#### **CHAPTER II**

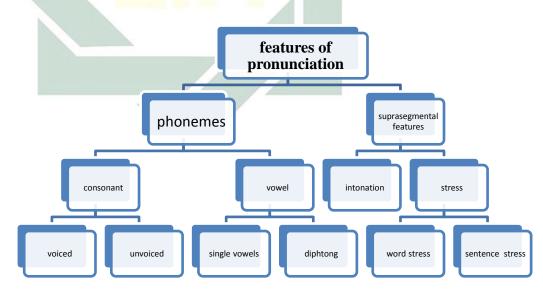
## **REVIEW OF RELATED LITERATURE**

## **A. Theoritical Framework**

## 1. Assimilation in Phonology

In studying phonology actually it also learns about sound of language. Phonology is primarily concerned with how we interpret and systemize sound.<sup>3</sup> Phonology deals with the system and pattern of the sounds which exist in particular language. The study of phonology is study about vowel, consonant, and supra segmental features. It will help the language learner in distinguish of sound which is produced to get perfect pronunciation. This following diagram is breakdown of the main features of pronunciation.<sup>4</sup>





<sup>&</sup>lt;sup>3</sup> Gerald Kelly. 2000. *How to Teach Pronounciation*. Edinburgh Gate, Harlow: Pearson Education Limited.page 9

<sup>&</sup>lt;sup>4</sup> Ibid,page 1.

Phonemes are the different sound within language. The study of phonology is the study of the speech sounds and sound patterns of spoken language. Central to the study of phonology is the identification and classification of the phonemes of a given language.<sup>5</sup> By understanding phoneme, it will give more information related to the sound of language. Phonemes describe more specific of the language. One of the variant of sound is voice and voiceless sound. Voiced sound is when the vocal cords in the larynx are vibrated.<sup>6</sup> The set of phoneme consist of two categories. They are vowel sounds and consonant sound. Here this research will focus on phoneme especially in consonant sound.

#### **1.1** The articulation of Consonant

The existence of consonant can be explained in term of the manner and place of articulation.

- a. Manner of Articulation
  - Plosive : a complete closure is made somewhere in the vocal tract, and the soft palate is also raised. Air pressure increases behind the closure and is then released explosively. E.g : /p/ and /b/
  - 2) Affricate: a complete closure is made somewhere in the mouth,

and the soft palate is raised. Air pressure increases

<sup>&</sup>lt;sup>5</sup> Matt Carter.Minds and Computers.An Introduction to the Phylosophy of Artificial Intelligence.Edinburgh University Press.Edinburgh.2007.page 165

<sup>&</sup>lt;sup>6</sup> Ibid, page 4.

behind the closure and is then released more slowly than in plosive. E.g :  $/t^{f}$  and  $/d_{3}/$ 

- 3) Fricative : when two vocal organs come close enough together for the movement of air between them to be heard. E.g /f/ and /v/.
- 4) Nasal : a closure is made by the lips, or by the tongue against the palate, the soft palate is lowered, and air escapes through the nose. E.g /m/ and /n/.
- 5) Lateral : a partial closure is made by the blade of the tongue against the alveolar ridge. Air is able to flow around the side of the tongue. E.g /l/
- 6) Approximant: vocal organs come near to each other, but not so close as to cause audible friction. E.g : /r/ and /w/.

b. Place of Articulation

- 1) Bilabial : using closing movement of both lips. E.g /p/ and /m/
- 2) Labio-dental : using the lower lip and the upper teeth. E.g : /f/

and /v/

3) Dental : the tongue tip is used close to the alveolar ridge.

E.g :  $/\Theta/$  and  $/^{\delta}/$ .

4) Alveolar : the blade of the tongue is used close to the alveolar ridge. E.g /t/,/s/

5) Palato-alveolar : the blade (or tip) of the tongue is used just behind the alveolar ridge. E.g : /tJ/ and /dz/

6) Palatal : the front of the tongue is raised close to the palatal. E.g /j/

7) Velar : the back of the tongue is used against the soft palate. E.g /k/ and / $\eta$ /

8) Glottal

: the gap between the vocal cords is used to make audible friction. E.g :/h/

Phonemes divide into open, or sonorant, sounds which we can think of as vowels restricted, or obstruent, sounds which we can think of as consonants. Obstruent phonemes are described in terms of their place and manner of articulation, and whether or not they are voiced. The place of articulation refers to the combination of articulatory apparatus that is employed in their production. The manner of articulation refers to the extent to which the sound is restricted by the articulatory apparatus.<sup>7</sup>

<sup>&</sup>lt;sup>7</sup> Matt Carter.Minds and Computers.An Introduction to the Phylosophy of Artificial Intelligence.Edinburgh University Press.Edinburgh.2007.page 165

[				PLACE						
	N	IANNER	VOICING	Bilabial	Labiodental	Interdental	Alveolar	Palatal	Velar	Glottal
Obstruent	Stop		Voiceless	р			t		k	?
			Voiced	Ь			d		g	
	Fricative		Voiceless		f	θ	S	ſ		h
			Voiced		V	ð	Z	3		
	Affricate		Voiceless					t∫		
			Voiced					ዋ		
Sonorant	Nasal		Voiced	m			n		Ŋ	
	Liquid	Lateral	Voiced				1			
		Rhotic	Voiced					(L) I		
	Glide		Voiced	W				j	(w)	

**Figure 2.1 Consonant Chart** 

The consonant chart above will show easier about the kind of phoneme which categorizes based on manner and place of articulation. In that chart, it also provides the voicing of sound. The sound can be belongs to voice sound or voiceless sound.

## **1.2 Phonetics**

There will be complicated understanding if do not know how the really of description the sound in human language. It is also essential to know the physical reality of speech sound. Here phonetics will shows the actual of speech sound. The discipline of phonetics can be studied in related. Linguist argued that phonetics describes how speech organ move to produce sound, which travel in sound waves, which are received by the ears and transmitted to the brain.<sup>8</sup>

Phonetic deals with speech sound consist of articulatory phonetics, auditory phonetics, and acoustics phonetics. Those three kinds of phonetics are the basic branch of phonology. Articulatory phonetics is how the sound is made. Auditory phonetics is how the sound perceived. While acoustics phonetics is about the physic involved.<sup>9</sup> Mastering about that will make deeper in understanding the language. Beside that, phonetics help the learner especially second language learner to know clearly in distinguishing some phonemes. For the example, the language learner sometime is very confused to identify the phoneme /t/ and /d/. Furthermore, those phonemes are spoken by native in fast speaking. Those three divisions in phonetics make easier in analyzing the sound of words.

# **A. Articulatory Phonetics**

Articulatory phonetics is the branch of phonetics which studies the organs of speech and their use in producing speech sounds.<sup>10</sup> It is related with the organ speech of human language.

<sup>&</sup>lt;sup>8</sup> Ibid, page 9

 <sup>&</sup>lt;sup>9</sup> Mike Davenport, S.J Hannahs.introducing Phonetics and Phonology 2<sup>nd</sup> edition.university of Durham amd university of Newcastle Upon Tyne.Oxford University Press.New York.2005.p.2
 <sup>10</sup> R.L.Trask.A Dictionary of Phonetics and Phonology.Taylor and Francis Routledge.New York.1996.p.34

See from the picture below.

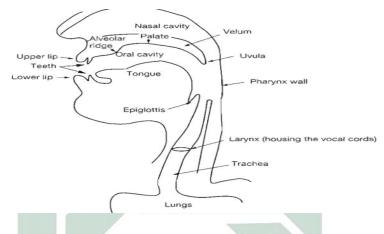


Figure 2.2 Cross-section of the vocal tract

In another reference, the definition of articulatory phonetics deals with the categorization and classification of the production features of speech sounds.<sup>11</sup> This branch is very essential in phonological process analysis. For example in this research, the assimilation process is one the example of articulatory phonetics which describing how sounds modification within a given articulatory in produce the speech.

### **B.** Acoustic Phonetics

While acoustic phonetics is not only focused on the physically sound of speech but also relevant with the acoustics properties of speech sound. The branch of phonetics which deals with the physical characteristics of the sound waves which carry speech sounds between mouth and ear.<sup>12</sup> Usually in acoustics phonetics analysis uses the heavy instrument to find the

<sup>&</sup>lt;sup>11</sup> Culbertson, W. R., Cotton, S. S., & Tanner, D. C. (2006). Anatomy and physiology study guide for speech and hearing.San Diego: Plural Publishing.p.14 <sup>12</sup> Ibid.p.8

spectrogram to know the frequency of the sound. The nature and acoustics of the sound waves which transmit speech exists in this kind of phonetics.

## **C. Auditory Phonetics**

The third branch of phonetics, auditory phonetics, is the focus of this research in analyzing the data. Auditory phonetics is dealing with the way in which the human ear and brain process and interpret the sound.<sup>13</sup> In another book, auditory phonetics is the study of the perception of speech sounds.<sup>14</sup> How the sound received by the human is discussed in this part of phonetics. Auditory phonetics usually uses the organ of people in accept the sound that is ear. It is why the analyzing of speech sound difficult to do. In this research the researcher uses auditory phonetics in analyzing assimilation which produced by students in speaking performance. Assimilation is one of the types of analysis auditory phonetics. It shows from how the researcher does in data processing which must hears one by one the students' recording.

As mentioned before, phonetics can study about connected sound. One of the discussions in phonology, that is connected speech. Connected speech is more than just a string of individual target segments joined together in series, since each segment is liable to influence the segments surround it. The connected speech has some aspects such the process of linking, assimilation,

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<sup>&</sup>lt;sup>13</sup> Ibid.p.41

<sup>&</sup>lt;sup>14</sup> Vedrana Mihalicek, Christin Wilson.Language Files Materials for an Introduction to Language and Linguistics 8<sup>th</sup> edition.Department of Ohio State University.The Ohio University Press.Columbus.2011.p.11

elision, juncture, contractions, as they occur in connected speech. This research will focus on the assimilation as the main topic of this research.

Assimilation is the influence of the end or the first phoneme which cause similar or same sound in intepreting the words. Slazman stated in his book that assimilation itself can happen at least in two words. He said that assimilation is the influence of a sound on a neighboring sound so that the two become similar or the same.<sup>15</sup> Assimilation is a process. This is the process when a sound of one word gives effect to the next word so that get similarity sound. Assimilation is caused of phonological conditioning. The changes of sounds are mainly caused by the speaker's speed of utterance or the rapid movement of the speech organs from one position to another causes both of the two sounds to change either into a third or into two other sounds very similar to one another. Usually it happens in fast speaking. Such as "this young man", spoken rapidly, would be pronounced as [ðiʃ ʃaŋman]. Vladimir kulikov also argued in his journal that assimilation is a phonetic (variable) process, attested only in fast speech.<sup>16</sup> He was done the experiment examine the process of voicing the assimilation in slow, normal, and fast speech. The finding is evidence that in fast speech voice assimilation across a word boundary is a regular phonological process. This

<sup>&</sup>lt;sup>15</sup> Zdenek Salzmann, *Language, Culture, and Society: An Introduction to Linguistic Anthropology*. Westview, 2004

<sup>&</sup>lt;sup>16</sup> Kulikov Vladimir, The Phonetics and Phonology of Voice Assimilation and Sonorant Transparency in Normal and Fast Speech in Russian. University of Iowa.

often even always happens in native speaking when they speak english rather than in second language acquisition. Assimilation is very usual in lingisutic phenomenon. In phonology, the process of assimilation is more existing that the other process especially in sentences which is connected speech.

People who use English as their mother tongue (active speaker) often speak connectedly. Connectedly here means people unconsciously connect some words they speak, primary in daily conversation. Those two statements conclude that active speakers tend to connect some words they say rather than pronounce it carefully word by word. Assimilation here is one of the connected speech process. It presents in more than one word even sentences by sentences. According to Kelly, there are some features of connected speech, such as assimilation, elision, linking and intrusion, juncture, and contractions, which are found in diverse accents and kinds of English.<sup>17</sup> In sentences can present two or more processes of connected speech. Each of processes has different phonological rules. It based on how the word sounds.

Assimilation is defined as how word blends another word dealing with its sound. We will find a couple of words where one of them is not fully pronounced especially at the end of its sound, less the phoneme, because our lips or another organ of speech is ready to say another word in case of connected speech. For instance, when we notice a word ending with

<sup>&</sup>lt;sup>17</sup> Ibid, p. 109

/t/ or /d/ sound, it will often be assimilated with another consonant, such as in weird person. When saying that couple word connectedly, speaker unpronounced the /d/ sound because their organ of speech assimilate to the /p/ sound of person. Practically, our organ of speech does not do the alveolar in the word weird perfectly, yet directly does the bilabial of the word person.

It important to recognize in distinguish between the segment which is being assimilated named the assimilate, the segment which assimilates another segment (transfers some features to it) named the assimilator, and the segment resulting from the assimilation, i.e. the assimilee after the assimilation, which named, for want of a better term, the assimilant. For example, in the phrase ten cups [tɛnŋkʌps] the segment /k/ is the assimilator, the segment /n/ is the assimilee, whereas the segment /<sup>n</sup>/ is the assimilant.

In Cambridge English Pronunciation Dictionary, Assimilation is process found in all languages which causes speech sounds to be modified in a way which makes them more similar to their neighbors.<sup>18</sup> A well- known example is that of English alveolar consonant such as /t,d,n/,which, when they are followed by a consonant which does not have alveolar place of articulation, tend to adopt the place of articulation of the following

<sup>&</sup>lt;sup>18</sup> Cambridge English Pronunciation Dictionary.page 36

consonant. Thus the /t/ at the end of 'foot' [fut] changes to /p/ when followed by /b/ in the word 'football', giving the pronunciation [fup.bol].

#### 2. Type of Assimilation

Based on a mixture of analytical perspective, the typology of assimilation is one of the important discussions when we talk about assimilation. In distinguishing of type of assimilation, some linguist has different name for each process of assimilation.

a. Regressive Assimilation (Anticipatory)

In regressive assimilation, the assimilated sound exactly creates a new sound. As we have mentioned in the opening of this discussion, a couple word weird person. Another example are the word banker, where /n/ sound meets /k/ sound and they change into /ŋ/, so the word banker is pronounced ['bæŋ.kə]. Furthermore, /s/ can assimilate to /ʃ/ as in this is Sue's shoes, or /z/ assimilate to /ʒ/ before /ʃ/ as in to ease shaggy.

b. Progressive Assimilation (Presevatory)

This type of assimilation occurs when in the sequence of segment AB, segment A exert influence on segment B. Or we can say that A is assimilator while B is assimilee. Example of progressive assimilation are the devoiced form of /z/ in the contracted forms in the sentences 'What's(does)it look like?'; 'jack's (is) here.<sup>19</sup>

c. Coalescent

Coalescent is when two sounds combined and produce the new sounds. The coalescent happens when some sounds meet /y/ sound. For example /d/ sound meets /y/ sound in They called you [ðer kɔ:ld ju] becomes They called you [ðer kɔ:ldʒu:]. He gets your love /hi: gets jor  $l_Av$ / becomes [hi: getʃor  $l_Av$ ]. Another coalescent are /dz/ meets /y/ as in Rob feeds your pet [Rob fi:dz jor pet] becomes [Rob fi: dʒor pet].

In another references, coalescent is familiar named Reciprocal Assimilation. Reciprocal Assimilation or mutual assimilation occurs when the sequences of segment AB, segment B exert influence on segment A, and at the same time segment A also exert influence on segment B. so, A and B are assimilator. It can remember this type by pattern of  $A \leftrightarrow B$ . Reciprocal assimilation here also divided into two types, they are:

1). Non-coalescent Reciprocal Assimilation

This assimilation occurs when two sounds influence each other reciprocally, and the result is such that both sounds receive some features

<sup>&</sup>lt;sup>19</sup> Daniel Jones.An Outline of English Phonetics.Cambridge University Press.9<sup>th</sup> ed.1972.page 225

reciprocally, but they nevertheless remain relatively autonomous. For example in the word more  $[m^w \mathfrak{d}:]$ .

2). Coalescent Reciprocal Assimilation

This is a process in which two segments merge into one, and a qualitatively new sound (assimilant) is formed. E.g get you  $/t/\leftrightarrow /j/\rightarrow /t/$ .<sup>20</sup>

Assimilation is said to be 'progressive' when a sound influences a following sound, or 'regressive' when a sound influences one which precedes it. The most familiar case of regressive assimilation in English is that of alveolar consonants (e.g. /t/ /d/ /s/ /z/ /n/) which are followed by non-alveolar consonant: assimilation results in change of place of articulation from alveolar to a different place. "The most common type of regressive assimilation is called assimilation of place. This typically this involves the alveolar consonant /t,d,n,s,z/ assimilating to the place articulation of the following initial consonant".<sup>21</sup> This book also names regressive assimilation as assimilation of place, progressive assimilation as assimilation of voice. For example, the word this has sound /s/ at the end if it is pronounced on its own, but when followed by post-alveolar /<sup>f/</sup> in a word such as shop it often changes in rapid speech (through assimilation) to /<sup>f/</sup>, giving the pronunciation [ $^{\delta I, f/pp}$ ].

<sup>&</sup>lt;sup>20</sup> Radoslav Pavlik. *A Typology of Assimilations*. Department of English Language and Literature. Slovakia.vol.59

<sup>&</sup>lt;sup>21</sup> Pamela Rogerson-Revell.*English Phonology and Pronunciation Teaching*. Continuum International Publishing group.New York.2011.page 163.

The following examples are :

Batman = [bæt. Mæn] become [bæp.mæn]

Fruitcake= [fru:t.keik] become [fru:k.keik]

.

Handbag = [hænd. Bæg] become [hæmb. Bæg]

Another reference has different type of assimilation. They are local and long-distance. Local assimilation obtains between strictly adjacent segment, such as between consonant in a consonant cluster. Long-distance assimilation obtains between segments consonant across vowel. Local assimilation in American English whereby a nasal is made to agree in place of articulation features with a following consonant.<sup>22</sup> Such as : inapplicable [næ] for negative prefix in. Actually, in Bahasa Indonesia also presents assimilation process as the cause of the change of sound language from the sound environment.<sup>23</sup> Regressive and progressive assimilation are also types of assimilation in that book.

A related process with assimilation is called co-articulation effect. Here is where one segment influences another to produce an allophonic variation. Many expert of linguist are discussing about the different of assimilation with co-articulation effect. In their discussion, those processes that

<sup>&</sup>lt;sup>22</sup> Paul De Lacy. The Cambridge Handbook of Phonology. Cambridge University Press, 2006. Page 335.

 <sup>&</sup>lt;sup>23</sup> Abdul Chaer.Fonologi Bahasa Indonesia.Rineka Cipta.Jakarta.2009.Page 98

are thought to be planned before articulation are often referred to as assimilations, while the ones said to occur as a result of physical properties of articulators are usually called co-articulations. The two theoretical positions mentioned above are based on the employment of different hypothetical mechanisms.

# 3. Phonologycal rules for assimilation process

Phonological rule belongs in every language. It classifies into some major types of phonological rules depend on the kind of process that they involve. In this case, the process of assimilation is one of those major which has phonological rules.

Assimilation process has some rules in process of connected speech. Here if the sound modify each other when they meet, usually across word boundaries, but within word too. Some rules for assimilation:<sup>24</sup>

1. The phonemes /t/, /d/, and /n/ often become bilabial before bilabial consonants /p/,/b/,and/m/ e.g : Can you see that boy over there?

That\_boy =  $\begin{bmatrix} \delta \hat{\alpha} t & b \\ D \end{bmatrix} > \begin{bmatrix} \delta \hat{\alpha} p & b \\ D \end{bmatrix}$ 

<sup>&</sup>lt;sup>24</sup> Gerald Kelly. 2000. *How to Teach Pronounciation*. Edinburgh Gate, Harlow: Pearson Education Limited.page 109.

- 2. /t/ assimilates to /k/ before /k/ or /g/. /d/ assimilates to /g/ before /k/ or /g/
  e.g : She's a very good girl. ( /d/ assimilates to /g/) [gud gə·l] > [guk gə·l]
- /n/ can assimilates to/fj/ before /g/ or /k/ e.g : He's bringing his ow<u>n c</u>ar.
   [ounkar] > [oun ŋkar]
- 4. /s/ can assimilates to /ʃ/ before /ʃ/ e.g: I really love this shiny one over there [ðis ſini] > [ðiʃſini]
- 5. /z/ can assimilates to /ʒ/ before /ʃ/ e.g : We found this lovely little cheese
   shop in Paris [tʃiz ʃap] > [tʃi ʒ ʃap]
- 6. /t/ and /j/ coalesce to form /tʃ/ e.g: You went to France las<u>t year</u>, didn'<u>t</u>
   you? [la:st jia(r)] > [la:st<sup>f</sup>ia(r)]
- 7. /d/ and /j/ coalesce to form /dʒ/ e.g: Woul<u>d y</u>ou like a cup of tea?
  [wəd ju:] > [wədʒu:]

Beside those phonological rules, we have to know that process of assimilation is not only occurs in a segment but also in supra segmental. Assimilation also occurs in the change of voice sound become voiceless sound. Based on the production of voicing of assimilation itself, we can distinguish between two main types. They are:

1. Voicing

This assimilation occurs when the voicing (the vibration of the vocal folds) of the assimilator is transferred to a voiceless assimilee. For

example: the voiceless word-final consonant cluster [st] in th word test is assimilated into voiced [zd] when the word is followed by a voiced sound.

2. Devoicing (desonorization, assimilation of voicelessness)

This assimilation occurs when the feature of voicelessness (the lack of vibration of the vocal folds) of the assimilator is transferred (categorically or non-categorically) to a voiced assimilee. For example, the voiced consonant [b] i word chlieb (bread) is assimilated into voiceless [p] when the word is followed by a pause or a voiceless consonant.<sup>25</sup>

The vibration of the vocal cords is not something that can be switched on and off very swiftly, as a result groups of consonants tend to be either all voiced or all voiceless. Such as the different endings of 'dogs' /dbgz/ and 'cats' /kæts/, of the past forms of the regular verbs such as 'kissed' / kist/ and 'sneezed' /sni:zd/. In these cases the fact of the final consonant of a word being voiced or not determines the choice of whether the suffix will be voiced or voiceless. In the case of the suffixes for plural nouns, for the third person singular in the present simple, for regular verbs in the past simple and for the genitive the application of this rule is predictable, with only a few exceptions (e.g. leaf  $\rightarrow$  leaves). However, assimilation of voicing can radically change the sound of several common constructions.<sup>26</sup>

<sup>&</sup>lt;sup>25</sup> David Abercombie.Elements of General Phonetics.Edinburgh University Press.Edinbrugh.1967.p.136

<sup>&</sup>lt;sup>26</sup> ibid p,60.

For example :

- Have to /hæv tu:/ become /hæftə/
- I have to go become /ai 'hæftə 'gəu/

In voicing of assimilation, we have to pay attention also with the rule of voicing assimilation. As a phonological rule, it refers to features of sounds, rather than to particular morphemes. We have stated it as generally as we can; it refers to consonants generally rather than to a specific class of consonants such as fricatives or sibilants. A first guess at a rule maybe incorrect, but it is generally preferable to start out with too genera a rule than too specific a rule.

Those phonological rules are very helpful for us when we want to analyze the words assimilation. At this point, phonological rules apply. Phonological rules account for the exact pronunciation of the morphemes since there is evidence that some phonological information about morphemes is not stored in the lexicon.<sup>27</sup> By phonological rules, we can get much information about someone's ability in their pronunciation.

#### 4. The Difficulties in Producing Assimilation for Non-Native Students

Based on the theory explanation above that assimilation usually presents on the native speaker which have connected speech. They have already used English in their daily life. Furthermore, English as their first language. It is not disown that they are very fluent in English speaking.

<sup>&</sup>lt;sup>27</sup> Marlet Stephen. *An Introduction of Phonological Analysis*. Summer Institute of Linguistics and University of North Dakota. 2001, page 55

Moreover for American assimilation is often found in their daily speech. The presentation of assimilation is more common in American style rather than British.

It is very distinctive for the people who use English as their second language. In this case, the students whose use non English as their mother tongue have different point of view. English is as second language acquisition (SLA) for them. It will be feel so difficult and challenging for those students in learning phonology as one of the linguistics studies. Talking about phonology, in English learning the students is very needed to have good productive skill. Actually there are some factors from the students SLA which cause them feel hard in learning this skill.

Assimilation will very rare to find if the nonnative students have strengths their dialects. It makes English as new dialect for them will be strange for those students. " It is important to acknowledge these feelings and emphasize that learning a new dialect does not mean eliminating the home dialect."<sup>28</sup> For the example the students is coming from Javanese people, Sunda or even Madura. The way the students deliver the speech is still bring their home dialect. It is have influence in learning English as their second language. Assimilation as one of kinds form realization of phonemes is like hard studies for students SLA. Since natural languages differ in the phonetic

<sup>&</sup>lt;sup>28</sup> Anete Vaquez, Angela L.Hansen, Philips C.Smith.Teaching Language Arts to English Language Learners 2<sup>nd</sup>.By Routledge.New York.2013.page 19

contrasts that are semantically distinctive, this can make learning a second language particularly difficult if the second language contains phonemes that are not in the first language.<sup>29</sup> Sometimes in acquiring the language can be challenging for the nonnative students. Another reference said that, language interference can be caused assimilation strenuous to produce in students which use English as the second language. It can happens when the students of second language acquisition are less understanding or lack of fluency about the language which should be mastered by the second language learner in common usage. "Interference as errors in learner's use of the foreign language that can be traced back to the mother tongue."<sup>30</sup> This theory said that interference starts from the learner which still influence by their first language. Unrealized, the students do not know that it belongs to the mistakes. In the article written by Pusat Bahasa Al-Azhar as Pusat Pengkajian Bahasa dan Sastra also agree that one of factors of interference language is the students too faithful in their mother tongue. For the example in Phonology of Indonesia: when the Javaness people want to say the words with start the phonemes /b/, /d/, /g/, /j/ in the word Bali, Demak, Jombang, Gresik they often say mBali, nDemak, nJombang, and ngGersik.

<sup>29</sup> Matt Carter.Minds and Computers.An Introduction to the Phylosophy of Artificial Intelligence.Edinburgh University Press.Edinburgh.2007.page 170
<sup>30</sup> Bhela, Baljit. 1999. Native Language Interference in Learning a Second Language.Australia; International Educational Journal vol 1 no.1. It has explained above that assimilation is one of auditory phonetics types which use ear as the instrument to hear sound of language. It can be unfamiliar discussion for the second language learner because they cannot listen when the phonemes joining then create the new phone. "The first point of interest here is that typical monolingual speakers can only assimilate phones to the phonemes that are in their native language. This means that they literally cannot hear phonemes that are not in their language as they are not sensitive to phonetic contrasts that are not distinctive in their native language."<sup>31</sup> Assimilation becomes strange sound for students SLA. It is because their ear cannot familiar with the sound of phonemes which related to assimilation. The possible effect from that, the students do not brave or they do not confident to sound assimilation. It is why assimilation is difficult to find in their speech.

The students' awareness to know the present of adjustment features important. In this section the sound modified in connected speech through the process of assimilation. "Some people may consider such modification of features of careless speech."<sup>32</sup> The people might know the sound modified but they ignore it. By realizing those features in phonology, it will give the nonnative speaker many benefits. In Trask's theory, he said that an awareness of these modifications is essential to help learners understand first language

<sup>&</sup>lt;sup>31</sup> Ibid.

<sup>&</sup>lt;sup>32</sup> Robert Mc Coll Millar, Larry trask. *Trask's historical linguistics* 3<sup>rd</sup> edition.By Routledge.New York.2015

speech and also to enable those who want to aim towards fluent, near native production of English.<sup>33</sup> If the students realize the presents of assimilation in their speech, automatically their knowledge about phonology will increase. The students can be easier to get fluency in their speaking. Beside that, the nonnative students can close with the native.

Consciousness of the students with the assimilation will influence the way they speak. If the nonnative students more practice with their pronunciation, they are better in deliver their speech. In contrast, if the students neither aware with assimilation which present in their speech nor never have practiced by them self, the students will get difficult to produce assimilation process in another time. A journal written by Veronica Gabriela Sardegna has proven in her research that practice during the course will give a big benefit to students' speaking fluency. "Hence, quality of practice, that is, practice in the manner instructed during the course, is another important factor contributing to students' greater improvement."<sup>34</sup> The one possible of profits which they get that is they can improve their pronunciation. Furthermore, it is needed for the course which necessary more focused in practice such as assimilation.

In another references said that listening also can be cause of the difficult of assimilation in connected speech. If students struggle to understand

<sup>&</sup>lt;sup>33</sup> Pamela Rogerson-Revell. English Phonology and Pronunciation Teaching. page 162.

<sup>&</sup>lt;sup>34</sup> Veronica Gabriella Sardegna.Improving English stress Through Pronunciation Learning Strategies. University of Museo Social Argentino.Urbana, Illinois.2009

something in a recording, or that you say, be aware that they may actually know all the words, just not recognise them in the stream of speech. A great example of this is the student who asked me what 'festival' meant. I went into an explanation, giving examples of different festivals...but teacher, he said, why do you always say it at the beginning of the lesson? (I was saying First of all...).<sup>35</sup> If students don't understand a phrase, see if they do understand it written down and then take the opportunity to highlight the differences between the written and spoken forms. Beside that, the ears of nonnative students do not usual to listen fast speech. It makes the students confused with what they heard. What they listen is still correlated with their mother tongue. So the students do not know the process in the connected speech.



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<sup>&</sup>lt;sup>35</sup> Html.resourceful.elt access on June 26, 2015 01:21 WIB

#### **B.** Previous Studies

- Voicing assimilation in Catalan and English written by Nestor Cuartero Torres in Universitat Autonoma de Barcelona. This research has aim to study voicing assimilation (VA) across different speaking rates in Catalan and English. This research compares between voicing assimilation in Catalan and English. The result of this research is there is a different from English and Catalan in voicing assimilation because there is variability in the coordination of oral and glottal gestures in obstruent sequence.<sup>36</sup>
- 2. Morphophonemic Process in English and Gorontalo Language: a Contrastive Analysis") by Farida Kusuma Dimyati, students of English Literature in Sam Ratulangi University of Manado. This research has some aims. They are: identifying, analyzing and describing the morphophonemic processes and finding out the similarities and the differences of morphophonemic processes in English and Gorontalo language by using of Crystal"s and Nida"s theory. The results of this research shows that in morphophonemic process of English and Gorontalo language have some similarities and differences. The similarities are that both languages have kinds of morphophonemic processes, they are assimilation, dissimilation, reduction of clusters, loss of consonant phonemes, loss of

<sup>&</sup>lt;sup>36</sup> Nestor Cuarto Tores, "Voicing Assimilation in Catalan and English Obstruent Sequences".June 2005.

vowel phonemes, palatalization, and nasalization whereas in Gorontalo language six kinds of them found. The difference is no palatalization found in Gorontalo Language.<sup>37</sup>

- 3. The Phonetics and Phonology of Voice Assimilation and Sonorant Transparency in Normal and Fast Speech in Russian. This research written by Vladimir Kulikov in University of Iowa. This research wants to do an experiment that the two experiments in which voice assimilation in fast speech was investigated. The first experiment examined voice assimilation across a word boundary in slow, normal, and fast speech. The results provide evidence that in fast speech voice assimilation across a word boundary is a regular phonological process. The second experiment examined voice assimilation through a sonorant in normal and fast speech. The results show that sonorant transparency is not a phonological process in fast speech.<sup>38</sup>
- 4. Positioanal Faithfulness and Voicing Assimilation in Optimality Theory. The research purposes to set of constraints within the frame work of optimality Theory that accounts for syllable-final laryngeal neutralization and voicing assimilation in obstruent cluster. The result is the important position for faithfulness to place features is the same as for laryngeal

<sup>&</sup>lt;sup>37</sup> Farida Kusuma Dimyati," Proses Morfofonemik dalam Bahasa Inggris dan Bahasa Gorontalo (suatu analisis kontrastif)"Universitas Sam Ratulangi.Manado.2014,2

<sup>&</sup>lt;sup>38</sup> Vladimir Kulikov," The Phonetics and Phonology of Voice Assimilation and Sonorant Transparency in Normal and Fast Speech in Russian" Universitas of Iowa, 1

features and padget justifies a similar cluster assimilation constraint for place.<sup>39</sup>

- 5. Systematic Investigation of Voicing Assimilation of Spanish /s/ in Mexico City. This research is written by Lauren B. Schmidt from university of Missouri and Erik W.Willis from Indiana University. The principal goal of this research is to provide a study in phonological process in Spanish phonology is that of assimilatory voicing of /s/ before a voiced consonant. For the final result of this study is voicing assimilation of /s/, although indisputably present, is not a categorical process in Mexican Spanish.<sup>40</sup>
- 6. Phonological Assimilation in Arabic and English. Hani Abu Mathkour as the researcher has aim in his research, that is, to exhibit the various categories of assimilation in term of partiality, change in sound, directionality and type of the processes. It can be conclude that some assimilation processes are found in both Arabic and English.<sup>41</sup>
- 7. OT Account of Regressive Voicing Assimilation in Modern Hebrew and Russian. This study is written by Natalya Samokhina, student University of Arizona, the topic of this participate is voicing assimilation (VA) in Modern Hebrew and Russian. This paper an attempt has been made to analyze regressive voicing assimilation in Modern Hebrew and Russian

<sup>&</sup>lt;sup>39</sup> Linda Lombardi," *Positioanal Faithfulness and Voicing Assimilation in Optimality Theory:Natural Language and Linguistics Theory*.vol.17,Kluwer Academic Publisher.1999,267-302

<sup>&</sup>lt;sup>40</sup> Lauren B.Schmidt and Erik W.Willis. Systematic Investigation of Voicing Assimilation of Spanish /s/ in Mexico City.University of Missouri-St.louis and Indiana University.p.1

<sup>&</sup>lt;sup>41</sup> Islam Youseff," *Phonological Assimilation in Arabic and English*". University of Tromso. Apri49 1 2013.p.4-5

within the optimality theoretical framework. The proposed optimalitytheoretical analysis of regressive voicing assimilation allows accounting for the alternation in terms of universal constraints rather than languagespecific rules.<sup>42</sup>

8. Dental-to-velar perceptual assimilation: a cross-linguistic study of the perception of dental stop+/l/ cluster. This study is written by J Acoust. This experiment want to compare native French and Hebrew listeners on perception of Hebrew /tl/-/kl/ and /dl/-/gl/ and then to test speakers of American English which also disallows initial /tl/,/dl/ but realizes stop-voicing differently than French to Hebrew, to examine possible contribution of language-specific phonetic setting. The result of the proposal of language-specific phonotatic perceptual of assimilation, with modest contributions from language-specific phonetic setting.<sup>43</sup>

All of the researches above are different with this research. The most research above is purposed to compare the assimilation which present in their own language such as Catalan, Arabic, Spanish, Russian, and Gorontalo language with the assimilation in English. The other is purposed to analyze the voicing assimilation then compare with the related theory. In Indonesia, there is no research which discuss about analysis of types

 <sup>&</sup>lt;sup>42</sup> Natalya Samokhina. "OT Account of Regressive Voicing Assimilation in Modern Hebrew and Russian". University of Arizona. 2002. page 81
 <sup>43</sup>J Acoust,"Dental-to-velar perceptual assimilation: a cross-linguistic study of the perception of

dental stop+/l/ cluster".vol.28.2003,2-3.

assimilation in students of English Teacher Education Department. Therefore, this research is focused in analyzing the assimilation which occurs in students of English Teacher Education Department in speaking class. Furthermore, the researcher will classify the type of assimilation which produced by students based on Daniel Jones' theory and to know the causes the students' difficult to produce assimilation process in their speaking performance.