

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Everyone has a language. language is used to convey information to others. Without one's language it will be difficult to communicate with other people. The language usually expresses thoughts, ideas and desires to express something.

In Indonesia, many people use Indonesian as a second language and can communicate with anyone, no matter the native language used from various languages, but when they want to communicate with other people from a country/speaking area, they cannot use Indonesian as a means of communication. Because English is one way to overcome miscommunication between Indonesians and people from other countries because English is used as an international language.

Phonology is the study of how sounds are organized and used in natural languages. There are two studies of phonology, phonetics, and phonemics. Phonemics is the study of speech sounds with a view to finding out the significant units of sounds in a given language. Phonetics is a part of science in linguistics that studies or investigates language sounds produced by humans without seeing the function of the sound as a differentiator of meaning in a language.

Phonetics can be divided into two types, namely articulation phonetics and acoustic phonetics. Articulation phonetics is the study of sound from a person's point of view by the speech organs. There are two parts to articulation phonetics, namely suprasegmental and segmental. Suprasegmental refers to tension, tone, length, intonation, and segmental, which refers to consecutive sounds. Now, this segment consists of vowels and consonants, diphthong,

and distribution. In English, there are twelve vowels. They are /I:/, /I/, /e/, /æ/, /ə/, /ɜ:/, /ʌ/, /ɑ:/, /ɒ/, /ɔ:/, /u:/, /ʊ/. There are two kinds of vowels in English. They are long vowels and short vowels. The long vowels like /I:/, /ɜ:/, /ɑ:/, /ɔ:/, /u:/. The short vowels like /I/, /e/, /ə/, /ʌ/, /ʊ/. Compare with Indonesian vowels, they are /A/, /I/, /U/, /E/, /O/.

Pronunciation is clearly a major factor in people's success in making themselves understood. Pronunciation is one of the three components of language, along with grammar and vocabulary. It plays an important role in listening, and speaking skills, so developing students' pronunciation is one of the most important tasks for an English teacher.

In pronunciation, the reader can learn phonemes. Phonemes are divided into two parts: consonants and vowels. The writer wants to analyze the sound of vowels in English words. In phonetics, vowels are sounds in spoken languages, such as English ah! [ɑ:] or oh! [əʊ] is pronounced in an open vocal tract so that no air pressure is created at any point above the glottis. Vowels are produced without radical improvement. The word vowel comes from the Latin vowel meaning "to speak" because in most languages words and thus speech is impossible without vowels. Vowels are usually used to define vowel sounds and the written symbol that represent them.

Error is an English word and is a confusing word because it has almost the same meaning as other words. Error analysis is the study of the types and causes of language errors, especially in the acquisition of a second language.

In this study, the writer is interest to conduct research to find some common errors made by students of SMA Gajah Mada Medan in pronunciation certain vowels of English. The writer hopes that the result of this research can use as feedback for the teacher and students improvement in learning English pronunciation.

Based on explanations above the writer will conduct a study entitled An Error Analysis on Vowels Pronunciation of X Grade Students at SMA Gajah Mada Medan.

Abdul Gophur (2008), stated that errors in student speaking performance. The writer used qualitative methods to describe the results of this study. Ivy Kho Yiing (2011), stated that pronunciation errors of learning students. This error appears due to a special sound system on English pronunciation and the writer used qualitative method. Mustikareni (2013), stated that error analysis diphthong English spoken by students. This researcher used a descriptive qualitative approach to help realize the motive. Diah Ayu (2019), stated that error analysis in pronunciation of English vowels. Researcher method applied in this research include. Descriptive study with qualitative approach and quantitative approach.

1.2 The Problems of the Study

In this study, the writer formulates the research question as follows;

1. What types of error are found on vowels pronunciation of X Grade students at SMA Gajah Mada Medan?
2. What types of dominant error is found on vowels pronunciation of X Grade students at SMA Gajah Mada Medan?

1.3 The Objective of the study

Based on the background and the problem above, the objectives are :

1. To find out the types of errors on vowels pronunciation of X Grade in students at SMA Gajah Mada Medan.
2. To find out the dominant types of errors on vowel pronunciation of students at SMA Gajah Mada Medan.

1.4 The Scope of Study

In this study, the writer focuses on analyzing students' vocal errors. According to Kelly (2000: 29), vowels divided into 3 types, namely: pure vowel (12), diphthong (8), and triphthong (5). The writer focuses in Error analysis according to Dulay in Kuntjara (2013:2-5), namely: omission, addition, misformation, misordering, and blends. The analysis focuses in the study are observation and analysis on student voice recordings to find out errors in students pronunciation of vowels.

1.5 The Significances of the Study

The significance of this study are divided into two, as follows :

1) Theoretically

Based on the explanations above, the writer concludes that this research is expected to enrich the theory, information, and knowledge about error analysis particularly in the use of pronunciation students vowels.

2) Practically

(1) For the writer

The writer has deeper knowledge of vowels and can provide some examples of pronunciation through this research.

(2) English Department Students

For English Department students, this study will be useful as a means of adding references and to enrich their knowledge in order to better understand errors in students pronunciation of vowels.

(3) For the teachers

For the teachers, the study will be useful to enrich their knowledge and added their knowledge about errors in students pronunciation of vowels, and teachers can teach errors in students pronunciation of vowels with the newest references.

(4) For the other Researchers

The results of this research can be used as a reference for future research on similar issues by using other research designs or models.

CHAPTER II

THEORITICAL REVIEW

2.1 Pronunciation

Pronunciation is the way words of a language are pronounced the manner in which words are pronounced. Words can be pronounced in many different ways. There are many definition of pronunciation that mentioned by experts.

Pennington (1996: 2) pointed out that pronunciation is the main medium of self-information exchange between individuals and representatives of different groups. Because it

paves the way for a better understanding of how language works and the interrelationships between different aspects of linguistics and social meaning.

Richard and Schmidt (2002:440) pronunciation is the way a certain sound or sounds are produced. It is unlike articulation which refers to the actual production of speech sounds in the mouth, pronunciation stresses more the way sounds are perceived by the hearer, e.g.: You haven't pronounced this word correctly, and often relates the spoken word to its written form, e.g.: In the word knife, the k is not pronounced.

Kristina et al. (2006: 1) defines pronunciation as an action or way of speaking with lecturer. Moreover, pronunciation is an important sound production in two senses. Sounds are important because they are used as part of certain language codes. In this sense, pronunciation is the production and reception of speech. It is used to realize meaning in the context of usage. In this sense, pronunciation refers to the act of speaking (Dalton and Seidlhofer, 1994: 3). It is always possible to study speech from two perspectives: phonetics and phonology (Crystal, 2003: 236).

Based on the explanations above, the writer summarizes that pronunciation is a sound that produces sound. Pronunciation is not just a sound but is important to provide information or code in a particular language. So, pronunciation as a production to further emphasize the sound by the listener. Pronunciation is a process or action to be able to say a word briefly and clearly. Pronunciation is the act of speaking to anyone.

2.1.1 Phonetics

Phonetics is a part of science in linguistics that studies or investigates the sounds of language produced by humans without seeing the function of the sound as a differentiator of meaning in a language.

According to Kusuma (1990), phonetics is the study of speech sounds, production, transmission, and reception. After knowing the definition of phonetics, we understand how language sounds are formed. Furthermore, errors that may occur in someone's speech can be detected and corrected. In short, to complete an act of communication, our speech mechanism must function in such a way as to produce sound. In turn, it must be accepted and understood by listeners.

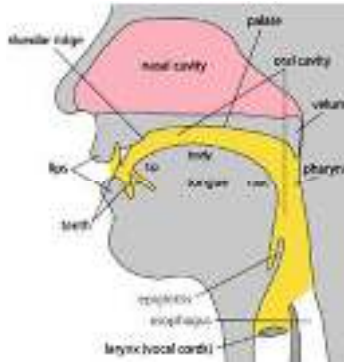
According to Keraf (1984:30) Phonetics is the study of how humans make, transmit, and receive sound. It is divided into three main branches, according to these three differences,

1. Articulatory phonetics analyses which organs and muscles are used by speakers to produce speech.
2. Acoustic phonetics is concerned with the physical properties of speech sounds as they travel in the air between a speaker's mouth and a listener's ear.
3. Auditory phonetics focuses on the effect those sounds have when they reach the listener's ear and brain.

Based on the explanations above, the writer summarizes that phonetics is the sound of human language regardless of the language function produced by humans but can understand certain language sounds. Phonetics is described as a scientific study of the sounds of a language that examines the components of sound, speech and transmission in other words they can study all aspects of linguistics or phonetics and the structure of language.

1.1.2 Phonology

Phonology is defined as the study of language which studies the sounds of language produced by the human speech apparatus.



Pict. The articulators phonology

- 1) The pharynx is a tube which begins just above the larynx.
- 2) The soft palate or velum is seen in the diagram in a position that allows air to pass through the nose and through the mouth.
- 3) The hard palate is often called the “roof of the mouth”.
- 4) The alveolar ridge is between the top front teeth and the hard palate.
- 5) The tongue is a very important articulator and it can be moved into many different places and different shapes.
- 6) The teeth (upper and lower) are usually shown in diagrams, only at the front of the mouth, immediately behind the lips.

According to Yule (2001: 54), the definition of phonology is the study of systems, patterns, and the use of sounds that occur in the languages of this world.

In addition, Kusuma (1990: 7) adds that phonology is related to the sequence of phonemes and phonemes. Phonemes are a class of sound. This is an abstract alphabet unit that can be used to write language systematically and unambiguously (Yusuf, 1998: 19). For example the phoneme / p / and / t / in the words pie and tie, etc. However, in order to fully understand the use of speech sounds in English, we must study both phonology and phonetics.

Phonology is the study of language systems and the general appearance of language systems. In contrast to phonetics, phonetics studies all possible sounds that can be made by the human vocal cords, whereas phonetics only studies the differences in sounds (phonemes) that make meanings in different languages. When we listen carefully to the way people speak English, we hear hundreds of pronunciation differences in how individuals pronounce with specific voices.

Based on the explanations above, the writer summarizes that phonology refers to the science of linguistics which studies the sounds of language. Phonology is a system of linguistics that has the appearance of a language system in the use of sounds derived from human speech. Phonology can also help us to fully understand the use of sounds or speech in language.

The main features of pronunciation are segmental features (included phoneme) and suprasegmental features (included stress, intonation, and connected speech).

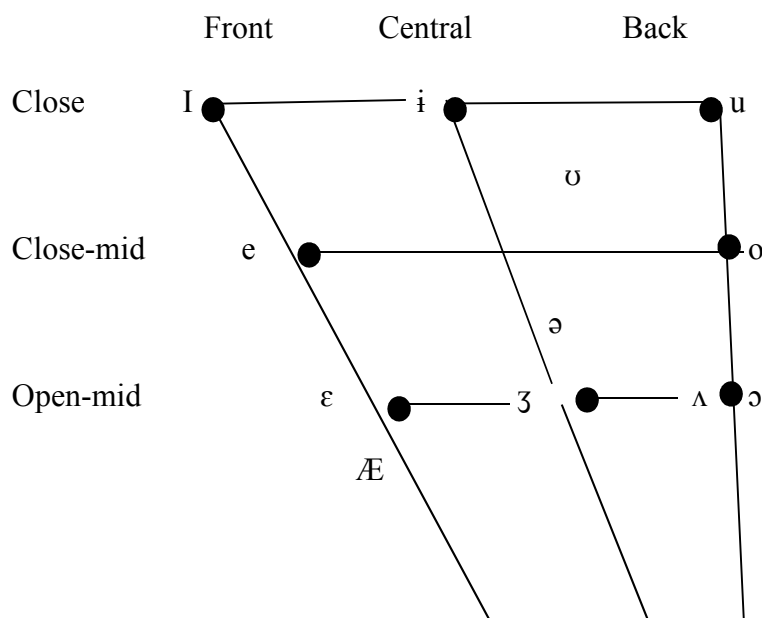
1. Segmental features (Phonemes)

The characteristic of segmented pronunciation (also called phonemes) is the distinct sound in a language. Although the individual way of expressing sounds is slightly different, it still fairly and accurately describes how each sound is produced. When we think about meaning, we will see how each sound (not another sound) changes the meaning of a word. This principle gives us the total number of phonemes in a given language. The set of phonemes consists of two categories: vowel sounds and consonant sounds (Kelly, 2000).

- 1) Vowel

Vowels are the type of sound that everyone makes. When the tongue and lips are used to articulate the sound to form a speech airflow to change the overall shape

of the mouth, a vowel sound will be emitted (Kelly 2000: 29). Vowels are units that function in the middle of the syllable (Crystal, 1985: 330). From a phonetic point of view, the pronunciation of vowels is relatively open: no part of the vocal tract is closed, and all the vocal organs are not so tightly integrated the listener cannot hear the sound of the air. Vowels usually involve vibrating (voicing) the vocal cords, and the resonance they produce by using the tongue and lips to change the shape of the mouth. In English, the main feature without vowels is the use of nasal resonances. Vowels in English are spoken vowels and are only heard nasally if they are affected by adjacent nasal consonants (such as no, long, and man). Therefore, the main task of describing the pronunciation of vowels is to draw the movements of the tongue and lips. The method most widely used was devised by Daniel Jones and is called the tonal vocal system. The basic vowel diagram is designed to provide a set of reference points for vowel expression and recognition. The size corresponds to the vowel space in the middle of the mouth where this sound is made. The position of the tongue in the front, center, and back is represented by a vertical line (Crystal, 2003: 238).



Open

a ● _____ a ●

Fig.1.1.2 The articulation of Vowels (Crystal, 2003 : 238)

The diagram is a representation of the „vowel space“ in the center of the mouth where vowel sounds are articulated.

1. „Close“, „mid“, and „open“ refer to the distance between the tongue and the roof of the mouth.
2. „Front“, „central“, and „back“ and their corresponding „vertical“ lines refer to the part of the tongue.
3. The position of each phoneme represents the height of the tongue, and also the part of the tongue which is (however relatively) raised.

According to Jones, vowels are several continuous voices that are produced without obstruction in the mouth without being accompanied by a friction sound. Jones (1958: 15) in his book "English Pronunciation" classifies vowels into 5 based on the position of the tongue:

- (1). The front vowels, which are produced by the 'front' of the tongue being raised towards the hard palate. For example, / i: / in / fi: d / feed.
- (2). The dorsal vowels, which are produced with the 'back' of the tongue raised towards the soft palate. For example, / u: / in / fu: d / food.
- (3). Middle vowel, when the tongue position is in the middle or in the middle front and back. For example, / ɜ: / in / bɜ: d / bird.
- (4). Vowel cap, when the tongue is held as high as possible consistently with no friction sound. For example, / i: / in / fi: d / feed and / u: / in / fu: d / food.

At the front of the mouth, [a] represents the lowest point that the tongue can theoretically reach, and [ɑ] represents the corresponding lowest point at the back of the mouth. The vowels in the [a] or [ɑ] area are called open vowels or low vowels. [i] represents the highest point in the front that the tongue can reach while still making vowels (any higher pitch will bring the tongue closer to the top of the mouth to produce consonants). Similarly, [u] represents the highest point behind the mouth. The vowels in the areas [i] and [u] are called near vowels or higher vowels.

Two horizontal lines divide the interval between [i] and [a] into equal areas. The vowels represented by [e] and [o] in the upper area of these lines are called middle closed or semi-closed. Vowels are formed in the lower area of these lines, which are half-open or half-open as indicated by [ɛ] and [ɔ]. The term "middle" is often used to describe the entire area between these two lines (Crystal, 2003: 238).

The position of the lips is an important factor in the description of vowels, and three main types can be identified (Kelly, 2000: 30, Crystal, 2003: 238). The fourth is round, and the lips are pushed forward into a round shape. The second spread out, the corners of the lips pulled apart from each other, like a smile. The third is neutral, there are no lips. Pay attention to roundness or spread.

2. Suprasegmental features

Suprasegmental features are phonetic features, which are usually applied to segments or groups of phonemes with spoken and generally implied characteristics. The important features in English are the stress, intonation, and voice changes in the selected speech (Kelly, 2000).

1) Intonation

The term "intonation" refers to the way our voice fluctuates in pitch as we speak. It is a fundamental part of how we express our own thoughts and allows us to understand the thoughts of others. This is a very sensitive aspect of language for us, but especially at the subconscious level (Kelly, 2000: 86).

2) Stress

All words have a recognizable syllable, and one syllable in each word sounds louder than other words. The syllable represented by stress is the stressed syllable. Each stressed syllable (represented by a word in isolation) will also change the pitch or the speaker's voice level, and the vowels in that syllable will become longer. The stress may fall on the fourth, middle or last syllable of a word (Kelly, 2000: 66-67).

3) Connected Speech

Speech related Speech is spoken language which is referred to when analyzed in a continuous sequence, such as in speech and normal conversation (Crystal, 1985: 66). Vowels and consonants are combined into syllables. Syllables are combined into words; words are combined into phrases and sentences (Crystal, 2004: 247).

2.2 English Vowel

Generally, English speakers use 12 vowels, 8 diphthongs and 5 triphthongs (Crystal, 2003:237).

2.2.1 Pure Vowel

Pure vowels are made by moving the tongue to a position in the mouth and have a single perceptible vowel of auditory quality. According to Crystal, (2003: 240-241), when listening to 12 pure vowels, it is obvious that five of them are relatively long in duration and

seven are relatively short. Moreover, in several cases, the length seems to be related to pairs of vocal vowels, which are hinged in roughly the same part of the mouth. The contrast between long vowels and short vowels is not only due to the length, but also includes the different pronunciation positions.

1. Vowel /i:/

i: the so-called "long" sound of the letter e; and there is a hinge point on the front of the tongue, which is slightly protruding downward and located behind the front position, with wide lips, tight tongue, and side edges with upper molars. Make firm contact. For example: tree [tri:], see [si:], even [i:vn]. i: The sound ea, that is, ei and i, are used in many words, such as sea [si:], field [fi:ld], machine [məʃi:n]. Note the special spelling of key [ki:], people [pi:pl].

2. Vowel /ɪ/

ɪ is the "short" sound of the vowels i and y. There is a joint on the part of the tongue that is closer to the center than the front part. The front part is raised to the semi-closed position, the lips are pulled apart, the tongue is loosened, and the upper molars are loosened. Light touch. For example: fit [fɪt], rich [rɪtʃ], king [kɪŋ], symbol [sɪmbəl]. When not pressed, it is also e and sounds with various prefixes and suffixes. The example becomes [bɪ'kʌm], still [rɪ'meɪn]; it is also a stress-free sound, such as the [və'reɪətlɪz] variant.

3. Vowel /e/

E is called the "short" sound of the letter. E is pronounced when the front part of the tongue is raised to between the half-open and half-closed positions, the lips

are loosely spread, the curvature of the tongue is greater than for /ɪ/, and the edges are connected to the upper molars. The contact is lighter. Example pen [pen], red [red]. In many ways, e is also the sound of ea; for example: head [hed], breathing [breθ].

4. Vowel /æ/

æ is the so-called "short" sound of the letter "a". Its pronunciation is that the front of the tongue is raised below the half-open position, the lips are neutrally opened, and the contact between the edges and the upper back molars is very slight; Examples are happy [glæd], cat [kæt], lamp [læmp]. The sound is usually represented by the letter a, with the only exceptions being braids [plæt] and lattice [plæd].

5. Vowel /ʌ/

ʌ is one of the "two" short sounds of the letter u. It is pronounced as the center of the tongue, rising to just fully open, with the lips open neutrally, and there is no contact between the tongue and the upper molars. Examples: cut [kʌt], mutton [mʌtn], hurry up [hʌri]. Oh, there are many sounds; the principle is: between [ə'mʌŋ], come [kʌm], etc.

6. Vowel /ɑ:/

The articulation is when the tongue is in a fully open position between the middle and the back, the lips are neutrally opened, and there is no contact between the rim and the upper molars. The tip of the tongue is usually but not necessarily slightly retracted from the lower teeth. a: When there is a consonant at the end or

back of a word, it is usually the sound of the ar sequence from South to South, for example: far [fa:], part [pa:t], garden [ga:dn]. The sound of a is: half [ha:f], calm [ka:m] and several other words, among which lis remains silent; when ff, ss or f, s or n is followed by another consonant, many words can also be used To describe. Personnel [sta:f], course [kla:s], pass [pa:s].

7. Vowel /ɒ/

When the vowel ɒ is relatively short, the symbol is without a length mark is a member of the English ɒ phoneme. When the back of the tongue is in a fully open position, its lips are slightly open and round, and there is no contact between the rim and the upper molars. ɒ is the short sound of the letter o; examples: not [nɒt], dog [dɒg], sorry [sɒri], solid [sɒlid]. When the vowel starts with w instead of k, g, ŋ, it usually sounds. For example: want [wɒnt], what [wɒtt], squash [skwɒʃ], quality [kwɒliti].

8. Vowel /ɔ:/

The back of the tongue is lifted between the half-open and half-closed positions, and the lips are moderately round and there is no contact between them. ɔ: is a member of the English ɔ phoneme, used when the vowel is relatively long. Its tongue is low, although not as short and low. The lips are rounded, leaving a much smaller opening than the short ɔ case. ɔ: is the regular sound of aw and au; examples: saw [sɔ:], lawn [lɔ:n]. It is also a regular sound of a consonant, or a consonant at the end or after it; example: nor [nɔ:], the format is [fɔ:m].

9. Vowel /ʊ/

The tongue nearer center than back, raised to just above half-close position, the lips are closely but loosely rounded, the tongue is lax, there is no firm contact between rims and upper molars. ʊ is one of the two so called „short“ sounds of letter u; examples put [pʊt], full [fʊl], push [pʊʃ]. O has the sound u when followed by k, as in book [bʊk], look [lʊk], wood [wʊd], wool [wʊl].

10. Vowel /u:/

The back of the tongue is raised to just below the closed position, the lips are rounded tightly, the tongue is tense, and there is no firm contact between the rim and the upper molars. u: The symbol is used to represent those members of the English u phoneme used when the vowel is relatively long. Its tongue is much lower than the main voice and more forward. The rounded corners of the lips are usually smaller than the rounded corners of the protagonist u, but when exaggerating the obviousness, the rounded corners of the protagonist u can be used. u: is the so-called "long" sound of the letter u; example rules [ru:l], blue [blu:]. O in do [du:], move [mu: v], who [hu:], prove that there is the voice of u: in [pru: f].

11. Vowel /ɜ:/

The center of the tongue is raised between semi-closed and semi-open, the lips are in a neutral state, and there is no firm contact between the rim and the upper molars. ɜ: Yes ɜ: The phoneme used when the vowel is relatively long. ɜ: The sounds of er, ir, ur and yr are usually emphasized at the end or immediately following consonants; examples: her [hɜ:], fern [fɜ: n], fir [fɜ:], bird [bɜ: d], fur

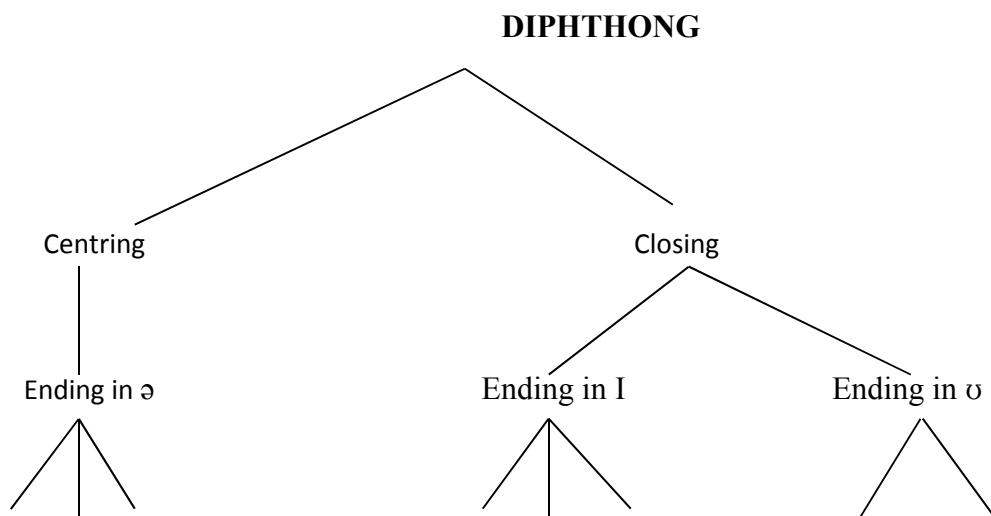
[fɜ:], turn [tɜ:n]. Or usually pronounced as ɜ: when starting with w; for example: work [wɜ: k], world [wɜ: ld], etc.

12. Vowel /ə/

The center of the tongue is raised between semi-closed and semi-open, the lips are opened neutrally, and there is no firm contact between the rim and the upper molars. The letter ə without a long mark is used to denote those members of the English ə phoneme used when the vowel is relatively short. ə is the sound of following [ə'ləŋ], trying [ə'tempt], and so on.

2.2.2 Diphthongs

Diphthongs are vocals that can perceive two vocal qualities. Judging from the length, the diphthong is like a long vowel, but the first part of the diphthong in English is longer and louder than the second vowel. The eight double peaks are usually divided into three categories according to the movement of the tongue. The first group ends with a sound sliding toward the vowel in the middle of the mouth, which is called the second sound in the middle. The total number of diphthongs is eight (though ʊə is increasingly rare). The easiest way to remember them is in terms of three groups divided as in this diagram.



ɪə eə ʊə

eɪ aɪ oɪ

əʊ

aʊ

Pict. Diagram of Diphthongs

The centring diphthongs glide towards the ə vowel, as the symbols indicate :

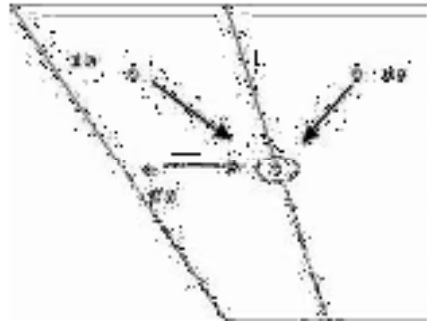


Fig. 2.1 Centring diphthongs

- 1) ɪə for example is “beard”. The starting point is a little closer than ɪ in “bit”.
- 2) eə for example is “cairn”, this diphthongs begins with a vowel sound that is more open than the e of “men”.
- 3) ʊə for example “tour”, for speakers who have this diphthong, this has a started point similar to ʊ is “pull”.

The closing diphthong have the characteristic that they all end with a glide towards a closer vowel. Because the second part of diphthong is weak, they often do not reach a position that could be called close. The important thing is that a glide from a relatively more open towards a relatively closer vowel is produced.



Fig, 2.2 Closing diphthongs

- 1) eɪ, for example “face”, the started point is the same as the e of “get”.
- 2) aɪ, for example “nice”, this diphthong begins with an open vowel which is between front and back, it is quite similar to the ʌ of the words “cut”.
- 3) ɔɪ, for example “void”, this first part of this diphthong is slightly more open than ɔ: in “ought”.

Two diphthongs glide towards ʊ, so that as the tongue moves closer to the roof of the mouth there is at the same time a rounding movement of the lips. This movement is not a large one, again because the second part of the diphthong is weak.

- 1) əʊ, for example “most”, the vowel position for the beginning of this is the same as for the “schwa” vowel ə, as found in the first syllable of the word “about”. The lips may be slightly rounded in anticipation of the glide towards ʊ, for which there is quite noticeable lip-rounding.
- 2) aʊ, for example “gown”, this diphthong begins with a vowel similar to aɪ. Since this is an open vowel, a glide to ʊ would necessitate a large movement, and the tongue often does not reach the ʊ position. There is only slight lip-rounding.

The second group is called a closed double note. They move in the direction of the mass in front of the vocal area, and eventually end up sliding into a higher mouth position. The last group is another closed syllable, which moves in the direction of the mass behind the vowel area thus adding some rounded corners. The following is a description of the characteristics of the two vowels (Crystal, 2003: 241).

1. Diphthong /eɪ/

The joint starts sliding from a position slightly lower than the front half-closed position and it moves upward and backward or slightly backward, with the lips open. The sound seemed to be in progress as inway [ɪnweɪ], cake [keɪk], and pain [peɪn].

2. Diphthong /aɪ/

The starts to slide slightly after the front open position, it moves up to /ɪ/, the lips change from neutral to loosely spread, and the lower jaw is clearly closed. Sounds are like eye [aɪ], cry [kraɪ], and high high [haɪ].

3. Diphthong /ɔɪ/

The hinge is to start sliding between the rear half-open and open positions, move up/forward/forward, the lips open and round, and become neutral. The sound is like the boy [bɔɪ], the sound [vɔɪs], and the toy [tɔɪ].

4. Diphthong /əʊ/

Articulation means that the sliding starts from the middle position, between half-closed and half-open, it moves up/backward/toward//backward /ʊ/, the lips change from neutral to slightly rounded The sound is like going to [gəʊ], snowing [snəʊ] and head [həʊ].

5. Diphthong /aʊ/

The articulation is gliding between the front and rear open positions, it moves upward and slightly backward to /ʊ/, the lips change from neutral opening to

slightly rounded, and the chin moves quite widely. The sound is like bow [baʊ], downward [daʊn], and house [haʊs].

6. Diphthong /ɪə/

Articulation refers to the position where the sliding starts, the sliding direction/down/down movement, the lips remain neutral, and there is a slight movement from opening to opening. The sound is here [hɪə(r)], fear [fɪə(r)] and thoughts [aɪ'dɪə].

7. Diphthong /eə/

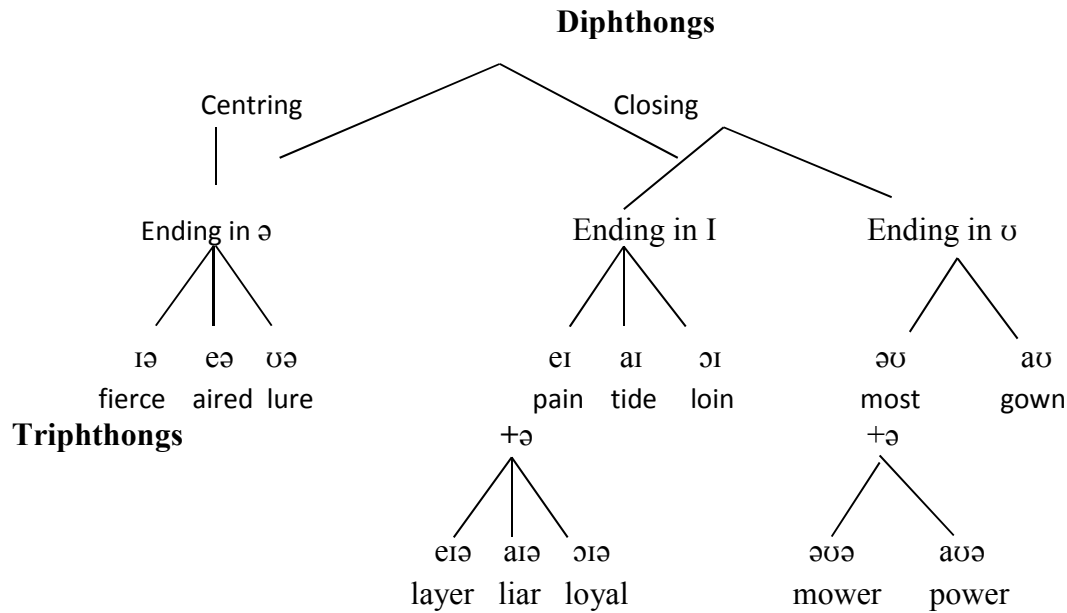
Articulation means that the sliding starts from the half-open position, it moves backward, and the lips always remain neutral. The voice is like dare [deə(r)], hair [heə(r)], and fair [feə(r)].

8. Diphthong /ʊə/

Articulation refers to the position where glide starts at /ʊ/, glide moves forward and down toward /ə/, and the lips are weakly rounded to neutral. The sound is as in poor [pʊə(r)], tour [tʊə(r)], and cure [kjʊə(r)].

2.2.3 Triphthongs

Triphthongs are gliding from one vowel to another, then the third vowel, all tones are produced quickly without interruption. These sounds can be heard through careful pronunciation (Roach, 2009: 19). These are vowels, in which three vowel qualities can be perceived. These are formed by adding a central sliding in the ending double peaks (/eɪ/, /ɔɪ/, /aɪ/, /əʊ/, /aʊ/ ending with /ə/) (Crystal, 2003: 239). These constitute a single vowel unit (Wells, March 21, 2016). There are two types of Triphthong. The first is formed by the end of two syllables ending with /ɪ/, and the second is formed by the ending of two syllables ending with /ʊ/.



Pict. Diagram of Triphthong

All the front vowels get off and get off. Three of them are / eɪ, aɪ, ɔɪ, əʊ, aʊ; aɪ, ɔɪ, aʊ I need a lot of tongue movement. All major double vowels in words followed by [ə], as an integral part of the word, for example, Noah, fire, choir, iron, hired, social, our, sour, tower, or as Suffixes (morpheme) in essence speaking, for example, today's grille, player, slower, mower, taller, drier, masters, and sometimes also elements that can be separated in compound form. However, in general, especially when [ə] is not considered a separable morpheme, usually tends to speak fast, especially in soft RP (even speaking slowly), ignoring the first two elements ([ʊ] and [ɪ]). This process is sometimes called smoothing (Cruttenden, 2008: 145).

Here is the description of the triphthongs (Cruttenden, 2008:145-146);

1. Triphthong /eɪə/, formed by [eɪ] + [ə], [e:ə] smoothing in general, found in word player.
2. Triphthong /aɪə/, formed by [aɪ] + [ə], [a:ə] smoothing in general, found in word fire.

3. Triphthong /ɔɪə/, formed by [ɔɪ] + [ə], [ɔ:ə] smoothing in general, found in word royal.
4. Triphthong /əʊə/, formed by [əʊ] + [ə], [ə:] or /ɜ:/ smoothing in general, found in word lower.
5. Triphthong /aʊə/, formed by [aʊ] + [ə], [a:ə] smoothing in general, found in word tower.

2.3 Error Analysis

Error analysis is part of linguistic study because it studies learners quality in second language. There are many definition about error analysis by the experts. There are several references to define what error analysis, such as: definition of error analysis, and types of errors.

2.3.1 Definition of Error Analysis

Error analysis is a technique that uses the principles and procedures provided by linguistics to identify, classify, and systematically explain unacceptable forms produced by people learning foreign languages (Crystal, 1985: 112). This is a comparative language study, which compares the inter-language of the learner with the target language at a specific point in time. Ideally, it should be done on spontaneous speech samples (Corder, 1973: 269, 273). This is the first way to learn SLA, which includes internally focusing on the learner's ability to build language.

The main focus of SLA is learner error and how learner error can provide evidence of understanding of the basic process of second language learning or second language acquisition. The learner's error is a window into the soul of the language learner (Saville-Troike in Fauziati, 2009: 135). Corder in Brown (2007: 257) pointed out that learner errors are very important to

provide researchers with evidence of how to learn or acquire language, and the strategies or procedures that learners use when discovering language. It can also help teachers design tutoring courses and exercises, corrections, or treatments, which can help learners reduce errors (Fauziati, 2009).

The theoretical function of error analysis is to study the process of language learning. In the psychology or cognitive theory of language acquisition, the reason for the research error is based on the systematic nature of language learning. The systematic of language learning, for example, in the use of hypothesis testing by first language learners and second language learners, it can be seen that errors in the learner's intermediary language will also be systemic (Corder, 1973: 270).

According to Richards in Emmaryana (2010;5:15), error analysis is an activity to reveal errors found in writing and speaking. Error analysis is also the study of mistakes made by second language and foreign-language learners. Error analysis can be done to (a) find out how well a person knows a language, (b) know how a person learns a language, and (c) obtain information about common difficulties in language learning, as an aid in teaching or in preparation of teaching materials. Another concept of error analysis is provided by Brown. He defines error analysis as a process for observing, analyzing, and classifying deviations from the rules of a second language and then revealing the systems operated by learners. From the two definitions above, it can be concluded that error analysis is an activity to identify, classify and interpret or describe mistakes that a person makes in speaking or in writing and is carried out to obtain information about the difficulties that someone usually faces in speaking. or in writing English sentences.

Based on the explanations above, the writer summarizes that error analysis is a study of the types and causes of language errors provided by linguistics to identify or clarify a second language. Error analysis is a way to learn a second language in learners to provide evidence of understanding the basic processes of language learning in learners. Error analysis is also a form of error in writing or expressing something when speaking. Error analysis is very important for the learner to learn or know the second language which use, and can be seen from errors in systemic language learners.

2.3.2 Types of Errors

Cook (1999) divides errors into 3 types. They are Substitution, Insertion and Omission.

1. Substitution

Substitution is a type of error which are characterized with the aid of the replacement of an object (Crystal, 1985:295). An overall performance in which the performer uses the incorrect structure of pronunciation. The supply could be from intralingual, interlingual transfer, and others. Substitution of a word such as heart /hɑ:t/ is mentioned /hət/ or /hɜ:t/ through generalizing the spelling mixture 'ea' in phrases such as analyze /lɜ:n/ and earn/ɜ:n/.

2. Insertion

Insertion is a sort of mistake which are described by the presence of a thing, which ought to in any case not show up in an all-around shaped expression (Fauziati, 2000). In this unique situation, at least one additional sound is added or embedded into a word. The source could be from intralingual, interlingual move, and others. Addition vowel /ə/in a word, for example, studied /'stʌdɪd/ is articulated/'stʌdɪəd/.

3. Omission

The omission is a kind of blunder which are described by the a nonattendance of a thing that should show up in a very much framed expression (Fauziati, 2000). Certain sounds are not delivered – whole syllables or classes of sounds might be erased. This kind of error happened by the impact of intralingual, interlingual moves, and others. Oversight vowel /e/ word, for example, create/div'loped/is articulated /diveləpt/.

2.4 Cause of Error

Due to the influence of their mother tongue, the students made some mistakes. According to Ramelan (1994: 4), foreign language students will encounter difficulties in the learning process, which may be easy to understand. Since he was a child, he has been speaking his mother tongue, which has become part of his life habit. The movement of their speech organs is set to produce speech in their own language. Of course, it will be difficult for them to change the habit of moving their speech organs in a way that produces strange sounds.

Ellis (1994: 58) identified the source or cause of the ability. There are three types of errors:

1. Interference errors are caused by using elements of one language when speaking another language.
2. Internal errors reflect the general characteristics of rule learning, such as the generalization of errors, the incomplete application of rules, and the learning conditions where the rules cannot be applied.
3. When learners try to establish hypotheses about the target language based on limited experience, developmental errors will occur.

According to the reason for the error, Harmer (2001: 99-100) explained that it is generally believed that there are two reasons for the error, and most, if not all, students will learn at different stages.

1. L1 Learning Interference English as a second language students have a deep understanding of at least another language, and there is often confusion where L1 and English touch each other, which can cause students to make mistakes in using English. This may be at the vowel level: for example, Arabic has no phoneme distinction between / f / and / v /, and Arabic speakers may be tempted to speak English. It could be that at the grammatical level, the system used by the student's mother tongue is a little different: French students often find perfection today, because the forms of French are similar, but the expressions are slightly different at the same time; Japanese students use it in essays There is a problem because Japanese doesn't use the same reference system, and so on. In the end, it is possible that at the level of word use, words pronounced alike have different meanings: the librarian in Spanish means "bookstore", embarazada means "pregnant", not "ashamed" (this is called "fake friend" is very common between romance, language).
2. Developmental errors for a long time, no researcher engaged in children's language development has realized the phenomenon of "overgeneralization". It is best to describe this situation as a situation where a child is in a daze by saying "Dad is gone, they are here and so on". Exactly right, the stars suddenly appeared, saying that Dad was gone and "They are coming". What seems to be happening is that the child stares at the "excessive genitalia", a new rule that has been learned

(sub-consciously), and as a result even makes the mistake of what he or she knew before. However, later, as the child began to have a more complex understanding, everything was resolved, he or she turned around and said it came again, and at the same time dealt with past tense endings. Errors are part of the language used by students. The language that the learner possesses at any stage of development will be constantly reshaped as he or she strives to become fully proficient. When responding to errors, teachers should be treated as providing feedback to help them in the reshaping process, rather than admonishing students because they did something wrong.

2.5 Problem of Pronunciation

In general, three different kinds of problem areas can be distinguished (Heronetal: 2000) :

1. Problem in the pronunciations of non-native sound

If students do not know the correct pronunciation of the language to be studied (L2) at the proficiency level, the pronunciation of the voice not from native speakers occurs but at the performance level, limitation and pronunciation will lead to poor performance of non-native speakers' voices. The error may be caused by the student's native language (L1) and the use of the telephone which is similar to the original language; for example, interdental fricatives [θ] and [ð] are implemented as homophonic stops [t] and [d] or fricatives [s] and [z].

2. Carry-over of pronunciation regularities from the mother tongue (1)

The shift that occurs in the regularity of pronunciation from L1 to L2 occurs at the phonological level which is helpful for both languages, a similar shift which can be due to the spelling-to-speech mapping from the original to the mother tongue.

3. Overgeneralizations of target Language (L2) regularities

Whenever a speaker chooses a pronunciation that is possible but not right in the context, this generalization L2 can overexpress the speaker.

2.6 The Previous of the Study

To strengthen the analysis in this study, the researcher try to give some previous studies which analyze the same topic. They are described as follows:

The first study was conducted by Gopur (2008), entitled "Analysis of Errors in Student Speaking Performance (Case Study on Second Year Students of SMK (Vocational High School) Permata 2 Bogor) assumes that English is the international language of communication. so that the language of the scholars is considered successful if they can communicate effectively from their second or foreign language. The purpose of this study was to determine student pronunciation errors in segmental phonemes in grade 2 students of SMK Permata 2 Bogor class II. The writer used qualitative methods to describe the results of this study. The writer observed that there were fifty-six mistakes made with the help of 23 students or 92% of the students made pronunciation errors. The writer suggested several answers as ways of opportunity to address problems that include classroom app sports, or extracurricular sports for college kids.

The second study was conducted by Yiing (2011), entitled "Analysis of Pronunciation Errors of Six Uttar Chinese Learning Students" found that the pronunciation errors made by six Chinese study students according to Contrastive evaluation (CA) and Error Analysis (EA) with predictions that mispronunciation is neither accidental nor random. This error appears due to a special sound system on English Pronunciation. The researcher took the subject's pronunciation pattern through reading words and sentences.

The third study was conducted by Mustikareni (2013), entitled "Error Analysis in Diphthong English Spoken by Students of SMA Negeri 1 Comal and SMA Negeri 1 Banjarnegara in an English Debate on TV Program" Santai "TVRI" said that in learning English, pronunciation This is important because different pronunciations may also have unique meanings and incorrect pronunciation can lead to misunderstandings in conversation. The motives of this study were to pick out the mispronunciations made by controversial players, how the speaking people mispronounced diphthongs and how they corrected their diphthong pronunciations. The researcher used a descriptive qualitative approach to help him realize his motive. He collects, studies information, and draws conclusions based on the analysis of facts expressed in sentences. There are some diphthongs that are mispronounced using the individual debate, they may be diphthong [eI], [oo], [aI], [ao], [Iə], [εə], and [uə]. There are 17 audio systems that mispronounce diphthongs [eI], 20 audio systems in diphthongs [oo], 2 audio systems in diphthongs [aI], 8 audio systems in diphthongs [Iə], 10 speakers in diphthongs [εə] and 1 speaker in diphthong [uə]. Maximum individual debates mispronounce diphthongs with positive vowels. The final results of this study optimistically contribute to the practical importance of the pre-service teachers.

The fourth study was conducted by Ayu (2019), entitled "An Error Analysis in Pronunciation of English Vowels for the fourth semester students of English Education Department. Faculty of Tarbiyah and Teacher Training State Islamic Institute (IAIN) Tulungagung academic year 2018/2019". The researcher objectives are: (1). To identify errors in pronouncing English vowels of the fourth semester students of English Education Department of State Islamic Institute (IAIN) Tulungagung. (2). To classify the errors by its types in pronouncing English vowels of the fourth semester students of English Education Department of State Islamic Institute (IAIN) of Tulungagung. Researcher method applied in this research

include, Descriptive study with Qualitative approach and Quantitative approach. The subjects of this study were fourth semester students of English Department at IAIN Tulungagung academic year 2018/2019. This researcher used instruments of collecting data is documentation and interview. Analysis data of error analysis data.

The writer collected and analyzed facts through the use of Phonemic Transcriptions on the dialogue. The writer compared the sound engines of English, to list the problems of English pronunciation capacity for the subjects using contrast analysis, and pronunciation errors of concern were identified based on the error analysis. The findings from this study offer a clean knowledge of the unusual characteristics of the pronunciation made by subjects. Therefore, the researcher tried to conduct a research entitled "An Error Analysis on Vowels Pronunciation of X Grade Students at SMA Gajah Mada Medan". In this study, the writer paid attention to students' pronunciation in producing vowel sounds. The final result of his research made the specificity of the students 'errors in pronouncing English in terms of vowels, the frequency of students' error styles, and the reasons for the errors.

Although all previous studies have the same field as this research, this is about pronunciation, but there are differences. The first previous study focused on students' pronunciation of segmental phonemes, the second previous study focused on diphthong errors and the previous 1/3 looked at focusing on a special sound system on English pronunciation. In this study, the writer tried to conduct behavioral research that was targeted at the segmental phoneme of students' vowel pronunciation.

2.7 Conceptual Framework

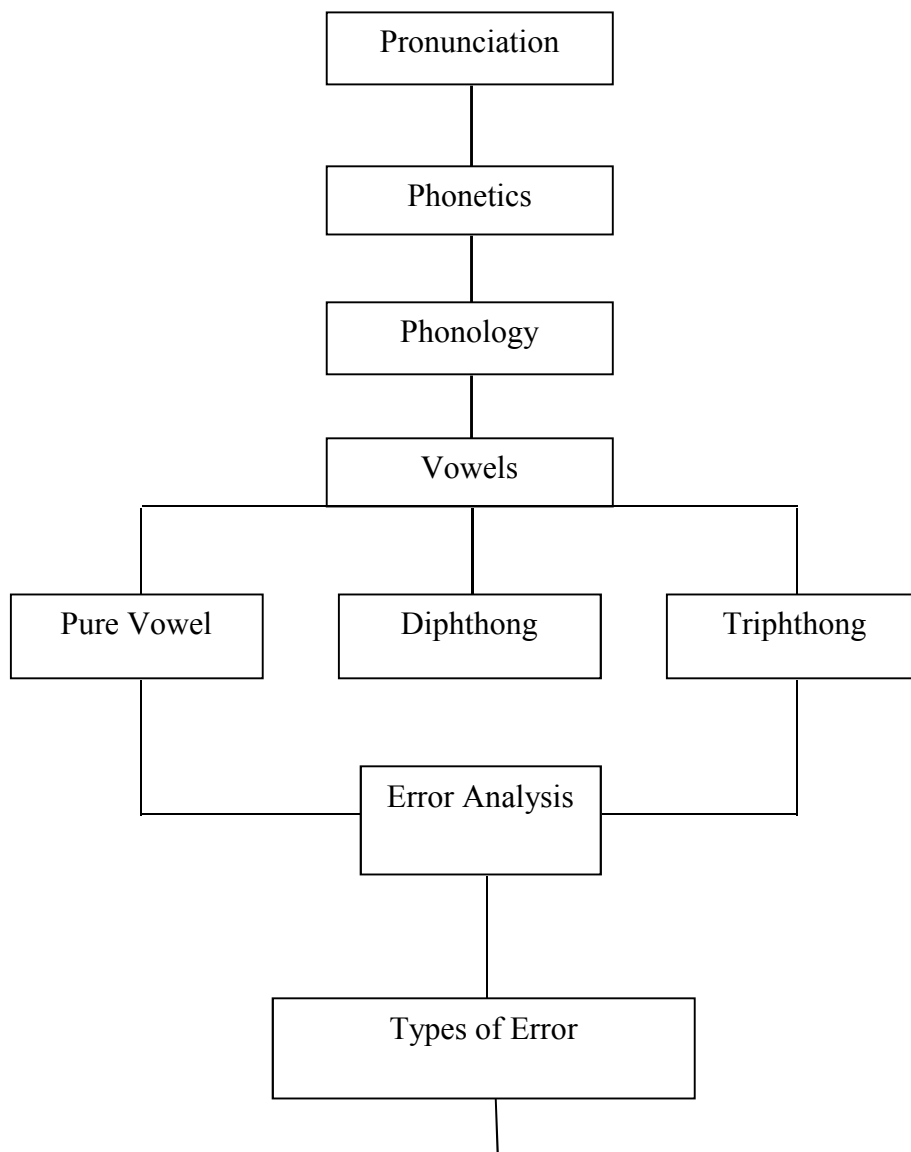
Conceptual framework is a framework that contains generalizations which can be used to define several interrelated plans and is a tool for describing phenomena about the research problem and the theoretical framework used

According to Oxford advance Learner' dictionary (2005: 1164), defined pronunciation is the way in which the language of a particular word or sound is pronounced. The second meaning is the way in which the particular person pronounces the words of a language.

According to Keraf (1984:30) Phonetics is the study of how humans make, transmit, and receive sound. Phonetics is the study of speech sounds We are able to segment a continuous stream of speech into distinct parts and recognize the parts in other words Everyone who knows a language knows how to segment sentences into words and words into sounds.

This is an abstract alphabet unit that can be used to write language systematically and unambiguously (Yusuf, 1998: 19). For example the phoneme / p / and / t / in the words pie and tie, etc. However, in order to fully understand the use of speech sounds in English, we must study both phonology and phonetics.

According to Richards in Emmaryana (2010; 5), error analysis is an activity to reveal errors found in writing and speaking. Error analysis is also the study of mistakes made by second language and foreign-language learners. It describes kinds of Errors according to Dulay that is Omission, Addition, Misformation, and Misordering.



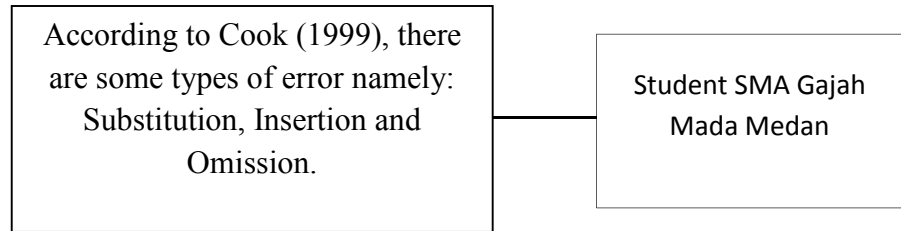


Figure 2.7 *Conceptual Framework of An Error Analysis on Vowels Pronunciation of X Grade*

Students at SMA Gajah Mada Medan (Sipayung, Rismarito: 2021)

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Design

This study uses descriptive qualitative methods to answer the purpose of the study, which is to describe the vowels mispronounced by students in the X Grade in Senior High School of SMA Gajah Mada Medan by collecting, classifying, and summarizing data.

Hadi (1983: 3) argues that there are many procedures for using qualitative description methods: researchers collect data, classify them, and draw conclusions on the data. In other words, it can be said the writer usually use qualitative description methods to collect the data they need. After collecting the data, the researcher can classify it specifically, then the researcher can draw conclusions from the data.

Qualitative research is research that produces analytical procedures. Moleong (2004: 3) suggests that descriptive qualitative research is research that does not include calculations or numbers. This means that the researcher tries to explain his research using this description. Burn

(1999: 2) suggests that the purpose of qualitative methods is to provide descriptions, explanations, and classifications of naturalistic social categories.

3.2 The Data Resource

In research, data sources are used to explain the topic from which the data is obtained (Arikunto, 1996: 162). The data source is student speaking voice records in conversation. This writing will analyze student recordings that inform vocals. This writing will analyze students to make 5 groups consisting of 2 people 1 group so that they are able to analyze many expressions. So the data here is used to determine student pronunciation errors when given to students. The time given to students is 5 minutes for pronunciation.

3.3 Instrument of Data

According to Arikunto (2006:149), a Research instrument is an instrument that is used by researchers in applying a method in collecting the data. In this research, the instrument used is spoken test and voice recording. The writer makes observations using mobile phone, note, Dialogue of pronunciation students' vowels.

The spoken test used by the writer will use a dialogue collection consisting of five groups of two people. The word institution consists of consonant and vowels. This test given 5 minutes to do. Then the writer gave participants a structured dialogue so that students could read the dialogue and record the students' voice when doing research to find out error in pronunciation.

3.4 Technique of Collecting Data

Sherman and Webb (1988: 130) show that once researchers identify a researchable problem and enter the field, they begin to collect data. The data is in the form of English vowel

pronunciation which will be spoken to class X SMA students. In this study, researchers used documents to collect data.

To collect the data of problem, the writer took the following ways :

- 1) The writer sends conversations to students via WhatsApp and students rewrite the conversations back into paper or books.
 - 2) The writer listens to the conversations that have been done by students for 3 (three) repetitions.
 - 3) The writer identifies the copy on the paper to do the analysis done by the students on the conversation.
 - 4) The writer analyzes the students' conversations to find out the vowel pronunciation errors made by the students.
 - 5) Dominant
1. Calculating the errors in students pronunciation of vowels based on each type. The formula and the sample of analysis in form of the table are follows based on Hancock et al (2009:24) :

$$N = \frac{f(x)}{n} \times 100\%$$

More details :

N : percentage of types

$f(x)$: total types frequency of the sub category

n : total types of all categories

Sample of Analysis

An Error Analysis On Vowels Pronunciation Of X Grade Students At SMA Gajah

Mada Medan

Table 3.4 The Percentage of Error Vowels Types

No	Types of Error	Number	Percentage
1	Substitution Ex : studied /'stʌdɪd/ is articulated/'stʌdɪəd/.
2	Insertion Ex : heart /hɑ:t/ is mentioned /hət/ or /hɜ:t/
3	Omission Ex : create/div'loped/ is articulated /diveləpt/.

In Descriptive approach, the researcher can make a prediction of variable that included into correlation level (Nugrahani, 2014 :31). Also, according to Sugiyono (2012: 13) descriptive research, namely, research conducted to determine the value of the independent variable, either one or more (independent) variables without making comparisons, or connecting with other variables. All was done basically by counting how often something appears in the data and comparing one measurement with others or in other hand it is called as the dominant.

3.5 Technique of Analyzing Data

After collecting data, writer can analyze it using descriptive analysis, which includes descriptions and interpretations of the data. The data collected by the writer will use analyzed into their own sentences. Miles, et.al (2014:19), state that the activities of qualitative analysis consisted of data condensation, data display, and conclusions drawing or verification.

1. Data Reduction

In this step, the data concluded, grouped, and focused on the main problem of the research. The writer will identify the problem of research and the classified the main problem from data to non-data. Reducing the data will be made the writer easier to analyzed or find the data needed.

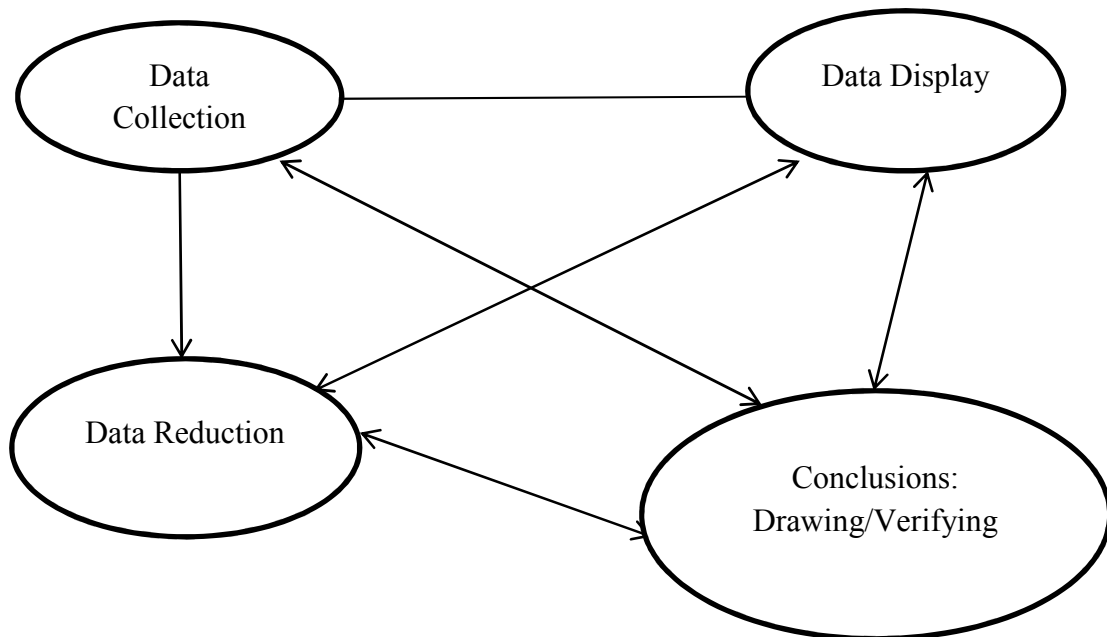
2. Data Display

In this second step, after the data will be reduced, the writer will listen, identify, and analyze data into 3 types of errors on vowel pronunciation.

3. Conclusions Drawing or Verification

The last step is Drawing Conclusions or Verification In this step, the writer finds difficulties when conducting student conversations in vowel pronunciation errors from the data display that has been presented previously.

Figure 3.5 Components of Data Analysis: Interactive Model



The writer selecting, focusing, simplify, abstracting, and transforming. Then after selecting data, it focuses on the errors. In the abstracting, the writer described the data analysis in the tabulation and together with research findings in this table graphs, etc. moreover, the presentation of data can be done in the form of brief descriptions, charts, relationships between categories, flowcharts, etc. the last, the writer makes data conclusion.

3.6 Triangulation

Triangulation is the credibility of the data that needs to be checked to check the validity of the data. In this study, the authors used triangulation techniques to observe the validity of the data.

According to Sugiyono (2007:330) triangulation, the aim is not to determine the truth about the same social phenomenon, rather than the purpose of train Determining the truth about the same social phenomenon is not the purpose of triangulation but increases one's understanding of what has been researched (Sugiyono, 2007:330). The qualitative cross-validation is called triangulation, and which is assessed is the sufficiency of the data according to the convergence multiple data source or multiple data collections, said William Wiersma in Sugiyono (2007:372). There are four types to identify the triangulation of data (Norman Denzim, 1978), they are :

1. Data Triangulation

Data triangulation related to the use of various or different data or information (people, space, and time) in research, for example, qualitative and quantitative data. The process of rechecking and comparing information by writer obtained in the different sources is called data triangulation. Comparing observation data and interview data or questionnaires and tests is the

method the writer will use to get the data. The comparisons being compared by the writer are students' utterances, informant information, and circumstances or perspective of different people in similar contexts.

2. Investigator Triangulation

Investigator triangulation related to the use of multiple researchers to obtain more valid data. Work in the team is the way it takes to make sure the validity of data.

3. Methodological Triangulation

Methodology triangulation relates to the effort of checking the data or data result. To conduct phenomenon and situation by using some methods is called the aim of methodology triangulation. The mix of method approaches used in social science research, where the result from one method is used to enhance, argue and clarify the result of the others as the same as methodology triangulation.

4. Theory Triangulation

Theory triangulation relates to the use of two or more theories which is combined when examining phenomenon and situation. The inclusion of some theories needs to be made more complete to obtain more comprehensive data.

