teaching Learning materials. Created by the researcher.

Evaluation: Pronounce the following the words:

bath
bank
tank
meet
walked
talked
washed
booked
banged

Results:

Words	Before	After
bath	baf	bath
bank	bank	bank
tank	tank	tank
meet	mi:t	mi:t
walked	wokd/wok	wokt
talked	tok/tolkd	tolkd
washed	wos/was	wos
booked	buk/bokd	bokt
banged	bang/bang	bangd

Remarks: successful

Lesson Plan: 34

Topic: Categories of margin

Objective: Participants should be able to provide the names of various types of syllables boundaries.

Relevant Previous Knowledge: Participants have been taught the names of various types of syllables boundaries.

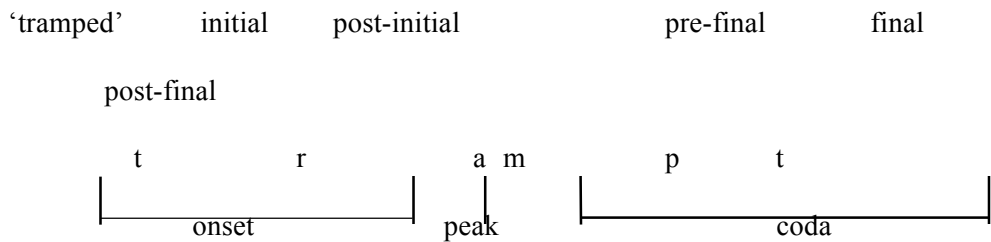
Activities. Participants were taken through the structure of Onset and Coda. They were made to understand the following:

10. Onset can take a maximum of three consonants.
11. The first consonant in the onset is called pre-initial and it is always represented by /s/ if available.
12. The second consonant in the onset is called initial and normally most English consonants can represent the initial position.
13. The third consonant in the onset is called post-initial and the following consonants can occupy the post initial position /l/, /r/, /w/ and /j/.
14. Coda can take maximum of four consonants.
15. The first is the pre-final consonants (/m/, /n/, /ŋ/, /l/, /s/)
16. The second is the final consonants (most consonants in English)
17. The third and fourth are post-final consonants (/s/, /z/, /t/, /d/, /θ/)

Example: strengths /streŋθs

Teaching Learning materials. Created by the researcher.

Evaluation: Use the analysis of the word ‘tramped’ given below as a model to analyze the structure of the following monosyllable words:



squashed
tenths
spree
tempt
asked

Results

Participants	Score (5)
P1	5
P2	5
P3	5
P4	5
P5	5
P6	5
P7	5
P8	5
P9	5
P10	5

Remarks: Successful

Creation of checklist

Right from the beginning, I created a check list for the participants to write words they wrongly pronounced. The following were the words that ran through all their lists.

Participants	How I should say it?	How did I say it?	What was my mistake?
1. Speech	Speech (1 syllable)	Sipeechi (3 syllables)	Inserting vowel between the first two consonants/ adding vowel at the end to create another syllable
2. Sport	Sport(1 syllable)	Support (2 syllables)	Inserting vowel between the first two consonants
3. Strong	Strong(1	Surong	Inserting vowel

	syllable)	(2 syllables)	between the first two consonants and deleting the second consonants
4. Post	Post (1 syllable)	pos(1 syllable)	Deleting the final consonant
5. First	First (1 syllable)	firs(1 syllable)	Deleting the final consonant
6. Test	Test (1 syllable)	tes(1 syllable)	Deleting the final consonant
7. Kiosk	kiosk(1 syllable)	kios(1 syllable)	Deleting the final consonant
8. Ask	ask(1 syllable)	ask(1 syllable)	Deleting the final consonant

Responses

14th/Feb/17

Pronounce and group the following words: heed, hid, sheep, heed, bit, feel, sit, seat, under the vowels belows:

/I/	/i:/
heed x	hid x
sit ✓	seat ✓
heart x	bit x
Feel x	fill x
ship ✓	sheep ship

P(3) (Pre)

4/10

22nd/Feb/17

P(3) (letter)

/I/	/I:/
hid ✓	Heed x
sit ✓	Seat x
bet bit ✓	Beed x
Feel x	Feel x
ship ✓	sheep ✓

9/10

7th/Feb/17

P(3) (delayed)

/I/	/I:/
hid ✓	Heed x
sit ✓	Seat x
bit ✓	heed x

fil ✓	Feel ✓
ship ✓	sheep ✓

10/10

15th February, 2017

Pronounce and categorise the following words (cut, man, fan, bank, bread, farm, palm, calm, market, feather) under the vowels below:

P₂ (Pro)

/æ/	/ɑ:/
Farm ✓	Cut ✓
palm ✓	Man ✓
calm ✓	Bread ✓
Fan ✓	Feather ✓
market ✓	Bank ✓



18th February, 2017

P₂ (A Fiber)

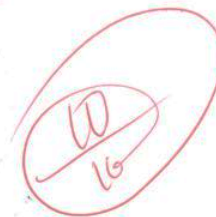
/æ/	/ɑ:/
Cut ✓	Palm ✓
man ✓	Farm ✓
calm ✓	Bank ✓
Fan ✓	Father ✓
bank ✓	market ✓



7th March, 2017

P₂ (delayed)

/æ/	/ɑ:/
Cut ✓	palm ✓
Man ✓	Farm ✓
Bread ✓	market ✓
Fan ✓	Feather ✓
Bank ✓	calm ✓



1.

P 9

13TH FEBRUARY, 2017

Pronounce and categorise the following words (Cat, man, fan, bank, bad, farm, palm, calm, market, father) under the vowels below:

P 9 (Pre)

/æ/	/ɑ:/
farm x	Cat x
palm x	Man x
Father x	Bad x
fan ✓	market
Calm x	Bank x

2
10

20TH FEBRUARY, 2017

P 9 (after)

/æ/	/ɑ:/
Cat ✓	Palm ✓
man ✓	farm ✓
Calm x	Bank
Bank ✓	Father ✓
bank ✓	market

9
16

7TH FEBRUARY, 2017

P 9 (delayed)

/æ/	/ɑ:/
Cat ✓	Palm ✓
Man ✓	Farm ✓
Bad ✓	calm ✓
fan ✓	Father ✓
Bad ✓	Bank ✓
Market ✓	Bad ✓

10
16

8TH FEBRUARY, 2017

Pronounce and put the following words (honour, spot, got, dog, court, store, talk, fought, sport, raw) under the vowels below:

Pio (Pre)

/b/	/ɔ:/
Store ✓	Honour ✗
Talk ✗	Sport ✓
Sport ✓	Dog ✗
Fought ✗	Court ✓
	Got ✗
	Raw ✓

2/10

22ND FEBRUARY, 2017

Pio (after)

/b/	/ɔ:/
Honour ✓	Store ✓
Spot ✓	Fought ✓
Dog ✓	Sport ✓
Talk ✗	Court ✓
Raw ✗	
Got ✓	

8/10

4TH MARCH, 2017

Pio (delayed)

/b/	/ɔ:/
Honour ✓	store ✓
Sport ✓	Store fought ✓
Dog ✓	Fought sport ✓
Got ✓	Sport Court ✓
	Court

r	raw
	Talk

10/10

17TH FEBRUARY, 2017

Pronounce and group the following words under the vowels below:
book, look, put, ~~push~~ push, full, pull, pool, lose, fool, cool) under the appropriate vowels

Pw (Pre)

/ʊ/	/u:/
book ✓	Put ✓
cool ✗	Push ✗
pool ✗	Put ✗
lose ✗	Full ✗
pull ✓	look ✗

2/10

24TH FEBRUARY, 2017

Pw (after)

/ʊ/	/u:/
Put ✓	Book ✗
Push ✓	Look ✗
Pool ✗	Fool ✓
Full ✓	Loose ✓
Pull ✓	Cool ✗

7/10

P(10) (delayed)

9TH MARCH, 2017

/ʊ/	/u:/
Put ✓	cool ✓
Push ✓	pool ✓
Look ✓	lose ✓
Book ✓	fool ✓

Pull ✓	
Full ✓	

10/10

20th February, 2014

Silent words

P2

1. Know ✓
- 2) Knife ✓
- 2) debt ✓
- 4) Knob ✓
- 5) Knight ✓
- 6) Knew ✓
- 7) knee ✓
- 8) knelt ✓
9. ?
- 10) ?



Observe the following pairs of words and provide minimal pairs for each word: bin, knit, bit, pull, full, pill. 21st FEBRUARY, 2017.

Minimal pairs.

Pa.

- 1) bit → bin ✓
- 2) pit → knit ✓
- 3) sit → bit ✓
- 4) push - pull ✓
- 5) ~~bull~~ full ✓
- 6) full - pill ✓



17th February, 2017
 Observe the following diagram and provide a word to each column. Note that the words should start from one to five syllables

Pg (Pre)

1 Syllable	a				
2) Syllables	be	at			
3) Syllables	the	men	boy		
4) Syllables	mama	elate	seat	heart	
5) Syllables	great	shall	water	fight	spring

24th February, 2017

Pg (Post)

1) Syllable	me				
2) Syllables	ma	ma			
3) Syllables	sy	ble	ble		
4) Syllables	acti	ti	ui	ty	
5) Syllables					

5th March, 2017

Pg (Delayed)

1 Syllable	goal				
2) Syllables	man	go			
3) Syllables	ba	na	na		
4) Syllables	po	ti	ti	cal	
5) Syllables					

PS (Pre)

16th February, 2017

Listen to the pronunciation of the following words and group them under nouns or verbs.

Nouns

CON-vert ✓
con-VERT ✓
deCREASE ✓
de-FAULT ✓

Verbs

DE-crease ✓
DE-fault ✓
DES-ert ✓
CON-trast ✓



PS (Post)

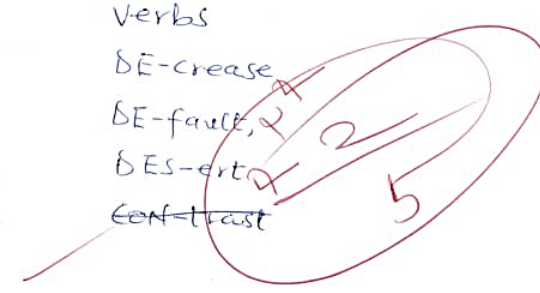
21st February, 2017

Nouns

CON-vert ✓
con-VERT ✓
deCREASE ✓
de-FAULT ✓
CON-trast ✓

Verbs

DE-crease ✓
DE-fault ✓
DES-ert ✓
CON-trast ✓



PS (Delayed)

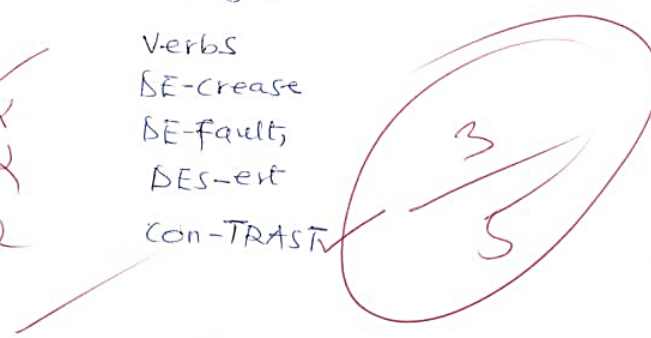
8th March, 2017

Nouns

CON-vert ✓
con-VERT ✓
de-CREASE ✓
de-FAULT ✓
CON-trast ✓

Verbs

DE-crease ✓
DE-fault ✓
DES-ert ✓
CON-TRAST ✓



Read the following sentences and put the stress on the right syllables. The first one has been done for you.

Sentences	stressed syllable	Part of speech.
1. a) What an <u>insult</u> !	1st	Noun ✓
b) Don't <u>insult</u> me!	2nd	Verb ✓
2. a) Round up the <u>suspects</u> .	1st	Noun ✓
b) I think he <u>suspects</u> you.	2nd	Verb ✓
3. a) Do I need a <u>permit</u> ?	1st	Noun ✓
b) We don't <u>permit</u> that.	2nd	Verb ✓
4. a) Yaw is a drug <u>addict</u> .	1st	Noun ✓
b) Don't <u>addict</u> yourself	2nd	Verb ✓
5. a) The two boys are in <u>conflict</u>	2nd 1st	Noun ✓
b) The stories <u>conflict</u> each other	2nd	Noun Verb ✓

Listen to the following sentences and identify which Piece^{of} information is being highlighted.

Provide words that are opposite in meaning.

- ① If it is not good, it is bad.
- ② If it ^{is} not small, it is big.
- ③ Don't turn the volume up, turn it slow.
- ④ If it is not the best, it is good.
- ⑤ If a student ~~it~~ is not bright, he is dull.
- ⑥ If the food is not hot, it is cold.
- ⑦ If the room is dark, there is no lighter.
- ⑧ If the clothes are not wet, they are dry.
- ⑨ The work will be done from dusk to dawn.
- ⑩ If the story is not true, it is false.

8

10

Arrange the following words under strong-weak and weak-strong.

- ① differ
- ② defer
- ③ ego
- ④ ago
- ⑤ awkward
- ⑥ Occurred
- ⑦ Person
- ⑧ Percent

trochaic: STRONG weak		iambic: weak STRONG
differ ✓		defer ✓
ego ✓		ago ✓
awkward ✓		occurred ✓
Person ✓		Percent ✓

PS 8th March, 2017
Provide the stress pattern of the following Polysyllabic words:

- | | |
|--------------|-------|
| ① Energy | 1/3 ✓ |
| ② Operate | 1/3 ✓ |
| ③ Organizer | 1/3 ✓ |
| ④ Memorial | 2/3 ✓ |
| ⑤ Assumption | 2/3 ✓ |
| ⑥ Canadian | 2/3 ✓ |
| ⑦ Employee | 3/3 ✓ |
| ⑧ Japanese | 3/3 ✓ |
| ⑨ Volunteer | 3/3 ✓ |
| ⑩ Develop | 2/3 ✓ |



PS 21st February, 2017.
Unscripted activity: stress pattern: Provide words based on the following stress pattern: 1/1, 1/2, 2/2, 1/3, 2/3, 3/3.

- | | |
|-------------|---|
| ① Eat | ✓ |
| ② Center | ✓ |
| ③ Decide | ✓ |
| ④ Critical | ✓ |
| ⑤ Financial | ✓ |
| ⑥ Employee | ✓ |



syllabify the following words by the use of syllable notation. 4th March, 2017.

- ① immoral - 3-2
- ② dishonest - 3-2
- ③ illegal 3-2
- ④ disloyal 3-2
- ⑤ immature 3-3
- ⑥ reinvent 3-3
- ⑦ unreliable 5-3
- ⑧ reliable 4-3

P5
Dealing with the dropping of consonant phoneme in cluster
Pronounce the following words. 8th March, 2017.

Words	Before treatment	After treatment
Post	Pos X	Post //
Past	Pas 2	Past //
First	firs 2	first //
Fist	fist ✓	fist //
Best	best ✓	best //
Test	test ✓	test //
Kiosk	kios 2	kiosk //
Ask	as 2	ask //
Task	tas 2	task //
Socks	sos 2	soks. //

17TH/02/11:
Use dot (.) to represent the Syllable boundaries of the following words:

P3 (before)

1. Mama
- 2) ~~Sounds~~ Sounds
- 3) better
- 4) Apology
- 5) Abnormal
- 6) Syllable

ma.ma ✓
Foun·der ✓
be·tter ✓
a·p·lo·gy ✓
a·bi·nor·mal ✓
Sy·lla·ble ✓



P3 (after)

23RD/02/11:

7. Mama
- 8) Sounds
- 9) better
- 10) Apology
- 11) Abnormal
- 12) Syllable

ma·ma ✓
Foun·der ✓
be·tter ✓
a·po·lo·gy ✓
ab·nor·mal ✓
sy·lla·ble ✓



PS

22nd February, 2017

Identification of syllable boundaries using C and V.

Use C and V to mark the syllable boundaries of the following words:

Abnormal

VC.CVC.CVC ✓

Incidental

VC.CV.CVC.CVC ✓

Ability

V.CV.CV.CV ✓

Acquisition

V.CCVV.CV.CVC ✓

Understand

VC.CVC.CCVCC ✓



PS

24th February, 2017.

Naming of Syllable Constituents

Consider the following monosyllabic words and answer the following questions for each word.

What is the nucleus?

What is the onset?

What is the coda?

Milk

street

wealth

man

Train

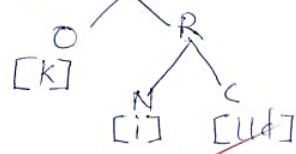
Word	onset	Nucleus	coda
Milk	m	i	lk
street	str	ee	t
Wealth	w	ea	lth
Train	tr	ai	n
Man	m	a	n

use the hierarchical analysis below to represent the given words.

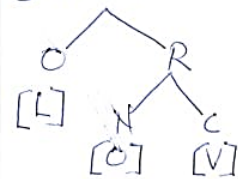
① strange



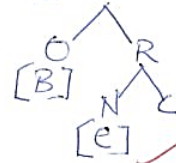
② killed



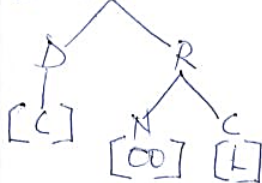
③ love



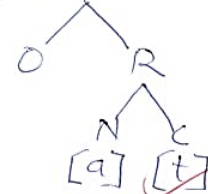
④ Be



⑤ cool



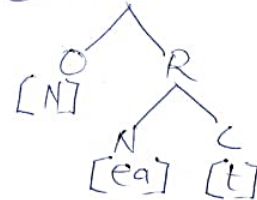
⑥ At



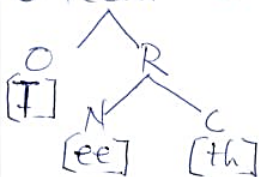
⑦ change



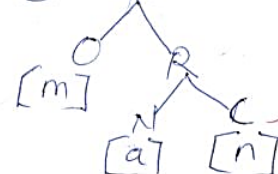
⑧ neat



⑨ Teeth

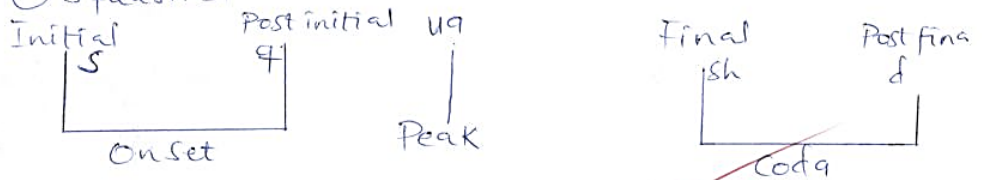


⑩ man

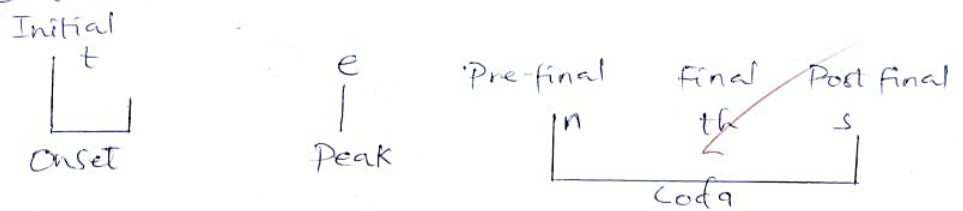


22nd February, 2017.
 use the analysis of the word "stamped" given below as a model to analyze the structure of the following monosyllabic words.

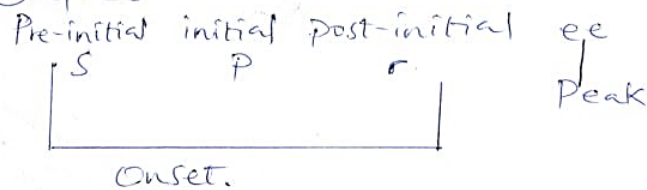
① Squashed



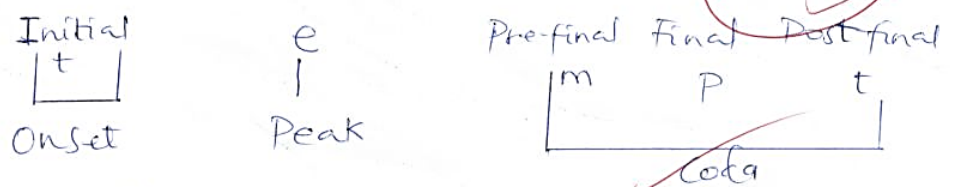
② tenths



③ spree



④ tempt



⑤ asked

