



**Faculty of Language and Communication**

**AN ANALYSIS OF PRONUNCIATION ERRORS IN ENGLISH  
AMONG KELANTANESE MALAY STUDENTS**

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by

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## **LIST OF ABBREVIATIONS**

ME	Malaysian English
SLA	Second Language Acquisition
RP	Received Pronounce
CA	Contrastive Analysis
EA	Error Analysis
KD	Kelantan Dialect
L1	First Language
L2	Second Language
C	Consonant
V	Vowel

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## ABSTRACT

This study aims to describe the phonological features of Kelantanese Malay students' pronunciation in English according to Contrastive Analysis (CA) and Error Analysis (EA) with the prediction that these errors are neither coincidental nor randomly made and to see the similarities and differences between the Kelantanese students' pronunciation and receive pronunciation are analysed together with the type of pronunciation errors made by the students, and the formulation of phonological rules. In order to test subjects' pronunciation, speech samples involving words and a short passage were recorded . Data were collected and analysed based on phonemic transcriptions in the Cambridge English Pronouncing Dictionary. By using Contrastive Analysis, the sound systems of English and Kelantan dialect were compared to see the potential difficulties of English pronunciation among twenty Kelantanese Malay subjects who are secondary school students who are at the age of seventeen. Apart from that, based on Error Analysis, the pronunciation errors of subjects were further classified into seven categories which were substitution, deletion, insertion, glottalization, monophthongization and vowel lengthening. The results of the study show the areas of difficulty on the pronunciation of particular phonemes for the Kelantanese students. The findings help to provide a clear understanding of the common characteristics of pronunciation errors made by the Kelantanese students.

# CHAPTER 1

## INTRODUCTION

### 1.1 Background of the Study

English is considered as a universal language in which most people from different backgrounds, cultures and languages interact. In the context of Malaysia, most Malaysians speak English as a second language after their native language (Malay language, Mandarin, Tamil, etc.). English plays its roles in Malaysia as one of the languages of education and a popular communication device, although it is not the primary language (Latiff, 2002). Thirusanku and Yunus (2014) also stressed that English is a key in education and is widely used as a language of business where it has been an asset for the achievement of (country) development and the acquisition of knowledge on the part of individuals. According to Venugopal (2000), English language learning in Malaysia has begun to improve socio-economic mobility and employment at times. Nevertheless, since independence, the performance of English in Malaysia has been expanded not exclusively to the instrument of socio-political collaboration and cooperation, yet in addition to the worldwide medium of information interaction and exchange.

Studies have shown that Malaysian English (ME) is spoken in an assortment of accents from the more ethnically and geographically marked accents (Pillai, 2017). The type of English utilized in Malaysia has experienced a significant change since its introduction in the 18th century. There are numerous varieties of English in Malaysia, ranging from the more conversational to the standard type of English, spoken in a wide range of different local accents and used in a various of social expert setting. Malaysian English is indeed a diverse entity used by Malaysians of various ethnic, geographical and educational backgrounds, with fluctuating degrees of proficiency (Pillai, Mohd Don, Knowles & Tang, 2010). The degree to which English is used in daily communication often depends on factors such as geographical location and occupation. All these factors culminated in different sub-varieties of Malaysian English being influenced by different accents, vocabulary and morphological, and syntactic variations.

In the spoken variety of the ME, in the pronunciation of the speakers, the influence of the native language may occur. This is because of the distinction between vocal and consonant sounds between the native language and the English language (Wan, 2007). Malaysian children are generally bilingual or multilingual, regardless of their ethnic background since Malaysia comprises people of different socio-cultural and linguistic backgrounds (Kho, 2011). The use of common languages by multilingual learners must be viewed as important to account for their phonological acquisition. This is because, Phoon (2010) mentions that the mixed use of at least two languages by multilingual students with regards to Malaysia will add to impedance in the phonological systems of all these languages. Over the past year, the issue of native language acts as a role in the target language has been controversial. From the past researches, many researchers believe that the native language of the learner influences the pronunciation of the target language. Since Malaysia varies in its states, it has different types of accents. Speakers with a strong dialect accent may have an influence on their native language when speaking English. Therefore, hitting the standard pronunciation or known as received pronunciation (RP) is difficult, particularly for those who are never leaving their place.

In order to identify the errors of pronunciation, Contrastive Analysis (CA) is used in comparing the structure of an individual's first language with the target language structure (Gao, 2005). CA takes place in the similarities of the two languages, while the differences arise the learning difficulties of the learners. Thus, the target language of learners to influence the native language can be either positive or negative. Meanwhile, according to Darus and Subramanian (2009), Error Analysis (EA) is another assemble of linguistic research in reflecting mistakes that learners produce (as cited in Kho, 2011) (pg. 18). It helps educators anticipate and learn the difficulties in speech encountered by the pupils. Systematic review of errors made by language learners makes it possible to identify areas that need to be improved in teaching. The use of EA can therefore contribute to the effective learning and teaching of new languages effectively. In addition, it is crucial for the learners themselves to become more aware of the differences between their native language and their second language during the learning process.

Some studies have been done on Malay influences in English pronunciation (i.e.; Kho, 2011; Tan, 1997 & Yazid & Zaiyidi, 2017). However, very few have looked into the influence of the varying Malay dialects. So far, with regard to Kelantan dialect (KD), only few studies have investigated pronunciation errors in adolescents involving certain consonants phonemes in English (Latiff, 2002) and vowels phonemes in English (Ismail, 1993). In learning a second language, Malaysian students may experience any difficulties with English sounds due to intervention in their native language (Phoon, 2010). It is hard for them to deliver certain English sounds which do not exist in Kelantan Malay Dialect. For instance, some English consonants do not exist in Kelantan Malay dialect; /f/, /v/, /θ/, /ð/, etc. (Latiff, 2002). Hence, the pronunciation errors such as substitution, deletion, insertion, etc. in both vowels and consonants may occur. Thus, the present study will be focusing on the pronunciation of both English consonants and vowels phonemes among school students in Kelantan. Past study only concerned with certain consonant phonemes only, which were /t/, /d/, /θ/, and /ð/. Thus, the findings are only limited for how the subjects pronounced these four consonants and other deviations found in other consonants sounds were ignored. Therefore, it is crucial to identify accurate phonemes in words for reading, pronouncing and spelling (Moats, 2000; Scarborough & Brady, 2002). This study is important as a strategy for understanding how Kelantanese students actually learn the language and as one of the potential alternatives to prevent students from repeatedly making mistakes specifically in the area of pronunciation.

## **1.2 Problem Statement**

In second language pronunciation, numerous studies suggest that it is very difficult to overcome pronunciation with a foreign accent after puberty (Loup, Boustagui, El Tigi & Moselle, 1994). Spoken language is a mixture of sounds. Languages vary in the sound system, so when a bilingual person speaks a foreign language, he or she may have problems because he or she cannot reproduce sounds that a native speaker will have no problems with the language (Chitravelu et. al 1995). Therefore, Kelantanese speakers who learn English as their second language may experience some difficulties with pronunciation. Kelantanese students who speak English and are at the same time utilizing KD as their first language on a daily basis will thus demonstrate the interference pattern arising from all these languages.

Some studies regarding Malay influences on English specifically in pronunciation areas have been conducted (i.e.; Kho, 2011; Tan, 1997 & Yazid & Zaiyidi,2017). In the area of pronunciation, there has been very limited research focusing on KD. The research conducted in this area to date often focuses on certain consonants such as /t/, /d/, /θ/, and /ð/ (Latiff, 2002). Previous studies also compared two groups between the students who are aware of the knowledge of phonology and students who have no exposure of phonology which might be inaccurate in terms of data collection due to the knowledge exposure. Therefore, this study will identify and examine the influence of KD on the pronunciation of both consonant and vowel phonemes in English among secondary school students. The main concern of this study is to identify difficulties made by the students to approximate the consonants and vowels sound in English according to Received Pronunciation (RP).

### **1.3 Aim and Objectives of the Study**

The aim of this is to identify pronunciation errors of English made by Kelantanese Malay school students.

Meanwhile, the objectives of this research are to :

1. Identify the similarities and differences between the pronunciation of consonants and vowels phonemes in English spoken by Kelantanese Malay school students and Received Pronunciation (RP).
2. Examine the pronunciation errors in consonants and vowels made by the Kelantanese school students..
3. To formulate phonological rules to represent common pronunciation errors made by the Kelantanese students.

## **1.4 Research Questions**

Based on the problems and purposes stated in the previous sections, here are two research questions that are attempted to address in this study:

1. What are the common characteristics of pronunciation errors made by the Kelantanese Malay school students?
2. What are the common pronunciation errors found in Kelantanese Malay students' pronunciation of English?
3. Does the Kelantan Malay dialect influence the English pronunciation of secondary school students?

## **1.5 Definition of Operational Terms**

### **15.1 Pronunciation Errors**

An incorrect way of speaking a word, particularly as is not acknowledged or not understood. The pronunciation does not suit the received pronunciation (RP) (Singh, 2017). For the purpose of this study, pronunciation errors refer to a wrong way of speaking a word in RP.

### **1.5.2 Kelantanese School Students**

In the context of this study, Kelantanese school students refer to those who are enrolled in secondary school (Sekolah Menengah Kebangsaan) in Kelantan and are between thirteen to seventeen years of age.

### **1.5.3 Consonant**

Is a speech sounds produced with some confinement or closure in the vocal tract that block the progression of air from the lungs (Fromkin et al., 2018).

### **1.5.4 Vowel**

Is a speech sound which is generally higher in intensity, longer in duration, lower in frequency and the result of slower movement in the articulation (Perkell et al., 2004).

### **1.5.5 Received Pronunciation (RP)**

The most thoroughly described accent in English. According to Roach (2001), RP is a name given to the accent used as a standard to describe British English pronunciation for most of the 20th century and still in use.

### **1.5.6 Pronunciation Errors**

In this study, errors in pronunciation refers refers to the error made by the subjects which are different from RP and it can involve error of substitution, deletion, insertion, glottalization, monophthongization, nasalization, & vowel lengthening (Latif, 1993; Kho,2011)

### **1.5.7 Vowel Lengthening**

In the context of this study, vowel lengthening is referring to two types which are long vowels and short vowels. Long Vowel occurs when short [a],[ε] and [ɔ] short appears in an open syllable (the vowel followed by a single consonant followed by a vowel), the vowel is lengthened while short vowel occurs in syllables ended by two or more consonants (not including ld, nd, or other that trigger lengthening)

### **1.5.8 Phonological Rule**

Smith (1995) defined phonological rules as mappings between two different levels of sound representation in this case, the abstract or underlying level and the surface level. For example, there is a phonological rule of English saying that voiceless stop such as /b/ is aspirated when it occurs at the beginning of a word (i.e.; bin).

## **1.6 Significance of Study**

This study is an attempt to determine the phonological characteristics of English consonants and vowels as pronounced by Kelantanese school students in general. It also seeks to look at similarities and differences in pronunciation between school students. Studies regarding KD interference in the area of pronunciation of English have been done by Latiff (2002) where she described the phonological features of Kelantanese students' pronunciation of English consonant in finding the similarities and differences between the Kelantanese students' pronunciation among those who have learnt phonetics and phonology subject and those who

have not. Based on her study, the focus was consonant phonemes only which were /t/, /d/, /θ/, and /ð/. While Ismi (1993) on the other hand analyzed the errors done in the pronunciation of English by the Kelantanese Malays in aspects of insertion, substitution, nasalization, monophthongization, vowel reduction and deletion rules. Thus, the theoretical significance of the present study will identify for other deviations found in other consonants sounds ignored based on the past research as past study only concerned with certain consonant phonemes only where the findings are only limited for how the subjects pronounced these four consonants and study that covers on vowels errors done by the students are very limited.

The results of this study are expected to help English language teachers gain insight into effective teaching strategies to help their students master English pronunciation. The CA of the student's mother tongue and the target language can significantly promote the learning of the second language (SLA) simpler. In addition, EA focuses more on the mistakes made among students. All at once can provide a clear understanding of how the students actually learn a second language. Apart from that, in order to overcome the possible mistakes that can be made by students, teachers should be mindful that most of their students have difficulties in pronouncing some English words. Therefore, CA and EA approaches will be helpful in recognizing and describing the difficulties that learners face in order to prevent students from repeatedly making mistakes. It is also hoped that the findings of the study will help students to understand the phonological differences between their native language and their target languages. It is essential for students to compare the two languages on their own (Zhang & Yin, 2009) and understand the rules of the new languages during the learning process.

## **CHAPTER 2**

### **LITERATURE REVIEW**

English is a lingua franca whose status has surpassed many others as an international language for business and education as a common means of communication among people with different mother tongue. According to Levis (2005) and Pickering (2006), the instructional strategy for English training has also changed to a higher focus on intelligibility instead of neighbourhood resemblance. Jenkins (2000) mentions that English as a universal language which has demonstrated phonological issues and regularly clarify for the insufficient communication worldwide settings as well as in intra-national settings due to the failure of pronouncing words well and precisely. The importance of learning a second language (L2) has been evaluated time and time again and it has become a controversial issue in the acquisition of a second language. Ellis (1990, p. 297) stated that in addition to the developments in language transfer research, linguists have realized that the first language (L1) is a "major factor in SLA". There are confirmations of L1 impacts at each part of L2 students' interlanguage: talk, dictionary, semantics, sentence structure, morphology (counting bound morphemes), phonetics, and phonology.

#### **2.1 Contrastive Analysis (CA) & Error Analysis (EA)**

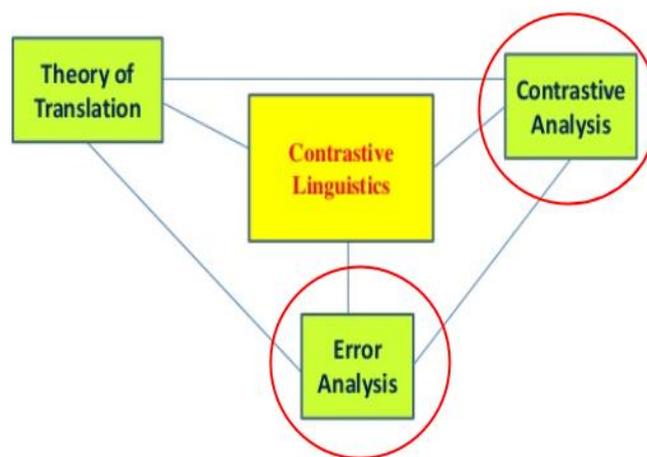
Contrastive Analysis (CA) was initially created by Charles C. Fries in 1945 and extended and explained by Robert Lado (1957). This analysis is efficient to look at the similarities and contrasts between the native language and the target language as a framework. It also helps to predict the troubles that students might experience in learning another language. According to Chang (1996) CA has been a piece of a second language teaching method and accepts the similarities of the two languages and will encourage learning through the distinctions will build the students' difficulties to learn (Tseng, 2008) (as cited in Kho, 2011) (pg. 16).

As indicated by Moulton (1962), CA is utilized by characterizing segmental mistakes in the student phonology into four classifications to be specific, phonemics, phonetic, allophonic and distributional. While Stockwell and Bowen (1965) stated that CA in addition able to recognize and predict the difficulty between native language and the target language systems in contrast. One problem with the version of the above CA variant is that they were

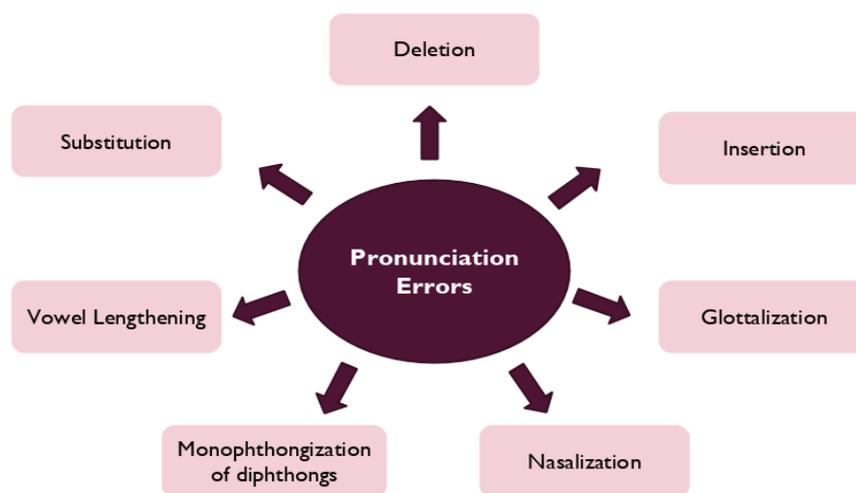
based entirely on L1 and target language definitions and not all on any representation or "error study" of the language that the L2 student actually produced.

Later on, Error Analysis (EA) was introduced as another part of second language teaching method. EA was introduced by Stephen Pit Corder in 1960s as far as Second Language Acquisition (SLA). This analysis is an option in contrast to CA, a methodology influenced by behaviourism through which applied language specialists tried to utilize the contrasts between the students' native and target language to predict errors. EA showed that CA was not able to predict an incredible greater part of errors (Corder, 1967). He also points out that there are different stages of EA research: sample selection, error detection, error description, error interpretation and error assessment.

EA is firmly identified with the study in focusing of error treatment in language learning and educating. Corder (1967) mentions that these days, the investigation of mistakes is significant in showing technique. As indicated by Weireesh (1991), EA is a significant guide in the learning process. The creation of errors was utilized as a gadget to distinguish and clarify challenges looked by students. He continued to state that EA filled in as a dependable perception to plan a therapeutic showing technique. EA is considered as "the checking and examination of student's language" Candling (2001) (as cited in Darus & Subramaniam)(pg. 488) .



*Figure 1: Contrastive Analysis. Adopted from Bellahcen (2017)*



(Latif, 2002; Kho, 2011)

*Figure 2: Example of pronunciation errors that can be identified through EA.*

## **2.2 Error pronunciation studies of English by second language speakers**

This section reviews some studies which other researchers had conducted on similar topics in investigating the error pronunciation of English by second language speakers. These studies are used to support the present study as reference while conducting the present study.

In learning English, pronunciation is likely the hardest ability in English to be learned. It requires some investment and exertion of time and effort to improve. Non-native students find some difficulties in learning articulation. At the point when an infant begins to talk, he tunes in his mother tongue naturally who has been utilized to talk his first language since adolescence. As per Ramelan (1994) states that mother tongue has been profoundly embedded in him as a major aspect of his habits. Moreover, he mentions that, it will be hard for the individual to change the way to deliver the foreign sounds. It is justifiable since the development of his speech organs in such an approach to deliver the speech sound of his own language (as cited in Fatimah, Indawati & Mardiana)(pg. 2-3).

There are various studies concentrating on error pronunciation of English by second language speakers. Firstly, Centerman and Krausz (2011) have analyzed the common L2 pronunciation errors among Swedish students in learning English. In this investigation, Centerman and Krausz (2011) have utilized CA and EA as their framework to distinguish the student's pronunciation errors. The point of this investigation set up on pronunciation errors that occurred in the L2 language classroom. This study employs a quantitative study where two public secondary schools in southern Sweden has took place which involved 52 students (26 from Eslöv and 26 from Lund) on their 8th grade classes. Apart from that, a smaller group was chosen specifically with advanced, average and weak students to collect a range of language competences during reading and pronunciation tests. The result of this study shows that the fact that the Swedish students have difficulties in pronouncing speech sounds in initial position, therefore making it difficult and often resulting in negative transfer from the L1.

Next, a study conducted by Navebrahim (2012) focuses on the pronunciation of English among Persian as their second language. This study also used CA hypothesis as the framework in order to obtain the results. This study is focusing on the pronunciation strengths and weakness of English phonological system among Persian. This research is focusing on the consonants and reduction of vowels to compare and contrast the similarities and differences between the two languages. In this study, Navebrahim (2012) found that during the production of English sounds, there were some influence of Farsi's speaker native language in their phonological characteristics. This study shows that the learners of English will encounter phonological difficulties from an individual's inability to pronounce certain sounds which are absent in the Parsi sound system such as /w, θ , ð, l/. Thus, the influence of native language affects the pronunciation of L2 has been proved in this study.

Next, Al-Saidat (2010) examines a phonological analysis among Arabian who learn English as their second language. This study employs CA as the framework. This study aims to analyze the English phonotactics in the English of Arab learners of English as their L2 and to determine the types of pronunciation difficulties which leads to errors in pronunciation. This study also determines to identify, analyze and classify errors of insertions made by Arab learners of English in the area of pronunciation. This study specifically investigates the types of declusterization process found in their interlanguage. This study took place at two public universities where 24 students were participated in this study. As the criteria of sampling, student speaks Ammani dialect of Arabic as their first language were chosen. Researcher used

IPA symbols to compare the utterances of the L1 and L2 and ask two native speakers of English to evaluate the pronunciation. The results of this study show that Arab learners of English unintentionally insert an anaptyctic vowel into the beginning as well as into the coda of certain English syllables. The findings of this study show that the main reason for declusterization occur among Arabia is due to the influence of the mother tongue. Apart from that, some new techniques in teaching and learning L2 syllable structure method was introduced by the researcher.

Seddighi (2012) looked at pronunciation errors through L1 transfer between Iran's English First Learner (EFL) by analyzing phonological differences between Persian and English. In order to explain various pronunciation problems faced by Iranian students, this research contrasts the segmental and supra-segmental features of both languages. In this study, 30 EFL learners were selected randomly from three different levels of beginning, intermediate, and advanced students who enrolled for the Fall term in 2008 at a private institute. In order to evaluate the error pronunciation of the subjects, 2 instruments were used by using 40 words and 8 sentences. The pronunciation errors were analyzed by means of a read-only task and followed by an interview. The results of this study revealed that EFL learners experience numerous problems in phonetic and phonological aspects. Seddighi (2002) mentions that these errors occur resulting from two basic factors, namely variations between the mother tongue and the target language, and secondly, conflict with the mother tongue.

While Ali (2013) on the other hand has examined the pronunciation problems of English vowels made by Sudanese. This study aims to provide an experimental evidence of certain linguistic causes of English-speaking production errors with a Sudanese Arabic accent. Ten students of Sudanese University who speak Arabic as their first language have been selected as the subject of this research. Researcher also concentrated on the subjects who were on semi-final learners who had attained a high level of English and were therefore expected to perform better. The results showed that most of the variations occurred in the region of the central and the back vowels of English. Nevertheless, some of the English-speaking lax vowels did not show any serious problems, perhaps because there was interaction between English and Arabic long / short vowels. In addition, the production of errors found in this study followed a number of directions that indicate that Sudanese learners of English had difficulty learning English Vowels. The major linguistic causes of these development errors were conflict with the mother tongue and lack of English information.

Another case study was conducted by Riney and Andersn-Hsieh (1993) in their paper which was focusing on Japanese pronunciation of English. In order to inform the L2 pronunciation educator and researcher of the types of descriptions that have been published so far, this paper reviews the literature on Japanese pronunciation of English (JPE) to make a comparison and contrast some of the different descriptions. This study also aims to identify research and pedagogical problems and issues while suggesting procedures for future research that may contribute to a better and useful description of JPE in the present. Researchers have analyzed the L2 pronunciation from three different theoretical perspectives: contrastive analysis, error analysis, and interlanguage by briefly reviewing the adult acquisition. Four genres of literature were used in describing JPE as the instrument which were from : (a) EFL student textbooks in Japan, (b) ESL teacher reference books outside of Japan, (c) broad and impressionistic scholarly descriptions, and (d) empirical studies. Then, the data were classified under four categories which were suprasegmentals, syllable structure and phonotactics, segments and features, and articulatory setting. Researchers also summarized the current issue and priorities with regard to L2 pronunciation research and pedagogy with some reference to descriptions of JPE and propose some recommendations for further research.

### **2.3 Error Pronunciation of English by Malay speakers**

In the background of Malaysia, numerous studies with regard on the pronunciation of errors in English by Malay speakers have been conducted. One of the researchers, Tan (1997), explores the effect of the mother tongue in the pronunciation of English sounds among Malay speakers. The purpose of this study is to identify the existence of such a transition in Malaysian ESL speakers in the production of /i / and /I/ English vowels. CA was used as a basis for this study. This research employs an empirical research to find out the contrast between the pronunciation of the two vocal sounds through an experiment and a questionnaire. The population of this research was taken randomly from eight faculties in Universiti Malaysia Sarawak (UNIMAS) which consisted of 25 subjects (12 females and 13 males). The subjects were all Malay ESL speakers and they ranged from first to final year undergraduates of UNIMAS. This study employs two instruments which were the reading text and the questionnaire in order to obtain the data. In order to contribute to the research problem, the oral readings were observed in terms of stress, rhythm and intonation compared to the model oral reading and were noted for their differences. The outcome of this study shows that most of Malay students do not

distinguish between the long and short vowel sounds due to the lack of long /i/ sound in their mother tongue (Malay). Tan (1993) concurs that the main reason for this is due to the regular utilization of their first language and the amount of knowledge they have in Malay. Apart from that, this is not only because English is used only rarely, as it does not play a major role in their daily contact.

Yazid and Zaiyadi (2017) also conducted a study on pronunciation problems among Malay students. The study was conducted to identify the most common errors made by students at Kolej Universiti Islam Antarabangsa Selangor (KUIS) and to determine whether the students were able to speak English correctly. In order to collect the data, two instruments were used, namely the pronunciation test and the questionnaire. The pronunciation test was used to identify the error made by the students while the questionnaire was used to collect background information from the subjects. 30 diploma students in semester 2 from different programmes who were taking English II (NDWU1052) were randomly chosen as subjects in this study where 10 were male and 20 were female. In this study, the pronunciation errors were diagnosed into six categories which following the research by Shak et al (2016) namely, fricative consonants, plosive consonants, affricate consonants, silent consonants, pure short vowels and pure long vowels. The results revealed that the students have difficulty in pronouncing words in English and the most common pronunciation errors among the students are fricatives accompanied by pure short vowels and diphthongs.

Next study on pronunciation errors was conducted by Kho (2011) in which she investigates pronunciation errors made in English by Chinese undergraduates. Kho used CA and EA as its framework for this study. This study consisted of six Chinese students comprised of three males and three females. The subjects were chosen based on the similar background. In detecting the error pronunciation made by the students, the researcher used speech samples with 20 common words and 8 sentences reading the pronunciation of the subjects. Data were analyzed by comparing pronunciation of subjects with phonemic transcription in the Cambridge English Pronouncing Dictionary as guidance. The researcher also compared the sound systems of English, Mandarin Chinese and Malay using CA to see the potential difficulties experienced by students in seeing the influence of L1 on L2. On the other hand, the pronunciation errors of subjects were diagnosed into categories based on EA to detect errors such as vowel lengthening and vowel shortening, substitution, omission of consonant, simplification of diphthongs, glottalization of final stop, confusion between bilabial stops,

insertion and devoicing. The outcome of this study shows that Malaysian Chinese students appear to pronounce words in English incorrectly due to the influence of both Mandarin and Malay. Kho (2011) revealed that the main problems faced by Malaysian students while pronouncing words in English was from fricative consonants.

Another study in analyzing pronunciation errors was carried out by Shak, Lee and Stephen (2016). The aim of this study is to identify specific sounds that are commonly mispronounced by low oral proficiency students in Malaysia. In this research, a qualitative approach was used to obtain data where two instruments were used to gather background information from the participants through a questionnaire and the other was a reading aloud task based on the reading text, *The North Wind and the Sun*. In this study, twelve students were selected by way of purposive sampling, where they were classified as low oral proficiency students by their English course instructor. The identification of low oral proficiency students is based on their Malaysian University English Test (MUET) results and the instructor's classroom interaction experience with the students. All the chosen participants were those who ranked band 2 and below. Based on the findings of this research, students tend to the mispronounced vowels (pure short vowels, pure long vowels and diphthongs), consonants (plosives, fricatives and affricates), silent letters, and the '-ed' type.

#### **2.4 Error Pronunciation of English by Kelantanese Malay speakers**

With regards of English pronunciation errors study, numerous studies on Malay influences in English pronunciation (e.g. Tan, 1997; Kho, 2011; Yazid & Zaiyadi, 2017) have been carried out. However, very few have examined the influence of the varying Malay dialects. So far, with regards to Kelantanese dialect, only a few studies have investigated pronunciation errors in adolescents involving certain consonant phonemes and vowels phonemes in English.

A study conducted by Latiff (2002) centers around the interference of Kelantan Malay Dialect among six Kelantanese undergraduates was made. This study used CA as the framework in comparing the sound systems of Kelantanese Malay English and Standard English (RP). The study aim is to describe the phonological features of Kelantanese students' pronunciation of English consonants. This study anyway was concerning only into 4 selected consonant phonemes; /t/, /d/, /θ/ and /ð/ including the alveolar and dental production system.

This study is an endeavor to discover the similarities and differences between Kelantanese undergraduates' way to express the individuals who have learned phonetics and phonology and the individuals who have not. The subjects of this study comprised of three students of TESL in their third year while another three from a course which was not related to linguistics. The instrument used in order to obtain the data was by engaging the subjects in spontaneous narration activity with some thematic questions prepared by the researcher for the data elicitation. Latiff (2002) demonstrated that there are a few errors in the way to express English consonants made by the undergraduates specifically; /t/, /d/, /θ/ and /ð/. She likewise makes reference to that the aftereffects of the investigation happens because of the impact of the undergraduates' first language which is Kelantan dialect.

Aside from that, Ismi Arif Ismail (1993) has considered a phonological feature in Kelantanese Malay's way in pronouncing English where this investigation shows the interference of the first language in second language phonology. His discoveries by one way or another clarified that the native dialect is the significant interference factor, however it is also assisted by the factor of exposure to the target language. He additionally recognized a few mistakes done in the way to pronounce English by the Kelantanese Malays. They are errors under the inclusion rules, mistakes under the substitution rules, errors under the nasalization rules, errors under the monophthongization rules, errors under the vowel reduction rules, and errors under the deletion rules (as referred to in Latiff, 2002)

## **2.5 Summary**

The previous studies have shown that there are some gaps of knowledge in analyzing pronunciation errors among second language learners especially study that related to Kelantanese speakers. In a previous study conducted by Latiff (2002), she only concerned on four consonant phonemes only which were /t/, /d/, /θ/ and /ð/ where the result of this study is limited for how the subjects produces these sounds while the other consonants were ignored. Other than that, she also focusing on two different groups who are learning phonology and who are not. Comparing two different groups between those who were exposed and have no exposure of phonology might be inaccurate in terms of data collection and will change the variable of the subjects which may result differently in the findings. Latiff (2002) only focusing on six subjects in order to carry out her study to obtain the data. With only six subjects participating in this study, the production of the same words as the other words that consist of the phonemes could not be expected and there might be no variation of words produce among

the subjects. Apart from that, Latiff (2002) also only comparing the similarities and differences of pronunciation errors made by the subject without focusing more on the specific errors made by the subjects such as insertion, deletion, substitution and etc. This study also only used one instrument where the subjects were engaging in spontaneous activity. Since one instrument was used, there might be insufficiency and inaccurate of the data because there might be some mistakes done by the subjects during the activity due to other factors such as nervous and etc. While study conducted by Ismi (1993), he only focuses on vowels phonemes only.

Thus, in this present study, this study aims to study the interference of Kelantan Malay dialect on the English pronunciation of Kelantanese learners. In this study, researcher will look into the errors pronunciation made by the Kelantanese school students in both consonants and vowels phonemes to see the variation of errors made by the students. This is due to the past researches only concerned on several phonemes where the findings are only limited for how the subjects pronounced these certain consonants and other deviations found in other consonants sounds were ignored. Apart from that, study covers on vowels errors done by the students are very limited. The present study also will use a large number of subjects to obtain the data to see the varieties of deviation of errors made by the subjects and using a constant number of subjects regarding to the gender which are ten males and ten females. Other than that, to obtain a better result, the present research will use three instruments in order to obtain the data which are reading 20 common words, reading a short passage and engaging with spontaneous activity in order to obtain an authentic data. This is because Groff (1975) mention that, it is clear and there are inherent limitations in this cue system to its successful use for this purpose when analyzing pronunciation errors while using words, while reading sentences make the subjects feel more relaxed and unaware what words were being analyzed (Kho, 2011) and learners typically produce a different set of errors in their spontaneously generated utterances when attempting to communicate than their practice (Corder, 1974).

## CHAPTER 3

### METHODOLOGY

This chapter will clarify how this analysis is performed with a view to gathering the relevant data as well as explaining all the procedures involved in the conduct of the research. The definition of the subject, the measuring instruments and the methods of data analysis used will also be discussed.

#### **3.1 Research Design**

This research will be carried out by examining the errors made by the Kelantan students in pronouncing English words. For this reason, qualitative method is a significant tool to be used for this study in order to obtain reliable data for better results. According to Sofaer (1999), qualitative methods are quite useful in the creation or production of concepts or conceptual frameworks or, to put it another way, in the generation of hypotheses.

In this study, Contrastive Analysis (CA) and Error Analysis (EA) will be used to identify the pronunciation errors made by the Kelantanese students. Kho (2011) believes that CA is a good starting point for investigating why second-language learners make systematic pronunciation errors while using EA can help them learn and teach new languages effectively. Past studies which analyzing errors in pronunciation also used CA and EA to guide the researcher as their framework (see Kho, 2011; Latiff 2002; Tse & Yau, 2014).

#### **3.2 Sample & Sampling**

For the purpose of this study, purposive sampling was used by the researcher in order to select the samples. The purposive sampling technique is a type of non-probability sampling that is most efficient when it is appropriate to study a specific cultural field with knowledgeable experts. It may also be used for qualitative and quantitative analysis techniques (Tangco, 2007). Therefore, in order to focus on the specific characteristics of the population with some consideration, purposive sampling is appropriate for this research.

The study selected twenty Kelantanese school students of SMK Tanah Merah as subjects. In order to achieve a consistent gender variable, there is an equal number in the selection of subjects where the subjects consist of ten males and ten females. Apart from that, subjects were chosen based on the following criteria: (1) subjects speak the same native language as their mother tongue which is Kelantan Malay dialect (do not use English as a first language at home), (2) subjects are aged 17 years old and they haven't had any experience studying or living outside of Kelantan. Subjects also have no physical impairment (visual, hearing, speaking, etc.). Such requirements are crucial in order to analyze the phonological aspects of their English pronunciation.

### **3.3 Instruments**

For recording purposes, a digital voice recorder (SONY ICD PX333) was used while Iphone 8 voice recorder was kept at hand for contingency purposes. In order to collect the data, a list of 20 common words and a same short passage were given to each subject. Based on the previous study involving a study of this nature, previous researchers used and suggested different types of data elicitation techniques. For instance, (a) reading of words in isolation (Wilson and Mollegard, 1981); (Hammerly, 1982); (b) reading of preset isolated sentences (Johansson, 1973); (Schneiderman, et al., 1988); (c) reading of prescribed passages (Nababan, 1981); (Altenberg and Vago, 1983); (d) engaging in spontaneous narration, for example, telling a story, giving an account or describing an experience, etc. (Tarone, 1980); (Hammerly, 1982) as cited in (Latiff, 2002). However, in this research, only techniques (a) and (c) were used. Groff (1975) believes that it is clear and there are inherent limitations in this cue system to its successful use for this purpose while Kho (2011) mention that reading sentences make the subjects feel more relaxed and unaware what words are being analyzed.

The data collected using these methods will be useful for the analysis of the English consonants spoken by the Kelantan students. In addition, it is important and relevant for the identification of similarities and differences that can be identified between the pronunciation of consonants and the vowels sound of Kelantan students speaking in English and the standard English sound systems.

### **Example of common word lists (Kho, 2011);**

1. Vision
2. Theory
3. Spoon
4. Eight
5. Pocket

### **Example of short passage (Binturki, 2001);**

She walked into the nave. Fear was all around her. The nape of her neck was frozen as ice. She managed to escape the cop but she couldn't outrun the bear. It all started on an early morning in a small town. On that day, after she turned on the stove, Lucy took out a piece of veal and tomato paste from the refrigerator. She felt a rare pain in her back. She went to see a doctor.

### **3.4 Data Collection Procedures**

The recording session were conducted during school time occasions to match the convenience of the subjects. The dates and locations were told in advance about the purpose of the recording and what is required of them.

Subjects were told to calm down and relax and difficult questions were not be posed. Subjects were asked to familiarize themselves with the words and phrases given by reading them once before the recording process begins. The same list of words and short passages prepared by the researcher were given to each subject as a guide for each subject to participate during the interview session.

The words prepared in the lists (mostly common words to ensure the subject feel more comfortable and unaware what words are being analyzed) was given first. Next, in order to make sure to diagnose enough subjects' pronunciation errors, the subjects are also required to read another short passage due to the list of 20 words are insufficient to detect the pronunciation errors among the subjects. Throughout the session, the researcher would track all the recordings to ensure that the sound level was well balanced during the recordings.

Recording session was conducted individually in a quiet classroom and took approximately fifteen to twenty minutes for each subject. Each subject required to be read at a normal rate. Thus, the recording were repeated several times until the pronunciation errors are noted. Researcher used the Cambridge English Pronouncing Dictionary for the guidance of the phonemic transcripts.

### 3.5 Data Analysis Procedures

A list of 20 words and a short passage were given to the twenty subjects. Those words and sentences were designed to diagnose pronunciation errors of the twenty subjects. Based on subjects' native language (KD), their pronunciation errors were diagnosed into relevant categories seven categories which are substitution, deletion, insertion, glottalization, monophthongization, nasalization and vowel lengthening.

In order to identify the similarities and differences between the pronunciation of consonants and vowels phonemes of the English spoken by Kelantanese school students and Standard English based on the first objectives, researcher listens and analyses the recording made repeatedly until the errors made by the students noted. After that, data were written down following with transcribing the data. Researcher used Cambridge English Pronouncing Dictionary as a reference to compare the errors made in order to show the transcription from RP and Kelantan English (KE). Then, the data were compared as follows :

PRONUNCIATION ERRORS ANALYSIS				
Words		Transcription		Subject
		Dictionary Transcription	As recorded	
1.	Pocket	/pɒkɪt/	/pəkeʔ/	1,2,3,4,7,16
			/pɒket/	5,6,9,11,12,14,15,18,20

			/pəkit/	8, 10,13,17,19
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Table 1 : Received Pronunciation and Kelantan English Pronunciation Errors Analysis

Next, in examining the errors made by the Kelantanese school students in the area of pronunciation, the data recorded will be played several times. Next, the data will be transcribed and will be classified according to its error. The errors made by the subject will be classified according to the errors of substitution, deletion, insertion, glottalization, monophthongization, nasalization and vowel lengthening in consonants and vowels as following. Then, the data will be compared as follows :

PRONUNCIATION ERRORS ANALYSIS					
Words		Transcription		Subject	Description/Cause/ Origin of Error
		Dictionary Transcription	As recorded		
1.	vision	/vɪʒən/	/vɪʒəŋ/	4,6,9,14,20	-Substitution of /n/ with /ŋ/ (Influence of KD)
			/fɪʒəŋ/	3,12	-Substitution of /v/ with /d/ -Substitution of /n/ with /ŋ/ (Influence of KD)
			/vi:ʒən/	1,8,15	-Lengthening of vowel /ɪ/

Table 2: Origin of Pronunciation Errors Analysis

Finally, in order to formulate phonological rules that represent common pronunciation errors made by Kelantan students, the researcher will use the steps from the second objective to formulate rules on the basis of errors made. Common pronunciation errors (obj 2) will be represented by using phonological. Then, the data will be analyzed as follows :

Example :

## 1.Substitution of /n/ with /ŋ/

‘vision’ /vɪʒəŋ/

- /n/ /ŋ/
- n > ŋ\_#

## 2.Deletion of /ɪ/

‘silk’ /sɪlk/

- /ɪ/ Ø
- /ɪ/ > Ø\_k

**CHAPTER 4**  
**RESULTS AND ANALYSIS**

**4.1 Results**

CA is used to compare the natural language of the learner and the target language (Kelantanese Malay Dialect and English language) in order to determine the features of pronunciation errors. Table 4.2 Pronunciation Error Analysis of Kelantanese Malay Speaker shows the pronunciation errors made by the Kelantanese Malay speakers in this study.

**4.2 Table 3 : Pronunciation Error Analysis of Kelantanese Malay Speakers**

<b>PRONUNCIATION ERRORS ANALYSIS</b>				
<b>Words</b>	<b>Transcription</b>		<b>Subject</b>	<b>Description of the Error</b>
	<b>Dictionary Transcription</b>	<b>As recorded</b>		
vison	vɪʒən	/visiən/	2,4,8,9	-substitution of /ʒ/ and /s/
		/vɪʒəŋ/	1,6,19,20	-Substitution of /n/ and /ŋ/
		/vision/	11,16	-substitution of /ʒ/ and /s/ -substitution of /ə/ and /o/
		/fɪzən/	10	-substitution of /v/ and /f/ -substitution of /ʒ/ and /z/

silk	sɪlk	/sɪk/	2,3,6,7,9,13,19,20	-omission of /l/ in final consonant cluster
		/sɪlɪk/	8,19	-Insertion of /ɪ/ in final consonant cluster
theory	θɪəri	/tɪəri/	2,4,5,9,11,12,13,14,16,17,18,19,20	- Substitution of /θ/ with /t/ - Substitution of /ə/ with /o/ -Influence of Malay word [teori]
		/dɪəri/	3,8	- Substitution of /θ/ with /d/ - Substitution of /ə/ with /ɔ/
Spoon	spu:n	/spun/	2,4,5,6,11,14,17,18,20	-Shortening of vowel /u:/
		/spuŋ/	3,8	-Shortening of vowel /u:/ - Substitution of /n/ with /ŋ/ -nasalization
		/spɔn/	6,7,12,13,15,16,19	- Substitution of /u/ with /ɔ/
Eight	eɪt	/eɪʔ/	1,3, 5,6, 12	-Substitution of /t/ with /ʔ/ -glottalization
Pocket	pɒkɪt	/pɒkeʔ/	1,2,3,4,9,12,13,16,19,20	-substitution of /ɒ/ with /ɔ/ -substitution of /ɪ/ with /e/

				-substitution of /t/ with /ʔ/ -glottalization
		/pʊkət/	5,6,7,11,14,15,17,18	-substitution of /ɒ/ with /ɔ/ -substitution of /ɪ/ with /e/
Sofa	səʊfə	/sɔfə/	1	-monophthongization of /əʊ/ with /ɔ/
		/sofa/	2,3,4,5,6,7,8,9,10,11,12,13,14,16,17,18,19,20	-monophthongization of /əʊ/ with /o/
Advertisement	ədʋɜ:tismənt	/ədʋɜ:tismən/	1,15,19,20	-shortening of vowel /ɜ:/ -omission of t//
		/ədʋɜrtismən/	2,3	-insertion of /r/ -omission of t//
		/ədʋɜtaismən/ /	4,5,11,17	-insertion of vowel /a/ -omission of /t/
		/ədʋritæzemen/ n/	6	-insertion of /r/ -substitution of /ɜ/ with /i/ -substitution of /i/ with /æ/ -substitution of /s/ with /z/ -insertion of /e/ -omission of /t/
		/ədʋɜrtismənt/ /	8	-shortening of vowel /ɜ:/ -insertion of /r/

		/ədʋɜrtisəmə n/	9	-insertion of /ɪ/ -insertion of /ə/ -omission of /t/ -shortening of vowel /ɜ:/
Film	film	/fɪləm/	1,17,18,20	-insertion of vowel /ə/
		/fɪm/	3,9, 10, 12	-omission of consonant /l/
		/fɪl/	7,8, 13,16,19	-omission of consonant /m/
Phenomenon	fɪnɒmɪnən	/penomenən/	2	-substitution of /f/ with /p/
	fənɒmɪnən			-substitution of /ɪ/ with /e/ -substitution of /ɒ/ with /o/ -substitution of /ɪ/ with /e/ -substitution of /ə/ with /ɔ/
		/fenomena/	12	-substitution of /ɪ/ with /e/ -substitution of /ɒ/ with /o/ -substitution of /ɪ/ with /e/ -substitution of /ə/ with /a/ -omission of consonant /n/
		/fənɒmənəŋ/	9,14	-substitution of /ɒ/ with /o/

				-substitution of /ɪ/ with /e/ -substitution of /n/ with /ŋ/ -nasalization
		/fenəmenən/	17,20	-substitution of /ɪ/ with /ə/ -substitution of /ɒ/ with /ə/ -substitution of /ɪ/ with /e/ -substitution of /ə/ with /ɔ/
String	strɪŋ	/stəriŋ/	15 ,16,17,20	-insertion of vowel /ə/ -nasalization
		/striŋ/	9	-omission of consonant /r/ - nasalization
		/sterɪ/	19	-insertion of vowel /e/ -omission of consonant /ŋ/
Birthday	bɜ:θdeɪ	/bɜhdeɪ/	1, 13, 14,19	-substitution of /θ/ with /h/ -shortening of vowel /ɜ:/
		/bɜfdeɪ/	3,4,5,6, 8, 9, 11, 12,15,20	-substitution of /θ/ with /f/ -shortening of vowel /ɜ:/
Kamera	kæmrə	/kemerə/	1,4,10,11,17,18,19,20	-substitution of /æ/ with /e/ -insertion of vowel /ə/
		/kamerə/	2,12,13,14	-substitution of /æ/ with /a/

				-insertion of vowel /ə/
		/kemrə/	5,6,16	-substitution of /æ/ with /e/
		/kemera/	8,9,15	-substitution of /æ/ with /e/ -insertion of vowel /e/
Ticket	tɪkɪt	/tɪkeʔ/	1,2,3,4,6,8,9,1 0,12,13,14,16, 17,18,19,20	-substitution of /ɪ/ with /e/ -Substitution of /t/ with /ʔ/ -glottalization
		/tɪket/	5,11,15	-substitution of /ɪ/ with /e/
Vase	va:z	/vəɪs/	2,3,4,5,6,8,9,1 1,12,14	-substitution of /a:/ with consonant cluster /əɪ/ -substitution of /z/ with /s/
		/ves/	7,17,20	-substitution of /a:/ with consonant cluster /e/ -substitution of /z/ with /s/
		/væs/	16,18,19	-substitution of /a:/ with consonant cluster /æ/ -substitution of /z/ with /s/
Geography	dʒɔgrəfi dʒɪɔgrəfi	/dʒiɔgrafi/	1,4,13	-substitution of /ɒ/ with /o/ -substitution of /ə/ with /a/
		/giɔgrafi/	2,3,5,6,7,8,9,1 0,11,12,14,15, 18,19,20	-substitution of /dʒ/ with /g/

				-substitution of /ɒ/ with /o/ -substitution of /ə/ with /a/
Realistic	riəlɪstɪk	/riəlɪstɪk/	4,5 ,8,9,11,12,14, 15,17,18,19,2 0	-Substitution of /ə/ with /a/
		/rɪlɪstɪk/	2	-omission of vowel /ə/
		/relɪstɪk/	7,13,16	-substitution of vowel cluster /iə/ with /e/
		/riəlɪtɪ/	10,	-influence of Malay
she	ʃi:	/ʃi/	1,2,3,4,5,6,7,8 ,9,10,11,12,13 ,14,16,17,18, 19,20	-shortening of vowel /i:/
walked	wɔ:kt	/wɔlkəd/	1,3,13,16,20	-substitution of /ɔ:/ with /ə/ -insertion of consonant /l/ -substitution of /t/ with /e/ and /d/
		/wɔlkəd/	15	-shortening of vowel /ɔ:/ -substitution of /t/ with /e/ and /d/
		/wɔk/	2,4,7,8,9,11,1 4,17,18	-shortening of vowel /ɔ:/ -omission of consonant /t/
the	ðə ði:	/də/	1,2,3,4,5,6,7,8 ,9,10,11,12,13 ,14,15,16,17,1 8,19,20	-substitution of /ð/ with /d/

nave	nerv	/neh/	13	-monophthongization of /eɪ/ with /e/ -substitution of /v/ with /h/
fear	fiər	/fis/	1	-monophthongization of /ɪə/ with /ɪ/ -substitution of /r/ with /s/
		/fir/	4,6,7,8,16	-monophthongization of /ɪə/ with /ɪ/
		/fer/	9,10,11,19,20	-monophthongization of /ɪə/ with /e/
around	əraʊnd	/əraʊn/	1,3,4,5,7,8,9,11,12,13,14,17,18,19,20	-omission of consonant /d/
		/əɾɔn/	6	-monophthongization of /aʊ/ with /ɔ/ -omission of consonant /d/
		/ərun/	10	-monophthongization of /aʊ/ with /u/ -omission of consonant /d/
nape	neɪp	/nes/	1	-monophthongization of /eɪ/ with /e/ -substitution of /p/ with /s/
		/neɪf/	3,4	-substitution of /p/ with /f/ -nasalization
		/nɒp/	6,7,8,16	-monophthongization of /eɪ/ with /ɒ/

		/nɪp/	15	-monophthongization of /eɪ/ with /ɪ/
of	əv	/ɔf/	1,2,3,4,5,6,7,8 ,9,10,11,12,13 ,14,15,16,17,1 8,19,20	-substitution of /ə/ with /ɔ/ -substitution of /v/ with /f/
neck	nek	/neʔ/	2,16,17	-substitution of /k/ with /ʔ/ -glottalization
		/niʔ/	3,6,10,14,19	-substitution of /e/ with /i/ -substitution of /k/ with /ʔ/ -glottalization
frozen	frəʊzən	/frəʊŋ/	1,13,16,19	-monophthongization of /əʊ/ with /ɔ/ -substitution of /n/ with /ŋ/ -nasalization
		/frəʊzən/	2,3,4,5,6,7,8,9 ,10,11,12,14,1 5,17,18,20	-monophthongization of /əʊ/ with /ɔ/
managed	'mæɪnɪdʒ	/menedʒe/	1,8	-substitution of /æ/ with /e/ -substitution of /ɪ/ with /e/ -insertion of vowel /e/
escape	ɪskeɪp	/eskɪp/	1,4,5,8	-substitution of /ɪ/ with /e/ -monophthongization of /eɪ/ with /e/
		/eskep/	2,3,13	-substitution of /ɪ/ with /e/

				-monophthongization of /eɪ/ with /e/
		/eskʌp/	7	-monophthongization of /eɪ/ with /ʌ/
cop	kɒp	/tʃɒp/	2,15,19,20	-substitution of /k/ with /tʃ/ -substitution of /ɒ/ with /ɔ/
		/tʃʊp/	13	-substitution of /k/ with /tʃ/ -substitution of /ɒ/ with /u/
but	bʌt	/bʌʔ/	7,8,13,14,16,17,18	-substitution of /t/ with /ʔ/ -glottalization
couldn't	kʊdənt	/kʊdənt/	11,14,17	-omission of consonant /t/
		/kʊd/	2,3,4,9,12	-omission of /e/, /n/, and /t/
		/kʊdəŋ/	6,7,20	-substitution of consonant clusters /nt/ with /ŋ/ -nasalization
out	aʊt	/aʊʔ/	14,16,17,18,19	-glottalization -substitution of /t/ with /ʔ/
morning	mɔːnɪŋ	/mɔːnɪŋ/	1,2,3,4,5,6,10,11,13,14,15,16,17,18,19	-shortening of vowel /ɔː/
small	smɔːl	/smɔl/	1,2,3,4,5,6,8,9,10,11,12,16,18	-shortening of vowel /ɔː/

that	ðæt	/dæʔ/	2,3,4,5,6,7,8,9 ,10,11,12,13,1 4,15,16,17,18, 19,20	-substitution of /ð/ with /d/ -substitution of /t/ with /ʔ/
after	ɑ:ftər	/ɑftər/	1,2,3,4,5,6,8, 9,10,11,12,13, 14,15,16,17, 18,19	-shortening of vowel /ɑ:/
stove	stəʊv	/stɔf/	4,9,10,16,17	-monophthongization /aʊ/ with /ɔ/ -substitution of /v/ with /f/
Lucy	lu:si	/luki/	1,3,6,10,19	-shortening of vowel /u:/ -substitution of /s/ with /k/
		/lɑki/	12,14,18	-substitution of /u:/ with /ɑ/ -substitution of /s/ with /k/
took	tʊk	/tʊʔ/	1,3,9,13,15,16 ,18,19	-substitution of /k/ with /ʔ/
out	aʊt	/aʊʔ/	1,3,7,13,14,15 ,16,17,18,19	-substitution of /t/ with /ʔ/
paste	peɪst	/peɪs/	2,3,6,8,16,18, 20	-omission of consonant /t/
refrigerator	rɪfrɪdʒəreɪtər	/refrɪdʒəneret ər/	2,16	-substitution of /ɪ/ with /e/ -insertion of /n/ and /e/ -monophthongization of /eɪ/ with /e/
felt	felt	/fil/	1,3,4,5,8,11,1 2	-substitution of /e/ with /i/

				-omission of consonant /t/
pain	pein	/pain/	1,3,7,12,20	-substitution of /a/ with /e/ -nasalization
went	went	/wen/	1,2,5,6,8,9,10, 11,14,16,17,1 8,20	-omission of /t/
doctor	døktər	/døktə/	8,10,13,14,15, 17,19,20	-omission of consonant /r/ -substitution of /ɒ/with /o/

### 4.3 Data Analysis

#### 4.3.1 Interference of Kelantan Dialect on English sounds

In order to consider the errors made in this study, the minimum subjects to considered as error made are as five subjects would produce the error. The common characteristics of pronunciation errors of the subjects resulting from the influence of KD were classified into seven categories :

#### 1. Substitution

Due to the fact that some of the English sounds do not exist in KD, the error of substitution of English sounds occur. In particular the phoneme /ʒ/ was substituted by /s/ and /z/, while phonemes /θ/ and /ð/ were substituted with /t/,/h/,/f/,/r/ and /d/ while phoneme /f/ was substituted with /p/, phoneme /v/ was substituted with /f/, phoneme /k/ was substituted with /tʃ/ and phoneme /f/ sound with /p/.

In KD, the voiced palatal fricative /ʒ/ does not exist. One of the subjects substituted /ʒ/ with /z/ while nine of the subjects substituted phoneme /ʒ/ with /s/ in ‘vision’ /vɪʒən/.

Phonemes /θ/ and /ð/ were substituted with /t/,/h/,/f/,/r/ and /d/ respectively where all the subjects substituted /θ/ with /t/ in ‘theory’ /θɪəri/. Meanwhile in ‘birthday’ /bɜːθdeɪ/, four of the subjects substituted /θ/ with /h/ and /r/ respectively and eleven of the subjects substituted /θ/ with /f/. A significant finding of /ð/ sound was pronounced by all the subjects in ‘the’ /ðə/ and ‘that’ /ðæt/ where /ð/ was substituted with /d/ as in /də/ and /dæt/.

Phoneme /f/ was substituted with /p/ sounds since /f/ sound does not exist in KD. Seven of the subjects substituted /f/ to /p/ in ‘phenomenon’ /fəˈnɒmɪnən/ as /penomenən/ and /penomənən/.

The /v/ phoneme mistake was not made accidentally. The articulated fricative /v/ does not occur in most KD. Therefore, /v/ sound was substituted with /f/ sound in ‘of’ /əv/ by twenty of the subjects while fourteen of the subjects substituted /v/ with /f/ sounds in ‘stove’ /stəʊv/. One of the subjects substituted /v/ with /f/ in ‘veal’ /vi:l/ and ‘vision’ /vɪʒən/ as /fizon/.

Apart from that, phoneme /k/ was substituted with /tʃ/ sound since in Kelantan dialect, /tʃ/ sound is pronounced as /tʃ/ instead of /k/. Four out of twenty subjects pronounced the word ‘cup’ /kʌp/ as /tʃʌp/ while one of the subjects produced /tʃʌp/. Meanwhile, the word ‘Lucy’ /luːsi/ was pronounced as /luki/ by five out of twenty subjects; /laki/ by the other three subjects, and /luk/ by the other one subjects.

Since /f/ sound does not exist in Kelantan dialect, some of the subjects substituted the /f/ sound with /p/. In the word ‘sofa’ /səʊfə/, one out of twenty subjects produced a word /sopa/ due to the Kelantan dialect influence. Moreover, in the word ‘phenomenon’ /fɪnɒmɪnən/, seven out of twenty subjects substituted /f/ sound with /p/ as /ponənmenəŋ/, /penomenən/, /penomənən/, /pinomenə/, /pənomenən/, /pənominən/ and /pionəmen/ which were different from the others.

## **2. Deletion**

In the present study, there were four types of errors which are in final consonant cluster omission, initial of consonant clusters, past tense and contraction. The final consonant clusters were greatly simplified to a single consonant by the subjects. Apart from that, the subjects also

eliminated the final consonant clusters from the words in which all of these do not occur in KD.

Eight of the subjects omitted the /l/ sound in final consonant cluster in ‘silk’/sɪlk/, fifteen of the subjects omitted /t/ sound in ‘advertisement’ /ədʒvɜ:tɪsmənt/, five of the subjects omitted /m/ and four of the subjects omitted /l/ sound in ‘film’ /fɪlm/ while eighteen of the subjects omitted /d/ sound in ‘around’ /əraʊnd/ as in /əraʊn/, /ərɔn/, /ərun/ and /raʊn/ which represent the omission of final consonant clusters. As for the omission of the initial of consonant clusters, five out of the twenty subjects omitted /r/ sound in ‘string’ /strɪŋ/ as /stərɪŋ/ and /steri/.

Apart from that, omission of the past tense also was found in this study. The past tense morpheme was realised as a consonant cluster due to the simplification of the final consonant cluster. The omission of /t/ sound occurred in ‘walked’ /wɔ:kt/ where nine of the subjects had difficulties in pronouncing it as /wɔk/ where there is a final consonant cluster.

Moreover, omission of contraction occurred in ‘couldn’t’ /kʊdənt/ where eight out of twenty subjects omitted the ending sounds as there is no such grammar rule in KD. Three of the subjects produced the word as /kʊdən/ while five of the subjects pronounced it as [kʊd] and two of the subjects pronounced it as /kɔd/.

### **3.Insertion**

The error of insertions were greatly made by the subjects. In this study, the error of insertion was usually made in the first syllable, middle of the syllable or at the end of the syllable and in between consonant clusters as in Malay does not has consonant clusters. Therefore, the subjects tend to insert another vowel which can influence their English pronunciation.

- Two out of the twenty subjects inserted /ɪ/ sound in ‘silk’ /sɪlk/ as /sɪlɪk/ in the final consonant cluster.
- One of the subjects did not pronounce ‘spoon’ /spu:n/ properly by inserting /ə/ sound as in /səpən/.

- Five of the subjects inserted /ə/ in between the final consonant clusters in ‘film’ /film/ as /filəm/ and /filəŋ/.
- Four out of the twenty subjects inserted /ə/ sound in ‘string’ /strɪŋ/ while one of the subjects inserted /e/ in between the consonant cluster as in /stəriŋ/ and /sterɪ/ respectively.
- Six of the subjects added the /ə/ sound while one of the subject added the /i/ sound in between of the consonant cluster in ‘walked’ /wɔ:kt/ as /wələkəd/, /wɔlkəd/ and /wɔlkit/.
- Three out of the twenty subjects inserted /e/, /ə/ and /ai/ sounds after /s/ at the end of the syllable in ‘advertisement’ /ədʋɜ:tismənt/ as in /ədʋritæzemən/, /ədʋɜrtisəmən/ and /ədʋɜrtisaimən/ respectively.
- Nineteen out of the twenty subjects inserted /e/ sound after /m/ in ‘camera’ /kæmrə/ as /kemerə/, /kamerə/, /kəmere/ and /kemera/.
- Four of the subjects inserted /e/ sound while one of the subjects inserted /i/ sound at the end of the sound /dʒ/ in ‘manage’ /mænɪdʒ/.
- In ‘early’ /ɜ:li/, seven out of the twenty subjects inserted /a/ sound as /ɜali/ while nine of the subjects inserted /r/ sound on the first syllable as /ɜrli/. However, one of the subjects has difficulties in pronouncing the word by adding /h/ sound in the initial of the words as /hɜrli/.
- Four of the subjects inserted /r/ sound after the first syllable in ‘morning’ /mɔ:nɪŋ/.
- Two out of the twenty subjects have difficulties in pronouncing ‘refrigerator’ /rɪ'frɪdʒəreɪtər/ by adding /ne/ sounds as /refrɪdʒəneretər/.

#### 4. Glottalization

There have been some recent observations of pronunciation errors of the topics, probably resulting from the influence of the KD. There is also a glottalization of stops /k/ and /t/ in the final syllable in the subject's speech production. In the present analysis, the voiceless stop /k/, /t/, and /p/ were glottalized as /ʔ/.

Example :

- Ten out of the twenty subjects glottalized the word ‘pocket’ /pɒkɪt/ as [pɒkeʔ].
- Sixteen out of the twenty subjects glottalized the word ‘ticket’ /tɪkɪt/ as [tɪkeʔ].

- One of the subjects has a difficulty in pronouncing ‘walked’ /wɔ:kt/ and producing a glottalization as in [wiʔ].
- Three of the subjects glottalized ‘neck’ /nek/ as [neʔ] while five of the subjects glottalized as [niʔ].
- Three out of the twenty subjects glottalized ‘escape’ /ɪskeɪp/ as [eskeɪʔ].
- Seven out of the twenty subjects glottalized the voiceless stop /t/ in ‘but’ /bʌt/ as [bʌʔ].
- Five of the subjects glottalized the /t/ sound in ‘out’ /aʊt/ as [aʊʔ].
- Nineteen out of the twenty subjects glottalized the /t/ sound in ‘that’ /ðæt/ as [dæʔ].
- Eight of the subjects and two of the subjects glottalized the /k/ sound in ‘took’ /tʊk/ as [tʊʔ] and [tʌʔ] respectively.
- Ten out of the twenty subjects glottalized /t/ sound in ‘out’ /aʊt/ as [aʊʔ].
- All of the subjects glottalized the /k/ sound in ‘back’ /bæk/ as [beʔ] and [beiʔ].
- One of the subjects has difficulty in pronouncing the word ‘went’ /went/ and glottalized it as [wɪʔ].

## 5. Monophthongization

Due to the absence of diphthong /eɪ/, /əʊ/, /aʊ/ and /eə/ in KD, the monophthongization of /e/, /a/, /ɒ/, /ɔ/, /o/ and /ɪ/ occur. The subjects replaced the sounds with the closest counterparts due to the difficulties of perceiving the sounds that do not appear in their native language. (Zhang & Yin, 2009).

Three out of the twenty subjects replaced the diphthong /eɪ/ with /e/ in ‘nave’ /nev/. Similarly, two of the subjects replaced /eɪ/ with /e/ and /ɪ/ respectively in ‘nape’ /neɪp/ while four of the subjects substituted /eɪ/ with /ɒ/ as /nɒp/. Meanwhile, in the word ‘escape’ /ɪskeɪp/, four of the subjects substituted diphthong /eɪ/ with /ɪ/ sound while five of the subjects substituted /eɪ/ with /e/. Furthermore, six of the subjects replaced /eɪ/ with /a/ and one of the subjects replaced /eɪ/ with /e/ in ‘paste’ /peɪst/. Two out of the twenty subjects substituted diphthong /eɪ/ with /a/ in ‘pain’ /peɪn/.

All of the subjects has difficulties in pronouncing the word ‘sofa’ /səʊfə/ where the diphthong /əʊ/ was substituted to /ɔ/ and /o/ sounds as /sɔfə/, /sofa/ and /sopa/. Meanwhile, in the word ‘frozen’ /frəʊ.zən/, all of the subjects substituted diphthong /əʊ/ to /ɔ/ sound.

Apart from that, two of the subjects substituted diphthong /aʊ/ with /ɔ/ and /u/ sound in ‘around’ /əraʊnd/ as /ərɔn/ and /ərun/ respectively. Meanwhile, five out of the twenty subjects substituted the diphthong /eə/ with /i/ in ‘rare’ /reər/ while one of the subjects pronounced it as /re and /ri/.

## 6. Nasalization

In KD, the nasalization of (/m/. /n/ and /ŋ/) were widespread in the speech production of the subjects. For examples :

- ‘vision’ /vɪʒən/ was pronounced as /visiəŋ/, /visiən/, /vɪʒən/, /vɪʒəŋ/, /visijən/ and /visiŋ/ by all of the subjects where the vowel before /n/ and /ŋ/ sound experienced nasalization.
- ‘theory’ /θiəri/ was produced as /terəŋ/ by one out of twenty subjects where the /ɔ/ sound experienced nasalization.
- ‘spoon’ /spu:n/ was pronounced as /spəŋ/, /spun/, /spuŋ/, /spən/, /span/ and /səpən/ by all of the subjects where the vowel /ɔ/, /u/ and /a/ experienced nasalization.
- ‘film’ /film/ was pronounced as /filəm/, /fɪlm/, /fim/, /flɪm/ and /fɪləŋ/ by fifteen of the subjects where the vowel before /n/ sound experienced nasalization.
- ‘string’ /striŋ/ was produced as /stəriŋ/, /striŋ /, /striŋ/, /styŋ/ by nineteen of the subjects where the /ɪ/ sound experienced nasalization.
- ‘nave’ /neɪv/ was produced by thirteen of the subjects; /naf/ by the other three subjects; /neh/ and /nep/ by the other two of the subjects where the vowel /eɪ/, /a/ and /e/ experienced nasalization.
- ‘around’ /əraʊnd/ was produced as /əraʊn/ by fifteen of the subjects; /əraʊŋ/ by the other two of the subjects; /ərɔn/ by the other one of the subjects, and /ərun/ and /raʊn/

by the other two of the subjects respectively where the vowel before the /n/ sound experienced nasalization.

- ‘nape’/neɪp/ was produced by eleven of the subjects where the diphthong /eɪ/ experienced nasalization.
- ‘frozen’/frəʊzən/ was produced as /frɔzən/ by four out of twenty subjects where the schwa sound experienced nasalization.
- ‘out’/aʊt/ was pronounced as /aʊt/ and /aʊʔ/ by fifteen and five of the students respectively where the diphthong /aʊ/ experienced nasalization.
- ‘morning’ / mɔ:nɪŋ/ was produced as / mɔnɪŋ/ by fifteen of the subjects while the other three subjects produced / mɔrnɪŋ/ where the /ɪ/ sound experienced nasalization.
- ‘town’ /taʊn/ was produced by twelve of the subjects while the other one pronounced it as /taʊŋ/. The diphthong /aʊ/ was experiencing nasalization before the /n/ and /ŋ/ sounds.
- ‘pain’/peɪn/ was produced as /peɪn/, /pam/, /peɪŋ/ and /pan/ by the eight, five, three and one of the students respectively. The /eɪ/ , /aɪ/ and /a/ sounds were experiencing nasalization.

## 7. Long and short vowel distinctions

In the present research , it was found that most subjects did not differentiate long and short vowels as most KD vowels are quite similar with their English counterparts in terms of manner and articulation, but there are more vowel differences in English than in KD. Some of the contrasts such as /i/ and /i:/ or /u/ or /u:/ do not exist in Kelantan dialect at all. It is found out that in this study, words with short vowels showed greater realization compared to long vowels.

Example :

- Twenty of the subjects shortened the /u:/ for /u/ in ‘spoon’ /spu:n/
- Twenty of the subjects shortened the /ɜ:/ for /ɜ/ in ‘search’ /sɜ:tʃ/
- Twenty of the subjects shortened the /ɜ:/ for /ɜ/ in ‘birthday’ /bɜ:θdeɪ /
- Twenty of the subjects shortened the /a:/ for /a/ in ‘vase’ /va:z/

- Nineteen of the subjects shortened the /i:/ for /i/ in ‘she’ /ʃi:/
- Nineteen of the subjects shortened the /ɔ:/ for /ɒ/ in ‘walked’ /wɔ:kt/
- Twenty of the subjects shortened the /u:/ for /ʊ/ in ‘into’ /ɪntu:/
- Twenty of the subjects shortened the /ɔ:/ for /ɒ/ in ‘all’ /ɔ:l/
- Twenty of the subjects shortened the /ɜ:/ for /ɜ/ in ‘her’ /hɜ:r/
- Twenty of the subjects shortened the /ɑ:/ for /a/ in ‘started’ /stɑ:təd/
- Twenty of the subjects shortened the /ɜ:/ for /ɜ/ in ‘early’ /ɜ:li/
- Twenty of the subjects shortened the /ɔ:/ for /ɒ/ in ‘morning’ /mɔ:nɪŋ/
- Twenty of the subjects shortened the /ɔ:/ for /ɒ/ in ‘small’ /smɔ:l/
- Twenty of the subjects shortened the /ɑ:/ for /a/ in ‘after’ /ɑ:ftər/
- Nineteen of the subjects shortened the /ɜ:/ for /ɜ/ in ‘turned’ /tɜ:n/
- Twenty of the subjects shortened the /i:/ for /i/ in ‘piece’ /pi:s/
- Twenty of the subjects shortened the /i:/ for /i/ in ‘veal’ /vi:l/
- Twenty of the subjects shortened the /ɑ:/ for /a/ in ‘tomato’ /təmə:təʊ/

#### ***4.3.2 Influence of Malay and Kelantan Phonology***

Obviously, some of the pronunciation mistakes made by the subjects were due to the influence of the Malay language. There have been many examples of pronunciation mistakes made by subjects due to the influence of Malaya phonology.

- Four out of the twenty subjects pronounced the word ‘vision’ /vɪʒən/ as ‘visien’ /visiən/ in Malay and Kelantan dialect where the /ʒ/ was substituted with /s/ while another two of the subjects pronounced it as ‘visien’ /visijən/ and ‘visiung’ /visiʊŋ/ respectively. One of them produced the word as /fizən/ which was different from the others.
- The word ‘theory’ /θiəri/ was produced as ‘teori’ /tɔri/ in Malay by thirteen of the subjects while the other two pronounced it as /tɛrəŋ/, and four of the subjects pronounce it as /dɪəri/, /təri/, /təri/ and /tirul/ respectively which were different from the others.
- In the word ‘pocket’ /pɒkɪt/, the substitution of /ɪ/ to /e/ in the second syllable in ‘pocket’ and ‘ticket’ could be found. Ten of the subjects pronounced ‘pocket’/pɒkɪt/ as /pəkeʔ/ ; /pəkɛt/ by another eight subjects and /pəkeik/ by another one of the

subjects. Likewise, the word ‘ticket’ /tɪkɪt/ was produced as /tɪkeʔ/ by sixteen of the subjects; /tɪket/ by three of the subjects and /stiket/ by another one subjects which was slightly different from others.

- Eighteen of the subjects pronounced the word ‘sofa’ /səʊfə/ as /sofa/ like in Malay while one of them pronounced it as /sɔfə/ and /sopa/. The /əʊ/ sound was substituted with /o/ and /ɔ/ in the first syllable while /ə/ with /a/ in the second syllable.
- The word ‘film’ /fɪlm/ was mispronounced as ‘filem’ /fɪləm/ in Malay by four of the subjects.
- One of the subjects pronounced the word ‘phenomenon’ /fəˈnɒmɪnən/ as ‘fenomena’ /fenomena/ which the sound is close to ‘fenomena’ in Malay.
- Eight of the subjects produced ‘camera’ /kæmərə/ closely to ‘kamera’ /kemerə/ while four of the subjects pronounced it as /kamerə/; /kəmere/ by two of the subjects and /kemera/ by three of the subjects where the sound were very closely to ‘kamere’ in Malay.
- The word ‘geography’ /dʒɪɒgrəfi/ was pronounced as ‘geografi’ /dʒiografi/ by three of the subjects; /giografi/ by fifteen of the subjects; /giograpi/ and /dʒɔkrafi/ by one of the subjects respectively where the schwa in the second syllable was replaced with /a/ sound.
- Twelve out of twenty subjects produced ‘realistic’ /rɪəlɪstɪk/ as ‘rialistik’ /rialistik/ in Malay where the schwa sound was substituted with /a/.
- Seven of the subjects produced ‘tomato’/təmə:təʊ/ as ‘tomato’[təmatəʊ] in Malay where the schwa was substituted with /ɔ/.
- The word ‘doctor’/dɒktər/ was pronounced as ‘dokter’/doktə’ in Malay by eight of the subjects while the other four subjects pronounced it as ‘dokter’/dokto/ as in Kelantan dialect.

### 4.3.3 The Phonological Rules of Kelantan Dialect

Through language regardless of spoken or written, phonological rules are part of communication which exist to assist and help us with better understanding. It is viewed as essential to understand the phonological rules in the aspect of English teaching or working with individuals who have speech problems. Phonological rules explain how phonemes are known as their allophones in a given domain. As a consequence, in order to comprehend the aim of phonological rules, it is crucial to understand what a phoneme is. As per Crystal (1997), phoneme is the minimal unit in the sound system of a language. Along this line, written or spoken phonological rules control how sounds change during vocal communication.

In this present study, there are seven types of phonological rules that can be best understood through the phonological process which were made by the Kelantanese students during pronouncing English words. In order to formulate the phonological rules and consider it as an error, the minimum number of the subjects to determine the mispronunciation is five subjects.

#### 1. Substitution

Substitution is the methodical replacement of one linguistic feature for another or one phoneme for another that the child finds easier to articulate (Fromkin et al., 2003). According to Latif (2002), substitution of English sounds occurs due to the fact that some of English consonants do not exist in KD such as phonemes /θ / and /ð /.

The phonological rule that can be represented for substitution is as followed :

$$\boxed{/C/ \longrightarrow /C//\_[\text{vowel}]}$$

In KD, several sounds are absence (such as: /ʒ/, /θ/, /ð/, /f/ and /v/). Thus, the subjects substituted the sound to the most similar sound that exist in Kelantan dialect phonemes.

Example 1:

Phonological rule :  $\boxed{/ʒ/ \longrightarrow /s//\_[\text{vowel}]}$

The word ‘vision’ /vɪʒən/ was pronounced as /visiən/, /visiən/, /visijən/, /visiʊn/ and /fɪzən/ by ten of the subjects where the /ʒ/ sound was substituted with /s/ and /z/ sounds.

Example 2:

Phonological rule : 
$$\boxed{/θ/ \text{ or } /ð/ \longrightarrow /t/, /h/, /d/, /r/ \_ [vowel]}$$

The word ‘birthday’ /bɜːθdeɪ/ was pronounced as /bɜːhdeɪ/, /befdeɪ/, /berdeɪ/, /birdeɪ/ and /bufdeɪ/ where the /θ/ sound was substituted with /h/, /f/ and /r/ sounds. Meanwhile, in the word ‘theory’ /θiəri/ was pronounced as /terɒŋ/, /tɔri/, /dɔri/, /təri/ and /təri/ where the /θ/ sound was substituted with /t/ and /d/ sounds.

Apart from that, the word ‘the’ /ðə/ was pronounced as /də/ by all of the subjects where the /ð/ sound was substituted with /d/ sound. Similarly with ‘that’ /ðæt/, twenty of the subjects substituted /ð/ with /d/ sound as /dæʔ/ and /des/.

Example 3 :

Phonological rule : 
$$\boxed{/p/ \longrightarrow /f/ \_ [vowel]}$$

Seven of the subjects substituted /f/ to /p/ in ‘phenomenon’ /fɪnɒmɪnən/.

Example 4 :

Phonological rule : 
$$\boxed{/v/ \longrightarrow /f/ \_ [vowel]}$$

Some of the subjects had difficulties in producing /v/ sound in ‘of’ /əv/, ‘stove’ /stəʊv/, ‘veal’ /vi:l/ and ‘vision’ /vɪʒən/. some of them substituted the /v/ with /f/ and producing the word as /ɒf/, /stəʊf/, /fi:l/ and /fɪzən/ which were different for the others.

## 2. Deletion

Deletion happens when a sound such as a stressless syllable or a weak consonant is not articulated (Obied, 2015). Thus, in the present study, it was found that the Kelantanese students tend to omit certain sound during their production of speech in final consonant cluster, initial of the consonant cluster, past tense and contraction.

The phonological rule that can be represented for deletion is as followed :

<b>(Ø=deletion)</b> <b>CC</b> → <b>/C/_# or CC</b>
---

Example of omission error in final and initial of consonant clusters :

- /film/ - /fim/ and /fil/
- /silk/- /sik/
- /əraʊnd/ - /əraʊn/
- /strɪŋ/ - /stərɪŋ/ and /steri/

Phonological rule :

/l/ and /m/	→	/Ø/_/m/ and /Ø/_/#
/l/		/Ø/_/k/
/d/	→	/Ø/_/#
/r/		/Ø/_/r/

Example of omission error in past tense :

‘walked’ /wɔ:kt/ - /wɔk/

Phonological rule :

/t/ → /Ø/_/#
--------------

Example of omission error in contraction :

‘couldn’t’ /kʊdənt/ - /kʊdən/, /kʊd/ and /kɔd/

Phonological rule :

$/t/ \longrightarrow / \emptyset / \_ \#$
$/n/ \text{ and } /t/ \longrightarrow / \emptyset / \_ \#$

### 3. Insertion

In this study, it was found that the subjects made an error during producing their speech by adding an extra sound between two others phoneme. The error of insertion was made in between consonant clusters, at the first syllable, middle of the syllable and the end of the syllable.

The phonological rule that can be represented for insertion is as followed :

$\emptyset \longrightarrow V/C/[V/C] \_ [C]$
--

Example of insertion :

/sɪlk/ - /sɪlɪk/

- /spu:n/ - səpən
- /fɪlm/ - /fɪləm/ and /fɪləŋ/
- /strɪŋ/ - /stəriŋ/ and /stəriŋ/
- /wɔ:kt/ - /wɔlkəd/, /wɔlkəd/ and /wɔlkit/
- /ədʒɜ:tɪsmənt/ - /ədʒɜritæzəmən/, /ədʒɜrtɪsəmən/ and /ədʒɜrtɪsəimən/
- /kæmrə/ - /kemerə/, /kamerə/, /kəmere/ and /kembra/
- /mænɪdʒ/ - /menedʒe/, /menedʒi/
- /ɜ:li/ - /ɜrli/
- /mɔ:nɪŋ/ - /mɔrniŋ/
- /rɪ'frɪdʒərəɪtər/ - /refrɪdʒənərəɪtər/

Phonological rule :

$\emptyset \longrightarrow /ɪ/ / /l/ \_ /k/$
$\emptyset \longrightarrow /ə/ / /s/ \_ /p/$
$\emptyset \longrightarrow /ə/ / /l/ \_ /m/$

Ø	→	/ə/ / /t/ _ /r/
Ø	→	/l/ / /ɔ/ _ /t/
Ø	→	/æ/, /ə/ and / ə/ / /s/ _ /m/
Ø	→	/e/ / /m/ _ /r/
Ø	→	/e/ and /i/ _ #
Ø	→	/r/ / /ɜ/ _ /r/
Ø	→	/r/ / /ɔ/ _ /n/
Ø	→	/n/ and /e/ / /ə/ _ /r/

#### 4. Glottalization

Glottalization is a general term for any articulation involving a simultaneous constriction, particularly a glottal stop. In other words, it occurs in word-final positions and in syllable-final clusters of /t/, /p/ or /k/ (Blackwell, 1997). In this study, glottalization always occurs in word-final positions.

The phonological rule that can be represented for glottalization is as followed:

$$\boxed{/t/, /p/, /k/ \longrightarrow /ʔ/ \_ \#}$$

Example of glottalization of /t/:

- /pɒkɪt/ - /ɒkeʔ/
- /tɪkɪt/ - /tɪkeʔ/
- /wɔ:kt/ - /wiʔ/
- /bʌt/ - /bʌʔ/
- /aʊt/ - /aʊʔ/
- /ðæt/ - /dæʔ/
- /went/ - /wiʔ/

Example of glottalization of /p/:

- /ɪskeɪp/ - /eskeɪʔ/

Example of glottalization of /k/:

- /nek/ - /neʔ/ -/niʔ/
- /tɔk/ - /tɔʔ/ and /tɒʔ/
- /bæk/ - /beʔ/ and /beiʔ/

## 5. Monophthongization

Wode (1980) stated that the open rising diphthong (/aʊ/, /aɪ/) and the falling (/ɔɪ/) would quite rarely be replaced by L1 forms in an L2 learning situation. Wode (1980) found that L2 English diphthongs /eɪ/ and /əʊ/ are regularly replaced by the monophthongs /e/ and /o/, respectively, by speakers with different L1 backgrounds. In this study, due to the absence of diphthong /eɪ/, /əʊ/, /aʊ/ and /eə/ in KD, the monophthongization of /e/, /a/, /ɒ/, /ɔ/, /o/ and /ɪ/ occur.

The phonological rule that can be represented for monophthongization is as followed:

VV (/eɪ/, /əʊ/, /aʊ/ and /eə/) → V/_/ [C]
---

Example of diphthong /eɪ/ replaced with monophthong /e/, /ɒ/, /ɪ/, /a/:

- /neɪv/ - /nev/
- /neɪp/ - /nep/ and /nɒp/
- /ɪskeɪp/ - /ɪskɪp/
- /peɪst/ - /pest/
- /peɪn/ - /pan/

Example of diphthong /əʊ/ replaced with monophthong /o/ and /ɔ/

- /səʊfə/ - /sɒfə/, /sofa/ and /sopa/
- /frəʊzən/ - /frɔzən/

Example of diphthong /aʊ/ replaced with monophthong /ɔ/ and /u/

- /əraʊnd/ - /ərɒn/ and /ərʊn/

Example of diphthong /eə/ replaced with monophthong /e/ or /i/

- /reər/ - /re/ and /ri/

## 6. Nasalization

Nearly half of the languages have nasal phonemes. The speaker may opt to nasalize the voices or not; the only consequence of not nasalizing the sound will be to be confused as someone with a different accent (Salvador, 2017). The analysis of this study found out that, most of the subjects nasalize the vowel sounds before or after the (/n/, /m/ and /ŋ/) sounds.

The phonological rule that can be represented for nasalization is as followed:

/V/ → [+nasal]_C
------------------

Example :

- /vɪʒən/ - /visiēŋ/, /visiǎn/, /vɪʒǎn/, /vɪʒǎŋ/, /visijǒn/ and /visiũŋ/
- /θɪəri/ - /terǒŋ/
- /spu:n/ - /spǒŋ/, /spũn/, /spũŋ/, /spǒn/, /spǎn/ and /səpǒn/
- /fɪlm- /fɪlǎm/, /fɪlm/, /fɪm/, /flɪm/ and /fɪlǎŋ/
- striŋ- /stərǐŋ/, /strǐŋ /, /stǐŋ/, /stɥǐŋ/
- /neɪv/ - /nǎf/ and /nǎh/
- /əraʊnd/ - /əraǒn/, /əraǒŋ/, /ərǒn/, /ərũn/ and /raǒn/
- /neɪp/
- /frəʊzən/ - /frɔzǎŋ/
- /aʊt/
- /mɔ:nɪŋ/ - /mǒnɪŋ/
- /taʊn/ - /taǒŋ/.
- /peɪn/ - /peǐn/, /paǐn/, /pǎŋ/ and /pǎn/

## 7. Vowel Lengthening

In this study, it was found that most of the vowel sounds experienced vowel shortening. This is due to the fact as per to Percillier (2006), in Malay, the feature of long vowel does not exist, a substrate explanation is possible. Given that, vowel length is described as not distinctive in many African and Southeast Asian varieties (Mesthrie, 2008). Similarly, in KD there is no vowel lengthening use in producing speech.

The phonological rule that can be represented for vowel lengthening is as followed:

$V \longrightarrow [-\text{long}] / \_C$
--

Example :

- /spu:n/ - /spun/
- /sɜ:ʃ/ - /sɜʃ/
- /bɜ:θdeɪ / - / bɜθdeɪ/
- /va:z/ - /vas/
- /ʃi:/ - /ʃi/
- /wɔ:kt/ - /wɔk/
- /ɪntu:/ - /ɪntu/
- /ɔ:l/ - /ɔl/
- /hɜ:r/ - / hɜr/
- /sta:təd/ - /statəd/
- /ɜ:li/ - /ɜli/
- /mɔ:nɪŋ/ - /mɔnɪŋ/
- /smɔ:l/ - / smɔl/
- /ɑ:ftər/ - /aftər/
- /tɜ:n/ - / tɜn/
- /pi:s/ - /pis/
- /vi:l/ - /vil/
- /təma:təʊ/ - /təʊmatəʊ/

## CHAPTER 5

### DISCUSSION AND CONCLUSION

#### 5.1 Discussion

It is evident that in the pronunciation of English words, the KMD seems to have some effect and influences on speech production. From the point of common and unshared sounds of the English, Malay and KD, many of the sounds undergo changes in ME and as well as in the pronunciation of English by Kelantanese Malay speakers. For example, consonants such as /θ/, /ð/, /dʒ/, /ʒ/, /f/ and /v/ are unshared sounds specific to English. /θ/ and /ð/ were realised as /t/, /d/, /f/ or /r/ while /dʒ/ as /g/, /ʒ/ will be substituted with /s/ or /z/, meanwhile /f/ with /p/ and /v/ with /f/. These findings are similar to the findings found by Latif (2002). Substitution of English sounds occurs due to some of the English sounds do not exist in the Kelantan dialect as in the substitution of /θ/ with /d/ was produced in word 'birthday' /bɜ:θdeɪ/, /dʒ/ with /g/ in 'manage' /mænɪdʒ/, /f/ with /p/ in 'phenomena' /fənɒmɪnən/, /ʒ/ with /s/ in 'vision' /vɪʒən/ and /v/ with /f/ in 'of' /əv/.

Concerning the vowels, the diphthong /eɪ/, /əʊ/, /aʊ/, /ɪə/ and /eə/ were substituted with the monophthong /e/, /a/, /ʊ/, /ɔ/, /o/ and /ɪ/ due to the fact that these diphthong do not exist in KD. The difficulty in perceiving foreign sounds that do not occur in the KD has made the subjects try to find the closest equivalent by substituting certain new sounds. Diphthongs resemble long vowels, along this line diphthongs which are influenced by KD will be short (Ismail, 1993). Subsequently, the simplification of diphthong will generally be produced by Kelantanese students. This is due to the fact that in Malay, the use of diphthongs is fewer. Zuraidah (1997) concurred that a variety of ME is greatly influence by Malay and the mother tongue of Malays as on her analysis, she found out some subjects reduced the diphthongs /eɪ/, and /eə/ to [o] due the less diphthongs used. Thus, it is common for Kelantanese students to substitute diphthong for monophthong such as in words /peɪn/ to /pæn/, /frəʊzən/ to /frɔzən/ and /reər/ to /re/ and /ri/. Monophthongization also occurs in ME for the vowel /ɪə/ and /əʊ/ as per Lee and Lim (2000) in their study regarding the ME among Malay Singaporean speakers. This

is also true for other Malay dialect such as Sarawak Malay Dialect (Salbiah, ) where in her study, she found that the diphthongs /aw/ and /aj/ were reduced to monophthong /o/ and /e/.

Since there are no consonant clusters in the Malay and KD it is seem hard for Kelantan students to produce certain sounds in this way. The origin of the phonemes and the manner in which they are combined are not the same as the two languages. In this study, final consonant clusters were either reduced to a single consonant or removed to a single consonant or the addition of a single vowel occur in between of the consonant clusters. Thus, the errors of deletion and insertion might occur. In this study, the analysis show that deletion occur at the final consonant clusters due to the fact that there are no consonant clusters in Malay. Thus, the subjects have omitted the consonant clusters into a single consonant. It can be seen in words /film/, /silk/, /wɔ:kt/, /əraʊnd/, /peɪst/, /felt/ and /went/ where the subjects omitted one of the consonant in the final consonant clusters as [fɪm] or [fɪl], [sɪk], [peɪs], [fɪl] and [wen] respectively. In addition, final consonant clusters in grammatical ends as in past tense and contraction can be extremely difficult for Kelantan students, as they do not occur in Kelantan dialect grammar such as in the words ‘walked’ /wɔ:kt/ and ‘couldn’t’ /kʊdənt/ where the subjects pronounced them as [wɔ:k] and [kʊdən], [kʊdəŋ] and [kɔlden] respectively. he frequency of errors in the initial consonant clusters was not as strong as the final consonant cluster. On the other hand, the schwas were also inserted in the consonant clusters such as in ‘string’ /strɪŋ/ where the subjects pronounced it as [stərɪŋ] and [sterɪ], ‘film’ /film/ where the subjects pronounced it as [fɪləm] and [fɪləŋ] and ‘walked’ /wɔ:kt/ as [wɔlkəd].

In this present study, glottalization error pronunciation was found to have not been recorded in the previous studies. In ME, final stop glottalization could be considered special to a phonological function. The glottalization of final stops can only have an effect on one or two of the languages as per Phoon (2010). Glottalization may occur due to the influence of Malay and Kelantan dialects containing glottal stops in the final syllable. Bao (1998) proposed that the frequency of glottalization is influenced by the phonology of substrate languages, primarily Malay, Chinese languages and dialects (as cited in Phoon, 2010). All the final stops in Malay are known as glottal stops. In this analysis, it is clear that in final stop of /t/, /p/, and /k/ will be glottalized. It can be seen in the words /pɒkɪt/ as [pɒkɛʔ], /tɪkɪt/ as [tɪkɛʔ], /ɪskeɪp/ as [eskeɪʔ], /tɒk/ as [tɒʔ] and [tɒʔ] and /bæk/ as [beʔ] and [beiʔ]. Another potential explanation for the high incidence of glottalization, according to Tan (1998), is the influence of the extensive borrowing

of English words in Malay (as cited in Phoon, 2010). It is not surprising, therefore, that such some of the English words appear to be pronounced with glottal stops.

The influence of the Malay language leads to some of the most striking features of the ME. There are also borrowed and adopted words and phrases from English in Malaysia. Such words are mostly used in English in keeping with the conventional Malay phonetics and phonology system, which in some respects varies from English, such as the sound discrepancy between English words, which is almost non-existent in Malay. The effect of Malay's loan words is believed to have had an impact on the acquisition of some speech sounds (Phoon, 2010). It is therefore necessary for Malaysian students to be aware of the differences in pronunciation between English and Malay words.

The present research also formulates the phonological rules that reflect the common mistakes made by Kelantan students for the errors of substitution, error of deletion, error of insertion, error of glottalization, error of monophthongization, error of nasalization and vowel lengthening where the phonological rules concerning errors were not present in the discussions of Latif (2002) and Ismail (1993). Based on the present study's results, the error of substitution, deletion, insertion, glottalization and lengthening of the vowel are the most common mistake made by the Kelantanese students.

## **5.2 Limitations**

There are some limitations that can be seen in this study. First of all, the number of subjects chosen should have been higher, hindering a complete and detailed generalization of the population of Kelantan?. More subjects in varying age categories should be used in future research to see more variation of errors Or whether there are inter-generational differences in pronunciation.

Second, due to insufficient time, not all mistakes committed by subjects arising from intervention in the native language have been investigated. In addition, there is no clear proof to prove that any of the errors are originating from native interference only. For example, there may be other variables that affect the production of learning errors, such as lack of knowledge of phonology and phonetics, pronunciation, age, behavior and psychological factors.

Last but not least, it is not enough to expose any pronunciation mistakes made by subjects on the basis of reading at word and sentence levels only. Better outcomes may be obtained if the data analysis were based on normal and informal conversations. For example, an interview with subjects' views on pronunciation could be conducted.

### **5.3 Recommendations**

Many concerns for future study may be posed in the current thesis. According to Luo (2002), in addition to interference with native languages, the reason why students made pronunciation errors in English was due to incorrect knowledge of English phonemes (cited in Chang, 1996). The developmental patterns of Kelantan dialect and Malay learned by ME speaking learners should be analyzed in order to examine the relationship between the three emerging phonological systems.

An acoustic study could be carried out to accurately explain the variations in some of the ME phonological features, such as the distinction between long vowels and short vowels and some consonant realizations. In addition, acoustic analysis may also provide some insight into any potential "reduction" or deletion phase. According to Edwards and Beckman (2008), acoustic analysis can help to reveal hidden contrasts in some of the ME realizations (as cited in Phoon, 2010). For example, a difference between /c/ and /k/ that may not be perceptible to the author in this study may be discovered in a detailed acoustic analysis.

It is not easy to generalize that these pronunciation mistakes are actually indicative of a wide variety of Kelantanese learners of English. More cross-sectional studies are therefore required to highlight these pronunciation problems among Kelantanese learners of English. Study without practice is worthless and difficult to learn the language. Jespersen suggested: "Practice what is right again and again" (as cited in Francis, 1946). As a result, further research is also encouraged to examine communicative approaches in pronunciation teaching with an emphasis on some of the troublesome sounds and features (Gao, 2005). It will help to improve the comprehension and oral fluency of Kelantanese learners in English.

## 5.4 Conclusion

Clearly, the findings from this study shows that there are some significant different of Kelantanese Malay students pronunciation and received pronunciation and the errors made by the Kelantanese Malay students in the area of pronunciation. In this case, some of the errors in their pronunciation made is due to the influence of their mother tongue which is Kelantan dialect. However, the pronunciation errors made perhaps due to the subconsciously as the effort that second language learners usually make for the ease of pronouncing the sounds that they are not familiar with. Since past study only look onto four phonemes /t/,/d/, /θ/, and /ð/ (Latif, 2002) it cannot be seen in the overall pronunciation of the four consonant English. Thus, in this study, all of the consonants and vowels were looked to see great deviation of the errors made by the subjects. Apart from that, this study also made a new finding of the error of insertion and the error of glottalization where Ismail (1993) and Latif (2002) did not study. Moreover, to represent the errors made by the Kelantanese Malay students, this study has formulated phonological to give the idea of how the errors done by the students in English words where Ismail (1993) and Latif (2002) also did not look onto it.

Kelantanese students in general are highly likely to be exposed to variations of English language that have already been influenced by both KD and Malay due to the complex linguistic situation in Malaysia that prompt errors such as glottalization of stops and the simplification of final consonant clusters. This is because at the same time, these students are required to learn KD and Malay at the same time. Thus, these ME features occurred and made the students tend to make error in their pronunciation. Although KD and Malay are very different from English in terms of speech sound inventories and phonotactic structures, the difference in the Malaysian context is generally less due to the characteristics that have already been integrated into ME as per Phoon (2010).

Many observations on the basis of CA and EA have been questioned in the SLA. In fact, not all of the pronunciation errors mentioned will certainly match all of the mistakes that will be made by the Kelantan learners of English. Nor can a instructor recognize all the errors that the students have made. Nonetheless, CA can provide EA with insightful knowledge, while EA can prove the value of CA. Under the guidance of CA, this study highlighted the common

characteristics of pronunciation errors of English-speaking Kelantan learners by studying their native linguistic context, which shows how one's native language affects one's English pronunciation. Gao (2005) believed that the importance of pronunciation, which has long been neglected in the growth of speech skills, is also encouraged to be taken into account. Thus, it is hoped that the findings of the study would enable English Language Teachers to understand the phonological acquisition of ME students who are studying KD and English at the same time and thus help to enhance their students' comprehension and understanding of the interference of different sound systems with English pronunciation.

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## APPENDICES

Appendix A : Comparison of Word Based on RP and Kelantanese Students' Pronunciation

<b>PRONUNCIATION ERRORS ANALYSIS</b>				
<b>Words</b>		<b>Transcription</b>		<b>Subject</b>
		<b>Dictionary Transcription</b>	<b>As recorded</b>	
1	Vision	vɪʒən	/vɪʒəŋ/	3
			/vɪʒən/	2,4,8,9
			/vɪʒən/	5,12,13,14,17,18
			/vɪʒəŋ/	1,6,19,20
			/vɪʒjən/	11,16
			/vɪʒiŋ/	7,15
			/fɪzən/	10
2.	Silk	sɪlk	/sɪs/	1
			/sɪk/	2,3,6,7,9,13,19,20
			/sæk/	4
			/sɪlk/	5,10,11,14,16,17,18,
			/sɪlɪk/	8,19
			/sɪ/	12
			/slɪp/	15
3.	Theory	θɪəri	/tɛrəŋ/	1

			/tɔri/	2,4,5,9,11,12,13,14,16,17,18,19, 20
			/dɪɔri/	3,8
			/təri/	6
			/təri/	10
			/tɪrɪl/	15
4.	Spoon	spu:n	/spɔŋ/	1
			/spun/	2,4,5,6,11,14,17,18,20
			/spuŋ/	3,8
			/spɒn/	6,7,12,13,15,16,19
			/span/	9
			/səpɒn/	10
5.	Eight	eɪt	/eɪʔ/	1,3, 5,6, 12
			/eɪt/	2,4,7,8,9,10,11,14,17,18,19,20
			/eɪjət/	13
			/eɪg/	16
6.	Pocket	pɒkɪt	/pəkeʔ/	1,2,3,4,9,12,13,16,19,20
			/pəkət/	5,6,7,11,14,15,17,18
			/pəkeɪk/	8
			/pəkɪt/	10

7.	Tease	ti:z	/tes/	1
			/tis/	2,4,7,10, 13, 15,17,18,20
			/tes/	3,19
			/ti:s/	5
			/tæs/	6,8,12,16
			/tisi/	9
			/tisə/	14
			/tesi/	11
8.	Sofa	səʊfə	/səfə/	1
			/sofa/	2,3,4,5,6,7,8,9,10,11,12,13, 14,16,17,18,19,20
			/sopa/	15
9.	Advertisement	ədʋɜ:tismənt	/ədʋɜrtæsməŋ/	7
			/ədʋɜtismən/	1,15,19,20
			/ədʋɜrtismən/	2,3
			/ədʋɜtaismən/	4,5,11,17
			/ədʋritæzemən/	6
			/ədʋɜrtismənt/	8
			/ədʋɜrtisəmən/	9
			/ədʋɜrtisma/	10
			/ədʋɜrtisaimən/	12

			/ədʋətismi/	16
			/ədʋeteməŋ/	13
			/ədʋəstismən/	14
			/ədtesmən/	18
10.	Film	film	/filəm/	1,17,18,20
			/film/	2,4,5,6,14
			/fim/	3,9, 10, 12
			/flim/	11
			/filəŋ/	15
			/fil/	7,8, 13,16,19
11.	Search	sɜ:ʃ	/sɜjh/	1
			/sɜʃ/	2,4,5,6,9,17,19,20
			/si/	8
			/sɜrʃ/	3,10
			/sɜrtʃh/	12
			/seɪʃ/	11
			/səj/	13
			/sis/	14,15,7
			/ʃeɪʃ/	16
			/ses/	18

12.	Phenomenon	փոփոխումներ փոփոխումներ	/pʰonənmənɛŋ/	1
			/pənʊmənɔn/	2
			/pənʊmənən/	3
			/pʰinʊmənə/	4
			/fʰinʊmʰinən/	5
			/fʰəmənən/	6
			/fʰinʊmənəŋ/	7
			/pənʊmənən/	10
			/pənʊmʰinən/	11
			/fənʊmənə/	12
			/fʊnmənənɔn/	16
			/fənʊmənʊ/	8,13
			/fənʊmənəŋ/	9,14
			/fʊnʊsmənʊn/	15
			/fənʊmənɔn/	17,20
			/pʰinʊmən/	18
/fənʊmənən/	19			
13.	String	string	/stɛŋŋ/	15 ,16,17,20
			/strɛŋ /	1,2,3,4,5,6,7, 8, 10,11,18
			/strɛŋ/	9
			/stɛŋŋ/	12,13

			/steri/	19
14.	Birthday	bɜ:θdeɪ	/bɜhdeɪ/	1, 13, 14,19
			/bɜθdeɪ/	2
			/befdeɪ/	3,4,5,6, 8, 9, 11, 12,15,20
			/berdeɪ/	7, 10,17
			/birdeɪ/	16
			/bufdeɪ/	18
15.	Fill	fil	/ fil /	1,2,3,4,5,6,8,9,10,11,12,13, 14,15,16,19, 20
			/filər/	7
			/feil/	18
16.	camera	kæmrə	/kemerə/	1,4,10,11,17,18,19,20
			/kamerə/	2,12,13,14
			/kəmere/	3,7
			/kemrə/	5,6,16
			/kembra/	8,9,15
17.	Ticket	tɪkɪt	/tɪkeʔ/	1,2,3,4,6,8,9,10,12,13,14,1 6,17,18,19,20
			/tɪket/	5,11,15
			/stiket/	7
18.	Vase	va:z	/baz/	1

			/vøis/	2,3,4,5,6,8,9,11,12,14
			/vas/	10
			/vøi/	15
			/wøif/	13
			/ves/	7,17,20
			/væs/	16,18,19
19.	Geography	dʒɒgræfi dʒiɒgræfi	/dʒiɒgrafi/	1,4,13
			/giɒgrafi/	2,3,5,6,7,8,9,10,11,12,14,15,18,19,20
			/giɒgrapi/	16
			/dʒɒkrafɪ/	17
20.	Realistic	riəlɪstɪk	/riækliktɪs/	1
			/rɪlɪstɪk/	2
			/riəlɪstɪk/	3
			/rɪəlɪstɪk/	4,5,8,9,11,12,14,15,17,18,19,20
			/rɪəlɪtɪs/	6
			/reɪlɪstɪk/	7,13,16
			/rɪəlɪtɪ/	10,

**PRONUNCIATION ERRORS ANALYSIS**

Words	Transcription		Subject
	Dictionary Transcription	As recorded	
she	ʃi:	/ʃi/	1,2,3,4,5,6,7,8,9,10,11,12,13,14,16, 17,18,19,20
		/ʃei/	15
walked	wɔ:kt	/wɔlkəd/	1,3,13,16,20
		/wɔlkəd/	15
		/wɔk/	2,4,7,8,9,11,14,17,18
		/wɔ:kt/	5
		/wɔr/	6
		/wɔlkit/	10
		/wɔlk/	12
		/wiʔ/	19
into	ɪntu:	/ɪntu/	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15, 16,17,18,19,20
the	ðə	/də/	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15, 16,17,18,19,20
	ði:		
nave	neɪv	/nes/	1,8

		/neɪv/	2,3,4,5,6,9,10,11,12,15,16,17,18,
		/naf/	7,14,20
		/neh/	13
		/nep/	19
fear	fɪər	/fɪs/	1
		/fɪər/	2,3,5,13,14,17,18
		/fɪr/	4,6,7,8,16
		/fer/	9,10,11,19,20
		/fɪər/	12
		/fur/	15
was	wɒz wəz	/wɒs/	1,2,4,5,6,7,8,9,10,11,12,13,14,15,16 ,17,18,20
		/wɪh/	3
		/wəs/	19
all	ɔ:l	/ɔl/	1,2,3,4,5,6,7,8,9,10,11,12,14,16,18, 19,20
		/ɔ/	13,15,17
around	əraʊnd	/əraʊn/	1,3,4,5,7,8,9,11,12,13,14,17,18,19, 20
		/əraʊŋ/	2,15
		/ərɔn/	6

		/ərun/	10
		/raʊn/	16
her	hɜ:r	/hɜr/	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15, 16,17,18,19,20
nape	neɪp	/nes/	1
		/neɪp/	2,5,9,10,11,12,13,14,17,18,20
		/neɪf/	3,4
		/nɒp/	6,7,8,16
		/be/	19
		/nɪp/	15
of	əv	/ɔf/	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15, 16,17,18,19,20
neck	nek	/nes/	1
		/neʔ/	2,16,17
		/niʔ/	3,6,10,14,19
		/næk/	4,5,11,12,13,18,20
		/net/	7,15
		/nek/	8,9
frozen	frəʊzən	/frəʊzən/	1,13,16,19

		/frɔzən/	2,3,4,5,6,7,8,9,10,11,12,14,15,17,18,20
as	æz	/ə/	1,16
		/es/	2,3,6,9,10,11,13,17,18,19,20
		/ʌs/	4,5,7,8,12,14,15
ice	aɪs	/aɪs/	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20
managed	mænɪdʒ	/menədʒe/	1,8
		/menæf/	2,4,5,6,11,14,16,17,18,20
		/menədʒi/	3
		/menæh/	7,9
		/menekh/	10,12,19
		/menege/	13
		/meneged/	15
escape	ɪskeɪp	/eskɪp/	1,4,5
		/eskep/	2,3,13
		/eseɪp/	6
		/eskʌp/	7
		/eskɪp/	8

		/eskeɪp/	9,12,17,18
		/espæk/	10
		/espes/	11
		/eskeɪʔ/	14,19,20
		/esperete/	15
		/espeʔ/	16
cop	kɒp	/kʌp/	1,3,6,7,9,14
		/tʃɒp/	2,15,19,20
		/tʃʊp/	13
		/kəʊp/	4,17,18
		/kɒp/	5,8,10,11,12,1
but	bʌt	/bʌt/	1,2,3,4,5,6,9,10,11,12,15,19,20
		/bʌʔ/	7,8,13,14,16,17,18
couldn't	kɒdənt	/kɒdən/	11,14,17
		/kɒd/	2,3,4,9,12
		/kɒd/	5,15
		/kɒdəŋ/	6,7,20
		/kɒl/	8,18
		/kɒlden/	10
		/klaʊdɪŋ/	13

		/kɒn//	16
		/kluden/	19
out	aʊt	/aʊt/	1,2,3,4,5,6,7,8,9,10,11,12,13,15,20
		/aʊʔ/	14,16,17,18,19
run	rʌn	/rʌn/	2,4,5,6,7,8,10,11,14,15,17,18,19,20
		/rʌŋ/	16
		/raʊŋ/	3,13
		/rɒn/	9
bear	bɛər	/bɛər/	1,2,3,4,5,6,7,8,9,10,11,12,13,14,16, 17,18,19,20
		/bɪr/	15
started	stɑ:təd	/stat/	1,2,4,5,6,10,11,14,17,18,20
		/statəd/	3,9,16,19
		/stantəd/	7
		/stətər/	8
		/stated/	12
		/steitə/	13
		/steitəd/	15
on	ɒn	/ɒn/	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15, 16,17,18,19,20

an	æn ən	/ən/	2,3,4,5,6,7,8,10,11,12,14,16,17,18,19
		/ə/	9,15
early	ɜ:li	/ɜali/	1,2,3,5,8,12,14
		/ɜrli/	4,6,9,11,13,16,17,19
		/hɜrli/	7
		/ɜldi/	10
		/rid/	15
		/ɜli/	18
morning	mɔ:nɪŋ	/mɔnɪŋ/	1,2,3,4,5,6,10,11,13,14,15,16,17,18,19
		/mɔrnɪ/	7
		/mɔrnɪŋ/	8,9,12
small	smɔ:l	/smɔl/	1,2,3,4,5,6,8,9,10,11,12,16,18
		/mɔl/	7
		/smɔ/	13,14,17
		/smel/	15
		/small/	19
town	taʊn	/təwən/	1
		/taʊn/	2,3,4,5,6,7,9,11,14,16,17,18
		/tɔn/	8,10

		/daʊn/	12
		/taʊ/	13
		/təʊ/	15
		/taʊŋ/	19
that	ðæt	/dæʔ/	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20
		/des/	1
day	deɪ	/deɪ/	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20
after	ɑ:ftər	/ɑftər/	1,2,3,4,5,6,8,9,10,11,12,13,14,15,16,17,18,19
		/əftər/	7
turned	tɜ:n	/tʌn/	1,6,8,10,11,15,18
		/tɜn/	2,3,4,5,17,19
		/tɜnəs/	7
		/tɜrn/	9,16
		/trʌn/	12
		/tɜrɜn/	13
		/tɜŋ/	14
stove	stəʊv	/stəʊh/	1,8,15

		/stəʊf/	2,3,5,6,7,11,14,19
		/stɒf/	4,9,10,16,17
		/strɒf/	12
		/show/	13
		/stəʊv/	18
Lucy	lu:si	/luki/	1,3,6,10,19
		/lasi/	2,8,9,11
		/Lusi/	4,5,13,16,17
		/laki/	12,14,18
		/ləs/	7
		/luk/	15
took	tɒk	/tʊʔ/	1,3,9,13,15,16,18,19
		/tɔʔ/	8,12
		/tɒk/	2,4,5,6,7,10,11,14,17
out	aot	/aʊʔ/	1,3,7,13,14,15,16,17,18,19
		/aot/	2,4,5,6,8,9,10,11,12
piece	pi:s	/piʃ/	1,4,6,8,10,12,15,18,19
		/pis/	2,3,5,7,9,11,13,14,16,17
	vi:l	///vil/	1,2,3,4,5,6,7,9,11,12,14,16,17,18,19,20

		/vie/	8
		/fil/	10
		/via/	13
		/viel/	15
tomato	təma:təʊ	/təmetəʊ/	1,2,3,9,11,17,19
		/təʊmatəʊ/	4,5,6,7,10,12,13,14,15,16,18,20
paste	peɪst	/pas/	1,9,14,17,19
		/peɪs/	2,3,6,8,16,18,20
		/peɪst/	4,5,7,11
		/pestə/	10
		/pəʊs/	12
		/pastə/	13
		/piʃ/	15
from	frɒm	/fɒn/	1
		/frɒm/	2,3,4,5,6,7,8,10,13,15,16,17,18,20
		/frum/	19
refrigerator	rɪfrɪdʒəreɪtər	/refriter/	1
		/refrɪdʒənereɪtər	2,16
		/refrɪgəreɪtə	3

		/refridzəreitər	7,17,18,20
		/refridzəretər	5
		/refridzəretə	4,6
		/rifridzətrator	8
		/refridzəraitər	13
		/refridzəratər/	11
		/refdziretər/	9
		/rifrədziretə/	12
		/risgənretər/	10
		/rifraidzəratə/	14
		/ragiristəu/	15
		/refdzətroter/	19
felt	felt	/fil/	1,3,4,5,8,11,12
		/felt/	2,10,13,18,20
		/fe/	6
		/fail/	7,9
		/fel/	14,16,17,19
		/fit/	15
rare	reər	/reər/	1,2,6,9,12,14,17,20
		/rir/	3,4,5,11,16

		/rai/	7
		/re/	8
		/rarə/	10,13
		/ri/	15
		/rei/	18
		/rərɔŋ/	19
pain	peɪn	/paɪn/	1,3,7,12,20
		/peɪn/	2,4,9,10,13,14,17,18
		/peɪŋ/	5,11,19
		/pan/	6,16
back	bæk	/beʔ/	1,2,3,4,5,6,8,9,10,11,12,13,15,16,17,18,19,20
		/beiʔ/	7,14
went	Went	/wen/	1,2,5,6,8,9,10,11,14,16,17,18,20
		/waɪn/	3,4
		/wɪn/	7,15
		/wiʔ/	19
see	si:	/si:/	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20
		/se/	19
doctor	dɒktər	/dɒktər/	1,2,3,4,5,9,11,18

		/dɒktə/	8,10,13,14,15,17,19,20
		/dɒkto/	6,7,12,16

PRONUNCIATION ERRORS ANALYSIS					
Words		Transcription		Subject	Description of the Error
		Dictionary Transcription	As recorded		
1	Vision	vɪʒən	/vɪʒəŋ/	3	-substitution of /ʒ/ and /s/ -Substitution of /n/ and /ŋ/
			/vɪʒiən/	2,4,8,9	-substitution of /ʒ/ and /s/
			/vɪʒəŋ/	1,6,19,20	-Substitution of /n/ and /ŋ/

			/vɪʒən/	11,16	-substitution of /ʒ/ and /s/ -substitution of /ə/ and /o/
			/vɪʒiən/	7,15	-substitution of /ʒ/ and /s/ -substitution of /ə/ and /o/ -Substitution of /n/ and /ŋ/
			/fɪzən/	10	-substitution of /v/ and /f/ -substitution of /ʒ/ and /z/
2.	Silk	sɪlk	/sɪs/	1	-substitution of final consonant cluster /l/ and /k/ with /s/
			/sɪk/	2,3,6,7,9,13,19,20	-omission of /l/ in final consonant cluster
			/sæk/	4	-Substitution of /ɪ/ with /æ/ -Omission of /l/ in final consonant cluster

			/sɪlɪk/	8,19	-Insertion of /ɪ/ in final consonant cluster
			/sɪ/	12	-Lengthening of vowel /ɪ/  -Omission of /l/ and /k/ in final cluster
			/slɪp/	15	-Omission of /ɪ/  -Substitution of /p/ with /k/
3.	Theory	θɪəri	/tɛrɔŋg/	1	- Substitution of /θ/ with /t/  - monophthongiz ation /ɪə/ to /e/ -nasalization
			/tɔri/	2,4,5,9,11,12,13,14,16,17,18,19, 20	- Substitution of /θ/ with /t/ - Substitution of /ə/ with /o/ -Influence of Malay word [teori]

			/dɔəri/	3,8	- Substitution of /θ/ with /d/ - Substitution of /ə/ with /ɔ/
			/təri/	6	- Substitution of /θ/ with /t/ - monophthongization /ɪə/ to /ə/
			/təri/	10	- Substitution of /θ/ with /t/ - monophthongization /ɪə/ to /ɔ/
			/tɪrəl/	15	- Substitution of /θ/ with /t/ - monophthongization /ɪə/ to /ə/ -Substitution of /ɪ/ with /u/ -Insertion of /l/
4.	Spoon	spu:n	/spɔŋ/	1	- Substitution of /u/ with /ɔ/ - Substitution of /n/ with /ŋ/ -nasalization

			/spun/	2,4,5,6,11,14,17,18,20	-Shortening of vowel /u:/
			/spuŋ/	3,8	-Shortening of vowel /u:/ - Substitution of /n/ with /ŋ/ -nasalization
			/spɔn/	6,7,12,13,15,16,19	- Substitution of /u/ with /ɔ/
			/span/	9	- Substitution of /u/ with /a/
			/səpɔn/	10	-Insertion of /ə/ in consonant cluster /s/ and /p/ -- Substitution of /u/ with /ɔ/
5.	Eight	ert	/eɪʔ/	1,3, 5,6, 12	-Substitution of /t/ with /ʔ/ -glottalization
			/eɪjət/	13	-insertion of /j/ and /ə/
			eɪg	16	-Substitution of /t/ with /g/

6.	Pocket	pɒkɪt	/pɒkeʔ/	1,2,3,4,9,12,13,16,19,20	-substitution of /ɒ/ with /ɔ/ -substitution of /ɪ/ with /e/ -substitution of /t/ with /ʔ/ -glottalization
			/pɒket/	5,6,7,11,14,15,17,18	-substitution of /ɒ/ with /ɔ/ -substitution of /ɪ/ with /e/
			/pɒkeɪk/	8	-substitution of /ɒ/ with /ɔ/ -Insertion of /e/ before vowel /i/
			/pɒkɪt/	10	-substitution of /ɒ/ with /ɔ/
7.	Tease	ti:z	/tes/	1,3,19	-substitution of long vowel /i:/ with /e/ -substitution of /z/ with /s/
			/tis/	2,4,7,10, 13, 15,17,18,20	-shortening of vowel /i:/ -substitution of /z/ with /s/
			/ti:s/	5	-substitution of /z/ with /s/

			/tæs/	6,8,12,16	-substitution of long vowel /i:/ with /æ/ -substitution of /z/ with /s/
			/tisi/	9	-substitution of long vowel /i:/ with /æ/ -substitution of /z/ with /s/ -insertion of /i/ at the end
			/tise/	14	-substitution of long vowel /i:/ with /æ/ -substitution of /z/ with /s/ -insertion of /ə/ at the end
			/tesɪ/	11	-substitution of long vowel /i:/ with /e/ -substitution of /z/ with /s/ -insertion of /i/ at the end
8.	Sofa	səʊfə	/sɒfə/	1	- monophthongization of /əʊ/ with /ɒ/

			/sofa/	2,3,4,5,6,7,8,9,10,11,12,13,14,16, 17,18,19,20	- monophthongization of /əʊ/ with /o/
			/sopa/	15	- monophthongization of /əʊ/ with /o/ -substitution of /f/ with /p/
9.	Advertise ment	ədʋɜ:tɪsmən t	/ədʋɜrtæs məŋ/	7	-insertion of /r/ -substitution of / i/ with /æ/ -substitution of /n/ with /ŋ/ -omission of /t/ -nasalization
			/ədʋɜtɪsmə n/	1,15,19,20	-shortening of vowel /ɜ:/ -omission of t/
			/ədʋɜrtɪsm ən/	2,3	-insertion of /r/ -omission of t/
			/ədʋɜtəɪsm ən/	4,5,11,17	-insertion of vowel /a/

					-omission of /t/
			/ədvrɪtæzəmən/	6	-insertion of /r/ -substitution of /ɜ:/ with /i/ -substitution of /i/ with /æ/ -substitution of /s/ with /z/ -insertion of /e/ -omission of /t/
			/ədvrɪtɪsmənt/	8	-shortening of vowel /ɜ:/ -insertion of /r/
			/ədvrɪtɪsəmən/	9	-insertion of /r/ -insertion of /ə/ -omission of /t/ -shortening of vowel /ɜ:/
			/ədvrɪtɪsmə/	10	-insertion of /r/ -shortening of vowel /ɜ:/

					-substitution of /ə/ with /a/ -omission of /n/ and /t/
			/ədʋɜrtisai mən/	12	-insertion of /r/ -shortening of vowel /ɜ:/ -insertion of vowel cluster /aii/ -omission of /t/
			/ədʋɜtismi/	16	-shortening of vowel /ɜ:/ -substitution of /ə/ with /i/ -omission of /n/ and /t/
			/ədʋetemə ŋ/	13	-substitution of /ɜ/ with /ei/ -substitution of /i/ with /e/ -substitution of /n/ with /ŋ/ -omission of /t/ -nasalization

			/ədʋɜstɪsm ən/	14	-insertion of /s/ -omission of /t/
			/ədtesmən/	18	-omission of /v/ and /ɜ/ -substitution of /i/ with /e/ -omission of consonant /t/
10	Film	film	/filəm/	1,17,18,20	-insertion of vowel /ə/
			/fɪm/	3,9, 10, 12	-omission of consonant /l/
			/flɪm/	11	-inversion of /l/ and /ɪ/
			/filəŋ/	15	-insertion of vowel /ə/ -substitution /m/ with /ŋ/ -nasalization
			/fɪl/	7,8, 13,16,19	-omission of consonant /m/
11	Search	sɜ:tʃ	/sɜjh/	1	-shortening of vowel /ɜ:/ -substitution of ʃ with

				consonant cluster /jh/
			/sɜf/	2,4,5,6,9,17,19,20 -shortening of vowel /ɜ:/ -substitution of /tʃ/ with /f/
			/si/	8 -substitution of /ɜ:/ with /i/ -omission of consonant /tʃ/
			/sɜrʃ/	3,10 -shortening of vowel /ɜ:/ -insertion of consonant /r/ -substitution of /tʃ/ with /f/
			/sɜrʃ/	12 -shortening of vowel /ɜ:/ -insertion of consonant /r/
			/seɪʃ/	11 -substitution of /ɜ/ with /e/ -insertion of vowel /i/ -substitution of /tʃ/ with /f/
			/səɪ/	13 -substitution of /ɜ/ with /ə/

					-insertion of consonant /j/ -omission of consonant /tʃ/
			/sis/	14,15,7	-substitution of /ɜ/ with /i/ -substitution of /tʃ/ with /s/
			/feʃ/	16	-substitution of /s/ with /ʃ/ -substitution of /ɜ/ with /e/ -substitution of /tʃ/ with /ʃ/
			/ses/	18	-substitution of /ɜ/ with /e/ -substitution of /tʃ/ with /s/
12	Phenomenon	fɪnɒmɪnən fənɒmɪnən	/pɒnənmen ən/	1	-substitution of /f/ with /p/ -substitution of /ɪ/ with /o/ -substitution of /ɒ/ with /ə/ -substitution of /ɪ/ with /e/ -insertion of consonant /n/ -substitution of /ə/ with /e/

					-substitution of /n/ with /ŋ/ -nasalization
			/penomenon/	2	-substitution of /f/ with /p/ -substitution of /ɪ/ with /e/ -substitution of /v/ with /o/ -substitution of /ɪ/ with /e/ -substitution of /ə/ with /ɔ/
			/penomənon/	3	-substitution of /f/ with /p/ -substitution of /ɪ/ with /e/ -substitution of /v/ with /o/ -substitution of /ɪ/ with /ə/
			/pɪnoməna/	4	-substitution of /f/ with /p/ -substitution of /v/ with /o/ -substitution of /ɪ/ with /e/ -substitution of /ə/ with /a/

					-omission of /n/
			/fɪnəmiɪnən /	5	-substitution of /ɒ/ with /ə/
			/fɔməɪnən/	6	-substitution of /ɪ/ with /ə/ -omission of /ɪ/ and /n/ -substitution of /ɒ/ with /ə/
			/fɪnəməneɪ /	7	-substitution of /ɒ/ with /ə/ -substitution of /n/ with /ŋ/ -nasalization
			/pənomenə n/	10	-substitution of /f/ with /p/ -substitution of /ɪ/ with /ə/ -substitution of /ɒ/ with /o/ -substitution of /ɪ/ with /e/
			/pənɒmmə n/	11	-substitution of /f/ with /p/ -substitution of /ɪ/ with /ə/ -substitution of /ɒ/ with /o/

			/fenomena/	12	-substitution of /ɪ/ with /e/ -substitution of /ɒ/ with /o/ -substitution of /ɪ/ with /e/ -substitution of /ə/ with /a/ -omission of consonant /n/
			/fonmenno n/	16	-substitution of /ɪ/ with /o/ -omission of consonant /ɒ/ -substitution of /ɪ/ with /e/ -insertion of consonant /n/ -substitution of /ə/ with /ɔ/
			/fenomeno/	8,13	-substitution of /ɪ/ with /e/ -substitution of /ɒ/ with /o/ -substitution of /ɪ/ with /e/ -substitution of /ə/ with /o/ -insertion of consonant /n/

			/fənomənə ŋ/	9,14	-substitution of /ɒ/ with /o/ -substitution of /ɪ/ with /e/ -substitution of /n/ with /ŋ/ -nasalization
			/fənoʊsmən on/	15	-substitution of /ɪ/ with /ɔ/ -substitution of /ɒ/ with /ɔ/ -insertion of consonant /s/ -substitution of /ə/ with /o/
			/fenəmenə n/	17,20	-substitution of /ɪ/ with /ɔ/ -substitution of /ɒ/ with /ɔ/ -substitution of /ɪ/ with /e/ -substitution of /ə/ with /ɔ/
			/prɪnəmen/ /	18	-substitution of /f/ with /p/ -insertion of vowel /o/ -substitution of /m/ with /n/ -substitution of /ə/ with /e/

			/fenɔməne n/	19	-substitution of /ɪ/ with /e/ -substitution of /ɒ/ with /ɔ/ -substitution of /ɪ/ with /ə/
13	String	striŋ	/stəriŋ/	15,16,17,20	-insertion of vowel /ə/ -nasalization
			/striŋ/	9	-omission of consonant /r/ - nasalization
			/styŋ/	12,13	-substitution of /r/ with /ɣ/ -nasalization
			/sterɪ/	19	-insertion of vowel /e/ -omission of consonant /ŋ/
14	Birthday	bɜ:θdeɪ	/bɜhdeɪ/	1, 13, 14,19	-substitution of /θ/ with /h/ -shortening of vowel /ɜ:/
			/bɜθdeɪ/	2	-shortening of vowel /ɜ:/
			/bɜfdeɪ/	3,4,5,6, 8, 9, 11, 12,15,20	-substitution of /θ/ with /f/

					-shortening of vowel /ɜ:/
			/bɜrdeɪ/	7, 10,17	-substitution of /θ/ with /r/ -shortening of vowel /ɜ:/
			/birdeɪ/	16	-substitution of /θ/ with /r/ -substitution of /ɜ/ with /i/
			/bʊfdeɪ/	18	--substitution of /ɜ/ with /u/ -substitution of /θ/ with /r/
15	Fill	fil	/filər/	7	-insertion of vowel /ə/ and /r/
			/feɪl/	18	-insertion of consonant /e/
16	Kamera	kæmrə	/kɛmɛrə/	1,4,10,11,17,18,19,20	-substitution of /æ/ with /ɛ/ -insertion of vowel /ə/
			/kɑmɛrə/	2,12,13,14	-substitution of /æ/ with /ɑ/ -insertion of vowel /ə/

			/kəmere/	3,7	-substitution of /æ/ with /ə/ -insertion of vowel /e/
			/kemrə/	5,6,16	-substitution of /æ/ with /e/
			/kembra/	8,9,15	-substitution of /æ/ with /e/ -insertion of vowel /e/
17	Ticket	tɪkɪt	/tɪkeʔ/	1,2,3,4,6,8,9,10,12,13,14,16,17,18,19,20	-substitution of /ɪ/ with /e/ -Substitution of /t/ with /ʔ/ -glottalization
			/tɪket/	5,11,15	-substitution of /ɪ/ with /e/
			/stɪket/	7	-insertion of consonant /s/ -substitution of /ɪ/ with /e/
18	Vase	va:z	/baz/	1	-substitution of /v/ with /b/ -shortening of vowel /a:/
			/vəɪs/	2,3,4,5,6,8,9,11,12,14	-substitution of /a:/ with

					consonant cluster /əi/ -substitution of /z/ with /s/
			/vas/	10	-shortening of vowel /a:/ -substitution of /z/ with /s/
			/vəi/	15	-substitution of /a:/ with consonant cluster /əi/ -omission of consonant /z/
			/wəif/	13	-substitution of /v/ with /w/ -substitution of /a:/ with consonant cluster /əi/ -substitution of /z/ with /f/
			/ves/	7,17,20	-substitution of /a:/ with consonant cluster /e/ -substitution of /z/ with /s/

			/væs/	16,18,19	-substitution of /a:/ with consonant cluster /æ/ -substitution of /z/ with /s/
19	Geography	ḍṇḡræfi ḍṇḡgræfi	/ḍṇḡgræfi/	1,4,13,	-substitution of /ḍ/ with /o/ -substitution of /ə/ with /a/
			/giografi/	2,3,5,6,7,8,9,10,11,12,14,15,18,19,20	-substitution of /ḍṇ/ with /g/ -substitution of /ḍ/ with /o/ -substitution of /ə/ with /a/
			/giograpi/	16	-substitution of /ḍṇ/ with /g/ -substitution of /f/ with /p/ -substitution of /ə/ with /a/
			/ḍṇḡkræfi/	17	-substitution of /ḍ/ with /o/ - substitution of /g/ with /k/ -substitution of /ə/ with /a/

20	Realistic	riəlɪstɪk	/riəaklɪktɪs/	1	-insertion of vowel /a/ and consonant /k/ -Substitution of /s/ with /k/ -Substitution of /k/ with /s/
			/rɪlɪstɪk/	2	-omission of vowel /ə/
			/rɪalɪstɪk/	4,5 ,8,9,11,12,14,15,17,18,19,20	-Substitution of /ə/ with /a/
			/rɪalɪtɪs/	6	-Substitution of /ə/ with /a/ -omission of consonant /k/
			/relɪstɪk/	7,13,16	-substitution of vowel cluster /iə/ with /e/
			/rɪalɪtɪ/	10,	-Substitution of /ə/ with /a/ -omission of consonant /k/

**PRONUNCIATION ERRORS ANALYSIS**

Words	Transcription		Subject	Description of the Error
	Dictionary Transcription	As recorded		
she	ʃi:	/ʃi/	1,2,3,4,5,6,7,8,9,10,11,12,13,14,16,17,18, 19,20	-shortening of vowel /i:/
		/ʃei/	15	-insertion of vowel /e/ -shortening of vowel /i:/
walked	wɔ:kt	/wɔlkəd/	1,3,13,16,20	-substitution of /ɔ:/ with /ə/ -insertion of consonant /l/ -substitution of /t/ with /e/ and /d/
		/wɔlkəd/	15	-shortening of vowel /ɔ:/ -substitution of /t/ with /e/ and /d/
		/wɔk/	2,4,7,8,9,11,14,17,18	-shortening of vowel /ɔ:/ -omission of consonant /t/
		/wɔr/	6	-substitution of /ɔ:/ with /o/ -substitution of /k/ with /r/ -omission of consonant /t/
		/wɔlkit/	10	-shortening of vowel /ɔ:/ -insertion of consonant /l/ and /i/

		/wɛlk/	12	-substitution of /ɔ:/ with /ə/ -insertion of consonant /l/ -omission of consonant/ t/
		/wiʔ/	19	-substitution of /ɔ:/ with /i/ -substitution of /ʔ/ with /k/ -glottalization
into	ɪntu:	/ɪntu/	1,2,3,4,5,6,7,8,9 ,10,11,12,13,14, 15,16,17,18,19, 20	-shortening of vowel /u:/
the	ðə ði:	/də/	1,2,3,4,5,6,7,8,9 ,10,11,12,13,14, 15,16,17,18,19, 20	-substitution of /ð/ with /d/
nave	nerv	/nes/	1,8	-monophthongization of /eɪ/ with /e/ -substitution of /v/ with /s/
		/naf/	7,14,20	-monophthongization of /eɪ/ with /a/ -substitution of /v/ with /h/
		/neh/	13	-monophthongization of /eɪ/ with /e/ -substitution of /v/ with /h/
		/nep/	19	-monophthongization of /eɪ/ with /e/ -substitution of /v/ with /p/

fear	fiə	/fis/	1	-monophthongization of /ɪə/ with /ɪ/ -substitution of /r/ with /s/
		/fir/	4,6,7,8,16	-monophthongization of /ɪə/ with /ɪ/
		/fer/	9,10,11,19,20	-monophthongization of /ɪə/ with /e/
		/fiər/	12	-substitution of diphthong /ɪə/ with diphthong /ɪr/
		/fur/	15	-monophthongization of /ɪə/ with /u/
was	wɒz wəz	/wɒs/	1,2,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20	-substitution of /z/ with /s/
		/wiɦ/	3	-substitution of /ɒ/ with /i/ -substitution of /z/ with /s/
		/wəs/	19	-substitution of /z/ with /s/
all	ɔ:l	/ɔl/	1,2,3,4,5,6,7,8,9,10,11,12,14,16,18,19,20	-shortening of vowel /ɔ:/
		/ɔ/	13,15,17	-omission of consonant /l/

around	əraʊnd	/əraʊn/	1,3,4,5,7,8,9,11, 12,13,14,17,18, 19,20	-omission of consonant /d/
		/əraʊŋ/	2,15	-substitution of /n/ with /ŋ/ -omission of consonant /d/ -nasalization
		/əɾɔn/	6	-monophthongization of /aʊ/ with /ɔ/ -omission of consonant /d/
		/əɾun/	10	-monophthongization of /aʊ/ with /u/ -omission of consonant /d/
		/raʊn/	16	-omission of vowel /ə/ -omission of consonant /d/ -nasalization
her	hɜ:r	/hɜr/	1,2,3,4,5,6,7,8,9, 10,11,12,13,14, 15,16,17,18,19, 20	-shortening of vowel /ɜ:/
nape	neɪp	/nes/	1	-monophthongization of /eɪ/ with /e/ -substitution of /p/ with /s/
		/neɪf/	3,4	-substitution of /p/ with /f/ -nasalization
		/nɒp/	6,7,8,16	-monophthongization of /eɪ/ with /ɒ/

		/be/	19	-mispronounced
		/nɪp/	15	-monophthongization of /eɪ/ with /ɪ/
of	əv	/ɔf/	1,2,3,4,5,6,7,8,9 ,10,11,12,13,14, 15,16,17,18,19, 20	-substitution of /ə/ with /ɔ/ -substitution of /v/ with /f/
neck	nek	/nes/	1	-substitution of /k/ with /s/
		/neʔ/	2,16,17	-substitution of /k/ with /ʔ/ -glottalization
		/niʔ/	3,6,10,14,19	-substitution of /e/ with /i/ -substitution of /k/ with /ʔ/ -glottalization
		/næk/	4,5,11,12,13,18, 20	-substitution of /e/ with /æ/ -nasalization
		/net/	7,15	-substitution of /k/ with /t/
frozen	frəʊzən	/frɔzəŋ/	1,13,16,19	-monophthongization of /əʊ/ with /ɔ/ -substitution of /n/ with /ŋ/ -nasalization

		/frɔzən/	2,3,4,5,6,7,8,9,10,11,12,14,15,17,18,20	-monophthongization of /əʊ/ with /ɔ/
as	æz	/ə/	1,16	-substitution of /æ/ with /ə/ -omission of consonant /z/
		/æs/	2,3,6,9,10,11,13,17,18,19,20	-substitution of /z/ with /s/
		/ʌs/	4,5,7,8,12,14,15	-substitution of /æ/ with /ʌ/ -substitution of /z/ with /s/
managed	'mænidʒ	/menedʒe/	1,8	-substitution of /æ/ with /e/ -substitution of /ɪ/ with /e/ -insertion of vowel /e/
		/menæf/	2,4,5,6,11,14,16,17,18,20	-substitution of /æ/ with /e/ -substitution of /ɪ/ with /æ/ -substitution of /dʒ/ with /f/ -nasalization
		/menedʒi/	3	-substitution of /æ/ with /e/ -substitution of /ɪ/ with /e/ -insertion of vowel /i/
		/menæh/	7,9	-substitution of /æ/ with /e/ -substitution of /ɪ/ with /æ/ -substitution of /dʒ/ with /h/ -nasalization
		/menekh/	10,12,19	-substitution of /æ/ with /e/ -substitution of /ɪ/ with /e/

				-substitution of /dʒ/ with consonant cluster /kh/
		/menege/	13	-substitution of /æ/ with /e/ -substitution of /ɪ/ with /e/ -substitution of /dʒ/ with /g/ -insertion of vowel /e/
		/meneged/	15	-substitution of /æ/ with /e/ -substitution of /ɪ/ with /e/ -substitution of /dʒ/ with /g/ -insertion of vowel /e/ -insertion of consonant /d/
escape	iskeɪp	/eskɪp/	1,4,5,8	-substitution of /ɪ/ with /e/ -monophthongization of /eɪ/ with /e/
		/eskep/	2,3,13	-substitution of /ɪ/ with /e/ -monophthongization of /eɪ/ with /e/
		/eseɪp/	6	-substitution of /ɪ/ with /e/ -omission of consonant /k/
		/eskʌp/	7	-monophthongization of /eɪ/ with /ʌ/
		/eskeɪp/	9,12,17,18	-substitution of /ɪ/ with /e/

		/espək/	10	-substitution of /ɪ/ with /e/ -monophthongization of /eɪ/ with /ə/
		/espes/	11	-substitution of /ɪ/ with /e/ -monophthongization of /eɪ/ with /e/ -substitution of /k/ with /s/
		/eskeɪʔ/	14,19,20	-substitution of /ɪ/ with /e/ -glottalization
		/esperete/	15	-substitution of /ɪ/ with /e/ -substitution of /k/ with /p/ -mispronounced
		/espeʔ/	16	-substitution of /ɪ/ with /e/ -substitution of /k/ with /p/ -omission of vowel /ɪ/ -substitution of /k/ with /ʔ/ -glottalization
cop	kɔp	/kʌp/	1,3,6,7,9,14	-substitution of /ɒ/ with /ʌ/
		/tʃɔp/	2,15,19,20	-substitution of /k/ with /tʃ/ -substitution of /ɒ/ with /ɔ/
		/tʃʊp/	13	-substitution of /k/ with /tʃ/ -substitution of /ɒ/ with /ʊ/
		/kəʊp/	4,17,18	-substitution of /ɒ/ with diphthong /əʊ/

		//kɔp	5,8,10,11,12,1y yy	-substitution of /ɒ/ with /ɔ/
but	bʌt	/bʌʔ/	7,8,13,14,16,17, 18	-substitution of /t/ with /ʔ/ -glottalization
couldn't	kʊdənt	/kʊdən/	11,14,17	-omission of consonant /t/
		/kʊd/	2,3,4,9,12	-omission of /e/, /n/, and /t/
		/kɔd/	5,15	-substitution of /ʊ/ with /ɔ/ -omission of /e/, /n/, and /t/
		/kʊdeŋ/	6,7,20	-substitution of consonant clusters /nt/ with /ŋ/ -nasalization
		/kɔl/	8,18	-substitution of /ʊ/ with /ɔ/ -insertion of consonant /l/ -substitution of /ʊ/ with /ɔ/ -omission of consonant /t/
		/kɔldən/	10	-substitution of /ʊ/ with /ɔ/ -insertion of consonant /l/ -omission of consonant /t/
		/klaudɪŋ/	13	-insertion of consonant /l/ -substitution of /ʊ/ with diphthong /au/ -substitution of /ɪ/ with /ə/

				-substitution of consonant clusters /nt/ with /ŋ/ -nasalization
		/kɔn/	16	-substitution of /ɔ/ with /ɒ/ -omission of /d/, /ə/, and /t/
		/klɔden/	19	-insertion of consonant /l/ -substitution of /e/ with /ə/ -omission of consonant /t/
out	aʊt	/aʊʔ/	14,16,17,18,19	-glottalization -substitution of /t/ with /ʔ/
run	rʌn	/rʌŋ/	16	-substitution of /n/ with /ŋ/ -nasalization
		/raʊŋ/	3,13	-substitution of /ʌ/ with diphthong /aʊ/ -substitution of /n/ with /ŋ/ -nasalization
		/rɔn/	9	-substitution of /t/ with /ɔ/
bear	beə	/bir/	15	-monophthongization of /eə/ with /i/
started	stɑ:təd	/stat/	1,2,4,5,6,10,11, 14,17,18, 20	-shortening of vowel /ɑ:/ -omission of /e/ and /d/

		/statəd/	3,9,16,19	-shortening of vowel /ɑ:/
		/stantəd/	7	-insertion of consonant /n/
		/stətər/	8	-substitution of /ɑ:/ with /ə/ -substitution of /f/ with /r/
		/stateid/	12	-shortening of vowel /ɑ:/ -substitution of /ə/ with diphthong /ei/
		/steitə/	13	-substitution of /ɑ:/ with diphthong /ei/ -omission of consonant /d/
		/steitəd/	15	-substitution of /ɑ:/ with diphthong /ei/
an	æn ən	/ə/	9,15	-omission of consonant /n/
early	ɜ:li	/ɜali/	1,2,3,5,8,12,14	-shortening of vowel /ɜ:/ -insertion of vowel /a/
		/ɜrli/	4,6,9,11,13,16,17,19	-shortening of vowel /ɜ:/ -insertion of consonant /r/
		/hɜrli/	7	-insertion of consonant /h/ -shortening of vowel /ɜ:/ -insertion of consonant /r/

		/ɜldi/	10	-shortening of vowel /ɜ:/ -insertion of consonant /d/
		/rid/	15	mispronounced
		/ɜli/	18	-shortening of vowel /ɜ:/
morning	mɔ:nɪŋ	/mɔnɪŋ/	1,2,3,4,5,6,10,11,13,14,15,16,17,18,19	-shortening of vowel /ɔ:/
		/mɔrnɪ/	7	-shortening of vowel /ɔ:/ -omission of consonant /ŋ/
		/mɔrnɪŋ/	8,9,12	-shortening of vowel /ɔ:/ -insertion of consonant /r/
small	smɔ:l	/smɔl/	1,2,3,4,5,6,8,9,10,11,12,16,18	-shortening of vowel /ɔ:/
		/mɔl/	7	-omission of consonant /s/ -shortening of vowel /ɔ:/
		/smɔ/	13,14,17	-shortening of vowel /ɔ:/ -omission of consonant /l/
		/smel/	15	-substitution of /ɔ:/ with /e/

		/small/	19	-substitution of /ɔ:/ with /a/
town	taʊn	/tɔwən/	1	-monophthongization /aʊ/ with /ɔ/ -insertion of /w/ and /ə/
		/tɔn/	8,10	-monophthongization /aʊ/ with /ɔ//
		/daʊn/	12	-substitution of /t/ with /d/
		/taw/	13	-monophthongization /aʊ/ with /a/ -substitution of /n/ with /w/
		/təʊ/	15	-substitution of diphthong /aʊ/ with diphthong /əʊ/ -omission of consonant /n/
		/taʊŋ/	19	-substitution of /n/ with /ŋ/ -nasalization
that	ðæt	/dæʔ/	2,3,4,5,6,7,8,9,1 0,11,12,13,14,1 5,16,17,18,19,2 0	-substitution of /ð/ with /d/ -substitution of /t/ with /ʔ/
		/des/	1	-substitution of /ð/ with /d/ -substitution of /æ/ with /e/ -substitution of /t/ with /s/

after	ɑ:ftər	/ɑftər/	1,2,3,4,5,6,8,9, 10, 11,12,13,14,15, 16,17,18,19	-shortening of vowel /ɑ:/
		/əftər/	7	-substitution of /ɑ:/ with /ə/
turned	tɜ:n	/tʌn/	1,6,8,10,11,15,1 8	-substitution of /ɜ:/ with /ʌ/
		/tɜn/	2,3,4,5,17,19	-shortening of vowel /ɜ:/
		/tɜnəs/	7	-substitution of /ɜ:/ with /ə/ -insertion of /r/, /ə/ and /s/
		/tɜrn/	9,16	-substitution of /ʌ/ with /ɜ:/ -insertion of consonant /r/
		/trʌn/	12	-insertion of consonant /r/ -substitution of /ɜ:/ with /ʌ/
		/tɜrɜn/	13	-shortening of vowel /ɜ:/ -insertion of consonant /r/ and vowel /ɜ/
		/tɜŋ/	14	-shortening of vowel /ɜ:/ -substitution of /n/ with /ŋ/ -nasalization
stove	stəʊv	/stəʊh/	1,8,15	-substitution of /v/ with /h/

		/stəʊf/	2,3,5,6,7,11,14, 19	-substitution of /v/ with /f/
		/stɔf/	4,9,10,16,17	-monophthongization /aʊ/ with /ɔ/ -substitution of /v/ with /f/
		/strɔf/	12	-insertion of consonant /r/ -monophthongization /aʊ/ with /ɔ/ -substitution of /v/ with /f/
		/shɔw/	13	-insertion of consonant /h/ -substitution of diphthong /əʊ/ with /o/ -substitution of /v/ with /w/
Lucy	lu:si	/lʊki/	1,3,6,10,19	-shortening of vowel /u:/ -substitution of /s/ with /k/
		/lasi/	2,8,9,11	-substitution of /u:/ with /a/
		/lusi/	4,5,13,16,17	-shortening of vowel /u:/
		/laki/	12,14,18	-substitution of /u:/ with /a/ -substitution of /s/ with /k/
		/lɔs/	7	-substitution of /u:/ with /ɔ/ -omission of vowel /ɪ/

		/lʊk/	15	-shortening of vowel /u:/ -substitution of /s/ with /k/ -omission of vowel /ɪ/
took	tok	/tʊʔ/	1,3,9,13,15,16,18,19	-substitution of /k/ with /ʔ/
		/tɔʔ/	8,12	-substitution of /ɔ/ with /ɔ/ -substitution of /k/ with /ʔ/
out	aʊt	/aʊʔ/	1,3,7,13,14,15,16,17,18,19	-substitution of /t/ with /ʔ/
piece	pi:s	/piʃ/	1,4,6,8,10,12,15,18,19	-shortening of vowel /i:/ -substitution of /s/ with /ʃ/
		/pis/	2,3,5,7,9,11,13,14,16,17	-shortening of vowel /i:/
veal	vi:l	/vil/	1,2,3,4,5,6,7,9,11,12,14,16,17,18,19,20	-shortening of vowel /i:/
		/vie/	8	-shortening of vowel /i:/ -insertion of vowel /e/ -omission of consonant /l/
		/fil/	10	-substitution of /v/ with /f/ -shortening of vowel /i:/
		/via/	13	-shortening of vowel /i:/ -insertion of vowel /a/ -omission of consonant /l/

		/viɛl/	15	-shortening of vowel /i:/ -insertion of vowel /e/
tomato	təma:təʊ	/təmetəʊ/	1,2,3,9,11,17,19	-substitution of /ə/ with /ɔ/ -substitution of /ɑ:/ with /e/
		/təʊmatəʊ/	4,5,6,7,10,12,13 ,14,15,16,18,20	-substitution of /ə/ with diphthong /əʊ/ -shortening of vowel /ɑ:/
paste	peɪst	/pas/	1,9,14,17,19	-monophthongization /eɪ/ with /a/ -omission of consonant /t/
		/peɪs/	2,3,6,8,16,18,20	-omission of consonant /t/
		/pestə/	10	-monophthongization /eɪ/ with /e/ -insertion of vowel /ə/
		/pəʊs/	12	-substitution of diphthong /eɪ/ with diphthong /əʊ/ -omission of consonant /t/
		/pastə/	13	-substitution of diphthong /eɪ/ with /a/ -insertion of vowel /ə/

		/pɪʃ/	15	-monophthongization /eɪ/ with /ɪ/ -substitution of /s/ with /ʃ/
from	frɒm	/fɒn/	1	-omission of consonant /r/ -substitution of /ɒ/ with /ɔ/ -substitution of /m/ with /n/
		/frum/	19	-substitution of /ɒ/ with /u/
refrigerator	rɪfrɪdʒəreɪtər	/refrɪtər/	1	-substitution of /ɪ/ with /e/ -omission of consonant /dʒ/ and /r/ -omission of vowel /ə/, /e/ ./ɪ/ -substitution of /ə/ with /e/
		/refrɪdʒənereɪtər/	2,16	-substitution of /ɪ/ with /e/ -insertion of /n/ and /e/ -monophthongization of /eɪ/ with /e/
		/refrɪgəretə/	3	-substitution of /ɪ/ with /e/ -substitution of /dʒ/ with /g/ -monophthongization of /eɪ/ with /e/ -omission of consonant /r/
		/refrɪdʒəretər/	5	-substitution of /ɪ/ with /e/ -monophthongization of /eɪ/ with /e/ -substitution of /ə/ with /o/

		/refrɪdʒəretə/	4,6	-substitution of /ɪ/ with /e/ -monophthongization of /eɪ/ with /e/ -omission of and consonant /r/ -substitution of /ə/ with /ɔ/
		/rɪfrɪdʒətɹətər/	8	-insertion of consonant /r/ -substitution of /ə/ and /a/ -omission of vowel /ɪ/ -substitution of /ə/ with /o/
		/refrɪdʒəraɪtər/	13	-substitution of /ɪ/ with /e/ -substitution of /ə/ and /a/
		/refrɪdʒəratər/	11	-substitution of /ɪ/ with /e/ -monophthongization of /eɪ/ with /a/
		/refdʒɪreɪtər/	9	-substitution of /ɪ/ with /e/ -substitution of /ə/ with /ɪ/ -omission of consonant /r/ - monophthongization of /eɪ/ with /e/ -substitution of /ə/ with /e/
		/rɪfrədʒɪretə/	12	-substitution of /ə/ with /ɪ/ -substitution of /ə/ with /ɪ/ -substitution of /ə/ with /ɪ/ -substitution of /ə/ with /e/

				<ul style="list-style-type: none"> <li>-monophthongization of /eɪ/ with /e/</li> <li>-substitution of /ə/ with /ɔ/</li> <li>-omission of consonant /r/</li> </ul>
		/rɪsgənretər/	10	<ul style="list-style-type: none"> <li>-substitution of /f/ with /s/</li> <li>-omission of consonant /r/ -</li> <li>monophthongization of /eɪ/ with /e/</li> <li>-insertion of consonant /n/</li> <li>-substitution of /ə/ with /e/</li> </ul>
		/rɪfraɪdʒərətə/	14	<ul style="list-style-type: none"> <li>-insertion of vowel /a/</li> <li>-monophthongization of /eɪ/ with /a/</li> <li>-omission of consonant /r/</li> </ul>
		/ragɪrɪstə/	15	<ul style="list-style-type: none"> <li>-substitution of /ɪ/ with /a/</li> <li>-omission of consonant /f/ &amp; /r/</li> <li>-substitution of /ɪ/ with /a/</li> <li>-substitution of /dʒ/ and /g/</li> <li>-substitution of /ə/ with /ɪ/</li> <li>-insertion of consonant /s/</li> <li>-substitution of /ə/ with /ɔ/</li> </ul>
		/refdʒətroter/	19	<ul style="list-style-type: none"> <li>-substitution of /ɪ/ with /e/</li> <li>-omission of consonant /r/ -</li> <li>monophthongization of /eɪ/ with /o/</li> <li>-insertion of consonant /t/</li> <li>-substitution of diphthong /əɪ/ with /o/</li> </ul>

				-substitution of /ə/ with /e/
felt	felt	/fil/	1,3,4,5,8,11,12	-substitution of /e/ with /i/ -omission of consonant /t/
		/fe/	6	-omission of consonants /l/ and /t/
		/fail/	7,9	-substitution of /e/ with diphthong /ai/ -omission of consonant /t/
		/fel/	14,16,17,19	-omission of consonant /t/
		/fit/	15	-substitution of /e/ with /i/ -omission of consonant /l/
rare	reər	/rir/	3,4,5,11,16	-monophthongization of /eə/ with /i/
		/rai/	7	-substitution of diphthong /eə/ with /ai/ -omission of consonant /r/
		/re/	8	-monophthongization of /eə/ with /e/ -omission of consonant /r/
		/rarə/	10,13	Influence of Malay
		/ri/	15	-monophthongization of /eə/ with /i/ -omission of consonant /r//

		/rei/	18	-substitution of diphthong /eə/ with /ei/ -omission of consonant /r/
		/rɔrɔŋ/	19	mispronounced
pain	pem	/pain/	1,3,7,12,20	-substitution of /a/ with /e/ -nasalization
		/peɪŋ/	5,11,19	-substitution of /n/ with /ŋ/ -nasalization
		/pan/	6,16	-monophthongization of /eɪ/with /a/ -nasalization
back	bæk	/beʔ/	1,2,3,4,5,6,8,9, 10,11,12,13,15, 16,17,18,19,20	-substitution of /æ/ with /e/ -substitution of /k/ with /ʔ/ -glottalisation
		/beiʔ/	7,14	-substitution of /æ/ with diphthong /ei/ -substitution of /k/ with /ʔ/ -glottalisation
went	went	/wen/	1,2,5,6,8,9,10,1 1,14,16,17,18,2 0	-omission of /t/
		/wam/	3,4	-substitution of /e/ with diphthong /aɪ/ -omission of consonant /t/ -nasalization

		/wɪn/	7,15	-substitution of /e/ with /ɪ/ -omission of consonant /t/ -nasalization
		/wɪŋ/	19	-substitution of /e/ with /ɪ/ -substitution of /t/ with /ŋ/ -glottalisation
see	si:	/se/	19	-substitution of /i:/ with /e/
doctor	dɒktər	/dɒktə/	8,10,13,14,15,1 7,19,20	-omission of consonant /r/ -substitution of /ɒ/with /o/
		/dɒkto/	6,7,12,16	-substitution of /ə/ with /ɒ/ -substitution of /ɒ/with /o/ -omission of consonant /r/

## Appendix B : Word lists

1. vision
2. silk
3. theory
4. spoon
5. eight
6. pocket
7. tease
8. sofa
9. advertisement
10. film
11. search

12. phenomenon
13. string
14. birthday
15. fill
16. camera
17. ticket
18. vase
19. geography
20. realistic

(Adopted from Kho, 2011)

#### Appendix C : Short Passage

She walked into the nave. Fear was all around her. The nape of her neck was frozen as ice. She managed to escape the cop, but she couldn't out run the bear. It all started on an early morning in a small town. On that day, after she turned on the stove, Lucy took out a piece of veal and tomato paste from the refrigerator. She felt a rare pain in her back. She went to see a doctor.

(Adopted from Binturki, 2001)