THE PHONETICS OF ACEHNESE AND ENGLISH: CONTRASTIVE ANALYSIS, DIFFICULTIES, AND ITS RELEVANCE TO THE TEACHING OF PRONUNCIATION

THESIS

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God Bless You All, people!

In the name God, the most merciful and the holy, I release this to the good of world of Your truth, lift it with the beneficence or repeal it with the damage. The truth comes from The Most Truthful while I am indeed not I am. I am not I am.

Lampisang, June 22th 2018

Dinauli Yansyah

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DECLARATION OF ORIGINALITY

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Menyatakan bahwa sesungguhnya skripsi tersebut adalah benar/benar karya asli saya, kecuali lampiran yang disebutkan sumbernya. Apabila terdapat kesalahan dan kekeliruan didalamnya akan menjadi sepenuhnya tanggung jawab saya.

Demikian surat pernyataan ini saya buat dengan sebenar-benarnya.

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Saya yang membuat surat pernyataan,

Dinauli Yansyah

ABSTRACT

The first language is one of the most significant factors influences the second language acquisition, whether for good or bad that mainly capitalizes the transference process of innate language to the target one. Aimed to benefit the learning material development, this study conducts the formation analysis of the Acehnese innate targeting the English acquisition to find out (1) the difference between the two languages phonologically (2) the consequences of such differences in transference and (3) the exact place where the difficulties occurred due to the dissidence. The study is executed based on the framework of Contrastive Analysis chronologically consist of (1) Selection, (2) Description, (3) Comparison, (4) Prediction, and (5) Verification of the two languages features. The Description and Comparison are performed through the literature study while the verification is confirmed to the 20 participants of the English Teaching Department student of Ar-Raniry SIU selected based on its status and competence as an Acehnese native. The result of this research show the interlanguage differences of Acehnese to English include in the existence of: [ɪ], [ʊ], [ɜ], [æ], [ɑ], [ɒ], [v], [θ], [ð], [ʒ], [ʧ], [ʤ], [ʍ], [e], [ɛə], [f], [z]; rhoticity quality; glides and length quality in vowel; aspirated units; fricative [s]; and [ʃ] hissing quality; the consonant clusters of the final-placed and the initial three-type; the applied isochronal stress-time; the connected speech aspects of Elision and Linking; the allowed of complex coda in syllables structures; and the opaque orthographic systems while the difficulties are mainly confirmed in: (only segmental) [ɒ], [ɜ], [ɪə], [eə], [ʊə], [əʊ], [aʊ], [oʊ], [θ], [ð], [ʒ], [ʧ], [ʊ], [ɑ], [æ], [eɪ], [ɔɪ], [r], and [ðʒ].

Keywords: Phonetics Analysis; Phonological System; Contrastive Analysis; Acehnese-English Differences; Pronunciation Teaching; Material Development.

CHAPTER I

INTRODUCTION

1.1 Background of Study

For years, the dialectal quality in new languages learning is a matter of great interest to researchers. Under all circumstances, it is found to occur systematically and is very concentrated in certain environments. The dialectal quality known today is primarily linked in broad to the influence of the first language or the language with a stronger sense of the learner. *Aceh* as a word, for example, has been pronounced differently across nations throughout the history, Dutch people called it *Atjeh* [atʃɛh] while Arabs mentioned it more often as *Asyih* [ɑʃih], even though the true quality of *Aceh* is Aceh [açɛh] instead. Although the dialectal quality is a widely occurring case at any new language learners, the certain qualities sometimes lead to misunderstanding and reduce the beauty of a language that the qualities must be maximally minimized as the final result.

However, recognizing the quality of a language in detail is not easy in practice. This happens because the new language learning involves a different set of intuitive state as with the first language. Bumpass (1963) stated that "A person *listen* to another language actually does not *hear* the sound units which do not exist in his native tongue". This primarily occurs in features with very unobtrusive quality. The inaudibility features of foreign language throughout the process of language transfer will automatically and instinctively be substituted to the corresponding sound close to it (Hoa, 1965). Thus, it is right that the errors

occurring are things that basically originate from ignorance. This is where also later come, the presence of the dialectal quality and -in the worst case- error itself.

Another situation of language acquisition is also closely related to the established muscle mechanisms. In general case, new language learners start the acquisition process with features in their first language (Felix, 1980), both for those in the classrooms or on the streets. This situation is affirmed by Sapir (1949) as *we are so imprisoned in our speech habits that cannot learn a foreign language with ease*. At other time, he also likes to use the term *bound* to describe the condition. This means that it is indeed needed a conscious effort in learning language to get out of this prison. On the other hand, such a condition also leads learners into various organ difficulties. Charles C. Fries, in his foreword of the Lado's *Linguistics Across Cultures* (1961) said that *the basic problems arise not from any of the problems in the new language but are primarily out of the special set created by the first language habits*. In fact, there is indeed an unaware effort throughout the acquisition of a language that is fully supported by the two main actors in the phonetic process: First, the perception that forms the mind over the form of a sound (which it is manipulated) and second, the muscle capability towards the range of production. Therefore, the term acquisition in second language learning is not as it is in the first language but rather into a form of adjustment and equalization. The Sumatra people who speak Malay for instance, could reach a higher level of identicalness in a relatively fast period compared to those outside the language family as well as fellow Indo-Europeans. It indicates that the default phonology has a tremendous influence on the quality of the next language. (Goldsmith, 1995)

It is departed from this condition, personal recognition and awareness are also very much impossible to be expected. Fries (1945) said that the best approach to this introduction was through a scientific approach. A thought which was later formulated by Robert Lado in 1957 in a form of worksheet as contrastive linguistic or is also known as contrastive analysis.

Contrastive Analysis as framework is a mechanism aimed at finding differences in structure and composition between languages. Contrastive analysis in the world of language education, however, is specifically intended to recognize the relationship between features in the default language and the target. It benefits the advantages of relationship among languages which is dramatically shown the potential and the problem of transfer. The result of analysis significantly helps in identifying student nature problems and assisting them to the completion. The results of this comparative study can then be used as a reference for consideration in the preparation of teaching materials so as to improve efficiency and accelerate the learning process. In general, the information on comparative language is “an excellent basis for instructional material” a pronunciation class could rely on (Moulton, 1962). A class that is substantially distinguished from speaking and other language learning components.

Besides, other urgencies are also present due to a lack of clarity about what really must be learned in teaching pronunciation. For a quite long time, the instructional material on teaching pronunciation is still a matter of skepticism (Ferede, 2012). As the world of education has moved from one view to another regarding the importance of teaching pronunciation, it is in fact not always

accompanied by a strong empirical condition. At least, it can be seen from the view of the pronunciation as the development of linguistic and affective aspects (Celce-Murcia and Olshtain, 2000), while others found pronunciation as a worth taking component that help to facilitate other learning materials (Porter and Grant, 1992).

However, it is inevitable that pronunciation is an important part of language acquisition and is a major component of communication. It is confirmed that the degree of accuracy is directly proportional to information comprehension (Chakma, 2010). Of course, a very strong dialectal quality is the main emphasis in this regard. In addition, the pedagogical responsibility is also a major demand in extracting material and methods of pronunciation learning. This is a matter that in fact, only a few are available in the world of foreign language education in Aceh, particularly Acehnese as the innate language of the country most population. So, presumably, a study is extremely needed to bridge such a great gap.

By the Acehnese, even though they had been long interacting with Japan and the Netherlands throughout wars, it was not normal to inherit these two languages to the generation after. On the other hand, foreign languages that are later quite in demand are English and Arabic instead. The people enthusiasm to learning English, in particular, is quite high as seen from the proliferation of language courses in the city. In the last quarter of 2015, an English village was initiated in Banda Aceh while the college authority also boosted the student's English capability through various test and lectures. In public schools, English has been the main foreign language lesson since elementary level.

The decision to contrast analysis between English and Acehnese are concluded on the consideration below:

a) The presence of a huge number of Acehnese native speakers who learn English as a foreign language.
b) The lack of information that examines the differences and the similarities between English and Acehnese, and

The lack of cone information on the real problem the Acehnese native speaker felt when learning English in the scope of phonemic, syllable structure, and other phonological elements.

1.2 Problem Statement

The current problematic condition of pronunciation teaching is related to the absence of regulation and treatment within the curriculum on how should the micro-element (of pronunciation) be taught and where it should be focused (Ferede, 2012). Hence, teachers are allocated with little direction or perhaps nothing but tend to teach pronunciation by only leaning on their intuitions (Levis, 2005).

If to go back to an ideal concept of learning, the effort of having better pronunciation would have been done through practically studying and comprehending the phonological quality of target language, followed by innate-target language differences and applying the knowledge in exercise (Hamad, 2014). It is very much required to be possible of the quality and difference between languages should be demonstrated expressly. At this level of classroom activities, the language phonological matter should be fully understood that teacher eventually

teach something based on reason, needs, validity and be completely aware of what about to happen during the process.

The initial stage to develop such needs is by collecting the data of between two languages: the learner's first language and the target one. Understanding the phonological quality and difference has somehow been the best measured through the scientific approach with a merger description provided. This action would also beneficial to contrastive a certain quality of a language to another. (Abushihab, 2010). This work mechanism is known as Contrastive Analysis.

Contrastive Analysis has some sort of predictive power as mentioned by linguists like Weinreich, Lado, Haugen, and Nickel. The power appears with the impression of the native language importance in foreign language learning. It is believed that the more differences found between the two languages in the system, the more complication to deal with due to the more potential areas of interference are created. It is also believed that the similarities between the two languages in the system will abridge the learning process by increasing the accuracy due to the less of reformatting is happened in process of acquisition that cause interference, difficulties or problem earning due to the dissidence between the two language in grappling (Okpanachi & Kadiri, 2015).

Contrastive analysis, however, by the language teacher is still seen as something that is useful and helpful, particularly in the sphere of phonology between languages. Significantly, this knowledge will support the language teacher to build a more comprehensive guidance and material to increase the learning effectivity (Andi-Pallawa, 2007).

1.3 Research Question

Based on the identification of problems and constraints that have been given above, this study will seek answers to the following questions:

1. What are the differences between English and Acehnese in terms of phonology and phonetical system?
2. Do the phonology and phonetical differences between Acehnese and English lead to difficulties in pronouncing English?

1.4 Research Aim

The purpose of this study are as follows:

1. To reveal the phonological system differences between English and Acehnese in more detail.
2. To figure out the difficulties and interferences of Acehnese first language learner in pronouncing English.

1.5 Research Benefit

The usefulness of this research include as follows:

1. Theoretical Benefits:
    a. As a reference to the data on the differences between Acehnese and English in terms of phonological system of the two languages
    b. As a reference to the theoretical and empirical debate in the effort of having a better understanding on teaching of pronunciation.
2. Practical Benefits
    1 As knowledge for those who teach English in Aceh in which this research will show the problem that might be faced by the native

speakers in learning English. This knowledge will lead to the discovery of the method to resolve the issue and bring the focus of learning materials directly into the problem.

2 As a reflection and evaluation for students, curriculum designers, teachers and practitioner of language teaching on the suitability of the teaching of speaking in relation to pronunciation materials.

1.6 Terminology

A number of terminologies used in this research explained as follow:

Pronunciation difficulty

Difficulty in pronunciation is described as an imperfection on the pronunciation of a word or syllable. The shape of this difficulty can often be seen on the speaker's inability to pronounce certain words spontaneously. Speakers with pronunciation difficulties need time to really make their speech organs pronounce a word correctly. On a deeper level, speaker had a severe impact with the failure of pronunciation itself. Difficulties in pronunciation can affect the imperfect pronunciation which also impacts on the listener understanding of what they mean during the talk.

A case of pronunciation difficulties can also occur in the first language learning, such as difficulty in pronouncing certain syllables are not caused either due to abnormalities in organ pronunciation or not, but usually this study included as a study of language disorders rather than viewed in linguistic. From the standpoint of linguistic, trouble-prone pronunciation happens to those who learn a

second language or a foreign language is a part of the formation and the process of the transfer features from one language to another.

1.7 Research Method

Discussion of issues raised in this study will need for the relevant linguistic data which obtained through research on the object. The study adopted two strategic stages: the study of literature and the interview.

First, the study of literature is aimed to discover the differences in phonology between Acehnese and English, this action is done through detail analysis on the information about the system phonology of Acehnese and English. The existences of the information have examined positive.

An outline of comparison is begun with the analysis of both language system internally, which in this case has been provided by the books of phonological information of both languages. Then, the comparison of the features between the two languages would be done based on the articulatory features and the linguistic categories in both languages.

Figure 1. Basic Research Framework

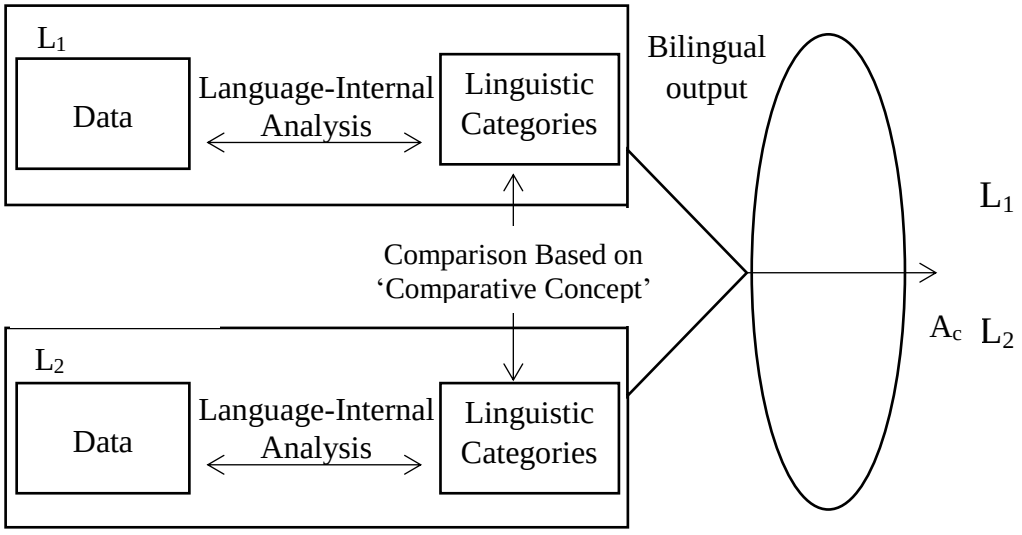


Figure 1 shows the basic research framework and the logic behind the act of comparing two languages in order to establish a better bilingual output. This framework is adapted from the work of Konig and Gast (2009).

The interview with the participant is targeted to discover the pronunciation difficulties that may be experienced by the learners. The data is in the form of participant recognition on the list of vocabularies. The words are specifically situated to confirm the difficulties. The result of the interview is analyzed for pattern resulted in an even more narrow hierarchy difficulty of the absent features.

The participant in this study is 20 people of English learners with Acehnese first language of English department of State Islamic University of Ar-Raniry Banda Aceh. The participant condition of Acehnese first language is accepted from any dialect in all test except for the test of the dental fricative feature, the special condition was required on the basis of dialects varieties consideration.

1.8 Organization of The Study

This study consist of six chapters, structured into the following manner: Introduction, Literature Review, Research Methodology, Data Analysis, Result, and Conclusion. Each chapter complements each other in presenting a better understanding on the phonological differences between Acehnese English and its implication to the teaching of pronunciation. In addition to the organization, the general mechanism of contrastive is found in chapter of Data Analysis and Result. It is somehow separated due to the different perspective for the literature review and the empirical study of the research.

The chapter of Introduction consists of eight parts, each part built in increasing awareness about the urgent of pronunciation teaching; the cause of

failure in pronunciation; factors of phonological transfer (Background of Study); current teaching pronunciation problem; possible way of better pronunciation; the urgent of Acehnese-English phonological contrastive study; Acehnese previous study (Problem Statement); research question; research aim; research benefit, terminology; research method; and organization of the study.

The chapter of Literature Review consist of ten parts, the sections built as basic foundation for further empirical research, included discussion of first language influence on second language acquisition; note in language transfer; the used of phonological understanding for better pronunciation; pronunciation definition; teaching pronunciation and articulatory setting; the need of empirical research; note in contrastive analysis study; phonological language system; and note in English and Acehnese phonological system.

The chapter of Research Methodology consists of six sections, the discussion begins with the research design; followed by variable operation; sources and data types; data collection techniques; analysis design; and research schedule.

The chapter of Data Analysis consists of the phonological literature base study. It discusses the discovery of phonological differences and similarities between the two languages. The similarities present for more detail analysis while the differences are taken for later test of participants.

The chapter of Result is generally formed to cope with the empirical need relevancy of the research. This section is consist of two big parts, first, the prediction on condition of transfer from Acehnese to English and second, the section of test of participant that discuss the discovery of transfer difficulties. This

section simply gives a total clear notion on the prediction of difficulties and beneficial features; the result of participant test; as well as the final result of the hierarchy of difficulty of the two languages.

The chapter of conclusion consists of two section, the conclusion, and suggestion. Generally talk about the finding result and how it can be useful in classroom actions, the suggestion is provided both for further research and its application to the teaching of English pronunciation.

CHAPTER II

LITERATURE REVIEW

2.1 First Language Influence on Second Language Acquisition

First language (also termed as mother tongue) linguistically refers to the language that a person first acquires through intuitive adding capacity and receptivity (Malmkjaer, 2010). Most people are very good at their first language that they consider to be native (Miller & Swift, 2000). Furthermore, the second language is simply defined as *any language acquired later than the native one*. The term *second* is in fact concerned more with the quality of language skill instead of sequence of learning. Thus, the second language is also that usually with a lower proficiency and a weaker sense of the user. From language transfer point of view, the second language is learned on the basis of the existing feature of the previous language. Furthermore, the term first language influence mainly refers to the representative materials of first language in second language rules. However, since the spoken language spontaneously happens, more attention arises than that of written language where multilayers of production process could possibly be done before delivery.

Generally, the influence of first language on second language or from any language to any other language is negative in connotation due to the damaging quality brought against the (second) language nature. The product of the influences is normally formed as a dialectal or mistaken pronunciation. In dialectal quality, the influence the receivers accepted mainly regards to its intelligibility attainment even

at the lowest level of understanding while in error quality, the utterances would certainly interrupt the receiver understanding. This is how in simply the interplay in languages would also insensibly result in error in language use. If error was defined as a man unconscious mistake, then the responsible contributor in such creation is the abstract brain processing known as perception -in particular to linguistic since it does not normally discuss any physical defect on speech muscles-. Transferred perception from one language to other is simply creating possibility to create error. The probability is even larger to happen as the difference of manner and structure of most languages is also a dead certainty (Andi-Pallawa, 2007).

Perception is an important aspect in a sound acquisition that works as a carrier of the beginning on how learners begin to obtain. In phonology, learners begin to pronounce *like that* because they do think it sounds *like that*. In fact, the sound never infiltrated right, the subject (learners) is basically listening to their own projection.

2.2 Language Transfer

Language transfer is a process of transmission of a speech habit to another speech habit (Yarmohammadi, 2002). It is known for two types of transfer: positive and negative. Positive transfer is the transmission of a structural element that grammatically in mutual accord. Negative transfer is the transferring of elements that are ungrammatical to the target language (Ali & Abidin, 2010). This is due to the lack of language assets in existence. Some of the events happen intuitively while other occur consciously. In common cases encountering this transfer, the closest

feature is used as substitution, for example, the borrowing of sound /b/ to /p/ by Arabian when speaking English.

2.3 Understanding Pronunciation

Pronunciation took from English *pronounce* which means chiming or sounding. Practically refer in the field of linguistics and language learning as the main production of spoken language and the main aspects that distinguished it to written (Underwood, 1989 as cited in Ferede, 2012). Pronunciation is a complex form consist of two phonological components: the segmental, which works together forming a sound with a textual meaning, and the suprasegmental, which operates to give more prominence such as stresses and tones in sound. Both components work differently but complete each other (Kenworthy, 1987).

2.4 Teaching of Pronunciation

2.4.1 Concerning Objectives and Goal Setting

The two common objectives that are largely used in teaching pronunciation are the native-like principle and the intelligibility. The native-like principle is what traditionally the teaching of pronunciation begins with (Morley, 1991; Goodwin, 1991 as cited in Ferede, 2012). The native-like principle heads for the acquisition of native proficiency and norms of the language, it aims at creating an identical pronunciation to the native speaker of the target language. Direct method and audio-lingual are the main examples of the practical method coming up from this belief. The problem with this principle is that the occurrence of massive failure in practice, it is even viewed as “unrealistic, unnecessary and undesirable” goal (Morley, 1991; Dalton and Seidlhofer, 1994 as cited in Ferede, 2012 p.30). Generally, learners of

a new language indeed imitate as close possible with or without this principle even recognized, but this almost impossible goal takes more extensive time, more expensive price and more intense effort in practice. This pursuit is even viewed to socially gnaws the identity of learners, an English learner ‘does not need to sound like an American or British as far as the use of language in the country is concerned’ (Ferede, 2012 p.30).

The beginning of the new perspectives on pronunciation teaching is begun by the realization of no such a thing in second language acquisition is more vital and exigent beyond intelligibility (Tench, 1981). Another trigger, especially in the case of English, is the fact that the language usage has already beyond the range of native speaker and non-native interaction, it also among non-natives of English. This has brought the principle of native-like –not whole- into second numbered. The native-like principle is considered a norm, it is not an effective model in language teaching (Dalton and Seidlhofer, 1994 as cited in Ferede, 2012).

Intelligibility is defined as the capability to be understood at the time the information given (Kenworthy, 1987), in a level of proficiency, this capability is achieved with almost no conscious effort by the listener (Tench, 1981). The intelligibility principle is the basis that sets out an understandable pronunciation instead of identical and emphasizes more on other language attributes. In practical learning, the detail pronunciation stuff is given an only small portion of time compared to another aspect such as grammar or vocabulary in coping the intelligibility level. Thus, this has somehow simplified the instruction and accelerated the process of learning.

It is important to understand that each principle is somehow offering advantages and disadvantages. A study from Dapi (2016) shows how having a native-like pronunciation represents confidence and prides to second language learner. Of course, this concept is not just about language, it has special relation with the whole issues of psychological and sociological factors predominantly. Pronunciation is so much a matter of self-standard. An intelligible pronunciation, no doubt, is highly important, perhaps easier to be obtained, but sometimes might be sound less beautiful. Yet to those who had in hand the process of foreign language learning, it is fundamental to understand 'what is effective as a model, what is presented as a norm' (Ferede, 2012 p.31).

2.4.2 Concerning Articulatory Settings

The articulatory system is the main actor behind various types of phonemic system and rhythm pattern in language. It is built of organs such as lips, tongue, and larynx; and controlled by muscles that get impulse from the brain. The muscles moved and reached certain range of accepted points to produce a certain sound of pitch, volume, and length. The exercise to exactly reach out this accepted point begins in the ages of language acquisition. Logically, if the sounds among languages are different because they are indeed produced differently, then the development of articulatory organs among the speaker are different as well (Noguchi, 2014). It is now explaining how the difficulty in language transfer can very likely happen.

The actual events in language transfer are in these three conditions, 1) the direct transfer features (due to its similarity to the target language), 2) the castaway

ones (due to its useless to the target language) and 3) the needed to be equipped (due to its absence). Each of this takes on different treatment. The equipped features –where the problematic features mainly located- required for developing a new strength of shooting field and recreate control over the muscles coordination. The process of learning should work on the acknowledgment of the features and the creation of them. It is important to understand that to have this features created, learner should have broken the habit in existence. Moriya (1988) stated that it was impossible to acquire a new language feature but through a complicated process of *making learners use their tongues, lips and vocal cords in a different way.*

2.5 Contrastive Analysis Hypotheses

Contrastive Analysis (CA) or also known as Contrastive Linguistic is a sub-discipline of linguistics that brings two or more language systems or subsystems together and sets them against one another in order to determine the differences and similarities between them at certain linguistic focus and scope (Fisiak, 1981 as cited in Yarmohammadi, 1981). The term *contrastive* implied the tendency of focusing more on the differences than similarities since it is believed to cause more problem during the process of language learning (Yarmohammadi, 1981).

2.5.1 Historical Background

The idea of confronting linguistics to the teaching of foreign language was first discussed by Leonard Bloomfield in 1933. The derivative of the idea was built some years later by Charles C. Fries in 1945 and developed by Robert Lado 12 years later, in 1957. Though the linguistic-based aspect of Contrastive Analysis is

structural language, the origins of it was pedagogical reason (Ellis, 1985 as cited in Abushihab, 2012).

The Contrastive Analysis gained its popularity after World War II, the integration of immigrants to the United States was actually the main encouragement of the Contrastive Analysis development. Without mentioning its claim to the economical way, the Contrastive Analysis became the landmark of teaching foreign language and instructional material (Tajareh, 2015).

The procedures of Contrastive Analysis Hypotheses were structured one of those by Whitman (1970). He conducted the four steps of (1) Taking the two languages, (2) Picking forms from the description for contrast, (3) making a contrast of the forms chosen, and (4) making a prediction of difficulty. The further development was shown through the proposal of a prediction stage known as the Hierarchy of Difficulty by Stockwell (1965). Another establishment related to this is named as *Preferred Pedagogical Sequence,* include (1) Hierarchy of Difficulty (2) Functional Load (3) Potential Mishearing, and (4) Pattern Congruity. All of those were arranged by Stockwell et al. (Yang, 1992)

Among opinions during its journey, the contrastive analysis was classified into three categories from the view of its predictability: the strong version, moderate, and weak. Each version conceptually works on the basic understanding of the significant role of the first language but has some fundamental differences. The strong version claims for (1) the native language habit as the main obstacle in second language learning (2) the greater differences between languages, the more difficulties will be (3) Scientific analysis on the two language helps predicting the

difficulties and (4) The result of analysis is a reliable resource for classroom actions; The weak version has shifted the predictive power of Contrastive Analysis to the "explanatory power of observable error", this version later developed under separate cover known as Error Analysis; The moderate version has plus view on similarities in language comparison. Unlike the contrastive analysis in general, it is believed that the similarities caused problem higher than the differences do. The logic is that the hazier differences among features the more confused might result. This moderate version was proposed by Oller and Ziahosseiny in 1970. Brown (1987) as cited in Yang (1992) explained that this idea is related to human learning process, as he said that interference can actually be greater when items to be learned are more similar to items in existence than when items are entirely new and unrelated to existing items.

In the late of seventies, the validity of Contrastive Analysis was shaken by more critical argument and evidence as it is about to be explained later.

2.5.2 Theoretical and Applied Contrastive Analysis

Theoretical Contrastive Analysis is the scientific analysis of the similarities and differences between the structures of two or more languages. This analysis particularly works on the description and characterization within a certain framework, such as structural, transformational, government, or binding (Yarmohammadi, 2002). The main purpose is to arouse the insight and awareness. A number of common phrases related to Theoretical Contrastive Analysis are: suitable model of language comparison, comparable elements, different and similar features, and the "formulation of universal features".

Applied Contrastive Analysis is the theoretical follow-up. The analysis works for several specific purposes such as translation and pedagogy. In Applied CA, some points of information might have been abbreviated for some reason. It is bound to the performer necessity. One with other classes might be required for the same information but in a different volume. Applied Contrastive Analysis is where the confronting of two actions works together, theoretical and applied. (Yarmohammadi, 2002)

2.5.3 Similarity and Difference

Similarity is the sameness of substance and equality in two or more things, while the difference is the dissidence of substance and equality in two or more thing with a similar background. Yarmohammadi (2002) states that similarities and differences are the existences/inexistences of certain characteristics on two or more similar things. Similarities and differences once over sound departing each other but basically interdependent. *All things in nature are different in some ways and are similar in other ways* (Yarmohammadi, 2002, p. 1). Here come the ultimate reasoning and logical justification of comparison that similarities and differences themselves come from the condition of a substance from two or more things within an idea, background, or scope. If it comes from a different backdrop, the comparison is considered invalid, the categorization is unacceptable. In fact, similarities and differences always discover each other.

2.5.4 Critics on Contrastive Analysis

The critics against Contrastive Analysis started along with the superseded cogitation from structural to the transformational paradigm in the early seventies as

well as the domination of psychology principle of cognitive over behaviors where the Contrastive Analysis mainly lean on. However, the main reason was related to the inaccuracy of some Contrastive Analysis studies in predicting difficulties, where it is strongly claimed to be (Hughes, 1980, as cited in Yang, 1992). The psychological based critic against Contrastive Analysis related to the verbal learning theory, which says that the acquisition of a new learning set on the existence of earlier learning set will need for replacing the old ones, it means if people learning new language, they will erase the previous language, this happens because learning is an "*automatization of response*". However, this assumption is never proved (Dulay & Burt 1972 as cited in Yang, 1992 p.141). The principle of knowledge is that if the basic theory falls, the whole system collapses.

Wardaugh (1970) as cited in Yang (1992) criticized procedure of Contrastive Analysis as to what he called as unrealistic and impracticable due to its derivation to the universal formulation of hierarchy of difficulty. Again, Brown (1987) claims this procedure and application are traced as 'oversimplified'. In the phonemic comparison, the subtle phonetic distinction is ignored as well as the overlooking of the phonological environments and allophonic variants of phoneme. Noblit (1972) also questioned the validity of comparing languages through different types of descriptive analysis without any theoretical framework. Krzeszowski (1974) argued due to the 'lack of criteria concerning comparability' (p.141). Other, Klein (1986) said the process of perception and production of language is different, and claimed the structure in existence is not that important to process of acquisition, the more important is how the learners deal with it. Hughes (1980) gave four

headshot reason related to the invalidity of CA: 1) the unavailability of language description 2) the proper comparison among features 3) 'the objective measure of similarity and difference' (p.139) and 4) the unobvious way of predicting degrees of difficulty. At this moment the Contrastive Analysis is considered useless.

Yet, nothing is more perfect concerning the critics of Contrastive Analysis than the failure of predicting difficulties in language transfer. This failure prediction was reported by Taylor (1975), Lance (1969) and etc. The other report even shows the difficulty verification paradoxical to the result of predicting, as stated by Whitman and Jackson (1972), Youness (1984), and Briere et.al (1968). (Cited in Yang, 1992).

2.5.5 Empirical Validations

The confrontation argument and the foundation of new evidence had made validity status of Contrastive Analysis considered unclear. This controversial status has shaken on should or should not we relied on Contrastive Analysis. It summons for empirical verification in which Jackson (1970) suggested for two verifications: primary and secondary. Primary validation is concerned on the inside system of contrastive analysis, including *the objective replicability of the methods and procedures used in making the analysis*. Secondary validation is the closeness of contrastive analysis to the difficulties the learners felt (Seah, 1981).

Considering the practical approach of verification which is quite hard to be formulated, both kind of verification later conducted into a new study termed by Seah (1981) as Contrastive Error Analysis. As with this name, the Error Analysis

was used as an empirical comparison toward Contrastive Analysis. The results later may confirm the validity and status of contrastive analysis.

Some of the main verification on the status of Contrastive Analysis was done by Tran (1972) and Ruiz (1963). The result of the research was mind-blowing, as cited Seah (1980), Tran (1972) certainly stated that *the correlation coefficients between the difficulty ranks based on his contrastive analysis of the two verb systems and those based on errors are significantly high in predictive efficiency* (p. 33). The status of Contrastive Analysis is known from Ruiz (1963) that informed the *Interferences from the source language is the greatest source of error*… (p.35).

The positive empirical validation provided below clarify the validity of Contrastive Analysis both on the basis of the concept or the empirical evidence is considered amply tested. For all that, the first language influence should not place as the only course of trouble and difficulty in language learning to abolish the other sources of problems. Besides, the learners quality also significantly contribute to the acquired features in which language differences are not merely a relevant sources to make a reference to. Thus, difference is not always caused trouble, it is somehow one of the sources of the language error.

2.5.6 Contrastive Analysis in Current Language Program

Although the pro and contra of Contrastive Analysis have systematically reduced its status to the defendant, there are –at least- two basis part of Contrastive Analysis is considered unbeatable. First, the fact of the existences of first language influence on second language acquisition; and second, the fact that the contrastive analysis (where the rejection mainly occurs at the level of conceptual)

psychologically has increased learner's awareness toward similarities and differences in even more details between languages. The significant of Contrastive Analysis might be beyond the linguistic structure of the two languages, it is more importantly *applied deductions*. The aim is to increase the effectivity of the whole language teaching system, getting even narrow in the area of *what to teach and how to teach* (Qasim, 2013 p. 22).

2.6 Phonological Language System

The study of pronunciation is linguistically related to the field of study of sounds description, distribution, patterning, and differentiating meaning, the study named phonology (Ladefoged & Johnson, 2011). The language object learned in phonology consists of segmental and supra-segmental features. The process of production discusses in separate study named phonetics. In phonetic, the process implicitly begins with the articulatory activities completed by the speaker (articulatory phonetics), the process of transmission in the air (acoustics phonetic) and auditory (auditory phonetic) (Chaer, 2007). Articulatory phonetic is functionally significant for teaching of pronunciation where it is required for the basic inputs of the language learned, mainly for inventory of sound; their arrangements; and mechanisms.

2.6.1 Segmental Features

The segmental is the individual feature of the speech in a smaller area, it is independent and is able to be segmented at a certain range of limit (Chaer, 2007). The features discussed in segmental include vowel, consonant, diphthongs, consonant cluster, syllable structure, and distribution. Vowel, also known for vocal

sound is described as the pronunciation process that is the fall of air challenged, this description is mainly what distinguishes it from consonant (Chaer, 2007). The air that flow later discovers its form from the tongue position and mouth shapes. There are three positions of the tongue: front, middle and back. The mouth varies from an unrounded (slightly smile) to rounded shapes (Ladefoged & Johnson, 2011). Variations in a vowel result from both of these organ placements and shapes. Besides the variation of form, there also the variation of vowel quantity in transition known as diphthong or dual vocal.

Diphthong is a coupled vowel, it is described as vowels movement from one form to another in a sound without any respite. Technically, the process production of a diphthong required the alteration of tongue position and mouth shapes. (Ladefoged & Johnson, 2011).

Consonant sound is produced due to the performance of the air drag at a specific speech organ, each air restraint will produce a different sound depending on what organs of speech it is being kept (Chaer, 2007). Experts divided this process into three criteria: the position of the vocal cords, articulation place, and manner of articulation.

Consonant Cluster is defined as a number of consonant sounds in sequences that create a single independent sound variation. This consonant group is also known as *cluster*. A number of consonants in a cluster vary depending on the language permittivity, usually begin from two to four in a series (Chaer, 2007)

Phonotactics refers to the study of the language structure on phonemes combination. Every language has a systematic structure on allowing sequences of

sounds, not all phonemes are able to randomly be positioned next to each other at a certain position in words. (Zsiga, 2014 as cited in Nordquist, para.3). This rules and delimitation are called the phonotactic constraints. Phonotactic and phonotactic constraints are closely related to the phonemes distribution in language, include the production of words and syllables composition.

Syllable is the smallest unit in a single utterance. A syllable consists of Onset –the preceding part of a syllable- and Rhyme that comprises the sequence Nucleus –the core of the syllable- and Coda –the tail of a syllable-. The structure of the syllable can be described as a structure that regulates the amount of variation of consonants and vowels/diphthongs that are allowed in a language (Chaer, 2007). Syllables are somehow measured by their branching rhymes and the coda composition, the non-branching rhyme syllable is called *light* syllable. The branching rhyme is called *heavy*. The vowel-ended syllable is categorized as *open* syllable while the consonant-ended is called as a *close* one.

2.6.2 Supra Segmental Features

The supra-segmental is the ‘phonological property’ that is ‘added over’ the segmental features. It is somewhat undivided and works within a bigger area of speech package (Nordquist, 2017. para.1). The discussion features in supra-segmental include stress, intonation, isochrony, and the connected speech aspects. The term stress in linguistic refers to the pressure of speech sound. It is resulted due to the air pressure during the process of pronunciation; this pressure determines the wide variety of amplitude which later resulted in specific stress in words and sentences. Languages all over the world play the stress differently, whether sporadic

or non-sporadic in term of spread, while another work as distinctive or non-distinctive features in term of function (Chaer, 2007).

The distinctive feature of stress is the functionalization of stress to distinguish meaning in words, the language known as the stress-based. The stress-based language functions the stress as the important information during talk. In this language, the stress is reasonable and occurs in a certain pattern. On the contrary, the non-distinctive features, means the non-stress-based language does not function the stress to that far, while the stress happens sporadically during the talk, most of them unpredictable, and highly depend to the speaker tendency and habit. Some non-stress-based languages have a specific pattern of stress but still only part of speaking ornament (Chaer, 2007).

Isochrony refers to a language habit in distributing the time rhythmic proportionally (May, 2004, para.3). The distribution is advocated by other prosody aspects such as intonation, stress, or tempo. From this view, language is generally divided into three alternatives ways, the syllable-timed, mora-timed and stress-timed. For the basis of this research, only syllable-timed and stress-timed will be mentioned.

Syllable-Timed Distribution is to distribute every syllable in a sentence in equal duration of time, reducing syllable mostly does not happen. It means, the longer sentences, the more time it takes to pronounce. Languages with this isochrony system include: French, Turkish, Chinese and etc. (May, 2004, para.4)

Stress-Timed Distribution is to distribute the stressed syllable in a sentence in equal interval of time, the result is some syllable stressed and other unstressed.

The stressed part will be given prominence and the unstressed part is reduced as it compressed within the interval. Languages with this isochrony include: English, Persian, Thai, and etc. (May, 2004, para.5)

The connected speech is a number of speech segments working in continuous sequence. The connected speech aspects are the aspects related to the condition of speech segments in a continuous event. These aspects are distinguished as the pronouncing of a word sometimes has a significant difference when it is pronounced individually compared to when it is pronounced in the continuous speech. The aspects of connected speech include Elision, Linking, and Omission (Nordquist, 2016, para. 1)

2.6.3 Orthography

Orthography is the logarithm of a writing system, formed to arrange the writing features -the tool that is used to represent sounds, words, and another sound concept of a language-. Orthography logarithm contains the mapping projection of sounds, individually or syllabically depending on the writing system and the linguistic approach used. This mapping system is divided into two: the transparent system –also known as one to one mapping system- where one symbol represents one sounds and arranged through the phonetic phenomenological, for example, the Arabic and Italian orthography. The next mapping system is the non-transparent system –also known as the multi-mapping system- where one symbol is allowed to represent a number of sounds, or a sound is allowed to represent by some combination symbols. This orthography logarithm is arranged through the

morphophonemic approximation. For example, the French and English orthography (Hyslop, 2008)

2.7 English

2.7.1 Generalities

English is linguistically interrelated to the family member of the Indo-European languages. It is genetically related to several languages in Europe and Asia, traced from the western and southern Europe to the subcontinent of Indian.

English is spoken by more than one billion people all over the world. In 2006, David Crystal approximated this number includes 400 million native speakers, mainly in the major English speaking countries (also called as inner circles) such as United Kingdom, United States of America, Canada, The Caribbean, Australia, and New Zealand; 400 million speakers of English as second language in countries like South Africa and several former colonial Africa, part of South Asia (India), Southeast Asia (Singapore), and the South Pacific; and around 600-700 million speakers of English as foreign language. In 2017, the number is estimated to rise at least a half globally. In 2015 alone, English officially became the primary language for more than 50 nations and secondary language for 27 countries (SGI, 2018, para. 4).

The significant role of English mainly partakes on the several international interests. In the world of politics and relationship, English is counted as the official languages in the United Nations and the European Union workplace. In International trades, English is the main medium language for products guideline. English is also the default language in the cyber world and other technological

inventions. In the world of education, the British council estimated that over two-thirds scientists in the world read in English (as cited in Peter W. Roux, 2014), the twenty worlds greatest universities are also mainly from the English speaking countries. English media like BBC and CNN has become the main references about the west world globally. English-based entertainment of movie and music also gave rise a lot of great names, Hollywood movies and the Madison Square Garden music are looked forward to all over the world.

2.7.2 Historical Remarks

The History of English began with the migration of Angles, Saxons, and Jutes from the northern land of Europe to the island of Britain in fifth century AD. Two century of occupation, these tribes have become one through collective subjugation and intermarried, their aggressive domination pushed back the previous people who lived there and create a full English area, the place now known as England (Crystal, 2003). The language later even spread to parts of Wales, Cornwall, Cumbria, and southern Scotland which originally spoke Celtic.

For a while, the Norman invasion in 1066 has made French as the official language of England at the time, this brought many nobles from England move to the north Scotland where the language spread to the Scottish lowland, two century later, the Irish Sea and Ireland were governed by the English, at the time, native English speaker only 5 and 7 million and all of them lived in the British Isles. (Crystal, 2003). In the late of the fifteenth century, English returned back by the growth of London as the capital city replacing French, it was mainly under the help by printers like William Caxton, who repromoted the language under a new

orthographic system worked by phonetists like William Bullokar and Alexander Gill. This establishment made for the standard norm of written and spoken English, it needed centuries to create a massive interest in bringing this norm to the whole country. In the time of industrial revolution, this norm later was known as the Received Pronunciation.

The English has become the official language in Wales in the middle of the seventieth century. However, the huge spread of English within the UK especially happen when the crowns unified. James I of England (formerly James VI of Scotland) promote English throughout the reading of English Bible and English schools. Later, the usurpation in Ireland by English and Scottish loyalist ended the same but not the last. The huge spread was just begun.

The first colony of Britain in North America come shortly after that, in the year of 1588, Virginia founded in 1607, and Plymouth of Massachusetts in 1620, the people the British Isles come first, the people who came later, which from various part of the world, learned the language and accepted as medium of communication. The colony in Australia came in 1788, South Africa in 1806, and New Zealand in 1972.

Henry Sweet (1877) a British Philologist ever said that in a century, England, America, and Australia would be speaking ‘mutually unintelligible’ reason to the change of their pronunciation (Dimitrova, 2010). Fortunately, this is not happening, instead of being unintelligible, the former British colony and occupation create an independent accent of English. This occurred for some reasons, first, that most of the British migration were from the northern and western

part of England or from the lower class of London and did not do the Received Pronunciation; second, the advent of non-English migration later which brought influence and change of their own language to the English they spoke.

In conclusion, after taking over the England society back from French, the role of English was continuously promoted all over the United Kingdom, and later to the world particularly during the time of industrial revolution. Other inner circles countries, especially the United States played a significant role in promoting English, mainly through the USA migration demand, multicultural tradition, as well as the aspects mentioned above.

2.7.3 Dialect and Their Differences

The huge spreading of English –as mentioned before- issues a lot of accent varieties. It seems that each English speaking region creates their own specific features that are distinguished from others. In the United Kingdom itself, there are varieties besides the Received Pronunciation such as Scottish English, Irish, Welsh, Cockney, and Estuary. More varieties are in the ex-colony of British, say Canada, United States, South Africa, India, Hong Kong, and Australia. However, in the notion of English as International Language, the suggestion left two: the Received Pronunciation (British Norm) or General American (North Americas Norm). Both are chosen mainly because of its huge acceptance, huge influences, and the only English varieties that poses both spoken and written norms. (Dimitrova, 2010)

The differences between British and American English can be divided into two categories: the spoken features and the written norm. The main section distinguishes RP from GA is the existence of non-rhotic, where the /r/ sound does

not occur after a vowel, as in fear /fi/. Other difference is the replacement of /ʃ/ in British to /ʒ/ in America in some words like in Excursion /ekskəːʃən/ to /ekskərʒən/; the omission of /j/ in stressed syllable after the consonant /t/, /d/ and /n/ in GA like in ‘tune’ /tuːn/, ‘due’ /duː/, and ‘student’/stuːdnt/. This omission does not happen in British as it is pronounced /tjuːn/, /djuː/, and /stjuədənt/; another shift function also occurs mainly between /s/ and /z/, /s/ and /ʃ/, as well as /ð/ and /θ/. Received Pronunciation and General American also have a different representation of /t/ in last syllable, the /t/ between two vowels is pronounced as it is in RP but /ɾ/ in GA, known as flap, it sounds almost like /d/ as in word ‘better’ and ‘writer’. This flap happens only on the dual syllable words where the stress is at the first one and follows /r/ or /n/ as in ‘party’ and ‘’hunter’ or it is followed by the syllabic lateral /l/ as in ‘battle’ (Dimitrova, 2010).

The significant different between British English and American English are the shift function of some vowels as follow: the RP rounded /ɒ/ and the GA un-rounded /ɑː/sound, as in /bɒks/ and /ɒnist/ in RP but /bɑːks/ and /ɑːnəst/ in GA, both features also have their own exception as RP /ɒ/ does not occur in stress open syllable, the GA /ɑː/ does not occur before /ŋ/; the used of /ɑː/ in RP and /æ/ in GA before the consonant of /f/, /s/, and /θ/, as in word ‘coffee’, ‘glass’, and ‘path’ as well as the middle -mp- as in ‘sample’ and before the endings –nce, -nch, -nd, and –nt as in ‘dance’, ‘branch’, ‘command’, and ‘plant’, the –nt has exception for word ‘ant’ and ‘scant’; the used of mid-back rounded vowel /ɔː/in RP is lost its rounded in GA, mostly into /ɑː/ and /ɒː/ as in ‘thought’, ‘walk’, and ‘law’; the used of /ɑː/ in RP also sometimes represents as nasal /ǽ/ in some GA dialect, as they deleted

/n/ feature in some words, this feature distinguished the sound between ‘can’t’ and ‘cat’; the used of /ɒ/ in RP and /ɔ/ in GA before the consonant of /ŋ/, /f/, /s/ and /θ/, as in ‘long’, ‘coffee’ and ‘boss’; and the used of /ʌ/ in RP and /ɜː/ in GA before the consonant of /r/ as in /hurry/.

The significant different between British English and American English diphthongs are: the use of /əʊ/ in RP and /aʊ/ in GA as in ‘coat’ and ‘boat’; the use of /ɪə/ in RP and /ɪr/ in GA as in word ‘near’ and ‘beard’; the use of /əʊ/ in RP and /oʊ/ in GA as in word ‘go’ and ‘home’: the use of /ɑː/ in RP is represented as /eɪ/ in GA or sometimes even reduces into /ɛː/ as in word ‘tomato’ and ‘vase’; the use of /eɪ/ in RP and /æ/in GA as in ‘comrade’ and ‘apricot’; and the use of /ɪ/ in RP and /aɪ/ in GA as in ‘idyll’ and ‘advertisement’.

Another difference under the classification of phonology is the supra-segmental part of tone and stress. The Received Pronunciation mostly sounds like a musical tones while General American sounds conservatives and monotonous., Although both by isochrony is related to stressed-timed distribution, RP and GA have somehow made some difference on putting stress for some words, two-syllable verbs with ending -ate mostly is stressed on the suffix in RP instead of in prefix as in GA, some particular noun also does, as in word ‘ballet’ and ‘detail’.

The written norm of British and American slightly differences in many enough way, the prefix ‘-our’ ‘-ise’ ‘-re’ ‘-nce’ in British spelled as ‘-or’ ‘-ize’ ‘-er’ ‘-nse’ in American, as *Colour, Realise, Centre,* and *Offence* became *Color, Realize, Center,* and *Offense*. The American also dropped the ‘-e’, ‘-ue’, and ‘-me’ in British *Envelop*e, *Catalog*, and *Programme* (Tirban et.al, 2007)

2.8 Acehnese

2.8.1 Generalities

Acehnese (earlier spelled Acehnese) is linguistically classified under the branch of Aceh-Chamic language and is the only language of the branch. This group belongs to Austronesian languages under the branches of Malayo-Chamic. The Acehnese has initially considered as the language from proto-Chamic classification, which is the only Chamic languages outside Champa, the Chamic concentration area (recently part of Vietnam and Cambodia). However, considering the amount of Malay influence (Malaysia and part of Sumatra) has somehow brought a lot of influences and changes to Acehnese that this classification was later revised (Sidwell, 2005).

Acehnese is spoken by around three million and a half people in the world, the predominant number is in Aceh that reaches more than ninety percent of the speakers (BPS, 2016). The main spreading of Acehnese is in the five districts in the north coast: Pidie, Pidie Jaya, Jeumpa, North Aceh, and East Aceh; the five of the west coast: Aceh Jaya, West Aceh, Nagan Raya, Southwest Aceh, and South Aceh; the one in the tip of Sumatra: the Greater Aceh and the island of Weh; and all five municipalities: Banda Aceh (Capital), Sabang (the Weh island), Bireun (North Coast), Lhokseumawe (North Coast), and Langsa (East Area). Another significant concentration of Acehnese is in Malaysia that reach around ten thousand. Besides, there is also minority diaspora in Thailand, Australia, Canada, the United States, and the Scandinavian countries (Aris, 2010).

Acehnese is mainly treated as a local dialect in Aceh. Outside the mainland, Acehnese is only had for preservation reason as the people do not want to lose their language varieties. Other important roles of Acehnese are in the academic world of history and Islamic law, and the establishment of Acehnese arts. Today, more and more Acehnese manuscripts are examined to reveal the history, particularly for the applied Islamic law in the previous generation. For a while, the Aceh language is the only irreplaceable part of Aceh arts particularly in oral one, it is somehow a constituent part, opinionative and full of cussedness.

2.8.2 Historical Remarks

The relation of Acehnese to the Chamic languages has indicated the language migration from Cham to the island of Sumatra. Genetic linguist said there is a possibility of Acehnese to stay long enough in Kelantan before across the Malacca strait to the Sumatra where they had established an autonomous society for more than a thousand years separated from Cham. This geographic position and separation have made the Acehnese lost their contact to the Cham. Another premise, Dyan (2001) had a notion that the entire Chamic was originated in Sumatra, the proto-Cham moved to the Indo-China, and what happens to them next was what we have been thinking to happen to Acehnese in the first place. (Sidwell, 2005)

The oldest empirical record of Aceh history indeed shows the presence of Hindu kingdoms before the arrival of Islam to the archipelago in the area now called the Greater Aceh. The remaining archaeological like monasteries were dated back to the third century. In the eighth century, the first Islamic royal -Peureulak- was

established in the north coast, area now called Peureulak. Two hundred years later, in tenth century another royal -Samudra Pasai- was established in the area now called Pasee. It is the Greater Aceh that historically became the basis of the Union Sultanate in the fifteenth century. Durie (1985) said that this expansion was the key to the spreading of Acehnese.

In the Acehnese literature, we find that the father of Ali Mughayat Syah, the king in Greater Aceh who firstly initiated the annexation of the entire Aceh land, was originally come from the midland. There were indeed a number of exertion of the Northern and Middles Islamic Royal to introduce Islam to the tip area before the establishment of the throne. Another important inscription said that most of the kingdom in Aceh since the late of seventh century basically come from one man bloodline, Prince Salman of Sassanid. Since the tenth century, most of the sultanates in Southeast Asia is genetically related to Salman (Abdullah, 2011). The expansion headed by the Acehnese kingdom in Banda Aceh (formerly Bandar Aceh) could not just probably mean a war that dramatically forced the Acehnese into society. Remember that the states have a similar interest in expelling the European settlement of colony at the time. In Aceh, the feudalization of the government system has somehow secured the director of the previous courtier from the doing coup. Besides, it is a plausibility that if the Acehnese migrate through Malay peninsula –in which geographically be very likely-, then the north coast is the closest area to be reached before the spreading occurred all along the coasts. Another source also said that Aceh and Gayo were once lived together in Jeumpa (north coast) before the Gayo later moved to the midland as they resident now.

The contact of Acehnese to Arabs world was begun as the entry of Islam to the archipelago around the seventh century. This contact was generally part of Islamic teaching-learning, many stories of clergy that come to Aceh were asked back to Medina or Mecca to deepen their knowledge on the specific subject they could not handle in the discussion forum. After the fifteen century, Islamic education was well-regulated under the government ordinance. Although the development of Arabic-based alphabet by some Acehnese ulamas like Hamzah Alfansuri occurred during this time, it is only a few touched Acehnese. There was only a bit manuscript of Acehnese Arabic-based and only found around Greater Aceh. The older generation who only wrote in Arabic alphabet seems to always write in Malay that for some reason it is one of the official languages in the country (see, letter of Tuanku Radja Keumala to Tgk. Chik DiTiro, 1907). Just, it seems that the Acehnese was not generally to be written.

In the third-quartered of the nineteen century, the significant change of Acehnese specifically occurred in the orthographic system as the Latin replaced the Arabic. The spoken language progress, which is quite hard to measure has dynamically moved in decadences through decades. Acehnese people themselves admit that *'I don't speak like my father neither my son speak like me'*. Today, more and more Acehnese children acquired the Malay first before Acehnese, this is what makes the Acehnese is systematically getting even more *Malayan*. It is also no doubt to say that those who speak Acehnese is who directly experienced life in the motherland. The roles of Acehnese, which is getting less and less, made the new

Acehnese generation outside the source land will probably acquire the language no more. In a simple say, the Aceh soil is the only birthplace of the language.

2.8.3 Dialect and Their Differences

The spreading of Acehnese issues for four major dialects: the North, the Pidie, the West, and the Greater Aceh. Many scholars worked in Acehnese treat the North dialect as the main dialect of all (Durie, 1985; Asyik, 1987). The North dialect is indeed used and accepted widely for its simplicity, claimed to be sounded gentle and indicated politeness. Therefore, it is used for inter dialects communication, broadcasting, and any other Acehnese spoken stuff.

The area with north Aceh dialect spreads in the north coast from the eastern part of Pidie to Aceh Jeumpa, North Aceh and East Aceh active area. The north was phonologically no varieties, all north features are presence within other dialects, this could be the reason for it to stay in the mid among the others. The west dialect at least issues one varieties, the Pidie dialect issues categorically two varieties, and the Greater Aceh issues five.

The west dialect spreads in the west coast from the border of Greater Aceh to Aceh Jaya, West Aceh, Southwest Aceh, Nagan Raya active area, South Aceh and Aceh Singkil active area. The phonological varieties of this dialect specifically only happen in Aceh Jaya and Southwest Aceh, this variety is marked by the replacement of [ɔə] to [ai]. For example, the word *barai* [barai] is the replacement for *baroe* [barɔə] in other dialects (Asyik, 1987). The south Acehnese even though categorically has been included as the west dialect might possibly be categorized as another new dialect. The south performs a very specific tone and additional

consonant distinguished from others. The dialect carries the intonation of Minangkabau and produces the velar fricative.

Subsequently, the Pidie dialect in which spread in Aceh Pidie and Pidie Jaya issues two varieties. First, the reversal using between [ɯ] and [u], the reversal show in the change of *teubai* [tɯbai] into *tubai* [tubai] and *rukok* [rukok] into *reukok* [rɯkok]. Second, the changing of vowel [a], [u], [o], and [ɔ] into diphthongs clustering [i] for final [h] words. Example shows in word like *pataih* [pataih]; *pruih* [pruih]; *broih* [broih]; and *keih* [kɔih], changes from *patah* [patah], *pruh* [pruh], *broh* [broh], and *keh* [kɔh] (Asyik, 1987).

The excessively varieties of Acehnese dialect are in the Greater Aceh. Areas with this dialect are the Greater Aceh and Banda Aceh. It is mainly distinguished for the existence of the voiceless dental fricative and the voiced velar fricative. Generally, the voiceless dental fricative sound replaces the sound of the voiced alveolar fricative. An example is shown in word *pisang* [pisang] which changes into *pitsang* [piθang]. The voiced velar fricative is a replacement for trill [r] in other dialects like in word *baroe* [barɔ] pronounce as [baɣɔ]. Other specific related changes also occurred at the replacement of the final [i] into [e] when following a [ɣ]. Thus, words like *turi* [turi] and *bri* [bri] pronounce as [tuɣe] and [bɣe] (Durie, 1985; Asyik, 1987).

The next dialectal varieties of the Greater Aceh is the vowel replacement. In the north area of greater Aceh, the final [a] pronounce as [a] like in other dialects, or [ə]. In the south part, the final [a] is pronounce as, [ɛa], and [əa] in a different area separated only a few miles. So, the words *bola* is pronounced in four different

ways, as [bola], [bolə], [bolɛa], and [boləa] (Asyik, 1987). The north area around Sibreh also tend to pronounce the sound of [m] and [n] in a stronger nasal than regular bilabial or alveolar, I would like to suggest this as retroflex [ɳ]. Example of this can be heard in words like *malam* or *kiban*.

2.9 Source and Material Review

The resources and material used for phonological comparison in this research come from various source of books, journals, theses, and internet pages. However, there are several major sources where most of the materials are taken from. It is reviewed as follow:

English Phonetics and Phonology by Peter Roach (1983) widely talks about the phonetic and phonology of English. It consists of 20 chapters and covers almost all aspects of English phonology, from phonemic, syllable, stress, and other aspects of speech. With a huge number of pages (it is 259 pages), Roach gives very detail information on English phonology, particularly on the phonemic section. Each feature was picked to pieces, from basic theory to practical aspects.

Better English Pronunciation by Joseph Desmond O'Connor (1998) is an English phonology book with bottom-up system. Although the book only covers on phonemic and intonation part, it was specifically designed for foreign learner, as it begins with learner common issues in learning English, O'Connor reintroduces English and report the possible problem that learners with various language background might face with, the reason behind it and how to deal with it.

Mastering the American Accent by Lisa Mojsin (2009). By ways and means to cast the balance of the British and American English, the research is referred a

lot to this book. *Mastering the American Accent* is very practical with only a few theories are mentioned. It also very brief and detail, consists of eight chapters of practical rules and one chapter each for exceptions.

Struktur Bahasa Aceh M. Adnan Hanafiah and Ibrahim Makam (1984) is the first book talk about Acehnese phonology, this book was a project under the Language Bureau from the Acehnese government, the term *struktur* is adapted from "structure" as it covers the whole structure of Acehnese. The book is purely theoretical linguistics. Hanafiah and Makam are very declarative with one-viewpoint and briefly point-directed. The book contains lists of information and only a brief discussion on detail.

A Grammar of Acehnese on the basis of a dialect of North Aceh by Mark Durie (1985) is one of the Acehnese linguistic books that is written by non-native Aceh. Previously, the features of Acehnese had been reviewed by a Holland evangelist, Snouck Hungronjoe. Focused on the dialect of North Aceh, Durie's research shows a number of significant results with previous researcher, especially on how he treats aspirated features and his delineation on some features related to English. Durie also used the latest sophisticated instrument in his research at the time. He included audio recording and sound graphical waves. Hereby, he has been referred by many researchers later on.

A Contextual Grammar of Acehnese Sentences by Abdul Gani Asyik (1987) is a doctoral dissertation from Michigan University talk about grammar, the phonology review is just in brief but in a very technical statement. I mainly refer to this particularly when one source with other gives different information.

CHAPTER III

RESEARCH METHOD

3.1 Research Design

Discussion of issues raised in this study is examined through the study of literature and the learner empirical test. The study passes through two strategic actions: the study of literature and the test of participant.

3.1.1 The Study of Literature

The study of literature follows the whole practical actions of contrastive analysis framework. The five steps for systematic comparison and contrast of two languages are done through: 1) Selection 2) Description 3) Comparison 4) Prediction and 5) Verification.

3.1.1.1 Selection

It is to choose certain language elements to be compared and contrasted its level of identicalness. Besides, the selection also works as a limitation due to the large amount presence of language elements. The selection is able to be executed through personal experience, bilingual intuition or even error analysis. The two elements to be compared in two languages should be somehow similar in some extents. Here, the comparison validity of the two languages elements is especially determined by the sameness within its own category in term of role and function.

The selected languages of this research are Acehnese as the innate language in the case of English as the target of transfer. This selection has put the English features as the main concern of the study. However, the unusable and uninfluential

features of Acehnese upon the interest of English transfer will be ignored. The specific language element is the phonology with following sub-branches: vowel, diphthongs, consonant, consonant cluster, orthography, syllable structure, stress pattern, and phonotactic. More detail on the phrases are elaborated in section 4.1 selection

3.1.1.2 Description

It is to linguistically describe the quality and forms of the selected materials within a similar scope of theory. Normally, the structural phonology is used to describe the sound systems of two languages.

The large description for both Acehnese and English phonological system are provided in the chapter of literature review of this mini-thesis. However, all the data taken are from the literature in existence for both languages and has been confirmed its validity and acceptability.

3.1.1.3 Comparison

It is to compare the similarities and differences at certain comparison levels in both languages roommates. Both horizontal and vertical merger are used in the action. In view, the comparison is based on the framework of comparison analyzed by the classical structuralist where it specifically relies on the articulatory features and settings. The segmental features lie on place and manner of articulation and voice and voiceless settings while the suprasegmental parts are distinguished base on its categories and the elements inside.

The act of comparison between two languages will produce the initial categorization of the hierarchy of difficulties consist of 1) Split: the tendency of

double used the features in innate language; the overuse of the existing features of indispensability to replace the absence. 2) New: the non-exist of the comparable feature in the first innate language to the target one; the feature of the innate language that needs for the re-acquisition process (negative transfer). 3) Absence: the unusable features of the innate language, left but sometimes come to exist of giving quality influence. 4) Coalesced: the singularizing used of two or some features in innate language to a certain feature in target languages and 5) Correspondence: the transfer of active feature in innate language to the target language (positive transfer).

3.1.1.4 Prediction

It is to predict for the possible problematic area during the process of transference between the two languages. Prediction is generally established through the measurement of language proficiency and other supported language elements. Of course, the prediction is mainly taking benefit from the result of comparison stage since each category of the hierarchy of difficulties is basically telling a specific information to justify the prediction. Thus, this study will provide the event of Split, Coalesced, and Correspondence a more detail description to improve the comprehension and validity of prediction, since it is also very minor possibility of the identical features in two different languages.

3.1.1.5 Verification

It is to verify the transference condition of the *New* features towards the learner acquisition. Apart from other contrastive analysis stages, Verification is conducted as an empirical study and not as fully bound to the earlier stages in

someway, this is why the technical process of verification -that is manifested as the test of participant and interview- is elaborated separately in this chapter. However, each research has a different way on how to treat verification and its objective. But for sure, the verification in this study is conducted as the empirical study connecting to the teaching of pronunciation with the main researched target of pronunciation difficulties. The detail on test and interview are elaborated in the incoming sections.

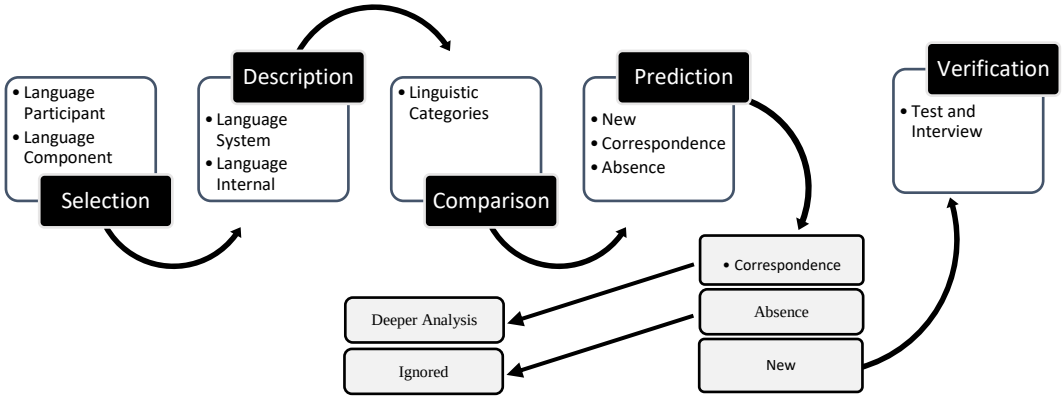
3.1.2 Test of participants and Interview

The action aims to collect information on pronunciation difficulties experienced by students of native Acehnese in pronouncing English. This test of participant is specifically worked for the segmental part of phonology. The totems are specifically designed to confirm the difficulties experienced and phonotactically arranged.

Actually, this test of participant is more of an interviewing acts than the test in a general form are understood. The type of information intended is in the form of recognition. This action is far from the error analysis in which the researcher do analysis directly on the features examined. In this study, the result of phonological difficulties is completely under the script and opinion of the participant.

The difficulty is as a sensation of ungenerous in articulatory organ during the process of pronunciation of a certain language. It specifically is defined beyond the condition of correct or incorrect. In fact, the failure of pronunciation might happen with or without the feeling of difficulties, and so the success of pronunciation does.

Figure 2. Research Outlines



3.1.3 Dialect Varieties

Asyik (1987) divides Acehnese into four main dialects specifically Greater Aceh, the West Coast, Pidie, and the North Cities, these designations are often differs between researchers though. Despite the North has claim as a standard Acehnese due to its gentle sounded manner, inter-dialects communication usage, and widely used all of over the Aceh, in fact, the other three dialects have also a long dozen range of users to be taken into account. This has put the issue somehow as one of the main concern of the study.

According to the theory of the practical treatment of contrastive analysis, Lado stated that it is important to do a separate study on dialect varieties. However, *if the difference is minor*, it is possible to conduct as one research project, the little difference deserves for specific investigation in specific pages despite. This separation is required to make easier the study presentation and as a form of high admire on the language diversity.

The varieties dialects of Acehnese happen in both segmental and suprasegmental part of phonology. The segmental features are where mainly the nature of diversity happen, the suprasegmental features somehow is caused by other

language influence, for example, the case of south Acehnese Minangkabau-like intonation merely happens because the society is bilingual. Yet, it has put themselves out of the Acehnese nature, this is specifically related to the language influence, companionship and relationship.

The Acehnese segmental varieties show the case of *minor* differences, specifically when it comes to English transfer, this has made a possibility of doing this Acehnese multi dialects as a one research project.

The specific features in Acehnese segmental features needed for special examination and required for specific requirement of participant is the inter-dental fricative, the only feature does. This consonant sound is phonologically absent in most Acehnese dialects but present in Greater Aceh. However, it takes role in English and might benefit the certain dialects by its presence. Just if the quality is proportional, then it would require for treatment unit on the participants.

3.2 Source and Types of Data

The study collects some source of information in order to soften the process of research. Each stage of the examination poses different source and types of data.

The source of data on the literature study is entirely derived from the existing sources, the material that speaks of phonological system is considered as solid data of alphabetical character.

The study of literature is aimed to find the differences in phonology between English and Acehnese theoretically, this action would have been done through the materials taken from the books which have included information about the system of phonology for both language as it has examined the positivity of its existence.

The Acehnese sources included: M. Adnan Hanafiah and Ibrahim Makam (1984) *Struktur Bahasa Aceh*; Mark Durie (1985) A Grammar of Acehnese in the basis of dialect of North Aceh; and Abdul Gani Asyik (1987) A Contextual Grammar of Acehnese Sentences. The English included: Peter Roach (1983) English Phonetics and Phonology; Joseph Desmond O'Connor (1998) Better English Pronunciation; and Gertrude F. Orion (2000) Pronouncing American English.

3.3 Instrument and Participant

The instrument and participant are not demanded at the first four stages but being crucial at the stage verification within the contrastive analysis framework. It especially outlines for the test of participant and interview.

3.3.1 Instrument

Both main and additional instruments are applied in this research, they are as follows:

1. **Vocabulary List**: The list of vocabularies that are used in this research is designed particularly. It includes all the segmental elements of the language that required to be tested, those elements are based on the result in contrastive analysis, all features that labeled as new features in hierarchy difficulty.
2. **Participant Background Information**: A list of participant basic information related to their position and language competence, required as the consideration matter of dialect varieties and ripeness of speech.

This form demands information of *name, gender, age, department, year in, address, and dialect varieties.*

Additional instruments used in this research is:

1. **Pronouncer Machine**: An instrument which is used to anticipate if the participant had lack of knowledge about the pronunciation and sound. The pronouncer machines that applied are Windows Speech Recognition and Advanced English Dictionary.

3.3.2 Participant

The participants in this study are the Acehnese first language students of English department of State Islamic University of Ar-Raniry Banda Aceh. The participant condition of Acehnese first language is accepted from any dialects in all test except for the test of the dental fricative feature, the special pre-requirement was the other three dialect except the Greater Aceh. However, the recruitment will begin with the acknowledgment of the mother tongue quality follow with the precision of the speech quality.

3.4 Techniques of Data Collection

Data collection techniques performed in this study refer to the actions of literature study and the test of participant.

3.4.1 The Study of Literature

The techniques of data collection in the study of literature simply by doing investigation on the literature. The data collected from separate number of sources, those are collected by the need of this study. The mean manuscripts were noticed in the sections 3.2 of this chapter.

3.4.2 Test of Participants

This part specifically concerned on the test of participant and interview matter. It carries a number of steps as follow:

3.4.2.1 Completion the Biodata Form

The test of participants and interview well-marked by the admission filling of the *Participant Data and Interview Information* form. This form is used as a paper of agreement to participate in this research as well as the fundamental information determine the material of the test. The form is fully completed at least ten hours before the test and interview take place.

3.4.2.2 Read the Vocabulary Totems

The table test and interview begin with the interviewer thrusting the paper of test forward to the participant and asks them to read in voiced, so both interviewer and participant are able to listen to it. The demand is express in the following manner: *Would you like to read the totem, please?*

3.4.2.3 Acknowledging the Objective

Before asking for experience, an explaination is given to the participant on what they are required to find, it also important to inform the difficulties that mean in this research. Participant read the paper once more, this time they are equipped with a colored marker as the interviewer held the same paper, both to take note.

3.4.2.4 Listen to the Pronouncer Machine (if needed)

It is an additional action to apply the pronouncer machine during the interview, this step is taken for certain crisis situation of lacking pronunciation ability, taken by either the informant or interviewer initiatively.

3.4.2.5 Expressing the Experience

The last part of the interview is to express the experience of pronouncing the material of test. This is believed to be the longest part of the interview. The interviewer takes note for the participant statement. Under all circumstances, the participant is allowed to reread the material, rebuilt the experience, and even remodify the statement. In order to dig up more information, all of those activities are watched under the conscious thought of the researcher.

3.5 Techniques of Data Analysis

The data is analyzed in the following way:

3.5.1 The Study of Literature

The analysis of data in the study of literature is specifically concerning on the contrastive analysis third stage (Comparison) and fourth stage (Prediction). However, the investigation would begin with the general establishment of the sound system and its structure (phonology). However, the firmer analytical comparison is executed through the technical production of the features (phonetics). Of course, not all the features are reached such detail for some reason: first, the absences in existence that made the comparison irrelevant, except for those with related quality; and second, the lack of literature information where the research lean upon.

3.5.1.1 Comparison Stage

The process of comparison data and features of the two languages is initialized by discerning the existence of the feature in both languages systems. Subsequently, the features are labeled for three categories before the further

investigation, this quick agglomeration is categorized in three: New, Correspondence, and Absence. See the example below.

Table 1. Sample of a Comparison and Investigation of Consonant Existence

Target Language	**Innate Language**	**Status**
English	**Acehnese**	
[p]	[p]	Correspondence
[ð]	-	New
-	[ɲ]	Absence

3.5.1.2 Prediction Stage

The comparison stage simply established temporary presupposition on the feature status in the hierarchy of difficulty. Each status acquired different subsequent treatment.

Table 2. Further Treatment and Presupposition of each Comparison Status

Status	**Presupposition**	**Further Treatment**
Correspondence	Cause No Difficulty	Deeper Analysis
New	Cause Difficulty	Test/Interview
Absence	Unusable	Ignored

The deeper analysis of features with correspondence status is concerning on: (1) how identical the two features base on their work in the articulatory system and (2) the distribution of them in their origins. See the example phonotactic comparison below:

Table 3. Sample of a Comparison of Distribution

Feature	**Position**					
	Initial		**Middle**		**Tip**	
	Ach	Eng	Ach	Eng	Ach	Eng
[p]	✓	✓	✓	✓	✓	✓
[h]	✓	✓	✓	✓	✓	×
[ŋ]	✓	×	✓	✓	✓	✓

3.5.2 Test of participants and Interview

The data analysis of the test of participants and interviewer is worked as part of verification in this contrastive study in which also the heart for the empirical information towards the condition of learners. The recognition of the interview is categorized as *negative* and *positive recognition.* The more *negative* the certain features get, the higher (or rightmost) it will be in the pyramid of hierarchy of difficulties.

CHAPTER IV

DATA ANALYSIS

Data Analysis of the study is organized based on the steps required follow along the contrastive analysis procedures. This chapter is intended to provide a contrastive summary and to elaborate the contrastive result as well as how such differences and similarities may cause difficulties in language transfer. The contrastive summary will also show the connection between Acehnese and English through the nature of both languages. Besides, the elaboration of the contrastive result will give a wider view on how such difficulty could possibly happen.

The five steps of contrastive analysis is consisted and aimed to be as follow, the *selection* part contains a particular language element compared, all the selected language elements in this research has been clarified its legality based on the condition of comparison; the *description* part contains detail information about the compared element; and the *comparison* part contains technical approximation on the comparison process and chronologically consist of investigation of existence and inspection of detail while the continuance of the rest contrastive analysis stages for *prediction* and *verification* are mentioned in the incoming chapter.

For want of resources and information, the phonological elements compared in this research are finite in some extent. For the simplistic and practical reason, the verification in this study has also only been carried at segmental part of phonology. At the end, there a small review on specific features related to dialect, particular features, and accent variations.

4.1 Selection

The language element selected to be contrastively analyzed in this research are entirely standing upon the branches of phonology and its distribution (phonotactic), both on the structure of spoken or written. The spoken elements are divided into three as Segmental Features and Supra-segmental, while the written elements consist of the orthography systems. The selected area of phonology to be analyzed is derived below:

4.1.1 Segmental Features

The segmental component to be selected included Vowel, Diphthongs, Consonant, and Consonant Clusters. The selected vowel, diphthong, and consonant to be compared are the comprehensive version of both English and Acehnese, consist of twelve English and ten Acehnese of oral vowel; nine English and twelve Acehnese plus a number of nasal of Diphthongs; and twenty-four English to twenty-seven Acehnese of Consonants. All of them are followed by accent variation and the practical review of speech organ.

The selected Consonant Cluster of English and Acehnese to be analyzed consist of the two and the three-type cluster for both the initial and final distribution as well as the consonant cluster from syllabic consonant, English pluralism feature and English past-timed regular verb.

4.1.2 Supra-Segmental Features

The supra-segmental components to be selected include as: Isochrony, Stress, Intonation, and Connected Speech aspects. The isochronal aspect of English and Acehnese to be compared is the Acehnese syllable-timing to English stress-

timing. However, as both walks in quite different proportion, the comparison will only be executed at the root level. This level is also the matter prevents from further comparison of the actual isochronal aspects that works at a deeper level of the isochronal construction of the language such as stress and intonation. Meanwhile, the selected aspect of connected speech to be analyzed is consist of Assimilation, Elision, and Linking.

4.1.3 Phonotactic

The phonotactic component that is selected includes: Distribution, Phonetic Constraints, and Syllable Structures. The distribution and phonetic constraints are the reexaminations to the phonemic comprehension in segmental section. The selected syllables consist of all the sixteen English and six Acehnese structures.

4.1.4 Orthography

The selected area to be compared over the orthographical system of both languages includes the Writing and the Mapping System that consist of the alphabetic principle, the predictability range of phonemes spelling, alternative representee and other contributed elements of the writing process.

4.3 Description and Comparison

The comparison process below consist of the investigation of features existence and the detail inspection of features that exist in both English and Acehnese. The existence investigation is the measurement of scope, range, and operation area of a language. It is aimed to find out the neutral area (companionship zone) when the two languages connect or transfer to each other.

Meanwhile, the detail inspection is the measurement of the sameness and identicalness of features that exist in both languages. It is aimed to gather a more detail information of features as a basic consideration to form the range of companionship. Inspections are conducted differently from one feature to another, from format measurement, distribution, to variational organ influences. The detail inspection was a somehow response to the lack of information gathered on the investigation of existence, as its action is also criticized to be not just simplified the language but also degrading it into symbols and forms. It is a general principle of a created language that says it is built with highly independent features and budge in self-initiating. By mean that, the degree of existence is not always precisely equal to the degree of identicalness. Roughly, if all languages are basically independent, they will then conceptually and philosophically also be different.

A number of feature aspect to be compared include as the extent, construction, function, and other side components of the feature. Each feature might pinch off different aspects depend on its figuration component.

4.3.1 Vowel

The investigation of features existence comprised of twelve English and ten Acehnese oral vowels are explained in the table below:

Table 4. English-Acehnese Vowel Comparison

Target English	**Innate Acehnese**	**Status**
[i]	[i]	Correspondence
-	[ɯ]	Absence
[u]	[u]	Correspondence
[ɪ]	-	New
[ʊ]	-	New
-	[e]	Absence
-	[o]	Absence

Target English	Innate Acehnese	Status
[ə]	[ə]	Correspondence
[ɛ]	[ɛ]	Correspondence
[ɜ]	-	New
[ʌ]	[ʌ]	Correspondence
[ɔ]	[ɔ]	Correspondence
[æ]	-	New
-	[a]	Absence
[ɑ]	-	New
[ɒ]	-	New

The quick inter existence comparison of English and Acehnese vowel results in the status of six Correspondence features, six New, and four Absence. Here is showing that the status of correspondence and new features are in the same amount of number, six. To comprehend the vowel of English and Acehnese and how both related to each other, it is important to understand how the spread of vowel of both languages works, particularly for the upper and lower limit of tongue and shapes of lips. Other important influential parts of vowel production include the soft palate position and the larynx setting variation.

The upper limit is the highest point of tongue performance in reaching the roof of the mouth to produce a vowel before the friction. Both English and Acehnese has the highest point of limit as both produce the front vowel [i] and the back vowel [u] which is considered as the highest part of the upper limit. Conversely, the lower limit is the extent of tongue depressed away from the mouth roof, so if the upper bring the tongue close to the roof mouth, the lower bring it open. Physically, because the tongue is steady at the root mouth, which is caused only a little pressure can possibly be done, the tongue deteriorates close to the pharynx, and here we have the back vowel [ɑ], the lowest vowel limit in languages.

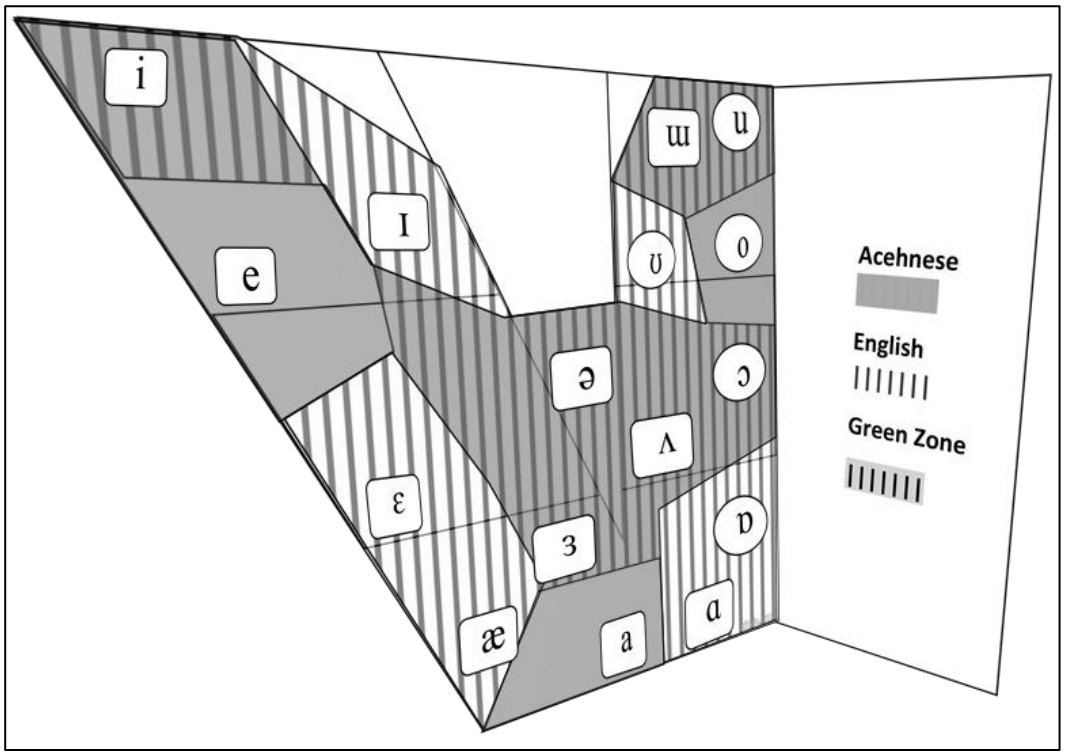
In English, this lowest limit is reached. In Acehnese, the pharynx is simply an unexplored area. The lowest limit of Acehnese is the vowel of [ɔ]. Seeing this limit also concludes the technical tendency of English sounds that spread from the front to the rear of the mouth while Acehnese mainly operates at the front and slightly at back part of the mouth, particularly in reaching the pharynx area.

Lip shapes are the figuration of lips based on shape and size in the production of vowels. As it is mentioned earlier, lip is one of the decisive organs in vowel creation. The lip shape of English and Acehnese work in general pattern as most language mainly for the primary vowels. The pattern is that, first, the front vowels are in spread position if it is close, but is getting even more neutral as the vowel getting more open and second, the back vowels have always rounded lips although it is different in size among the vowels.

Soft palate position is considered to be the movement of the soft palate, the position is required to produce the nasal vowel. This part is not to be compared since the nasal vowel was not the considered as general English feature that is taught to foreign student. English nasal vowel only occurred in variational English or load words. In fact, the Acehnese has more Absences feature relative to its huge number of nasal vowel.

Larynx setting variation is the figuration of larynx in producing voice, these settings include as normal, whisper, creaky and breathy voice. The normal voice is most setting occurs in languages. In English, vowel phonemes are all in a normal voice. Acehnese, even though might be needed for a further study, at this moment is considered as normal voice.

Figure 3. Comparison of Acehnese-English Vowels Operation Area



The figure above shows the spreading of Acehnese to English. Acehnese is represented in the red area while English in blue. The bright area of colour shows a single language operation while the darker is the same area occupied by both languages. Some vowel with similar operation area in secondary cardinal vowel is distinguished by the shape of lips, as circle represents rounded and rectangle to be unrounded. The difference is merely located at the open-mid, close-mid, and close area for back vowel, a restricted area in the Acehnese vowel system. In practice, the conspicuous area is in back vowel, remember that the steady-state tongue position is easier to move forward instead of backward.

Move on to the correspondence vowel, the degree vowel identicalness is found and given through the measurement of vowel formants of each feature. A formant is a based frequencies dimension to measure the high and range of tongue

movement. Formant measurement is taken from the spectrogram reading, a waveform based representation of sound in computational recorded voice system. Before the formant measurement recognized and demanded, spectrogram was simply used to detect distinctive features like vowel and consonant.

The English formant data in this comparison is taken from Peter Ladefoged and Keith Johnson (2011) while the Acehnese taken from Mark Durie (1985) and Zulfadhli (2014). Most of English vowel data presented consists of three different accents: Received Pronunciation, (U.S.) Californian English and (U.S.) Northern cities, while some only in one of those. Even though each accent might have their own range of spread, this data –at some point- has shown the range of English vowel as a language in general. The Acehnese data consist of three accents, Pidie Acehnese; Standard North and Western Coast. The first one comes from Durie while the rest two from Zulfadhli. Both of the sources are separated for more than two decades, we would see there is a very significant difference of quality produced between the sources which also interestingly share to English in some vowels. Both Durie and Zulfadhli gave some number of frequencies. However, the outermost part of the quality is provided here in order to establish the range of the feature operation. So, these points of representative number should not be seen as the independent spot, it is, in fact, work as the corner of the imaginative range line.

For the technical reason, the frame to represent the vowel cardinal chart is added with frequencies information and measurement. The horizontal numbers measure the frequencies of the first tongue movement (F2) which also represent the frontness and backness of a vowel; and the vertical measures the second (F1) which

also represent the degree of closeness and openness required in the production of the vowels.

4.3.1.1 Acehnese [i] to English [i]

[i], (orthographically represented most as /i/) is an i-based vowel, centered from front close, unrounded, and steady-state. Producing an [i] required for slightly smiling lips with tense and high forward tongue near to the roof of the mouth. The most distinguished technical production of Acehnese to English is the tendency in to produce in an unpretentious manner for outside organs (lips and jaws). Durie termed this as ‘small impression’. Compared to Acehnese, English gives a bigger pressure on this. In Acehnese, the lips shapes of /i/ and /e/ only differ a bit, the energy of production is centralized in tongue and other inside organs. According to Ladefoged examination, this model is very much possible in process of production (as cited in Durie, 1985).

Acehnese /i/ to English /i/ is mostly distinguished to the quality of length, as Acehnese have a short /i/, English has a full length one. This difference has mostly recognized for the additional symbol /ː/. Other interesting difference is located at the existence of glides in English /i/, its mean that /i/ -at certain case- moves from one frequency to another within the scope of the front area, the diphthongization within itself. In Acehnese, this feature always begins without any obstruction nor movement to end up before reaching the hotspot.

Meanwhile, the format frequencies data shows that English /i/ have a frontier position than Acehnese separated around 100 Hz. This frontier position has made /i/ sound in English sound tenser than in Acehnese. The Acehnese close

quality also shows significant differences among the accents. The Pidie is specifically separated around 165 Hz (F1) towards the other two. However, what to concern is the wide area of distribution. In English, it is somehow smaller. The English show consistency in their range of variation as the three accents work around 280-325 Hz (F1) and 2290-2350 Hz (F2). These pronunciation hotspots - which is not so wide- can be assumed to work even closer and touch each other among the accents. In Acehnese, it is widely spread around 175-380 Hz (F1) and 2220-2245 Hz (F2). Thus, there are about 205 Hz (F1) of potentials operate through.

Figure 4. Comparison of /i/ Formant Frequencies of English and Acehnese

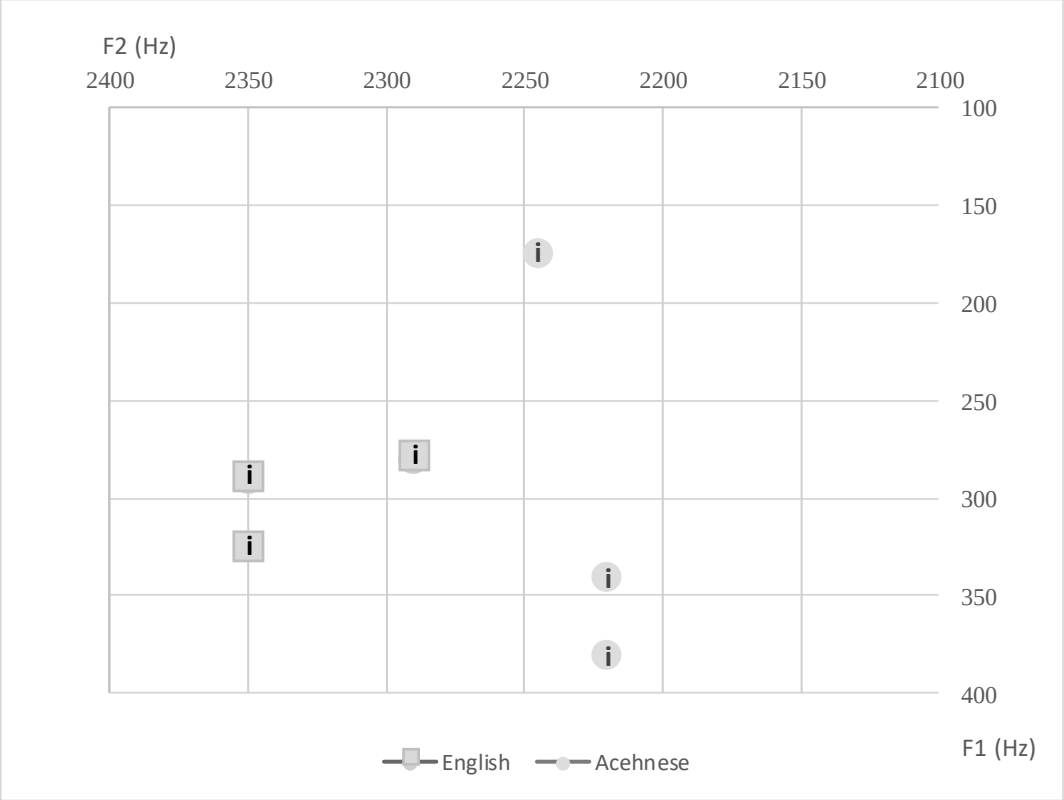


Figure 4 shows the spread of English and Acehnese vowel formants frequencies. The Acehnese frequencies, successively from the highest -Pidie-, reach around 175 (F1) – 2245 (F2), North 340 (F1) – 2220 (F2), West 380 (F1) – 2220 (F2); and English, RP 280 (F1) - 2290 (F2), California 290 (F1) - 2350 (F2), and North Cities 325 (F1) - 2350 (F2).

However, an even more significant difference of the English frequencies to the Acehnese is occurred in the quality of glides produced. A tendency of English glide /i/ is generally to end up with a frontier (F2) and an even more close (F1) quality from the inception hotspot instead of getting lower, except for some cases. Thus, it reaches -of course- more than 2350 Hz (F2) and 200 Hz (F1) or as a minimum of 30 Hz from the steadiness points. This contribution would mainly influence the sonority resulted in English. This also what makes the English glide cannot be introduced as a pure diphthongal of /i/-transition, -except only the definition itself in general- since it always goes into a lower attainment in Acehnese. For sure, the increasing of frequency in glides is a common occurrence in languages, particularly in /i/ and /u/ -which also getting more backwards and open. Interestingly that the Acehnese sonority *was* quite a compatible to the English as the Pidie frequency -that was recorded decades ago- reached such qualities. Soon as this quality drops however, would be utilized as the starting point of the drag track of a glide.

The important contextual variation of /i/ in English everyday conversation mainly relates to the change in quality in the prior of the dark /ɬ/. This dark is a /l/ variation that occurs before a pause in some English accents, particularly in the American and Scottish. The /iːɬ/ sequences will simply bring any vowel to do glide to the center and consequently decompress the contrast with /ɪə/. In Acehnese, conversely, the /i/ substitution never happen toward such consonantal processes and changes.

4.3.1.2 Acehnese [u] to English [u]

[u], (orthographically represented most as /u/) is a u-based vowel, centered from back close, rounded and steady-state. Producing an [u] required a 'balloon blowing' rounded lips, the tongue is tense and high. Acehnese rounded lips is considered tense, in English, the tense lips is not widely happened inter-accent, the major accent like RP has weak lips rounding differ from their counterpart North American especially the western and northern cities.

The most noticeable difference from the phonetic symbol of Acehnese and English /u/ is the presences of symbol /ː/ in English signaling the length. Nonetheless, the length does not occur unless in open syllable, before a lenis and nasal consonant. The steady-state /u/ mainly occurs before the fortis consonant. In Acehnese, the /u/ is always short and not appertaining for length. English close vowel seems to have similar characteristics for length and -later- glides which do not occur in Acehnese. This sound quality has mainly distinguished in word like English *you* to Acehnese *yu.*

Interestingly, the formant frequencies of English and Acehnese show the meeting of distribution that creates a safe zone. The English are frontier around 210 Hz (F2), and specifically has similar openness quality to Acehnese, as it works in frequencies 300-400 of F1. However, to look at the general quality of the language, Acehnese might have tendency to create an even more back quality instead of frontier as in English. The closest quality is mainly distributed between the Acehnese standard north and the west coast to the English northern cities. Note that, Northern cities is also uniquely separated from its California and RP counterpart

more than 300 Hz (F2) and works below average close frequencies of most [u] recorded in English. The other two English accents show a very similar quality of closeness but with frontier quality around 900 Hz (F1) to Acehnese Pidie which also separated to its Acehnese counterpart. Meanwhile, the Acehnese and the rest of English work in the similar close area and had a clear sign of the operational area. Acehnese [u] works around 290-400 Hz (F1) and 500-1190 Hz (F2) while English work around 300–390 Hz (F1) and 1000-1400 Hz (F2). The frontness safe zone might create -at least-around 100-1400 Hz (F2) and 300-390 Hz (F1). This closeness quality -which almost reaches all the standard- is however within the Acehnese range of closeness. In conclusion, if not to count other aspects of vowel, English [u] is one of the most identical features to the Acehnese.

Figure 5. Comparison of /u/ Formant Frequencies of Acehnese and English

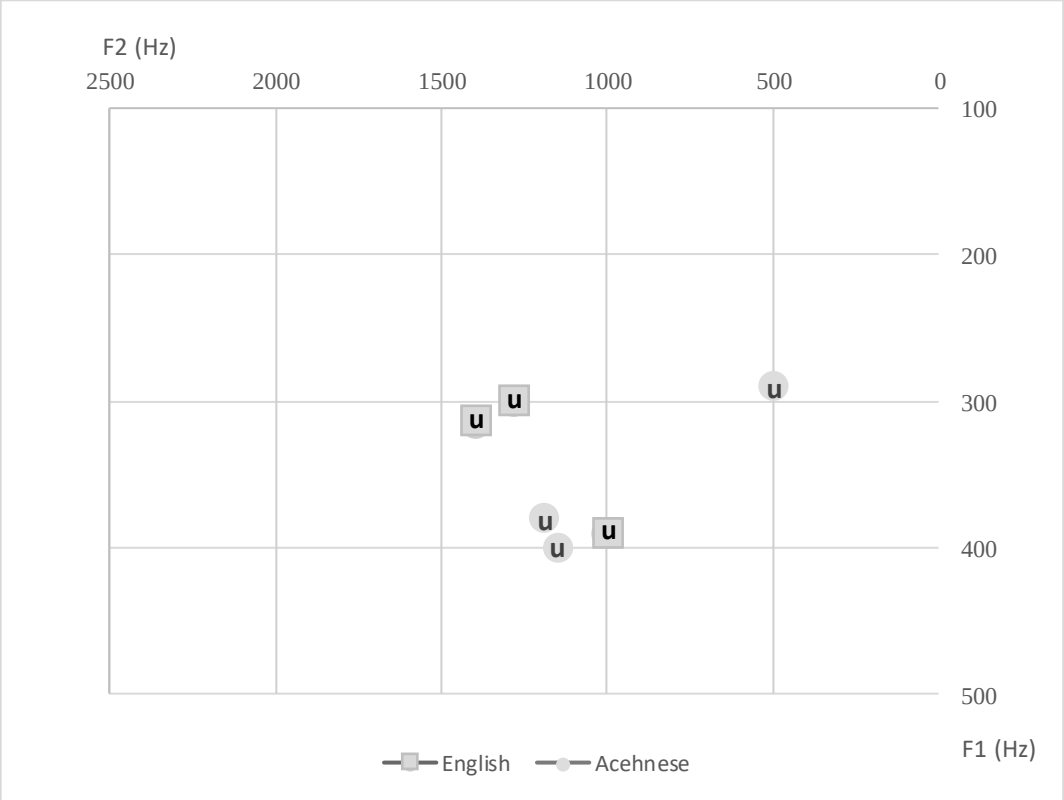


Figure 5 shows the spread of English and Acehnese vowel formants frequencies. The Acehnese frequencies, successively from the highest, reach around 290 (F1) – 500 (F2), North 380 (F1) – 1190 (F2), West 400 (F1) – 1150 (F2); and English, RP 300 (F1) - 1280 (F2), California 315 (F1) - 1400 (F2), and North Cities 390 (F1) - 1000 (F2). Here is show the NC separate from other English more than 50 Hz F1 and 200 Hz F2. Interestingly that the closest feature is an Acehnese one.

The main difference of frequency realization in English /u/ to Acehnese is also -as with /i/- occurred in the production of the glides quality. Generally, this condition has also a similar consequences caused in the transference process involving the increasing of sonority and the making of the track of glide. See the previous section for this details.

The major /u/ glides in English contextual variation is the wide glide after consonant /j/ as in word ‘use’ in RP. On the contrary to /i/, English /u/ is steady-state before dark /ɬ/ as in ‘fool’. In Acehnese, glide in vowel does not happen unless in creating a diphthong. Speaking up, another minor event of glides in English /u/ indeed resulted a diphthong. This glide is technically begun down the non-u area, resulted in a /ʊu/. This kind of pronunciation excessively happens in older generation especially in Britain. Fortunately, the form of glides is not suggested in many formal speaking nor developed as the foreigner English material learning as it is also avoided in newsreaders and movies dialog scripts.

4.3.1.3 Acehnese [ə] to English [ə]

[ə], is an e-based vowel, it is central in the open-mid area and unrounded. [ə] has been widely known with term ‘schwa’, drown out from the Hebrew terminology. The schwa –as the name sounded- is a very short vowel, it is produced

with toning down in a quick sound, the lips are fully in relax that it is barely move during the production process. The tongue also relaxes in the middle of the mouth.

The discussion of schwa is clearly beyond the talk of length and fervency quality. The International Phonetic Alphabet representation of schwa is mainly to distinguish it from the stronger manner feature of the similar form of sound, the [ʌ] –as will be discussed later- that is getting more central through decades.

The schwa is generally related to the production of unstressed syllables and vowel reduction. In general English, unstressed syllables are almost regularly transformed and reduced into this feature, this has made the schwa transformation is somewhat transparent for learners. Ladefoged (2001) examined that there are several anti-schwa reduction features like [ɔ] and [ʊ] in English, but the entire pattern of distribution is totally complicated, it is full of rules and exceptions that it is considered irregular. In Acehnese, the schwa is a way much better-regulated. The reduced form vowel produced in Acehnese are largely kept in their regular form, not to transform. The transparent schwa is only occurred in [ɯ] reduced form.

The formant frequencies data shows that the Acehnese schwa have frontier operation area than English for more than 600 Hz. However, the closeness quality varies about 100 Hz counted from around 390 Hz. The English operational area is mainly larger if to include the contextual variations –as explained later- that allowed schwa to operate in both areas of open and close in central vowel. Compare to that, the Acehnese frequencies as the opposite show a very consistent hotspot of operation area within an average capacious, from 390-530 Hz (F1) to 1300-1630 Hz (F2). The wide range of English, -although in contextual varieties- assumes that

the English native aware of schwa in wider frequencies. The small range of Acehnese schwa has indicated a lot of negotiation in the process of transfer.

Figure 6. Comparison of /ə/ Formant Frequencies of Acehnese and English

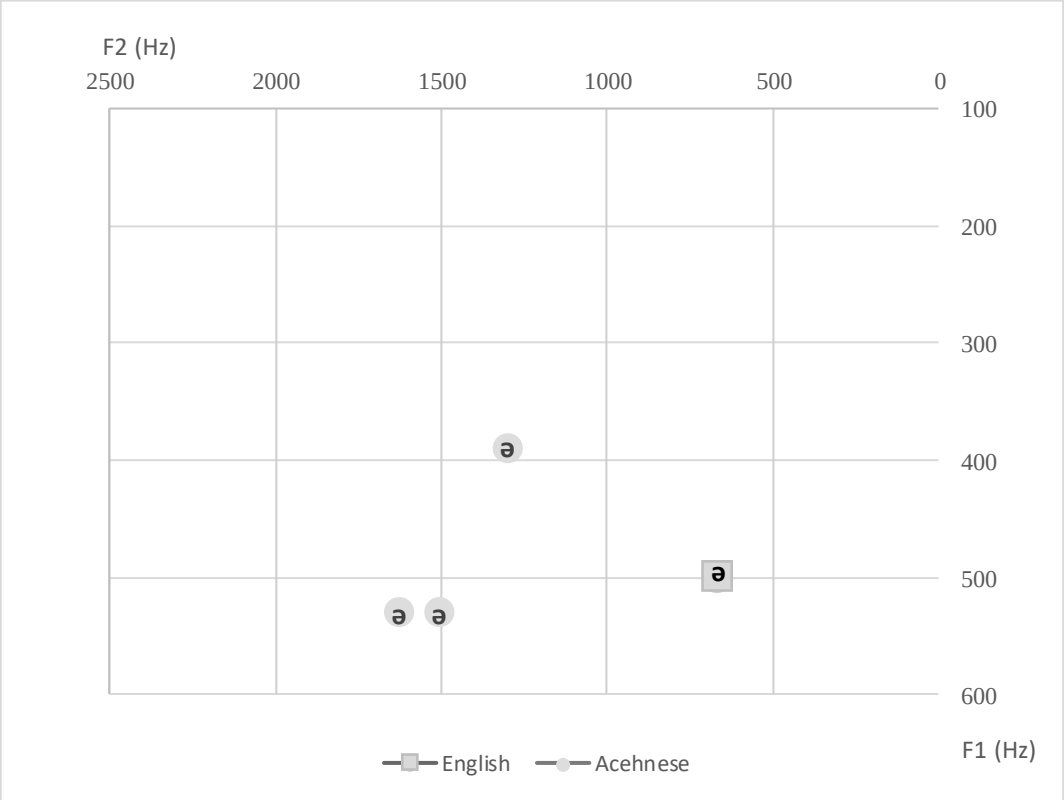


Figure 6 shows the spread of English and Acehnese schwa formants frequencies. The highest Acehnese frequencies reach around 530 (F1) – 1510 (F2) in West coast, then follow in 530 (F1) - 1630 (F2) in North and last in frequencies of 390 (F1) – 1300 (F2) in Pidie. The available English schwa data shows operation in frequencies of 500 (F1) – 670 (F2). Many linguists treat schwa as the main variable in stress discussion that less of formant frequencies measured compared to its colleague [ʌ]. This has fairly made only few information are gathered on this subject.

The contextual variation of schwa is specifically occurred in condition before velars. In word ‘again’ for example, schwa becomes closer than in its regular form of about 500 Hz (F1) into only around 400 Hz (F1), the similar number that is reached in most Acehnese schwa. In Acehnese, the 500 Hz (F1) is enough to produce a [ʌ], a more pressure version of schwa. This means that Acehnese is

allowed to produce the similar form of sounds but restricted in doing reduction in such area of frequencies. The second specific condition of English schwa is in final position where it becomes more open than in usual form. Some linguist even categorized this variation as [ɐ]. Major examples include words like *China, soda* and *bitter* reach around 600 Hz (F1).

4.3.1.4 Acehnese [ɛ] to English [ɛ]

[ɛ], (orthographically represented most as /e/) is an e-based vowel and produced in front area with open-mid jaw. The lips are in a bit spread and farther position of the mouth. As most front vowel, the tongue is in mid-high position to the mouth size, and it is relaxed. Many sources of English vowel gives special reminder notes on how wide the jaw required in English [ɛ]. Remember that English did not possess an independent [e] other than in diphthong [eɪ] that [ɛ] is the first vowel found after [i] that might reason on the emphasizing of the wide mouth in this feature. The Acehnese [ɛ] as in common Acehnese vowel, only give 'little impression' on jaws size and lips movement (Durie, 1985).

The pure English [ɛ] is basically short as the same length produced in Acehnese. However, English also produced the variation long version of [ɛ] in some speakers, especially the new generation, some experts watch this condition as the consequences of the reducing diphthong [ɛə] through decades. The production of diphthong [ɛə] that required movement from one area to another has amputated [ə] but keep the glides that resulted in longer voice than the regular form of [ɛ]. These changes mainly happened before the realization of /r/ in some words like 'parent'. In rhotic accent, where most [ɛə] in open syllables resulted from the rhotic effect,

the [ɛː] occurred when the syllables are closed, as the word ‘scare’ produced as /skeə/ but ‘scares’ produced as /skɛːs/.

Figure 7. Comparison of /ɛ/ Formant Frequencies of Acehnese and English

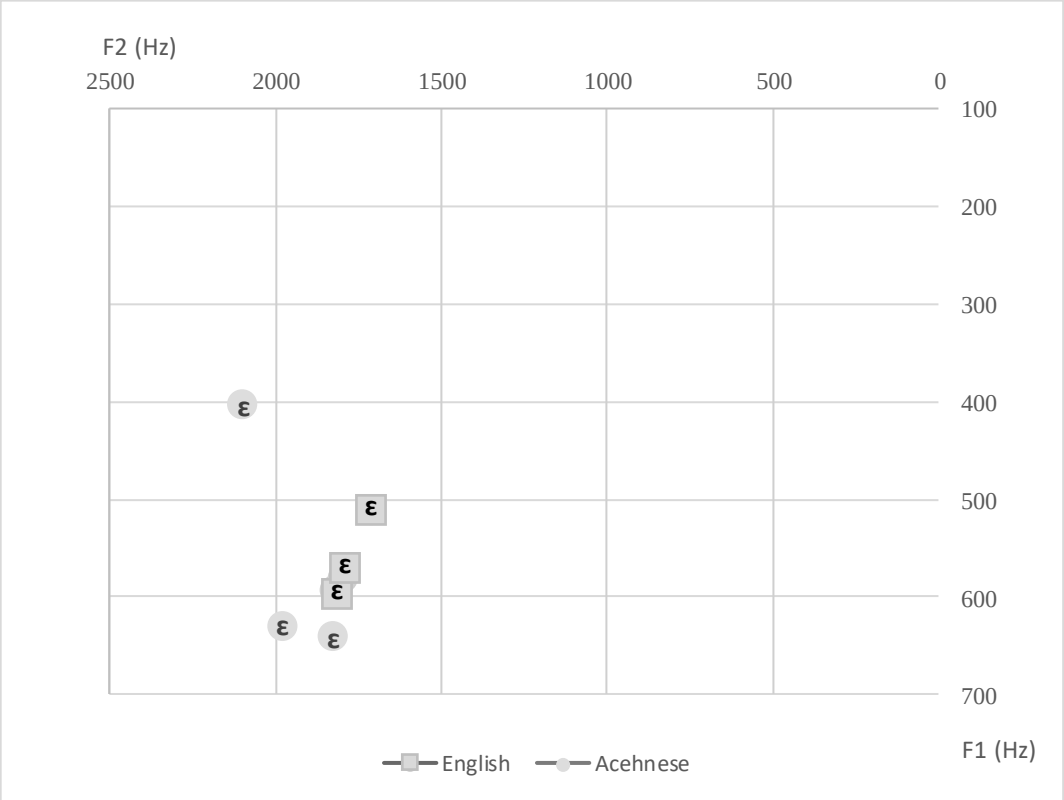


Figure 7 shows the spread of English and Acehnese [ɛ] formants frequencies. The Acehnese, successively from the highest of North reach around 640 Hz (F1) – 1830 Hz (F2), West coast 630 Hz (F1) – 1980 Hz (F2) and Pidie 403 Hz (F1) – 2100 Hz (F2). The English hotspot of [ɛ] in this chart include California 510 Hz (F1) – 1715 Hz (F2), Northern Cities 586 Hz (F1) - 1800 Hz (F2), and British RP 592 Hz (F1) – 1825 Hz (F1).

The comparison of formant frequencies data show that the features of both languages operate closely to each other. Even though most of the Acehnese show a frontier [ɛ] than in English. It is in fact only separated around 155 Hz (F2) to the furthest Acehnese. The Acehnese openness quality lies more than 200 Hz (F1) from the frequencies point of 400 Hz, this might have coped the English which has a shorter range, but might also be overproduced due to the wide left area. However,

Collins and Mees (2003) measure that the English [ɛ] operate just after close-mid to open –mid area, it should be an extensive area occupied in English. In Acehnese, the general range of variation is undetermined yet that it might detain us on taking a further statement. Yet, this vastness area of English [ɛ] can be indicated as a finer report on Acehnese-English transfer. Generally, the wider area of a feature in the target language, the easier process it will be to innate language.

The direct examination of [ɛ] wide operation areas shown in the contextual variation of the dark [ɬ]. English [ɛ] is getting lowered and centralized before the dark [ɬ] like in *felt* or *tell,* this -again- has added some more list of English vowels that changes affected to dark [ɬ]. Colins and Mess (2003) illustrated this variation as a more central quality that brings the feature outside the wide area of regular [ɛ]. Another variation is the closer form of [ɛ] before velars as in *pek* or *peg*. Seeing the distance between the two, this closer form might secure the transfer from Acehnese.

4.3.1.5 Acehnese [ʌ] to English [ʌ]

[ʌ], is described as a central-front vowel, operate below open-mid, and unrounded. [ʌ] -as for [ə]- is generally produced as a short and a quick sound that no tension should be felt during the production. The unrounded lips required are in neutral size, not too conspicuous; with relaxed and midlevel tongue; and slightly lowered jaw. The most distinguished part to [ə] is the tense on the treatment of stress, paradoxical to [ə], [ʌ] is considered a clear speech and free of the particularity for stress treatment. [ʌ] is formerly an o-based vowel, its representation in the cardinal chart is a back vowel. In English, the vowel is in fact, getting more

central-front through century dating back to 1900s that later became the basis of definition to differentiate from [ə] (Collins & Ness, 2003).

Both Acehnese and English [ʌ] are short in quality. In Acehnese, [ʌ] stays neutral towards the influences of previous or afterward features in contextual variations, English does the same, except for the occurrence before dark [ɬ]. Here, English [ʌ] tends to be retracted before dark (ɬ), as in 'dull' /dʌl/. The retraction will cause vowel to be sounded tender while the consonant dominated the voice.

Figure 8. Comparison of /ʌ/ Formant Frequencies of Acehnese and English

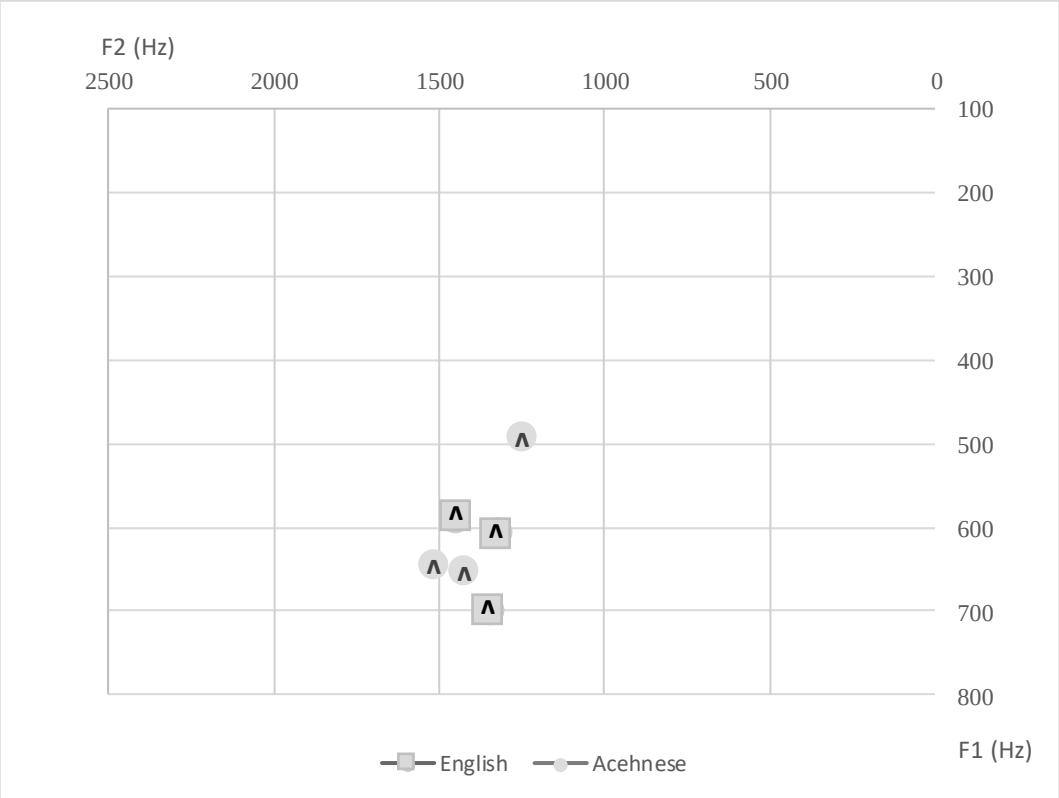


Figure 8 shows the comparison of English and Acehnese [ʌ] formant frequencies. The highest three of Acehnese operates in Pidie around 490 Hz (F1) – 1250 Hz (F2); West 645 Hz (F1) - 1520 Hz (F2) and North 650 Hz (F1) – 1425 Hz (F2). The English include the forefront California that operates in 590 Hz (F1) – 1450 Hz (F2), followed by Northern cities in 605 Hz (F1) – 1325 Hz (F2), and the most open British RP in 700 Hz (F1) – 1350 Hz (F2). Conceptually, [ʌ] is found as feature with the closest area of range variation in vowel comparison between English and Acehnese.

The formant frequencies data shows a highly adjacent quality of operation for both languages [ʌ] vowel. The frontness quality of English and Acehnese is very much close particularly in frequencies of 1325 to1350 Hz (F2) where all the English produced. The closeness quality of both languages also shares significant similarities particularly for the Acehnese North and West standard where those are between all of the three English. This position of frequencies range is highly benefited since all the English are intelligible to each other. See, the specific number of working frequencies in Acehnese operates around 490 – 650 Hz (F1) with 1230 – 1500 Hz (F2) while English around 590 – 700 Hz (F1) with 1325 – 1450 Hz (F1). There are about 50 Hz (F1) and almost 300 Hz (F2) of the safe zone is established through the transfer. This must have been the closest operational area of English and Acehnese ever recorded among vowels compared. This also concludes that the [ʌ] of English and Acehnese is creating the widest safe zone in transfer among the vowels compared.

4.3.1.6 Acehnese [ɔ] to English [ɔ]

[ɔ] is an o-based vowel, like many of those, it is produced in above open-mid and categorized as back vowels. [ɔ] is pronounced with a strong lip rounding shaped oval and slightly protruded while the tongue is low, close to the floor of the mouth. [ɔ] is considered as the last lip-rounded vowel produced in Acehnese, as so English of General American. The important facts, along with British RP, this rounded vowel is considered as the most strongly lip-rounded vowel in English. In Acehnese, the production might stay in the average level of strength, it is highly varied among Acehnese speakers on giving impression over the vowel. Another

significant note is that English [ɔ] is deemed to be more back than Acehnese. This can be heard in a solitude pronunciation, the Acehnese [ɔ] is sounded lighter than it is in English.

However, there is also a significant difference between English and Acehnese [ɔ] in term of the duration quality. As the English [ɔ] is pronounced long, the Acehnese have it short. Acehnese and English have similarity in their invulnerability against consonant influence surrounded them in contextual variation, even for the dark [ɬ] that commonly happen in English.

Another quality of English [ɔ] to carefully be observed in major British accents is the tendency to be closer than to open as the formant frequencies show the area of 450 Hz (F1) to 200 Hz (F2). Practically, this vowel stays near to the quality of [u], compared to Northern cities [u], it is more back around 800 Hz (F2). Interestingly, the North American shows the opposite that the [ɔ] tends to be more open than to close. The formant frequencies show the area of 650 Hz (F1) to 1000 Hz (F2). This is nearby the quality of [ɒ] in British RP. Both of the accents are separated around 200 Hz (F1) and 800 Hz (F2) to each other. This difference is so wide that considered as the largest gap ever created between the two accents. However, the Acehnese Pidie [ɔ] operates between the gaps of the two English accents, the formants data shows a quite consistent range of frequencies in 510 to 550 Hz (F1) and 800 to 900 Hz (F2). This quality is also uniquely separated to its North and West counterpart more than 100 Hz. The Acehnese Pidie quality shows a more open than British RP around 60 Hz (F1), and frontier around 600 Hz (F2). The other two Acehnese is frontier almost 1000 Hz to the British and more open

quality around 150 Hz, it is, of course, one of the furthest distance in this vowel comparison. However, it is interestingly separated only around 200 Hz in term of frontness and exactly have similar quality of openness compared to the Northern cities. The general Acehnese back vowel is indeed having a culture to produce in less back quality as Acehnese did not naturally produce a lot of fullback tongue movement. However, although the Northern cities are still problematic, it somehow shows a greater opportunity to be succeeded.

Figure 9. Comparison of /ɔ/ Formant Frequencies of Acehnese and English

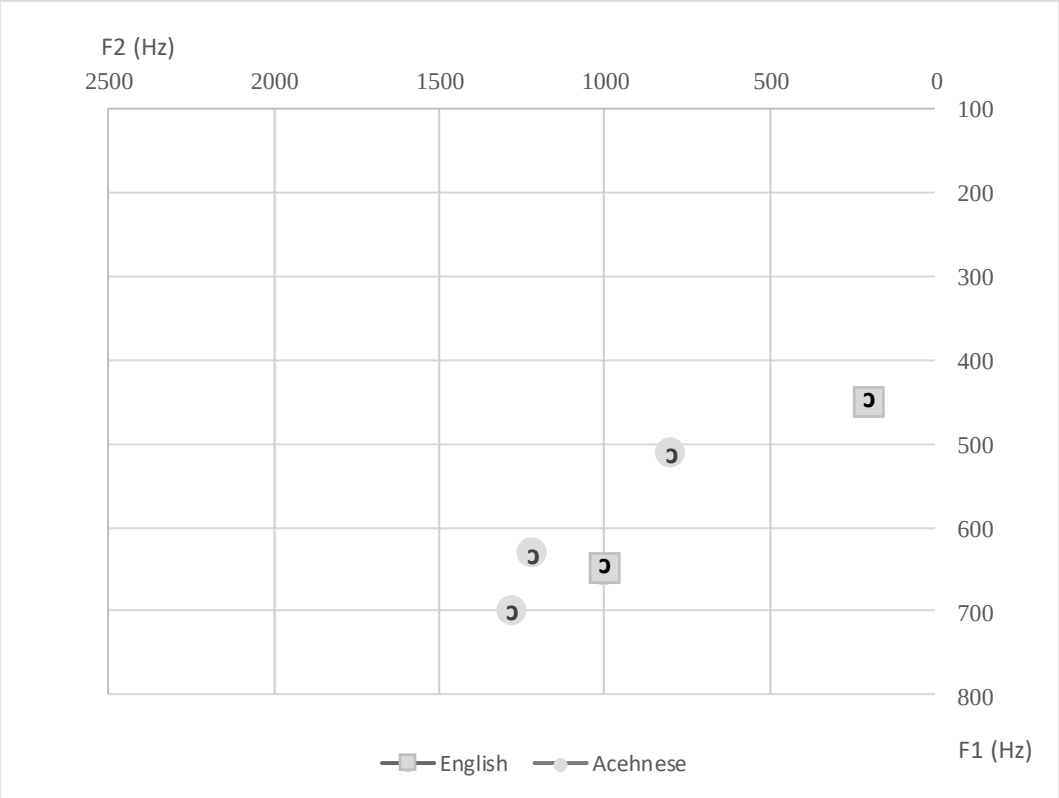


Figure 9 shows the comparison data of [ɔ] formant frequencies between English and Acehnese. Successively from the most close frequencies, British RP 450 Hz (F1) with 200 Hz (F2), First Acehnese 510 Hz (F1) with 800 Hz (F2), North Acehnese 630 Hz (F1) with 1220 Hz (F2), West Acehnese 700 Hz (F1) with 1280 Hz (F2), and Northern Cities English 650 Hz (F1) with 1000 Hz (F2).

4.3.1.7 Summary and Addition

The comparison of vowel formant frequencies data brought a number of important notes of the general characteristic towards the Acehnese-English transfer. First, the Acehnese tend to produce a more open quality of vowel particularly in Standard North and the West coast, three of the six vowels compared shows a more open quality of Acehnese vowel include [i], [ə], and [ɛ]. The other three of [u], [ʌ], and [ɔ] are surprisingly having a similar quality to English. The Acehnese Pidie is somehow tended to produce a more close quality of vowel, five of the six vowels compared shows a more close quality of Acehnese vowel except for [ɔ], among the Acehnese themselves, Pidie is also always in a more close quality. Second, the frontness quality of both languages is occurred in hastily, there are two frontier quality of Acehnese vowel compared to English, as for [ə] and [ɔ]; an Acehnese more back quality, as for [i]; and the three similar frontness quality as for [u], [ɛ], and [ʌ]. Acehnese and English specifically share a highly identical quality of vowel in [u] and [ʌ]. However, there might need a special attention for the transfer of [i] of Acehnese to English. Other significant attributes of English differentiate to Acehnese are also include the existence of glides, as in [i] and [u], and the contextual variation of dark [ɬ] that happen in four of six similar vowel of Acehnese, and English, as for [i], [u], [ɛ], and [ʌ].

Acehnese and English also show dissimilarity in the technical production of features mainly on the impression of speech organ. Generally, English gives more impression in lips and jaws during the production process, while Acehnese only gives a little, the tongue and other inside organs are functioned maximally.

Note that, although the formant reading and measurement is considered valid and results in a valid data in language comparison. In fact, formant was a very personal stuff that even a native speaker to another can just create a different number of range frequencies, for this, a language might have a certain frequencies range of operation and meet the neutral area where other language works too. Also, remember that format area for a vowel is short, it is highly possible that some frequencies reached by many languages especially for those in similar larynx setting variation. The act of determining the range of formant for certain language might need a huge number of participant with various ages and gender.

Another crucial aspect distinguished between correspondence vowels in two languages is also the phonetic constraints and distribution. These segments are discussed in a separate section of this chapter.

4.3.2 Diphthongs

The investigation of diphthongs existence and quality is comprised of nine English and twelve Acehnese, explained in the table below:

Table 5. English-Acehnese Diphthongs Comparison

Target (English)	**Innate (Acehnese)**	**Status**
[eɪ]	-	New
[aɪ]	-	New
[ɔɪ]	-	New
[ɪə]	-	New
[eə]	-	New
[ʊə]	-	New
[əʊ]	-	New
[aʊ]	-	New
[oʊ]	-	New
	[iə]	Absence
	[ɯə]	Absence
	[uə]	Absence

Target (English)	Innate (Acehnese)	Status
	[ɛə]	Absence
	[ʌə]	Absence
	[ɔə]	Absence
	[ui]	Absence
	[əi]	Absence
	[oi]	Absence
	[ʌi]	Absence
	[ɔi]	Absence
	[ai]	Absence

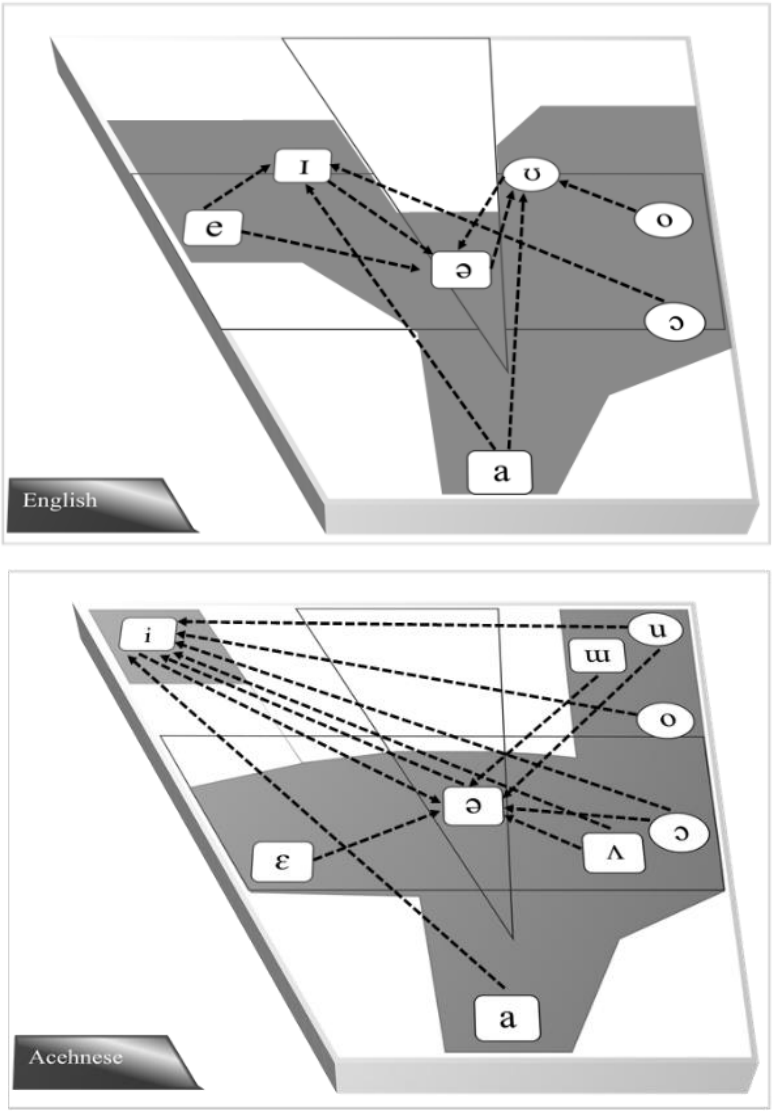
The existence comparison of English and Acehnese diphthongs results in the status of nine *New* features -which are the entire number of English diphthongs- and twelve *Absences*. As seen in the table, none of the Acehnese oral diphthongs correspond to the English. Thus, since the whole Acehnese diphthongs are considered Absence-roles to the English transfer, a great diphthong shift would potentially occur in the effort of adaption. However, following this information, there would be a lot of new acquisition process required coping this situation. Meanwhile, since the nasal diphthong is also not required in English transfer, more absence-status diphthong have occurred. Those are not mentioned in this section to concise the explanation.

In general, the difference of English and Acehnese diphthongs can be revealed from a number of aspects, including the tendency of movement, feature alliance, vowel refunction, and second vowel direction, the difference will be discussed from the bottom of diphthongs production process in comparison below:

Tendency of movement is the tendency of tongue direction towards the mouth roof, as it is understood that the creation of vowel is related to tongue position. When creating a diphthong, the tongue moves from one position to other

position to create sound variation. Both Acehnese and English diphthongs are not spread in all position, those features tend to move to a certain point of reaching. Although both operate to the close/front area of the mouth, each language has a different upper point. In English, the upper point of diphthongs is in the area of [ɪ], all the diphthongs with the second element of close-front feature are always reaching this point, if it is not called as limited to that point, English never reach more than this. In Acehnese, the upper point is higher than English, as it is in [i]. It seems that because Acehnese does not pose [ɪ], all the diphthongs that are trying to be created with close-front direction –then- are emerging directly to the only existence point in circulation, the [i].

Figure 10. Comparison of English-Acehnese Diphthongs



The second tendency of movement recorded is that Acehnese does not generally possess the back movement. As it is shown that, Acehnese always moves to the front or to the central part of the mouth, from any vowel it might begin with. In English, the back movement does exist especially to the close-back area. However, it still does not get to the rear part of the mouth, here, English always operates to the area of [ʊ]. This feature does not exist in Acehnese as close the back vowel in existence is [u]. The uplifting part is that both English and Acehnese have a tendency to move to the central close-mid area of [ə]. Half of the Acehnese diphthongs are built with this features, while English had it three.

The tendency of Acehnese first vowel in diphthong creation is almost coping the whole needs in English diphthongs as both begin with feature of [e], [a], [ɔ], [o], and [ə]. Here is the Acehnese absence to function the [ɛ] and [ʌ]. The difference is in two, while the English could only begin diphthong with the [ɪ] and [ʊ], Acehnese only begins it with [i] and [u]. It seems like in pronouncing the diphthongs, English always begins and ends the close area of the front and the back at the similar point of reaching.

The interesting part is that the process of diphthongization has brought English to possess more vowel particularly for the [a]. This vowel is always in diphthongs position as in *I* or *buy* [ai] and [bai]. In English, the single open vowel is automatically getting back instead of the fore as it is possessed in diphthongs. However, this has simplified the pronunciation. Meanwhile, vowel refunction is not normally happens in Acehnese since the only diphthongs created are from the vowel in existence.

Figure 11. English-Acehnese Diphthongal Area Comparison

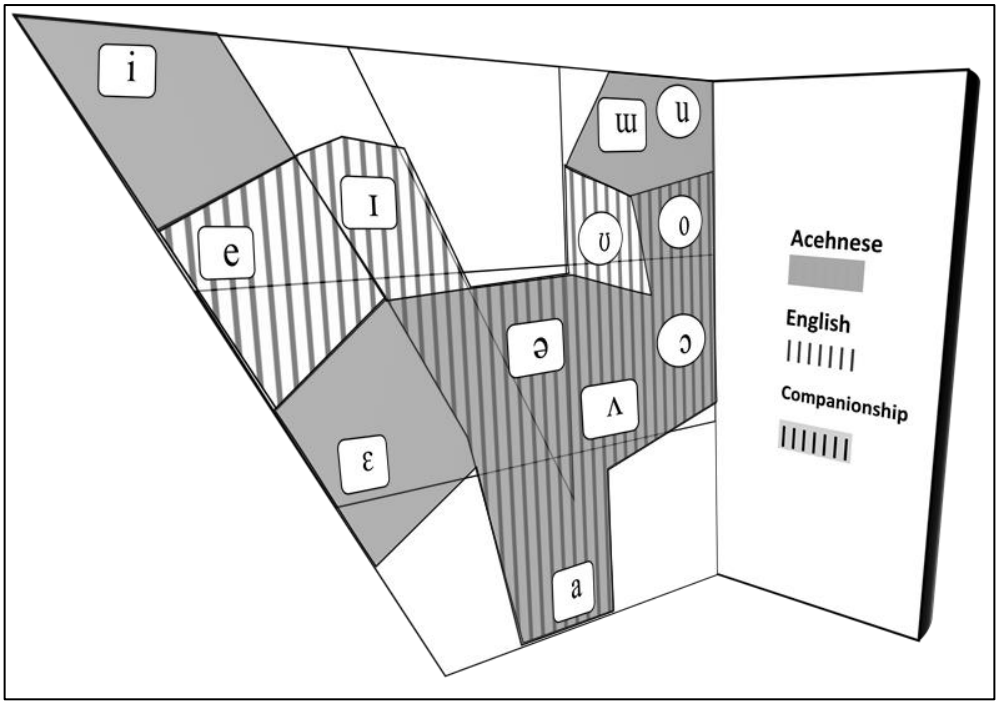


Figure 11 shows the diphthongs operation area in comparative balance represent with dot-lines for English and strip-lines for Acehnese. The corners represent the hotspot reaching. This hotspot has made tongue to stop at a certain point in the mouth.

Other significant quality of differences also establishes at the duration shared between the diphthong contributors. The general quality of English diphthongs are diminuendo glides where the second element is shorter and less intense than the first, except at diphthongs [ɪə] and [ʊə]. In Acehnese, it is somehow having a relatively equal allocation. Even some does distribute in crescendo -where the second division of the diphthongs are more salient- it still in a dense quality of the first, this particularly occurs in [i] ending such [ui] and [ai].

4.3.3 Consonant

The selected consonant to be compared consist of twenty-four English and twenty-six Acehnese. See table next for explanation:

Table 6. Acehnese-English Consonant Existence Comparison

Target (English)	**Innate (Acehnese)**	**Status**
[p]	[p]	Correspondence
[b]	[b]	Correspondence
[t]	[t]	Correspondence
[d]	[d]	Correspondence
[k]	[k]	Correspondence
[g]	[g]	Correspondence
[f]	[f]	Correspondence
[v]	-	New
[θ]	[θ]	Correspondence
[ð]	-	New
[s]	[s]	Correspondence
[z]	-	New
[ʃ]	[ʃ]	Correspondence
[ʒ]	-	New
[h]	[h]	Correspondence
[ʧ]	-	New
[ʤ]	-	New
[m]	[m]	Correspondence
[n]	[n]	Correspondence
[ŋ]	[ŋ]	Correspondence
[r]	[r]	Correspondence
[l]	[l]	Correspondence
[w]	[w]	Correspondence
[j]	[j]	Correspondence
[ʍ]	-	New
-	[ɻ]	Absence
[ʔ]	[ʔ]	Absence
-	[ç]	Absence
-	[ɲ]	Absence
-	[m̲]	Absence
-	[n̲]	Absence
-	[ñ̲]	Absence
-	[ŋ̲]	Absence

The comparison of English and Acehnese consonant results in statuses of eighteen Correspondence, six New, nine Absence features -include all the funny nasals-, and two features with dual status. The dual status features of the dental fricative and trill -which is carrying both the status of Correspondence and New-

are the result of a different set of presence towards the dialect varieties in Acehnese. The dual status will also be followed for dual treatment in each stage of analysis. Other dialect varieties and treatment are enclosed in a specific section.

From the comparison of consonants existence, it shows that the majority of consonants require for English acquisition have roughly been coped in Acehnese innate features. However, in order to check the degree of identicalness, the correspondence feature has brought back into the detail inspection below:

FRICATIVES

4.3.3.1 Acehnese [f] to English [f]

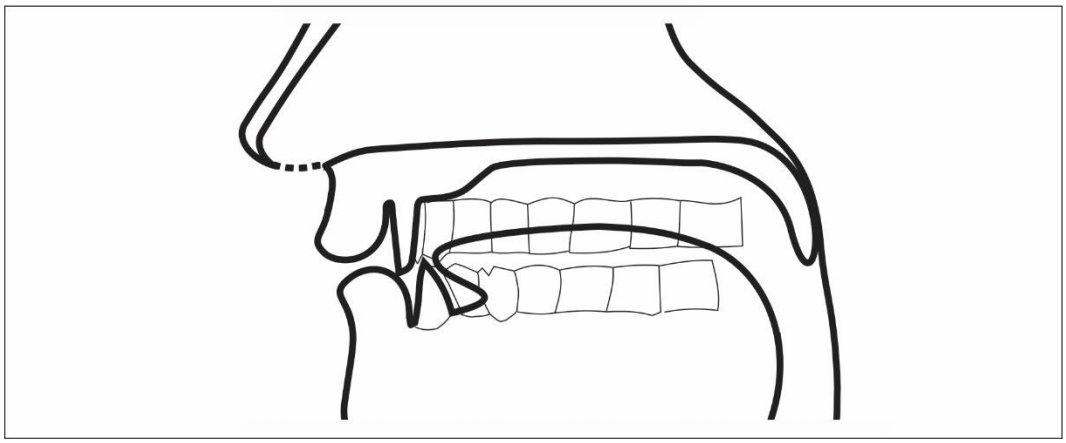
[f], (orthographically represented /f/) is described as voiceless labio-dental fricative, and is counterpart to [v]. In general description, the [f] and [v] are only distinguished by the vibrating of vocal cords in [v] while [f] have it absence. [f] is also louder and longer than [v]. In English, the production of [f] follows the usual manner known in International Phonetic Alphabet, the lower lips touch the upper teeth lightly while the airstream goes continuously. The lips vibration caused of the releasing air between teeth and lips will result in specific sound known as [f]. The most distinguished part to Acehnese [f] is the retraction of labio-dental contact. In Acehnese, it is somehow close to bilabial. It means, instead of the touching of upper teeth with the lips, the touching between lips is more concerned. This model of production creates [f] with a more [p]-like sounds.

Acehnese [f] is a borrowing feature from Arabic, all the words with [f] in Acehnese come from Arabic like *Fatimah* or *Fulan.* The sound is not infiltrated completely as it is but to change. Zulfadhli (2009) conclude the absence of [f] in

Acehnese as the adopted [f] mostly reforms into [p] sounds. Durie (1985) also did not conclude [f] in his Acehnese consonant chart. However, he stated that the bilabial aspirates –where the Acehnese [f] occurs- are sometimes pronounced as fricatives, the [ɸ] and [p^h] happen in alternation randomly. He also said that Acehnese interprets English [f] as this [ɸ] (p.12). In English, the quality of [f] is changed contextually whether with vowel or consonant. The quality is measured towards the teeth position on the lip surface. [f] is getting more forward for front vowel and retreated for back vowel but did not tease the quality of general [f]. On the other side, the fortis English [f] can never meet the quality of Acehnese [p]-like sounds and it has somewhat degraded the legality of this comparison. However, the sequences /pf/ like in *cupful* might result in a fricative articulation of [ɸ].

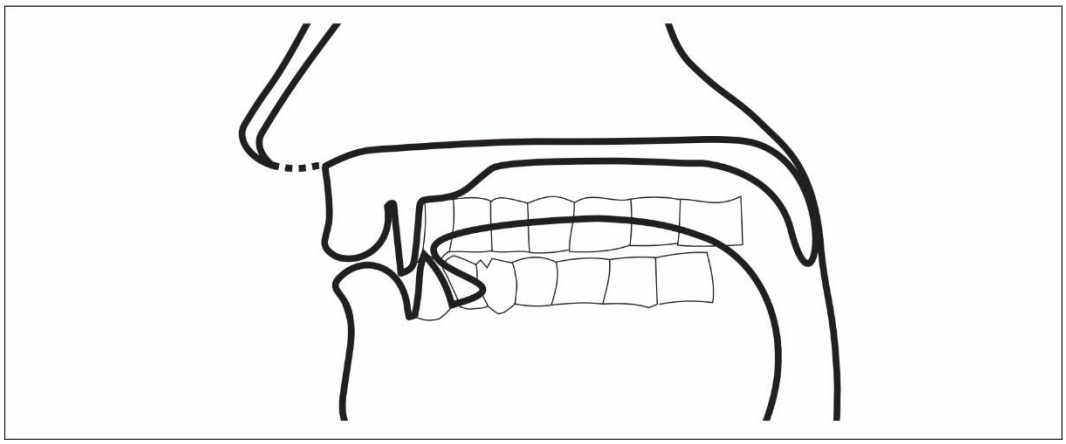
In conclusion, the general and widely used English [f] is different from what Acehnese [f] articulated. The meeting point of both is in [ɸ] where Acehnese tend to sometimes produce and the contextual [pf] sequence of English.

Figure 12. English [f] Technical Production



The technical production of [f] in English (Figure 12) and Acehnese (Figure 13, next page) show the disparity in the practical production of both languages. The English production required the labio-dental contact, while in Acehnese it is more to bilabial.

Figure 13. Acehnese [f] Technical Production



4.3.3.2 Acehnese [s] to English [s]

[s] (orthographically represented as /s/) is a representative symbol for voiceless alveolar fricative and is counterpart to another alveolar fricative, voiced [z]. [s] is articulated with continuous airstream, the upper and lower teeth are in an almost parallel position but not touching each other, while the tongue raised toward. In comparison, there is a very significant difference of tongue position and condition in English and Acehnese [s] which also create a significant difference of quality in [s] of both languages. In English, the body tongue position behind upper teeth is near to the gum ridge without touching it, while the side of the tongue takes hold at the upper side teeth, the tongue tip is lowered a bit giving a way to the airstream. This position is creating friction flow between the tongue blade and the alveolar ridge that results in a hissing sound, the sharp [s].

In Acehnese, the tongue tip is in the body part of the upper teeth, precisely as in position for English [θ]. The tongue tip is steady when the back part of the blade raised to create constriction against the alveolar ridge, the pressure channels the airstream from the alveolar ridge to the teeth along the front of the teeth. The turbulence that is created has low intensity due to the wide channel area and resulted

less sharp [s] as in English. Butcher (2016) described this turbulence *like rock in the river*. Although all fricatives have turbulence, the quality very depends on the obstacle (rock) and the stream (river). Durie (1987) -who study the Acehnese phonology- even seems to represent the sound as another form of variation due to its independent way of production and characteristic of sounds resulted.

The laminal quality of Acehnese and English also plays a significant role in the creation of hissing quality. The front part of tongue in Acehnese [s] is having a wide area that creates turbulence. Here, it causes the constriction that constructed the groove -the gully that functions to increase the fizzy effects- only occur in the mid-body. In English, where the dental turbulence does not occur and a constant size of tongue remain, the constriction creates a more 'snake' quality of [s].

The high hiss quality of English [s] also affects to the frequency and noises resulted. The existence of English [s] is somehow non-negotiable, it could also be the reason behind the absence of the [s] contextual variations. This [s] is very much garish, in whatever words or sentences, contexts or accents, English [s] is always audible. In Acehnese, the [s] is sometimes articulated in affricative that -again- might reduce the fizzy effect as the stop element comes along. In conclusion, the [s] of English and Acehnese are somehow not having any cooperated zones at the moment. The specific accent of Greater Aceh even produces the voiceless dental fricative [θ] replacing [s]. Interestingly, this disaster benefit on the other sides. The special features of specific Acehnese accent will be discussed by the end of this subchapter.

Figure 14. English [s] Technical Production

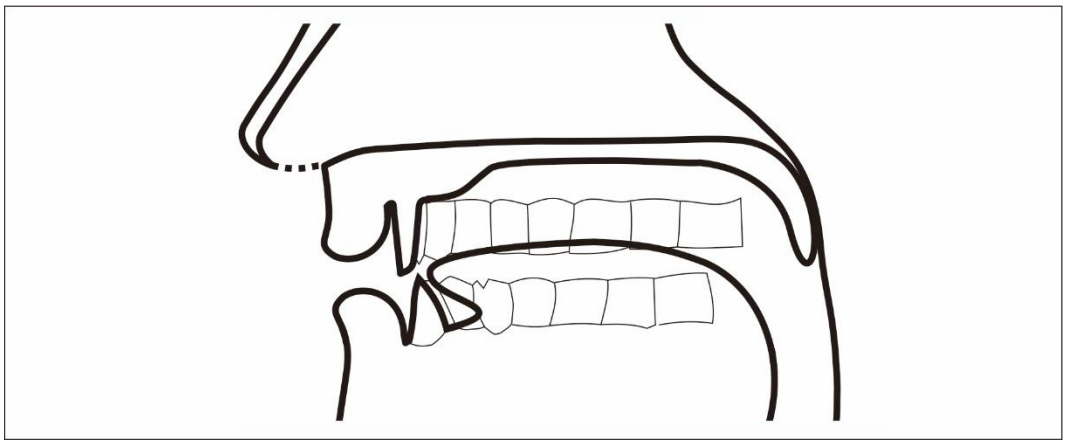
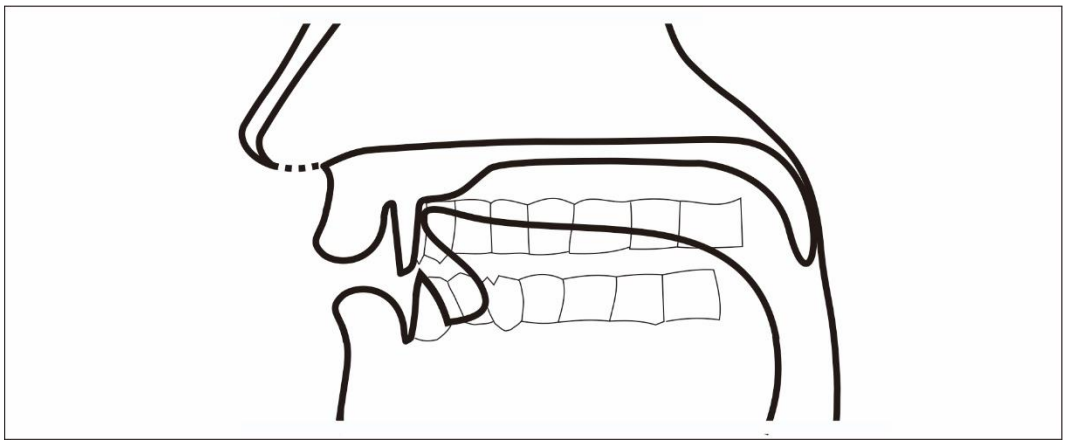


Figure 15. Acehnese [s] Technical Production



In queue, the technical production of [s] in English (Figure 14) and Acehnese (Figure 15) show a high level of disparities, besides the rounded lips and the fortis quality, both [s] has nowhere to meet. The tongue position plays a significant role towards the quality of [s], English has lower tongue position with the longer groove of airstream, while Acehnese has higher tongue position described as lamino-alveo-dental fricative, the air turbulence occurred up and down affected the fizzy quality.

4.3.3.3 Acehnese [ʃ] to English [ʃ]

[ʃ], also called the *esh*, is the symbol to represent the general sound of voiceless postalveolar fricative, counterpart to [ʒ]. In English, this sound however produced as labialized palato-alveolar fricative, while in Acehnese it is lamino-postalveolar fricative. The esh is constructed with soft and steady continuous airstream, the tongue is in hilly position: the tip is close to the upper gum, while the

raised mid (body) tongue close to the hard palate, both of this tongue part is not touching the one nearby. The sides of the tongue are held against the upper teeth at the side of the mouth. The airstream that flows out through the mouth cavity moves towards the mid-part of the tongue due to the closed access on the sides and follows the groove formed along the tongue mid-line. Even though the production shows and required several similar actions and aspects, the sound of [ʃ] is graver instead of hissing like in [s]. [ʃ] is rising the whole front part tongue to create stricture, it is definitely a larger area compared to what [s] does. The raised also higher that the tightening begins with the front of hard palate and the alveolar ridge. The fuzzy graver is resulted by the larger extent of structure in the palate than alveolar.

The most identifiable differences in the production of [ʃ] in Acehnese and English is the shapes of lips, which also give a great contribution toward the quality of the sounds stratum in [ʃ]. In English, as Collin and Mees (2003) stated, [ʃ] has a round protrusion lip, this shape along with a strong energy of articulation has maintained the quality of the stratum. The lips shaped indeed contribute to the construction of graver character, the less protrusion shaped, the sharper the sound will be produced. Acehnese is somehow having a general rule of giving a very little impression during talk, the graver quality in Acehnese [ʃ] relies on the tongue tip (laminal) against the alveolar. In conclusion, even though both languages developed the fortis articulation for [ʃ], the graver quality produced is still in quite a similar level of frequencies.

Basically, the status of [ʃ] Acehnese consonant chart is still debatable, whether the features originally developed by native speaker or it is adopted. Most

of the words with [ʃ] is taken from Arabic like *Masykur* or *Syak*. The widely used word with [ʃ] in Acehnese is 'Hush', it is kind of sound produced in shooing animal, it is -again- a highly debatable stuff to consider this as a word. Interestingly that the 'hush' which produced with preceded [u] is required for rounded lip articulation. Not to be simplified, if the language is generated from a result of developed speech organs. The Acehnese [ʃ] is generated from a rounded vowel, means that rounded lips are the important aspect in the original Acehnese [ʃ]. Of course, the degree of roundness is not for compared to the English.

4.3.3.4 Acehnese [h] to English [h]

[h], (orthographically represented as /h/) is the symbol used to represent the fricative feature of voiceless glottal. Its counterpart is the voiced *hooktop* [ɦ]. In simple, [h] is described as a breathy element in speech, in second sequences within a cluster also termed as aspirated. Other termed related to [h] are voiceless glottal transition and voiceless vowel. It is quite hard to characterize the [h] due to the less of consonant characteristics in manner and place of articulation nor vowel on the degree of height and backness in both models of recognition. But to be sure, [h] is very much influenced by the vowels around contextually.

[h] is produced with the usual pulmonic airstream mechanism that comes from lungs and diaphragm. The allophones [h] is articulated by making a friction through the pressuring of the back of the tongue to the throat, the airstream movement results in the friction at the glottis and throughout the tract of vocal. In English, especially the Received Pronunciation, the pressure of the tongue is stronger than in Acehnese. Furthermore, when it follows or precede vowels, the

articulators are in the position for the vowel, the strong friction in the production of [h] makes the aspirated element comes along with vowel, [h] is very much part of articulation energy. Concerning vowel, [h] functions as glides for whatever vowel surround it. Similarly, both English and Acehnese do not have any specific displacement for [h] like the Arabic glottal constriction, it is a pure -widely used- laryngeal specification. The difference in pressure of the back of the tongue in allophones [h] –as stated above- as well as the friction at the glottis is occurred due to the significant difference of spread in open vowel of the language.

The prominent consequence of the [h] laryngeal condition is the number of allophones [h] equal to the amount of vowel in the language. The disparity between [h] of English and Acehnese relies on the differences of vowel in both languages. To look back at the vowel comparison, there are six *New* status vowels concern the transfer process of Acehnese to English. If all the vowels have less-constraints of distribution toward [h], there must be the same exact number of nonexistence allophones in Acehnese. Those are included a couple of pharynx unexplored area, the central close-mid, and the front open-mid.

The contextual variation of English [h] isthe voiced glottal fricative, the hooktop [ɦ]. This occurs when the [h] is between the vowel and voiced sound, e.g. *apprehensive*. In Acehnese, the hooktop variations occurs intervocalically, whether between vowels –as in English- as well as at the final syllables. Like the [h], it follows the quality of vowel particularly in term of nasalization in which Acehnese deal excessively. In general, the quality of voiced and voiceless is detected by the vibrations on the vocal cords which modulate the airflow from the lungs, the voiced

will result longer than the voiceless. In Acehnese [h], the general rules for common consonant to follow the quality of the feature preceded them is not entirely applied, thus the final sound with [h] might be sounded more echoed in Acehnese than English. Yet, this difference is not too obvious to see.

In smaller level of variations, English [h] also sometimes articulated with pharyngeal friction that it is realized as glottal affricate [ʔh], this especially occurs in stress syllables. Contextually, the distribution of general full-[h] is also only strongly audible at the beginning the sentences. English [h] experience the decreasing of sound known as the h-dropping, this especially occurs in the weak forms of [h] e.g. *hat*. However, this variation is somewhat a highly arbitrary material, it does not own specific rules on the distribution. For learners, it is very safe to only produce the full-[h]. In Acehnese, both the pharyngeal friction and the [h] dropping do not happen. Acehnese [h] is somehow very stable as the energy of articulation maintains spread evenly throughout the sentences, this is also possibly reasoned to the isochronal aspects of the language.

STOPS

4.3.3.5 Acehnese [b] to English [b]

[b], (orthographically represented as /b/) is phonemically known as voiced bilabial plosive, its counterpart the voiceless [p]. The prime articulator in the production of [b] is both lips (bilabial). As the lips pressed together, the airstream that flow will be stopped and compressed behind closure created, the releasing of the air is done with force that produced an outburst, as the air released, the [b] sound explore to space. Here, the airstream capitalizes the creation of characteristic in [b]

over [p], especially in open syllables. [b] is articulated with less energy compared to [p], this is termed as lenis articulation. In general, the bilabial plosive [b] of Acehnese and English shows equivalent figuration of place and manner of articulation as well as the energy channeled in aspiration and voicing.

Furthermore, the English [b] is rich with additional elements performed in contextual variations. The pure lenis voiced bilabial plosive [b] in fact, occurs between voiced sounds only, e.g. *labor*. Meanwhile, [b] is partially devoiced in the initial position, e.g. *buy*. Devoicing is the switch function of air modulation handled by the vocal cord to the frontier organ of speech. It means simply, the voiced feature become voiceless, when the initial [b] produced, the vibration in the vocal cord is occurring no more. A strong devoiced also occur in the final position e.g. *knob.* In Acehnese, the initial position of devoicing does not occur, but rather occurred in final as in *bob,* this however manifested similarly to the devoiced [p] in Acehnese. However, to compare the quality of the Acehnese final devoicing with English is a highly experimental needs due to the contradiction among experts. Durie (1982) called this quality as *partially voiceless.* Interestingly that Hungronjoe (1892) used the English devoiced [b] as in *cab* –where the devoiced occurred- to describe the quality of Acehnese devoicing in [p], if the English quality does not change for more than *that* one hundred years, then the quality of both devoiced are the same. However, Collins (2003) –as mentioned above- stated on a strong devoiced over the final [b], if the millennia quality reached this, then there may be a tiny disparity between the quality of Acehnese and English.

English [b] also tends to turn its quality into the preceding consonant in sequences. It is labio-dentaled before [v]as in *obvious* and palatalized before [j], in English accent with realization of [u] with [j], this commonly happens, e.g. *beautiful*. The change of consonant quality in contextual spoken language follow the consonant sequences is a common occurrence in languages, this is the result of adjustment during the contact between consonants. In Acehnese, the transformation –even though it is not yet mapped- very likely to also happen.

4.3.3.6 Acehnese [p] to English [p]

[p], (orthographically represented as /p/) is a representing symbol to describe the voiceless bilabial plosive. In the same manner as bilabial plosive [b], [p] is produced technically similar. Herewith the participation of lips and an airstream explosion –see [b] for chronological detail of production-. Unlike [b], it is voiceless which means the vocal cord does not involve in the production, consequently, there is a great force of airstream produced in [p] because the low energy of production will result [b] instead of [p,] particularly at the beginning of sentences. The characteristic of [p] is indeed resulted from this strong energy termed as fortis articulation. In review, the general construction of English [p] shows a similar form to Acehnese. However, the quality of fortis is something needed to be concerned in language transfers since the quality of fortis/lenis articulation itself are sometimes different between languages.

Collins and Mees (2003) stated that English [p] is more explosive than what most languages produced. The clear manifestation of this is shown in the widely used aspirated [p] in English. [p] in the prefatory words of English is always

articulated with aspirated element. According to Collins (2003), English natives do this particularly in avoidance towards the production of [b], e.g. *park* or *pole,* the strong aspirated is also especially heard in stressed syllables. This is also included in most clusters of consonant except for beginning [s], e.g. *spin*. In Acehnese, [p] and aspirated [p] is having a very clear distribution and orthographically visible. The switch function of both kinds of [p] might confuse the listener, consider the word *pon* and *phon.* The consonant cluster is also unaspirated, e.g. *prang*. Here, the significant difference is that the general used of English [p] is the aspirated ones while the Acehnese [p] is the unaspirated ones. This is due to the bottom swage quality of general Acehnese fortis [p] is lower than in English –not to count the variations. Thus, the Acehnese [p] is produced in more partitioned condition.

Speaking of the aspirated English [p], the quality is somehow reduced in the final syllables into a slight mode, e.g. *mop*. In Acehnese, the final allophones of [p] are devoiced. The devoicing at the voicelessness basic consonant is somehow never happened in English. Durie (1982) stated that this devoicing quality *could equally well be analysed as [b]* (p.20). We discussed that although the quality of Acehnese-English [b] is similar in allophone, it is not helping a lot concerning the variation, whether for [b] or [p]. Interestingly, there is a unique switching distribution in Acehnese that concludes a persistent quality -that is in fact- only produced in [p]. -As this will also cover the next English variation all at once- the Acehnese devoiced [p] is also glottalized. The contextual variation on the connected speech of English [p] is also produced differently, the final syllable [p] before consonants on the next syllables is articulated with pre-glottalisation [ʔp], e.g. *top spin*. There is also the

glottal reinforcement that works to substitute the real oral stops. The glottalization in [p] of Acehnese and English inclination is also applied on each glottal stops (ʔ) of the languages. There are no significant notes on Acehnese syllable-finally allophones [p] distribution, but for sure, there is a significant difference over the quality. The English glottalized [p] occurs before the oral closure as it is termed as pre-glottalization. In Acehnese, it coincides with the oral closure. The Acehnese glottal released is along with the lowering of velum that causes part of the air release from the nose, this release is sometimes audible. The lowering velum is a common affiliation of glottalization in South East Asian languages (Durie, 1985). This of course, never happen in nature of English.

The situational English [p] is also commonly adjusting itself toward the incoming consonant through the changes in the manner of articulation. This includes the labio-dentalization quality before [f], as in *cupful.* The British variant accent with [ju] pronunciation in vowel [u] also palatalizes the [p] precede it, e.g. *pure*. In Acehnese, -as with the [b] case- is very likely to be also happened, mostly in connected speech since the Acehnese syllable structure is sparsely contracting two close syllables in a word.

4.3.3.7 Acehnese [t] to English [t]

[t], (orthographically represented as /t/) is a known symbol to represent the fortis alveolar plosive, this symbol is also to represent the voiceless dental and postalveolar. Its counterpart, the other alveolar with plosive [d]. In language transfer, the [t] is one of the most often transfer feature, this makes [t] is somehow very familiar. The production of [t] –as in most stops- is centered at the blockage

of the airstream, this process begins with the movement of the tongue tip to press the gum ridge behind upper front teeth firmly. Here, the tip is in tense condition. The blade of the tongue will form a closure due to the contact against the alveolar ridges. When released, the stop airstream is exploded strongly that [t] is produced. The other important constructor of [p] is also the energetic articulation aspects to distinguish it from [d] and the absence of vibrating in vocal cords. However, there is the difference in tongue replacement in Acehnese [t]. As English tongue reach the alveolar ridge, in Acehnese, it is extended to the hard palate. This is the variety of retroflex termed as hence-retroflex. This contact position somehow enables to create a greater hollow of the body tongue than it is in the alveolar ridge –when the body tongue gets less-curled-. The fortis articulation that required to produced [t] in both Acehnese and English is manifested follow this tongue position that highly determines the quality of the consonant. The level of hollow in body tongue and tongue confluence possess the quality of explosion, the airstream forms, and the air experience over other obstacles during the motion before reaching the space. Thereby, even though the Acehnese [t] to English exhibit the similarity in many of the process, e.g. manner of articulation, energy contrast, and voicing. There is a very fundamental difference on the production process in the place of articulation that –as we will see later- influences the whole construction of product [t] in Acehnese that distinguishes it from the English.

The prominent difference of quality in English and Acehnese [t] is in the hollow property. The hollow property is heard as a reverberation in sounds produced. The deeper hollow in body tongue created -which also follow with the

shorter tongue tip attainment- will result in the more viscosity of reverberation in the sounds produced. This is a very audible contrast that even those whose not study phonemic can detect it. In English, the reverberation effect is audibly impaired. In Acehnese, it is clearly recognized. The retroflex quality is however still not as strong as the subapical retroflex found in Dravidian languages. Asyik (1985) described the quality of this feature as *slightly retroflex.* Yet, to compare this quality to English is very much opposed to each other.

The manifestation of the strong aspirated product of English [t] is manifested in several places including the initial and final syllables. [t] is strongly aspirated in stressed initial syllables, e.g. *ten*. In Acehnese, -as with [p]- the general and pure [t] is the unaspirated ones, whether it is in stress or not e.g. *tem* or *theun*. The aspirated [t] is produced and functioned independently follow the needs in differentiating meaning in words, it is also very strong that it is considered as a consonant cluster. Acehnese are very aware with the aspirated elements smuggled within the words, consider these, e.g. *thon* with *ton*. Meantime, the English final syllable [t] is articulated with a slight aspiration, e.g. *rat*. English [t] is normally only losing its aspirated quality in /s/ cluster, e.g. *star*. In Acehnese, the final syllable [t] is devoiced, [t] is one of the two devoiced consonants with the voicelessness basis -before we have [p]- in Acehnese. Durie (1985) briefly pertained about this devoiced quality as *could be equally well be analysed as [d]* (p.20). In conclusion, the existence of general aspiration aspects in English [t] is similar to what in Acehnese, however, the distribution is very much different to each other.

English [t] is also the most varied features in English phonemic chart, the differences of the many English accents are almost always generated in [t]. One of the main contextual variations is the [t] pre-glottalization in the middle of words or final syllable before a consonant, [ʔt]. This replacement is sometimes even fully transform into a full glottal stop [ʔ]. In Acehnese, the glottalization is also occurred systematically in final syllables. The quality of both –as what to concern here- is somehow similar to the [ʔp] that discussed earlier. However, there is another [t] shifting that more conspicuous to the learners. In variant British English like Cockney, the glottal stops [ʔ] replaces [t] intervocalically, particularly if preceding stress, so there is /wɔːʔə/ instead of /wɔːtə/ for *water*. In Acehnese, [t] is however never transformed into a totally new sound as in Cockney. But there is a similar distribution of glottal stop [ʔ] occurs in Acehnese, e.g. *laot* /laʔot/. Interestingly, neither the feature nor distribution is realized by native, the quality is somewhat weaker than the glottal [ʔ] in English that by Acehnese will perceive it as [k], this strength quality is of course influenced by the actual feature relatively.

In general American, the [t] in within words is very much dulcified as well as crossing word boundaries in connected speech, termed as *held T*, means to hold the sound in the throat instead of producing it strongly. In North American, Australian and New Zealand English, the [t] are also possess other elements known as *Flapping* or *Tapping [ɾ]*. This term is related to the rapid movement of the tongue tip towards the passive articulator that might reduce the real quality of tapped features. In English, there is known as alveolar tap that reduce the intensity quality of [t] into more like [d], e.g. *better* sounds '*bedder*'; and nasalized tap that reduces

fully the [t] before [n], e.g. *internet* sounds *'inernet'*. Tapping is having its own rules and condition to be produced. In Acehnese, [t] is always produced in a strong manner, separately or intervocalically. The Acehnese also do not produce tapping in alveolar traditionally, this tapping is not having even a rather close feature in Acehnese so does the nasalized tap. However, comprehending the complete realization required as deleting the [t], sounds a bit friendly to Acehnese learners.

Figure 16. English [t] Technical Production

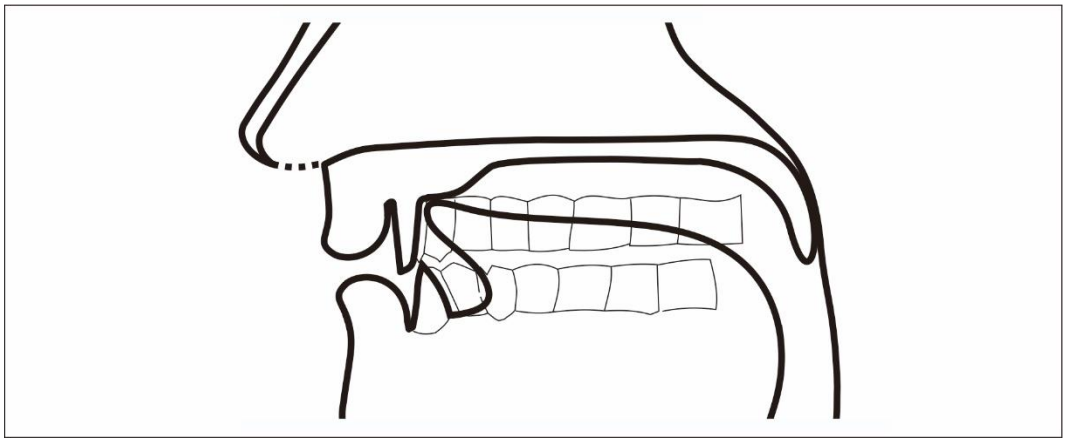
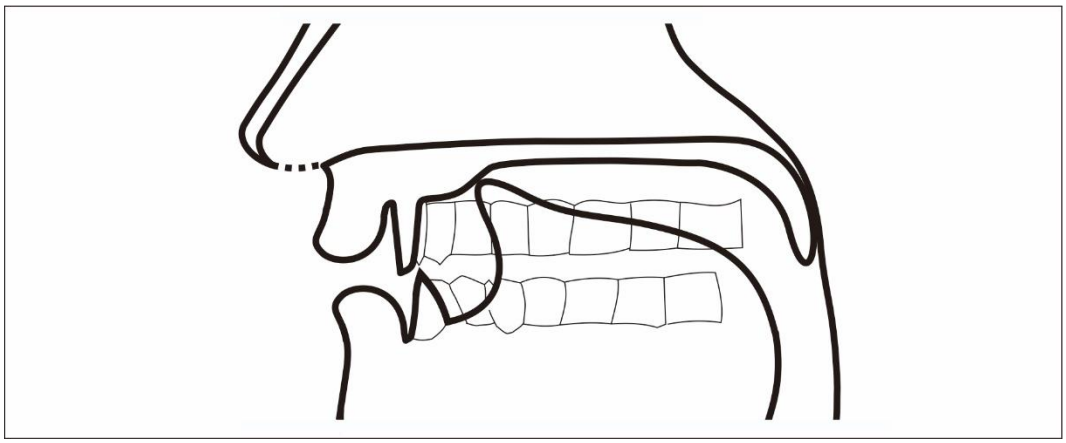


Figure 17. Acehnese [t] Technical Production



In line, the technical production of [t] in English (Figure 16) and Acehnese (Figure 17). The main disparity between the languages is at the tongue placement, as English reaches the alveolar ridge, Acehnese reaches the hard palate. However, both have similarities in fortis articulation produced. The similar point of this tongue extent is also applied in the production of [d] of each language.

4.3.3.8 Acehnese [d] to English [d]

[d], (orthographically represented as /d/) is Lenis voiced alveolar plosive. As fellow alveolar plosive, [d] shares a lot of significant aspect of production to [t], particularly in the manner and place of articulation –see [t] for chronological detail of production-. However, [d] is distinguished from [t] based on the vocal cord vibration and the energy of articulation produced. [d] is produced engaging the vocal cord vibration and have a weaker pronunciation (lenis) compared to [t]. In both English and Acehnese, each [d] is exactly applying the same active and passive articulator disposition of their own [t] (articulation place). For English, the tongue reaches the alveolar, and the Acehnese reaches the palatal-alveolar that produced the retroflex type of consonant. Thus, the differences of allophones [d] production in Acehnese to English –similarly to [t]- is at the tongue target point towards the passive articulator.

Some significant differences in allophones [d] of English and Acehnese are only conducted a short discussion. In fact, the contextual variation is taking more attention. In distribution, the pure English lenis voiced alveolar plosive [d] only occurs between voiced sounds, e.g. *rider*. This distribution is similarly also happened in Acehnese, e.g. *padok*. However, English [d] in initial position is partially devoiced, this does not happen in Acehnese [d] as in most stop consonant, the [d] quality remains as it is in an initial syllable, e.g. *dom*. Last, the syllable-finally English [d] is also strongly devoiced, e.g. *add*. In Acehnese, the final [d] syllable is also devoiced, the quality is somehow similar to the Acehnese devoiced [t], this is due to the syllables final phones distribution of oral stop in Acehnese is

only two: devoiced [p] and [t]. Interestingly is that Hurgronje (1892) described this quality as English devoiced [d] in *cad* that by Durie (1982) called as *partially voiceless.* This quality somewhat shows an extreme shift placement in Acehnese [d] and [t] over the final syllable. But, -again- Collins (2003) emphasized a strong devoiced quality in English [d] syllable finally. To note that both Acehnese and English voicing aspects are highly related to the voice onset time (duration) not phonation (intensity). Means that the Acehnese has already in the same road with English on representing the devoiced elements, the difference is on how much parallel the positions of both. If this strong quality in English devoiced gives a totally big distance to Acehnese then, it might consequently result in a significant distance in realization. However, some realizations in final English [d] required a more vocal cord instead of devoicing as to differentiate word *card* and *cart*. Collins and Mees (2003) specifically stressed on the case as he said that *many speakers forget to make their vocal cords vibrate* in such words.

The more contextual variation of English [d] is consist of the addition of elements follows the preceding features, this includes the labialized before /w/ e.g. *dwindle* and dentalised before dental features in contextual connected speech, e.g. *had them*. The sequence /dj/ is even reduced [ðʒ] that *due* is incontrastable to *Jew*. In British circles, [d] is also palatalized before /dj/ e.g. *duty.* Furthermore, the English [d] before [r] is executed as post-alveolar affricates, [dɹ], this clearly heard in *dry* or *dream.* However, the similar sequence in Acehnese is realized differently, instead of change [d] intensity, the trill [r] is in fact, became slightly retroflex follow the [d] position. Consider the [r] in *droen* and *prang* where each [r] has a different

position of trill follows each preceding consonant point. In *prang*, the trill is in the alveolar while in *droen* it is getting retroflex. The [d] character is relatively stronger to the [r]. However, in the south area of Greater Aceh where the velar fricative [ɣ] replace the trill [r], [d] is very much reduced to sets out that next consonant, it is even fully deleted sometimes. It seemed that in Acehnese, the more back a consonant, the more priority it will become.

4.3.3.9 Acehnese [k] to English [k]

[k], (orthographically represented as /k/) refers to the phonemic manner of voiceless velar plosive. Its counterpart, the other velar [g]. The production of [k] is specifically related to the velar, the third area of four regions in the palate also called as soft palate. As the airstream flow out directly from the lung, -[k] is voiceless that the vocal cord is in absence condition mobilizing the airstream-, the air blockage occurs in velar. [k] is not a laminal, the back of the tongue is somewhat used to reach this back of mouth point. The tongue is giving a backward pressure to realize this blockage. This will somehow result an independently particular form of closure in velar and the back of the tongue. Later, the released is executed by reducing the pressure that may be felt like a forward movement. Then, it will follow an air explosion that [k] is produced. This general construction of [k] is applied similarly in both Acehnese and English [k], including all the manner and places of articulation. However, the energy required in the production that influences the quality and distribution will need some attention to learners.

The English [k] is very striking at the fortis quality, even for English [p], it is very much more explosive. The duration in voice onset time can reach up to 80

milliseconds, and is the longest aspirated duration among the English consonant, compared to [p], 60 ms and [t], 70 ms. This strong quality might be heard as an aspiration follow a puff of air in realization, this particularly occurs at the beginning of words and initial stressed syllables, e.g. *cat*. In Acehnese, -as in [p]-, the unaspirated and the aspirated [k] occurs separately and very much influential to change the meaning, remember *kong* and *khong*. The unaspirated [k] is somehow the widely used and the representative sound used for velar plosive. In English, it is the opposite, this can be shown in borrowing words like *Hong Kong*. In English, the *Kong* is realized as /k^{h}ɔːŋ/ instead of /kɔŋ/ as how Acehnese produce. In Acehnese, the aspirated [k] is very much independent that it somehow realized as consonant cluster, and consequently is represented in orthographical forms. However, it is a shame that the absence of the data in Acehnese voice onset duration keeps this page from comparing farther the very aspects in [k] to the English.

The further distribution of aspirated English [k] is also occurred slightly in final syllables, e.g. *rock.* In Acehnese, the final velar stop is realized as glottal stop [ʔ]. In Acehnese *arok* for instance, the air blockage is not released explosively any longer, it just an air blockage. However, the body of tongue is having a small movement as in the [k] production, but it does not touch the velar, this gives a sense of [k] in glottal stop [ʔ] produced for Acehnese as well as a stronger intensity of quality than other distribution of glottal stop in Acehnese –as will discussed later in section of glottal [ʔ]-. Acehnese themselves identified their final [ʔ] as [k], as it is also represented orthographically and realize it as a kind of high-intensity phonation feature, this mostly realized when kids learn the Koran, as the Arabic [k] is also

very explosive and syllable-finally aspirated. The English [k] cluster consonant also possess the general aspirated elements, except for the cluster [s] as in *sky* or *scout*.

The main contextual variation in connected speech of English [k] is the pre-glottalization before a consonant, e.g. *duck soup*. In Acehnese, an explicit discussion on the connected speech aspects is a bit covert. However, comprehending the alteration of the Acehnese final [k] into glottal stop [ʔ] concludes the similar occurrence to also be happened over the colloquial speech in Acehnese velar stops as a line of impact over the rules, e.g. *plok ni* or *rok mini.*

The more variation in English [k] is the shift of velar closure into advanced pronunciation before front vowels and retracted before a back vowel. Advanced pronunciation is part of relative articulation to describe the situational frontier articulation of a feature compare to its default mode, the opposite, retracted pronunciation is the conditional dorsal. Relative pronunciation itself refers to the model of description towards the features with conditional function of articulation places, this model is mainly known in the description and parameter measurement of vowel, as in *front, middle, back* statements and etc. In relative pronunciation, features are able to be produced while the articulator –at the same time- functions differently. In relative [k], the range of closure figuration follows the vowel front/backness quality. The advanced English [k] quality tracked in a word such as *keen* for instance, forms the closure along the palate, while retraction, as found in cool, formed more back. There is no significant study about this in Acehnese even to generate the discussion. Even though the relative pronunciation widely occur interlanguage –especially in [k]- to let us simply conclude this comparison, but the

quality is different. We discussed that the English [i] is sometimes having the glides quality that somehow supports for the frontier closure of [k] in *keen*. Acehnese [i] is somewhat having the higher frequencies, but due to the glides, the closure might be shorter for Acehnese [k], as in *kira* or *kirem.*

4.3.3.10 Acehnese [g] to English [g]

[g] (orthographically represented as /g/) symbol is related to the stops consonant described as voiced velar plosive. The chronological production over the manner and articulation required in [g] is mostly similar to the way [k] produced, -another velar plosive- except for two main aspects that determine the peculiarity of [g] quality. First, the energy contrast that possesses a weaker articulation (lenis) compared to [k] and second, the active vocal cords contribution towards the airstream channelization. In speech, the noticeable difference between [g] to [k] is the potential voice that resulted from the lenis articulation, this mostly heard and highly influential to phonation quality particularly in final syllables, as to distinguish final [g] in *tag* into [k] alteration. Fortunately, the [g] technical production elaborated above is also applied intactly in both English and Acehnese [g] without any restricted manner nor special treatment required possessing the characteristics.

In general, the quality of [g] in English and Acehnese do not seem much to be discussed since all the formed components of both [g] are considered similar. However, there is a few things to be noted that the pure lenis voiced velar plosive [g] is also mainly distributed between voiced sounds, as in English *luggage* or Acehnese *bagah.* In initial syllables, it is partially devoiced, both devoiced is also

produced as in English *game* or Acehnese *gom*. However, there is a difference in the [g] distribution syllables-finally as the English strongly devoiced, Acehnese prohibit this area. In Acehnese, a [g] do not normally be distributed in final position –see [g] distribution for details and consonant constraints-, there is no word in Acehnese with final [g], the closest match to English strong devoiced [g] is seems to be [k] itself, but the quality might not fit perfectly, consider to differentiate the General American *bag* –where devoiced occurred- and *back.* Also remember that Acehnese produce glottal stop [ʔ] for their final [k]. The English final [g] –if not whole- must have partially considered as the new status in Acehnese to English transfer.

As for [k], the English [g] also experiences the relative pronunciation, the advance forms before the front vowels [i], e.g. *geese* and retracted forms before back vowels, e.g. goose. This discussion is similar and felt adequate at section [k].

4.3.3.11 Acehnese [ʔ] to English [ʔ]

[ʔ], also called glottal stop, is an obstruent sound produced interlanguages. The termed glottal stop is related to both the name, the phonetic classification and even the description for the sound. The glottal stop is produced due to the airstream obstruction in the vocal tract around the glottis. The glottal obstruction is occurred in short and sudden, but intactly close the whole vocal folds. The glottal vibration is ceased or decreased depends on the quality of obstruction and airflow, as this will also determine the strength quality of the certain stops. The vowel precedes a glottal stop will loss the noise or reduce its intensity. The glottal stop technical production is somehow very much placed-determining that it is used uniformly and widely

interlanguage. There is simply no significant measurement on glottal stop in Acehnese and English to be compared.

Glottal stop [ʔ] is a pure obstruent and only produced by obstructing the airflow which mostly from vowel and diphthong. Consequently, even though the glottal stop categorized as a consonant, it never occurs initially but, rather than the medial or final, especially in English and Acehnese. The distribution of glottal stop [ʔ] is also not merely definite, it works rather invisible, produced along with other phonemic features that term as glottalized or, as the supplementary features towards the other features condition in connected speech. The glottalization is the production of certain features involving the glottal stop elements, mostly in fortis stops consonant. However, there is a small significant different of glottalization in English and Acehnese regarding the oral closure, -as mentioned before- English glottalization occurs before or during the oral closure while Acehnese always coincides with it. The first items -*before*- known as the pre-glottalization is realized with deceasing or decreasing a vowel quality before meeting the close consonant. In coinciding glottalization, the formation of a consonant is together with the glottalization process in reducing or deceasing the previous vowels. This process acts very naturally that even the speaker will not realize it. The glottalization process will result in a few conditions over the vowel or diphthongs include the cutting of the high voicing quality and the shortening of the vowel. Thus, the vowels do not directly have contact or mingling with the preceding consonant in fortis stops consonants. This process is, of course, happened in such and such a second.

In English, the Glottal stops [ʔ] operates widely as a complete substitute element over [t] in preceding new consonant, e.g. *jetplane,* and also when [p] or [k] are followed by a homorganic stop or nasal, e.g. *York girl* or *pop music*. In Northern Greater Aceh, the total glottal stop switching is also occurred in [t] and [p] randomly, e.g. *batat* and *top*. However, in general Acehnese, the similar kind of substitution is only occurred at [k], e.g. *tak,* its quality is also stronger that Acehnese do suspect it as [k], this quality is not suitable to the English. The glottal stop [ʔ] in *Jetplane* or *York girl* is somehow shorter and softer as it is resulted from the connected speech condition. The Greater Northern quality is not a total solution, but it seems could be the gates to begins.

In some British varieties, the switching glottal over [t] is also occurred before syllabic [n] e.g. *kitten*, and between voiced features, e.g. *water,* the quality is somehow stronger than previous English variations. In Acehnese, the intervocalic glottal stop distribution occurs constantly in the words, e.g. *laot,* or *siat*. The quality is very much supple that Acehnese do not even realize the existences, as it also orthographically transparent. The medial quality of English glottal stop as in *water* above is somewhat by Acehnese regarded as [k]. This occurrence is not just because of the representation of glottal stop similarly consider as [k] but, it also shows how strong the quality possessed by this English stops compared to the same distribution in Acehnese. However, it is interesting to take conclusion of the unique facts that both Acehnese and English glottal stops [ʔ] is very distributional-based in quality, and unfortunately, it is mostly contradictory to each other.

Another significant note on glottal stops is related to the aspect what so called as free variation -that for English learners might be considered as a good news-. Free variation is the switching of sounds in an environment without change the meaning nor consider as a mistake. It simply means as a number of words which are accepted to be pronounced several ways. Free variation is occurred widely in vowel and consonant. The glottal stop substitute is one of the greatest contributors in English free variation -which has so wide due to the deep orthography model- particularly for the voiceless stop. By mean this, the non-glottalised features is still accepted in the same manner as the glottalized one. As /stɒp/ or /stɒpʔ/, both are means *stop*.

NASALS

Nasal is simply referred to nose or nose air duct, this area is included from the base of the nose to the whole nasal cavity where the air accumulated. Nasal features refers to a number of features that produced with nasal contribution in the air channelization that could be vowel or consonant. The factual manifesto of nasal consonant-vowel in sequences -both before and after- is the shift quality of vowel known as Nasalization. However, the nasalization in Acehnese is not always systematically occurred with nasal consonant, these features are called *funny nasal*. The distribution of this odd nasal occurs randomly in some Acehnese words, e.g. *nap*. Even though Acehnese produce all the consonant [n], [m], [ŋ] that required in English transfer plus [ɲ], the switching distribution or the innasalization of the certain English word into such condition is very much possible to be happen, not

just because it is part of the natural willingness, but also it is normally an unconditional-occurred feature.

4.3.3.12 Acehnese [m] to English [m]

[m], (orthographically represented as /m/) is a universal consonant sound phonemically described as Bilabial Nasal. This term –as for more nasal feature- is generally used to also describe the contributed organs, it is important as nasal is mainly distinguished from its nasal aspects. The notion production of [m] is shown with the lips joined together as in [b] and [p]. Collins (2003) termed this position as the *humming* one. In allophones [m], the lips kept on docked until the sound produced. This makes the allophones [m] becomes the only consonant can be produced even in locked up mouth. This is later followed with the lowered of velum that allows the airstream to escape from the nose. The nasal cavity –that is passed before reach the nasal bone- will give resonance that characterizes the sound. The [m] sound can be illustrated in this '*hm-hm'* interjection, as /h/ represent the airflow and /m/ as the lips blockage. Many discussions on [m] do not pay much attention to the articulation manner and vocal cords condition since the nasal is seen as the main contributor of the sounds. [m] is somehow produced with an occlusive manner as in all stops consonant, the difference is that [m] is produced by functions different articulator in airstream blockage and release. Besides, [m] is also produced with a pulmonic airstream mechanism along with the vocal cords vibration (voiced). This is the universal kind of [m] that is produced as allophones in many languages, include English and Acehnese.

The main changing quality of English [m] is the condition of partial devoicing in initial cluster following [s]. The [m] in *smack*, for instance, is experiencing the reducing quality of vocal cord vibration due to the construction of the voiceless [s] in sequence. In Acehnese, the devoiced of [m] is occurred in final syllables, e.g. *apam.* The [m] syllable-finally condition is indeed not being emphasized as clear as possible in Acehnese. This custom representation of [m] might not suitable for English transfer. In northern Greater Aceh, the [m] in final syllable is widely pronounced as [n] or [n̄], particularly before [a]. Not just in Acehnese words, e.g. *malam* or *karam*, this is also automatically applied in borrowing words, as easily found in Arabic one. I remembered listening to a kid said *'assalamu'alaikun'* instead of *'assalamua'laikum'*, even though he had been reminded about that a couples of times.

The many contextual variations of English [m] mostly work in changing the intense quality of the feature, this includes the realization of labio-dental nasal before [v], e.g. *symphony* and palatal-nasal before [j] that -mainly in British varieties- is realized before the [j]-generated vowel [u] as well as in [ɪə], e.g. *mule* and *mere.* Both of the variations are not occurred in Acehnese due to the absence of the contextual variation of such [mf] sequences and [mj] cluster. Besides, the Acehnese [m] contextual variation rather works for the total change instead of the intensity change as in English. There is also a tendency to have more variation in words contextually, particularly in phrase *lam*. In Greater Aceh, where a lot of places begins with this phrase, [m] is systematically articulated as [n] or [ŋ] in connected speech, e.g. *lam kunyet* into *lan kunyet*, this occurrence is spread except

before other bilabial features of [b], [p] or [m] itself, e.g. *lam bada* and *lam pu'uk*. This articulation form is occurred due to the declining of model construction for ideal [m]. In this case, Acehnese seems to reduce the *humming* quality of their [m] in connected speech. Compare to English *I'm giving* for instance, [m] is very much with *humming* effect than what it has in *lam kunyet.*

4.3.3.13 Acehnese [n] to English [n]

[n], (orthographically represented as /n/) is widely refer to the phonemic description as alveolar nasal and is one of the most common features in languages after [t] and [k]. Meanwhile, this IPA symbol is also used to represent the nasal of dental and postalveolar. In general, [n] can be produced in apical or laminal tongue mode that it might have a little different quality in timbre characteristics resulted. For sure, the process of production begins with the suppression of the tongue tip against the gum ridge [alveolar] to divert the airstream. The tongue is somewhat spread reaching the sides of the upper teeth while the velum is opened. [n] does not simply released its mouth blockage to create the sound. Consequently, the airstream escaped from the nasal cavity that results in a characteristic of nasal resonance. [n] is also voiced, having occlusive manner and produced with pulmonic airstream mechanism. The significant [n] differences between Acehnese and English is lied at the passive articulator functioned. In English [n], it is an alveolar-placed feature while in Acehnese, [n] is a postalveolar one. This reaching point influences the tongue model as the apical one –as in English- only possible to be constructed with farther reaching point like alveolar or dental. The shorter one –as in Acehnese- will result a more roll-shaped tongue that is only possible with the laminal model of

tongue. To understand the differences between [n] in languages, it is firstly important to acknowledge that language is built with a certain area of operation. Thus the activated alveolar area in English would apply a number of features, such as [t], [d], [n] and –as we are about to discuss later- [l]. In Acehnese, all these features are produced with a slightly retroflex manner that operates towards the postalveolar area.

However, the dissidence quality of Acehnese and English [n] resulted from such differences in placed articulation might not clearly be heard as in [t], [d], or [l] since its main quality is highly related to the resonance in nasal cavity. Thus, [n] is specifically distinguishable in allophones forms and might be disguised in colloquial speech. The distributed [n] in both languages somehow shows a bit different quality, English [n] is partially devoiced before [s] in initial cluster, e.g. *snack*, in Acehnese, [n] is devoiced in final syllables. This quality is not occurred not just because such cluster is absence, but also Acehnese [s] in different quality and sometimes has potential voiced that makes such cluster became impossible and consequently let the [n] remains in full-voiced quality.

The contextual variation of [n] is generally worked as a small shift in place of articulation. In English, [n] is dental before and after the dental features [θ], this is applied both within a word as well as in connected speech, e.g. *menthol* or *bathnight*. This variation is somehow similar to what occurs in Acehnese generated [θ] accents, as well as the [s] –see [s] for the detail quality-, e.g. *ngon so*. In English, [n] is also palato-alveolar before [ʒ], [tʃ], e.g. *bench*; [dʒ] e.g. *fringe*; and [ʃ], e.g. *insure*. In Acehnese, this variation is not occurred due to the absence of the features.

However, it is interesting that the palato-alveolar quality required is very much close to the general Acehnese [n] produced that it is assumed to uniquely coped this contextual variation. Other variation of English [n] is the labio dental before [f], e.g. *bon fight.* In British varieties, there also the palatalization of [n] before [ɪə], e.g. *near* and before /j/ that usually realized due to the [u] transformation, as in *new*. It is worth to note that even though the palatal [j] is produced in Acehnese, [n] is not usually allowed to be palatalized. Thus, this palatalized [n] –particularly in *new*- is widely interpreted and reproduced as [ɲ]. For Acehnese, the alternatives *new* that the way General American does -as [nuː]- might safer to be produced instead.

Other specific varieties in English [n] is its function in generating the syllabic consonant, a consonant that produces a vocalical sounds. This is occurred in the nasal release of [t] and [d] as in *rotten* and *wouldn't.* In Acehnese, the syllabic consonant do not normally occur, it is that the obstruent-sonorant sequence is always possessed as a vowel, e.g. *uteun*. Consequently, the word like *'button'* is interpreted with schwa interpolation. Notes that even though this articulation is still generally accepted, even by native, it is somehow considered as a very dialectal articulation.

4.3.3.14 Acehnese [ŋ] to English [ŋ]

[ŋ], also called *engma*, is the representative IPA symbol to describe the sonorant consonant of velar nasals. Engma is one of the infrequent consonants in world languages, both in existence and distribution. As in other nasals, the production of Engma is head for the airstream blockage and divert it to the nose in order to produce a nasal quality. The blockage is occurred further back in the soft

palate using the back of the tongue. The Engma also have a direct air push from the lung and operates with vibrated vocal cords (voiced). This condition (the position of blockage) made the airstream redirection is, however, quicker than [n] (alveolar) and [m] (bilabial), this also made the collection of air in nasal cavity stacked concurrently in large number that results a high-pitched resonance. Of course, Engma is then one of the consonants with the strongest nasal quality produced. This model production of Engma is similarly applied in both Acehnese and English, and perhaps the most identical features created between the languages.

In English distribution, Engma is mainly well-known for the final –ing phrase, e.g. *dying* or *sleeping.* In fact, the English Engma indeed has a very restricted distribution throughout the syllables as it only occurs syllable-finally before the checked vowel, -the vowel that mostly shorter and do not act as stressed features in syllable-final words, such as [ɪ], [e], [æ], [ʌ], [ɒ], [ʊ], and [ə]- (Collins & Mees, 2003). The famous English –ing is in fact produced with this [ɪ] instead of [i]. Speaking of the quality across accents, there is an important difference regarding the final -ing in British and General American. In Received Pronunciation, the -ing quality is somehow voiced as general allophone produced, in word contextual, this might be heard as a shorter resonance of sound. However, Mojsin (2009) suggested that the general American -ing quality is somehow to be in the middle level, as it is not into so piercing [ŋ], e.g. *nothi**ng*** or too blunt that produced as [n], e.g. *nothin'*. This quality –that Mojsin suggests- is in fact, becoming a bit devoiced compare to its British counterpart. In Acehnese, where the distribution is wider, the final syllabled Engma is devoiced, e.g. *bing* or *keng*. However, to compare the detail of

both devoiced quality will need for a couple of further actions experimentally. For Acehnese learners, this might be a crucial note transferring the pure Engma into the alternative English provided.

The contextual variation of English-Acehnese Engma generally shares a relative model of pronunciation for the retracted Engma after velars, e.g. *kong* and *engkong*.

APPROXIMANTS

4.3.3.15 Acehnese [l] to English [l]

[l], (orthographically represented as /l/) is an allophone symbol describing the consonant of lateral approximant. The same symbol is also used to represent the variation of the feature in lateral displacement for dental, alveolar and postalveolar. Approximant is part of sonorant articulation manner formed as the imperfect closure of contact between articulators or with the less precision of position of it that create turbulence as in fricatives. This makes approximant cannot be classified purely as consonant nor vowel due to the airstream condition in the closure. Besides the semivowels and non-lateral –as we see later-, the approximant generates lateral model manner that applied specifically in [l]. Lateral is the obstruction of airstream in the middle of the mouth. In [l], the tongue tip touches against the passive articulator making a closure in the central line of the vocal track while the side parts of it are remained lower letting the continuous air passed over both of the sides. In English and Acehnese, [l] is voiced and have a pulmonic airstream mechanism. However, the point of passive articulator reaching in English is the gum ridge behind upper teeth [alveolar] while Acehnese have it in earlier position

(postalveolar). There is somehow no significant model of tongue specifically possessed reaching up the hotspot since both apical and laminal model are allowed the similar sound. Instead of the tongue, it is the passive articulator position that plays a significant role influencing the quality of liquid of the features.

Compare to Acehnese, English [l] is generally heard more viscous and wet [high liquid]. In general American, [l] is also longer and softer than most languages. To Acehnese, it might be considered as a '*cute*' types of [l] that widely associated with Malay quality. It is usually termed and recognized as the '*ujong lidah*' [l] quality even if it is clearly not with the total tip function. In Acehnese, [l] somehow have a stronger and drier quality.

Distributionally, English [l] is divided into two quality, the clear [l] (as described above) and the dark one. This is not even considered variation due to the huge distribution throughout the words. Dark [l] is produced through the addition of more airstream blocker by the back of the tongue against the velar that technically creates a concave shape of the body tongue. So, this basically consists of dual closure in one consonant voice. Dark [l] results in a deeper quality than the usual clear [l]. This [l] is mainly distributed before a consonant, pause, and vowels like [i], [u], [ɛ], and [ʌ] for different reason and manifestation, whether glides or retraction -see vowel section for detail distribution-. When it is in longer duration, dark [l] often generates a syllabic consonant, e.g. *bottle*. The more vocalic dark quality -as mostly found in younger speakers of London and South East England- is even produced with losing the alveolar contact. In Scottish English and some American varieties, dark [l] is the only one produced. This the opposite side to

Welsh and Irish where the only [l] produced is the clear one. To Acehnese, dark [l] is very much beyond the custom of the language, there is no comparison feature to even drawn towards it. We discussed both vowel and consonant to conclude how small the velar contributes towards the features construction in Acehnese.

The English clear [l] is mainly distributed in condition of [l] preceding [i], as in *leaf*. In condition of preceding [j], it somehow becomes strongly be palatalized. In *billiards* for instance, the tongue surface is getting convex due to the earlier reaching point in the palate. This is somehow very close to the quality of Acehnese [l] produced and might be useful as the transfer features. Of course, the differences are now lied at the Acehnese phonetic constraints when such [j] precession is not commonly occurred.

Another similarity is also shown in the non-devoiced quality of [l] following the fortis plosive, e.g. English *class*, *plan,* and Acehnese *kleut* and *pliek.* However, English [l] experience some devoicing following fortis fricatives [s] and [f], e.g. *slip* and *flat* and the syllabic consonant, e.g. *ripple* which all not normally occurred in Acehnese. From here, all the English [l] contextual variation is differed to Acehnese due to its restricted distribution in closed syllables. Acehnese [l] is contextually -by the end of words- always produced before a vowel since the final distribution is not occurred, except for the adopted words like *botol*. This has somehow not allowed the [l] to precede another consonant that mostly caused the shifting quality. In English, [l] is -at least- allowed to be nasalized, labialized, or dentalised depends on the context and composition of the word.

Figure 18. English Clear [l] Technical Production

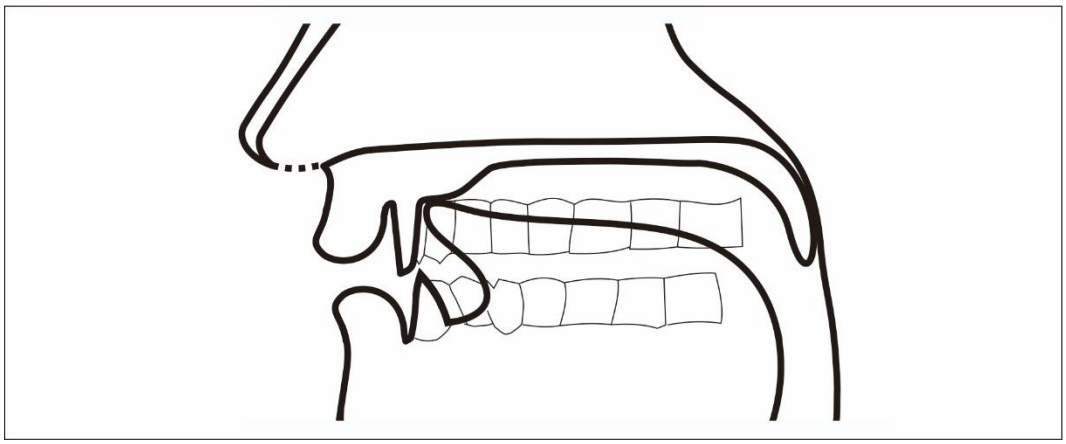


Figure 19. Acehnese [l] Technical Production

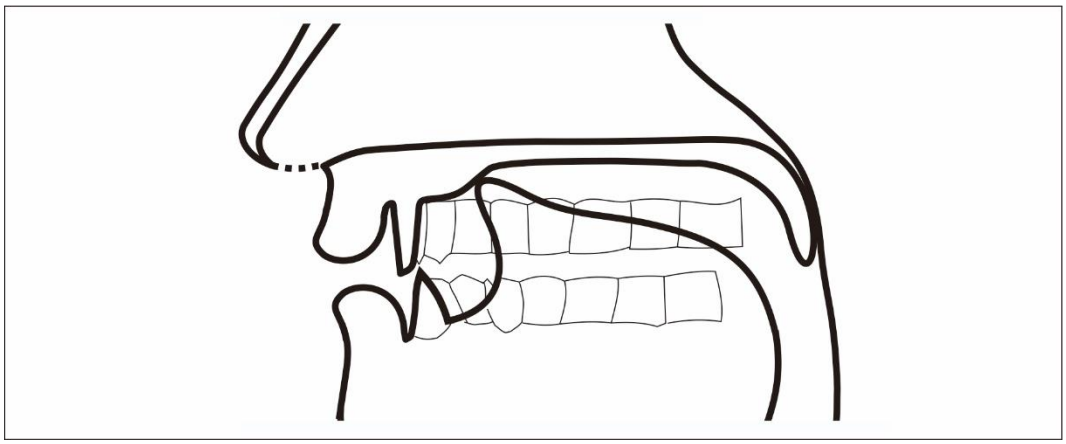
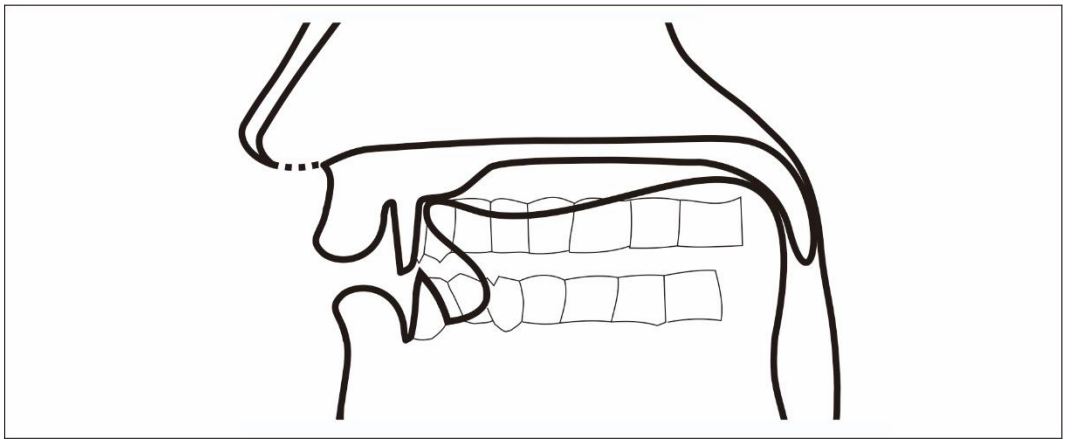


Figure 20. English Dark [l] Technical Production



Respectively, the technical production of English [l] (Figure 18); Acehnese [l] (Figure 19); and English Dark [l] (Figure 20) shows a very significant difference to each other. The clear [l] in English reaches frontier area than it is in Acehnese. In darker quality of [l], the velar contact is required, some of this might also possible to be articulated with losing the alveolar contact.

4.3.3.16 Acehnese [j] to English [j]

[j], also called *yod*, refers to a type of language features phonemically described as Palatal Approximant. The Americanist phonetic symbol (represented in [y]) may be easier to delineate the sound character due to its similarity in general orthographic representation. In general, [j] shared a lot of significant similarities to a vowel, as it is voiced as well as pulmonic. The [j] production positions the tongue to raise near to the roof of the mouth (palate) while the tip part is dived against the back of the lower front teeth, as for vowel [i]. As it is articulated, the sides of the tongue touch the side upper teeth while a small closure created against the palate let the air release from the midline vocal tract. Systematically, [j] production can be divided into two parts, the first one that is produced similar to vowel [i] and second, the released part that can be any preceding vowels, this has somehow made [j] only occurred pre-vocalically. This condition has somehow considered [j] whether as glides, semivowels or even a diphthong.

The quality of English and Acehnese [j] can be generally identified through the [j] crescendo level of glides in [i] plus preceding vowel. The crescendo level is simply measured through the identifying of the first vowel duration in words or syllables, this can roughly be done by naked ears. In English, there are two varieties of crescendo quality, first, the shortest one as in '*yes'*, where the [i] sound completely dismiss from hearing and, the longer one as in *'cute'*, where the [i] is obviously heard and manifested as a diphthong. In Acehnese, [j] is always in the shortest quality of crescendo, e.g. *yoh* or *yum.* In Acehnese '*paya'* for instance, it is even shorter due to the farther starting-point of production.

The garish realization of English [j] mainly operates in particular Received Pronunciation aspects for the vowel [u] as [j] generator vowel, -see, even alphabet [u] is called '*yu*'-. This has somehow generated a huge consonant cluster with [j] sequences in which are highly rare to Acehnese, include [pj], [kj], [bj], [dj], etc. – see English consonant cluster for details-. Note that, the realization into diphthong [iu] in this cluster do not also seem to conceptually help since such diphthongs is also absent in Acehnese.

The further attention on Acehnese-English [j] transfer is resided in the contextual variation established. Some of these variations are whether new or in contradiction with Acehnese nature. First, the realization of [tj] and [dj] sequences are often as palato-alveolar affricates [tʃ] and [dʒ] in stressed syllables, e.g. *tune, dune* and in assimilation forms such as *won't you* and *couldn't you.* And second, the frequent realization of [hj] sequences as a weak fricative [ç] e.g. *huge.* All these required features are simply not existing in Acehnese. The English [j] also experienced devoicing in cluster [p], [t], and [k]. In Acehnese, where [j] do not in sequence with another consonant, the devoicing is never occurred in [j] consonant phones syllable-finally nor initially.

4.3.3.17 Acehnese [w] to English [w]

[w] (orthographically represented as /w/) is an IPA consonant notion refers to the sound of approximant labial-velar. As for most default approximant, [w] is voiced and having pulmonic airstream. [w] is also realized as semivowel or glides due to the vowel [u] contribution in its construction. The production [w] is required for vowel [u] typical rounded lips shape but with the closer position of jaws, while

the tongue bowed to the back. [w] is having stricture combination at labial and velar in equal rank contributed the quality but do not create a total closure to allows the airstream flows out freely. During the production, the friction is however only being occurred in lips while back of tongue remain in steady position. As in [j], [w] is also type of double pronunciation consonant with crescendo kind of prominence, thus the second elements -that could be any vowel- follows the construction with glides movement that results a [w].

In general, there are two considerations related to [w] quality in a language. First, the degree of the vowel [u] openness in certain language concerning the first constructor in [w] that determine the quality in allophones [w] and second, the distributional quality throughout the words and sentences. The Acehnese and English formant quality of vowel [u] mainly shows difference in the frequencies of F1 but very much equal in F2 –see details in vowel [u]-, the garish difference is mainly recognized in the protrusion shape of lips where the Acehnese give only a small impression on it. Conceptually, this might influence the crescendo quality during the glides occurred that differentiate the allophone quality in both languages. Of course, it should have also reckoned the maximal displacement of the inside articulator in Acehnese. In English however, the garish vowel [u] do not happen in the production of [w] as for vowel [i] in [j] production. Even though it might have a strong lip rounding, the result is somehow similar to what happens in Acehnese. In phones of Acehnese /wi/ and English /wiː/ for instance, the crescendo quality of the initial [u] is roughly dismissed from the voice of both languages. However, the quality of [w] in contexts vary depends on the openness degree of the second

constructor as it influences the starting point in the production of [w]. In English, the more open a vowel, the farther the starting point reached, consider as in *woo* and *what.* This is somewhat different to the language with fewer lips impression like Acehnese. In this case, the differences are likely to occur according to the phonotactic constraints and the distribution of the feature. Some important distribution of English vowel after [w] occurs in [ɜ] and [ʌ] where the [w] lip rounding is retained instead of follows the spread of lips for the vowel, as in *world* and *one*. Not just one of these vowels does not even exist in Acehnese, this [w] habit is still very much uncommon in general Acehnese.

The shift quality of general English [w] is mainly occurred in contextual variation preceding fortis plosive [k] and [t], the quality varies from partial devoicing in unstressed syllable, -e.g. *inquest*- until a complete devoicing in stressed initial cluster that is realized as labial-velar fricative [ʍ]. This variation is not commonly occurred in Acehnese to generate the occurrence. Besides, the Acehnese [w] is somehow only distributed pre-vocalically or intervocalically. The English [w] is also strongly labialized the quality of the pre-position consonant due to lip rounding in [w] production, as for [d], [t], [k], [g] and [s]. If to transfer the Acehnese less-rounded [w] into the need of English, the labialization quality might not as strong as English in nature.

The realization of labial-velar fricative [ʍ] over English [w] is in fact much significant in some accents. The fricative [ʍ] is mainly applied in all *wh* symbol words initial as in *where* or *when* to differentiate from *wear*. This pronunciation model is what generally considered as a correct one and -in American- educated, it

is also naturally contrasted in RP and occurred persistently in Scottish and Irish English. To an Acehnese-based transfer, this feature should have considered as one more new feature that it has been highly significant to negligently be passed.

4.3.3.20 Acehnese [r] to English [r]

[r], (orthographically represented as /r/) refers to the pronunciation of r-like generally termed as rhotic. Across languages, rhotic features are very independent as it is produced in various places and manner of articulation to considered a separated feature. According to the types, the Acehnese and English rhotic is in fact, possess a total difference model of rhotic, although it sometimes might be mistakenly represented in same /r/ symbol. While the English rhotic is post-alveolar approximant, in Acehnese, it is mostly a trill or fricative. The rhotic approximant is produced with a specific curled upward tongue tip without touching the roof the mouth. Along with rounded lips and open jaws, the tongue tip is extracted parallelly to the postalveolar area, the body tongue is shaped like a low *deck-boat* that allow the contact with the inside part of the back upper teeth. In General American, it could also be produced with central tongue touches the hard palate while the tongue tip is descended. In rhotic trill, the tongue tip is hit against the upper gum several times in sequences rapidly, there is however, no significant shape of lips is required and the tongue is casually flat. The speedy repetitive closure will close and open the airflow that gives the trill effect of sounds. In rhotic approximant, the tongue tip only moves a little to the rear, there is no specific closure created rather than a stricture against the hard palate that gives a retroflex effect to the sounds. In

comparison, it is clear that the rhoticity of the Acehnese and English is meeting in nowhere over its transferability condition.

The other significant short of rhotic produced in British English (particularly in middle-north) and Acehnese is the tap mode. Rhotic Tap or flap is simply described as a reducing model of rhotic trill into only a single air interruption. In Acehnese, this is occurred intervocalically as [ɾ] or [ɾh] with apical form, e.g. *aree* or *paroh* or occasionally as an approximant in /a_a/ environment, e.g. *bara*. In English, a similar distribution is somehow also occurred, e.g. *ferry,* and *worry*. However, although it is described as alveolar tap [ɾ], the quality is however very much different due to the lateral bunching in the body tongue that gives the labialization-like sound [w], not in apical like in Acehnese, this also concludes the difference quality of taps to each other. Following this, we also learn the insignificant varieties of some Acehnese rhotic quality in giving privileges or benefits to the English transfers, both the Western Coast fricatives uvular [ʁ] or the Greater Aceh velar one [ɣ]. No matter what the accents, there is still a huge modification is required coping the English /r/.

The further important aspect of English rhotic is related to the transparent distribution of rhoticity that is categorized English into the rhotic and non-rhotic accents. In British varieties, southern and eastern USA, as well as New Zealand - where the non-rhotic applied- the rhotic distribution is restricted before consonant or pause. However, it is pronounced across word boundaries preceding vowel termed as linking –r, e.g. *mother* /mʌðə/ (losing the rhotic) but *mother in law* /mʌðər ɪn lɔː/ (with rhotic). In Acehnese however, such a transparent distribution never

happens since all the syllables consist of the rhotic component established permanently throughout the accents.

Figure 21. English Rhotic Postalveolar Approximant Technical Production

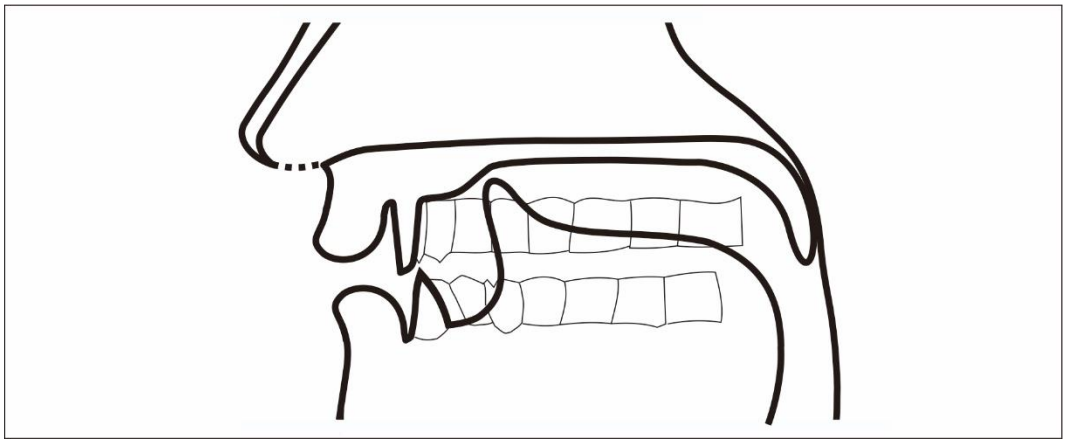
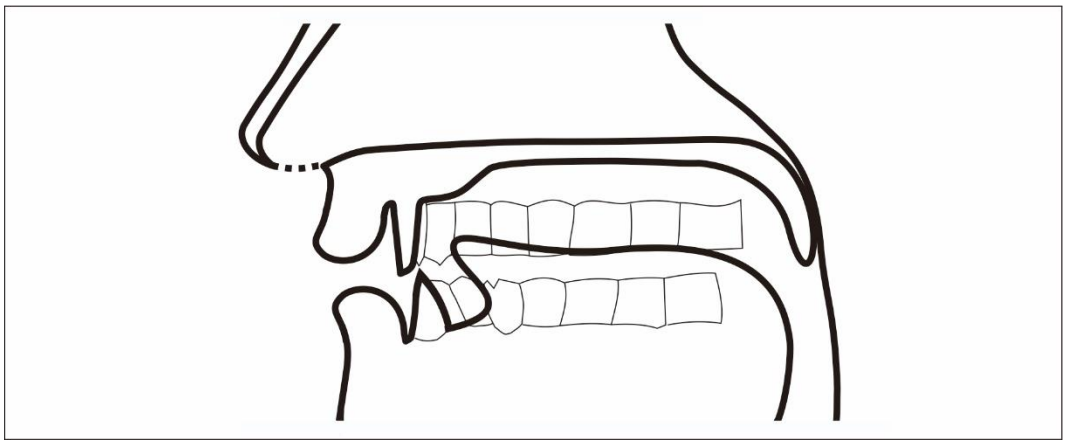


Figure 22. Acehnese Rhotic Trill Technical Production



The rhotic technical production of English (figure 21) and General Acehnese (figure 22) show differences in both manner and place of articulation. The English rhotic is a postalveolar approximant (retroflex). In Acehnese, it is an average quality of trill, not too brief nor it is strong as in Spanish as well (Asyik, 1985).

4.3.3.21 Acehnese Accent on Consonant Distribution

The notion of accents is phonetically recognized by the establishment of the distinguishable specific features from an accent to another. In Acehnese, it is shown in -at least- three new features plus a couple of exchanges -see chapter two section 3.3 for details. However, there are no significant features that specifically benefit

English transfer among the accents except for the dental fricative [θ] produced in Greater Aceh. This has somewhat given important notes for further treatment. This section specifically discusses the matter quality of the feature.

Greater Acehnese /θ/ to English /θ/

[θ] is the representative symbol for voiceless dental fricative or voiceless dental non-sibilant fricative, the symbol itself called as *theta*. It is counterparts to another dental fricative, voiced [ð]. As for most fricatives, the type of airstream constriction is aimed to create turbulence. In theta, it is achieved with placing the tongue tip at the edge of the front upper teeth, whether in apical or laminal. Theta is produced with central-directed pulmonic airstream where the airflow moves upon the midline tongue that allows meeting the stricture created first in the tongue tip. By the part of this stricture (between dental and alveolar), the airstream is split onto sides of the tongue before released through. The clear theta sound can be heard in a long sequence due to this continuous airstream. In English, it is also sometimes produced in interdental contact alternatively, this explicitly indicated by the tongue protruding. In greater Aceh, theta is only produced with upper dental constriction, the interdental position might be understood as the Arabic theta that possesses more sibilant quality -which sometimes similar to English situationally-. This mostly shown when learning the Koran as the Acehnese theta is not transferred.

The general quality of Acehnese theta is confirmed to be similar to the English by Acehnese phonologists, like Asyik (1985). However, there some significant activities that might distinguish it from English. In Acehnese, the theta lax quality is sometimes stronger than it is in English, this is occurred almost in all

vowel, particularly at those Acehnese monolingual, widely and randomly e.g. *so, su, seuk, ase, meuse,* etc. In English, theta is very much soft particularly preceding another consonant, e.g. *throw* or diphthong [ai] e.g. *thigh*. This quality generally results from the intense contacts of the tongue upper head against the alveolar ridge, the more proximate the contact, the more jerky the sound resulted.

In general Acehnese, the theta shares some similarities to Acehnese [s] regarding the dental contact. It however, cannot be afforded as the substitution to the English transfer but rather than the alternative approach toward the real theta. There are some significant differences in airstream modulation and -mainly- the turbulence resulted that greatly affected the lax and sibilant quality. In fact, -as we discussed earlier- even though the English theta –as well as greater Aceh's- described as a dental feature, it specifically makes a complete elucidation against the whole alveolar ridge which put the tongue position higher. In Acehnese [s], the stricture is dental-only which put a lower position of the tongue. This caused the modulation of the air turbulence in the stricture area occurred differently and effectively influence the thickness quality of sibilant resulted.

Personally, I like to somehow consider the Greater Acehnese theta as the form of emphatic affricative [tθ'] realized in ejective air mechanism, though it might not as strong as found in Semitic languages. This is particularly true for the most Greater Aceh area except in some villages around Beutong where the quality of air release is very much audible to be considered as an interdental fricative. Of course, further inspection would be required on the feature for a certain. As an initial description, this affricative can be identified both in production or reception. In

word *beso,* for instance, the sequence of vowel [ɯ] to the theta occurs with the air blockage between the two. Compare to the British *earther* where the air flows are smoother. Thus, the Acehnese theta quality -if we do consider it as so, still- is basically very much irrelevant to be brought into being the supplementary elements to the English.

4.3.3.22 Summary and Addition

The comparison of the correspondence of Acehnese-English consonant concludes a number of significant notes regarding the identical quality of the features of both languages. In general, the many differences between Acehnese and English consonant is mainly occurred towards the switching distribution of components instead of the lack of component, whether in separated components like aspirated or the significant quality like tensity. The English aspirated phones distribution for initial syllable [k] and [t] is realized in Acehnese as aspirated allophones, the learner's switching is highly possible to occur in colloquial talk since phones and allophones work differently in speaker perception. The tensity of glottal stop quality is also by distribution switching between the lax and the soft.

Some difference is specifically related to the place of articulation activated in the languages. In Acehnese, all the English alveolar functions are widely replaced by the postalveolar or the hard palate that results a more retroflex quality. This is particularly affected in [t], [d], [n] and [l] of the two languages. There are indeed no Acehnese words with a total alveolar blockage, even in consonant like [s], it is shared to the dental edge. A more restricted model of articulation place shows in Acehnese [ʃ] that is specifically produced in only certain word due to its vowel

(formation) requirement. Conversely, all the English consonant are always in varied distribution. This quality specifically refers to the elasticity quality preceding the vowel to allow a significant change in mouth shape but to keep the quality.

Another significant difference of English consonant is particularly related to the influential manner of the preceding consonant, this occurs widely in many of the English consonants in cluster position. In Acehnese, this model of manner is highly limited due to the small construction of consonant cluster.

In fact, there are also some Acehnese consonant that might precisely be considered as non-corresponded to its English counterpart due to the significant difference of quality -except for its orthographical representation-, like [s] that actually shared a lot of similarities to English [θ] instead of the [s] itself; and [f] which practically very much into typical of bilabial [p^h]. Acehnese [f] is uniquely ignored the genuine quality of the original quality developed in the source language and automatically switches its quality into a more innate quality.

In short, the Acehnese-English correspondence features compared can be classified into some category, first, the significantly differentiated (like [s], [f] and rhotic), the trivially differentiated (like [h], [b], [p], [g], [m], [n], and [ŋ]), componential differences (like aspirated phones), distributional and switching quality (like, [ʃ], [ʔ], [j], and [w]), and the systematically differentiated [like [t], [d], and [l]. Even though the many correspondence features are generally accepted in English –except the significantly differentiated features-. This might also impact some outer perceptions of the direct transfer, -a transfer without modifying the nature into the nature required- as it might sometimes cause the unintelligibility and

specifically considered to be sounded dialectal and less beautiful. The good news is that all the features from the trivial features above are potentially to succeed in modifications.

From the selected consonant compared, it is also interestingly found that most of the Acehnese absence to English is firstly directed at the voiced consonant, this is such general pattern that works in Acehnese particularly in fricative, consider the absence of [v], [ð], [z], [ʒ] which all voiceless. If not to consider the affricative activities, [ʍ] is the only absent voiceless feature in Acehnese-English that even alternatively replaced with [w]. Another pattern also shows the Acehnese common absence over all the affricative features, as with the English [dʒ] and [tʃ]. In Acehnese is indeed, the affricative activities are not normally occurred.

4.3.4 Consonant Cluster

The selected types of cluster to be compared in this discussion consist of the initial two and three-clustered consonant distribution; and the final-clustered distribution. Among those, the two-clustered consonant is the only correspondence feature of English consonant cluster to Acehnese while the three-type clusters are new to the Acehnese phonological system. The final cluster distribution is also considered *New* to the Acehnese that its distribution and arrangement –as will be mentioned later- is specifically related or impeded to the final syllabic structure of Acehnese. Thus, the comparison of the consonant cluster in this section would only be adequate at the initial two-clustered components.

The selected two-type consonant cluster compared is consist of three Acehnese clusters and four English arranged through the post-initial cluster component shown below:

Table 7. Acehnese-English Post Initial Consonant Cluster Comparison

Eng Cluster	**Ach**	**Status**
[r]	[r]	Correspondence
[l]	[l]	Correspondence
[w]	-	New
[j]	-	New
-	[h]	Absence

The comparison of English and Acehnese two-type Consonant Cluster resulted to status of two Correspondence, two New and a single Absence feature. However, it is interesting to know that linguist different view towards the Acehnese cluster ’h’ has put the status absence is not merely representative. Asyik (1974) treated this ‘h’ post component as a cluster as it is proven to be independently budged during the word transformation, such as in *mupeuneuhet* which originally came from *phet*. Here is shown how the transformation does not lose the ‘h’ but to stay. Unhappily, this model of transformation is rarely occurred and perhaps only applied on followed ‘p’. On the other side, Durie (1985) treated this ‘h’ as aspirated unit phones. As English does have the aspirated unit, it conceptually has somehow to be Correspondence. In conclusion, if both aspirated and cluster ‘h’ exist in Acehnese and work on a particular condition, the Absence status might not completely be applied in transferring process since the cluster and aspirated unit are basically only a matter of distinguished perception material in term of its distribution.

The comparison of the initial elements distribution of the correspondence [r] and [l] cluster in English and Acehnese explains below:

Table 8. Acehnese-English Correspondence Consonant Cluster Comparison

Initial Elements	**Acehnese**	**English**
	r-clustered	
[p]	YES	YES
[t]	YES	YES
[k]	YES	YES
[b]	YES	YES
[d]	YES	YES
[g]	YES	YES
[f]	*NO*	YES
[θ]	*NO*	YES
[ɟ]	YES	*NO*
[ç]	YES	*NO*
[ʃ]	*NO*	YES
	l-clustered	
[p]	YES	YES
[k]	YES	YES
[b]	YES	YES
[f]	*NO*	YES
[s]	*NO*	YES
[g]	YES	YES
[ç]	YES	*NO*

The comparison of [r]- clustered initial elements in Acehnese and English is contributed by ten consonants. The differences of the Acehnese [r]-clustered towards the English are significantly shown in the absence distribution of [f], [ʃ] and [θ] and the existence of the [ɟ] and [ç] in the clusters. The [l]-clustered initial elements are also differed by the two absence features of [f] and [s] in Acehnese and the existence of [ç].

In general, the difference shows that the absence of the initial elements in Acehnese compared to English is widely related to the absence of the feature –both in term of its existence or the quality- rather than the restricted distribution of the features. This is shown in both [r] and [l] cluster for the consonant [f], [θ], [s]. As

in English, Acehnese allows all the existence –mainly plosive- consonant to sit in state with [r] and [l]. This also concludes that the natural mouth structure of Acehnese consonant is acquisitive, copulative, and infiltrative towards the transformation of [l] and [r]. This nature will somehow benefit the process of acquisition of the non-exist cluster if there had no other obstacle over the features of the second elements required.

However, the English cluster [r] is a huge difference to Acehnese due to the different applied quality of the feature and the manner. The rhoticity produced has somehow contributed to the realization of [ɹ] at the preceded elements of alveolar [d] and [t]. The significant difference of quality is later found at the affricate release that caused a homorganic friction -occurred at the area of operated organs-. In cluster [p] and [k], the similar [ɹ] is somehow realized with a fricative release. Thus, these clusters could actually be considered as [dɹ], [tɹ], [pɹ] and [kɹ]. As it is noticed, the shift quality of the constructed element is the main consequence in consonant clusters. In Acehnese for sure, the [r] quality in clusters is reduced into an alveolar tap form of rhotic, particularly those which are required tip tongue blockage as with [d] and [t] while a shorter trill might be found in bilabial counterparts. Nevertheless, it also concludes the non-transferable quality coping the needs of English.

4.3.5 Isochrony

The isochronal aspects of the Acehnese and English are definitely different to each other due to the different contribution of stress in the language. English is a stress-timed language while Acehnese is a syllable-timed one. The significant difference between both isochrony models are generally shown in the taken

duration of articulating a bunch of words in sentences. In English, the keywords of the sentence are giving particular emphasizing while the non-significant elements are unstressed. Conversely to the Acehnese, every single word in a sentence is given equal pressure in colloquial speech. Even if the stress is given, it does not always mean to indicate the keywords, the giving of prominence for certain words is also usually related to the mood of the conversation.

The main consequences of the stress-timed isochrony applied in English is the difference of quality for each word in a sentence, whether in term of clearance due to the quick articulation or in term of word forms due to the connected speech aspects. Since the Acehnese produced the equal quality of prominence, every word is having a more stable swiftness quality among the words that reduced the possibility of quality degradation. Note that, this quality is not only matter in speaking, it is also somehow widely affected in listening skill.

To see the difference of time distribution in both isochronal model is shown in the sample sentences below:

English : A **man** will be **rob**bing the **bank**

Time : …__.....__.....__

Acehnese : **Na Ureung neuk rampok bank**

Time : __ _ _____ ____ _____ ___

In the sample above, the bold character is referred as the place where the prominence produced. In Acehnese, each syllable is given a similar duration of times that make the sentence consumes longer times to articulate. In English, the prominence only occurs in keywords of the sentence: *man, rob,* and *bank.* Thus,

such a long sentence is simply recognized by three of these words. Terribly, the same prominence is also occurred even in different adverb, whether *the man robs the bank, the man is robbing the bank, the man will rob the bank,* or *the man would have been robbing the bank*, those are just as short as *man rob bank.* The rest of the elements is pronounced short and quick to accommodate the fissure time between keywords as if it is nothing that would generally cause the reduction quality. Of course, there are other placements of prominence occurs depends on the needs. In Acehnese, the more adverb between keywords, the longer time will take to pronounce, sentences like *ureung rampok bank*, *na ureung nyang ka rampok bank, na ureung tengoh rampok bank,* or *na ureung neuk rampok bank* take different duration exactly as they are written, counting over the number of syllables produced. Transferring one of this isochronal aspects to each other would affect the output and input result, as Acehnese are generally recognized English as a quick speech is not merely correct. During the listening process, learners also usually lose the message in sentences because they tried to focus on each word produced –as they do at their innate language- instead of finding the keywords.

The isochronal aspect of English might also have considered the relation between speakers. The English learners with the same habit of syllable-timed model influenced by their first language might not that significant when they talk to each other than when they are having a conversation with the English native speaker or the English learners that possess the stress-timed model of isochronal aspect in their first language. I remember of feeling surprised on how some students were having

a very smooth conversation to each other but could not be smoothly understood by the English native, this situation occurs when listening or being listened as well.

4.3.6 Connected Speech

The main connected aspect differences of English to Acehnese is related to the rhythm of speech that depends on the distribution of stress syllables throughout the sentences. Meanwhile, the formation of rhythm is specifically related to the isochronal aspects of the language which –as we discussed- is established differently between the two languages.

In a smaller coverage of the connected speech aspects, English simplified the sound process into all the connected speech model known, include Elision, Linking, and Assimilation. In Acehnese, the Elision simplification is New as well as the Linking one, the Assimilation model is the only simplification that generally comparable to English with some differences due to the phonetic constraint in consonant final distribution.

First, English speech is normally doing Elision for some features in colloquial speech, this is mainly supported by the isochronal form that allows some feature to be articulated faster while some slower, the scapegoat of this is especially the schwa in certain position of surrounded consonant, such as after aspirated stop or before the syllabic consonant ([n], [l] and [r]). Consonant [f] in *of* between words is also usually eliminated into only schwa. In Acehnese, Elision is not normally occurred, this -of course- reasoned to the isochronal aspects of the languages in dividing time for syllables in sentences, if the Acehnese lose even one of the syllables, they might end up with confusion comprehending the information.

Acehnese are somehow very textual to their syllables construction. Besides, it is also supported by the many words with short syllables number, -this might require for a further study concerning on the dominated syllables number of Acehnese words composed. However, it is interesting to know that Acehnese make fun about their own language as the simplest language in the world in term of their syllables construction-. This arrangement is somehow an ideal natural condition to articulate every single element of the sound. For Acehnese, Elision particularly affects the smoothness of receiving information in listening, while to lose it -in speaking- might be considered dialectal in English colloquial conversation.

Second, as linking speech naturally occurs in English, it is somehow highly restricted in Acehnese. The English linking is particularly realized and heard as a chain between consonant and vowel throughout the words, as for *come in* /kʌmɪn/. In Acehnese, each final consonant is given a glottal stop to avoid its characteristic influences the vowel ahead, as for *lam on* in /lamʔon/ instead of /lamon/. However, some final voiceless glottal [h] do give aspirated quality over the following vowels as commonly heard in *yoh awai* as /johawai/, though it is a very soft quality of aspiration. Acehnese words in generals are somehow -simply- always in partitioned form, no matter condition they are in. Although the English linking elements might not as significant as the general phonemic features, to lose it might usually be considered as dialectal in normal English circles. The crucial consequence is mainly lied at the listening capability as the linking words might have wrongly be understood as a new vocabulary, this usually begins with the confusion of the listener finding out the words composition in the sentence. The knowledge on

linking speech in English is very much valuable in increasing the listening ability particularly since it would very helpful at the process of a sentence reconstruction.

Third, the Assimilation simplification in English to Acehnese are mainly differentiated by the distribution characteristics of the regressive forms. The progressive assimilation forms are generally not occurred in Acehnese. The comparison of the assimilation for consonant change in place of articulation are shown in the table below:

Table 9. Comparison of English Assimilation to Acehnese Transformation Allowance

English Transformation			**Acehnese Occurrence**
Textual	**Applied**	**Condition**	
/t/	[p]	Before bilabials	*NO*
/d/	[b]	Before bilabials	*NO*
/n/	[m]	Before bilabials	*NO*
/t/	[k]	Before [k] and [g]	*NO*
/d/	[g]	Before [k] and [g]	*NO*
/n/	[ŋ]	Before [k] and [g]*	YES
/s/	[ʃ]	Before [ʃ] or [j]	*NO*
/z/	[ʒ]	Before [ʃ] or [j]	*NO*

The table of English assimilation occurrence below shows an almost full restricted change of Acehnese on the required assimilated feature to English, except for certain changes. The [n] to [ŋ] assimilation is also specifically occurred before [k] in Acehnese since the [g] is not finally distributed. However, there is a positive notion that all the applied features are still within the Acehnese performance, except for [ʒ]. Even thought Acehnese do assimilation in their connected speech, it is in fact only allowed in little condition and always regressive, as for [m] to [n] before a non-bilabial consonant in textual *lam tengoh* into *lan teungoh* pronunciation. This is not however widely occurred throughout the words in general, in sentence like *itam that,* the [m] is only reducing the bilabial contact by the glottal stop

contribution instead of the vicissitude of whole consonant matters, the other assimilation of [n] to [ɲ] is also highly restricted to even consider them as form of assimilation. In the northern area of Greater Aceh, it is not even considered as assimilation since the final [m] default pronunciation is [n].

The other important sections of assimilation are the change of manner and the voicing quality. In English, the changes of manner is widely occurred in various condition –see consonant comparison-, the notes on these changes are somehow very few in Acehnese to enable this comparison to be done. The Assimilation in the voicing quality specifically related to the scope of devoicing feature allowance in the language. The Acehnese and English devoicing are compared below:

Table 10. Comparison of Acehnese-English Allowed Devoicing Feature

Subject	**Devoicing Feature**									
English	-	[b]	-	[d]	[v]	[g]	[ð]	-	-	-
Acehnese	[p]	[b]	[t]	[d]	-	-	-	[m]	[n]	[ŋ]
Status	*Abs*	*Cor*	*Abs*	*Cor*	*Ne*	*Ne*	*Ne*	*Abs*	*Abs*	*Abs*

The devoicing existence comparison table concludes the status of two Correspondence, three New, and five Absence towards the Acehnese-English transfer. However, considering the quality of the devoicing result, there are more correspondence features generated from this comparison as [v] devoicing realization is produced as [f]. However, although [g] also produces as [k], it is not merely correspondence since the Acehnese [k] is distributionally produced as a glottal stop in final position. Both of these degraded features are significantly crucial over its distribution rather than only exist. Thus, the devoicing [ð] (that is produced as [θ]) and [g] are the left features with *New* status.

The fact that the devoicing features required in English only consist of five feature that Acehnese produced five more Absence might also result in the unnecessary transfer elements. Acehnese is specifically devoiced [p] and [t] on the basis of their voicelessness since its [b] and [d] share more [p] and [t] quality –see phonemic comparison for details-, and some nasal features mentioned. This is interesting to note because devoicing is somehow produced through the unconscious prototype in speech. Thus, the absence elements in this categorization must be taken into account due to its influences, distribution, and –of course- the characteristic of production. Now, it is important to have skills developed on distinguishing the voicing quality over the devoicing ones.

4.3.7 Phonetic Constraints

The comparison of the phonetic constraints between English and Acehnese below are established through the feature distribution and the syllable structures of the language. Distribution will specifically show the spread of feature in words while syllable structure is related to the feature affinity among features in general. This comparison might not as totally adequate to comprehend the Acehnese-English features in contextual forms as usual phonetics constraints study does. However, it is a common initial revelation over such studies.

4.3.7.1 Distribution

The comparison of the segmented features below consists of the distribution of vowel and consonant in Acehnese and English. The diphthongs comparison is not seemed as significant due to the absence condition in the transfer. The

contributed materials below are provided based on the features required in English acquisition. The related notes and discussion are followed after.

Table 11. Comparison of Acehnese-English Vowel Distribution

FEATURE	POSITION					
	INITIAL		MEDIAL		FINAL	
	ENG	ACH	ENG	ACH	ENG	ACH
[i]	YES	YES	YES	YES	YES	YES
[ɪ]	YES	*X*	YES	*X*	YES	*X*
[u]	YES	YES	YES	YES	YES	YES
[ʊ]	*RARE*	*X*	YES	*X*	YES	*X*
[ɜː]	YES	*X*	YES	*X*	YES	*X*
[ə]	YES	*NO*	YES	YES	YES	YES
[ɛ]	YES	YES	YES	YES	*NO*	YES
[ʌ]	YES	YES	YES	YES	*NO*	YES
[ɔ]	YES	YES	YES	YES	YES	YES
[æ]	YES	*X*	YES	*X*	*NO*	*X*
[ɑ]	YES	*X*	YES	*X*	YES	*X*
[ɒ]	YES	*X*	YES	*X*	*NO*	*X*

Table 12. Comparison of Acehnese-English Consonant Distribution

FEATURE	POSITION					
	INITIAL		MEDIAL		FINAL	
	ENG	ACH	ENG	ACH	ENG	ACH
[p]	YES	YES	YES	YES	YES	YES
[b]	YES	YES	YES	YES	YES	YES
[t]	YES	YES	YES	YES	YES	YES
[d]	YES	YES	YES	YES	YES	YES
[k]	YES	YES	YES	YES	YES	*NO*
[g]	YES	YES	YES	YES	YES	*NO*
[f]	YES	YES	YES	YES	YES	*NO*
[v]	YES	*X*	YES	*X*	YES	*X*
[ð]	YES	*X*	YES	*X*	YES	*X*
[θ]	YES	YES	YES	YES	YES	*NO*
[s]	YES	YES	YES	YES	YES	*NO*
[z]	YES	*X*	YES	*X*	YES	*X*
[ʃ]	YES	*NO*	YES	*NO*	YES	YES
[ʒ]	*RARE*	*X*	YES	*X*	*RARE*	*X*
[ʧ]	YES	*X*	YES	*X*	YES	*X*
[ðʒ]	YES	*X*	YES	*X*	YES	*X*
[h]	YES	YES	YES	YES	*NO*	YES
[m]	YES	YES	YES	YES	YES	YES
[n]	YES	YES	YES	YES	YES	YES
[ŋ]	*NO*	YES	YES	YES	YES	YES

FEATURE	POSITION					
	INITIAL		MEDIAL		FINAL	
	ENG	ACH	ENG	ACH	ENG	ACH
[l]	YES	YES	YES	YES	YES	*NO*
[r]	YES	YES	YES	YES	YES	*NO*
[w]	YES	YES	YES	YES	*NO*	*NO*
[j]	YES	YES	YES	YES	*NO*	*NO*

4.3.7.2 Syllable Structure

The investigation of the syllable structures comprised of twelve English and ten Acehnese oral vowels are explained in the table below:

Table 13. Comparison of Acehnese-English Syllable Structure

Structures		Status
English	Acehnese	
V	V	Correspondence
VC	VC	Correspondence
VCC	-	New
VCCC	-	New
CV	CV	Correspondence
CVC	CVC	Correspondence
CVCC	-	New
CVCCC	-	New
CVCCCC	-	New
CCV	CCV	Correspondence
CCVC	CCVC	Correspondence
CCVCC	-	New
CCVCCC	-	New
CCCV	-	New
CCCVC	-	New
CCCVCC	-	New
CCCVCCC	-	New

The comparison of Acehnese to English Syllable Structure conclude the status condition of six Correspondence and eleven *New* structures. Thus, syllable structures should have been one of the most non-overcoming aspects in the Acehnese-English transfer. In general, the restriction is occurred due to the permit condition towards the consonant sequences in the creation of complex coda or onset. In Acehnese, the number of consonant sequence in onset is limited to two

while in English, it can reach three. Acehnese has –at least- lost three structures over the English due to this restriction.

However, the significant characteristics of the Acehnese syllable structures are lied at the avoidance of the complex coda. In Acehnese, a syllable is only allowed to be closed by no more than a consonant. Thus, there are no consonant clusters are allowed to operate in initial position of a syllable. In English, a final coda of a closed syllable can reach up to three consonants. This restriction has somehow caused the Acehnese to lost seven correspondence structures to the English.

The other interesting different of Acehnese and English syllable constructions lies at the syllabification module that applied. In English, syllabification is ruled by –at least- three modules of syllabification operate through syllables. First, if two consonants between vowels, it is split, e.g. *per.haps*. Second, a consonant between vowels will close the previous syllable if the following syllable is short, e.g. *drag.on*, yet it will begin the following syllables if it is longer, e.g. *be.have*. The other influential aspects of the English syllabification forms include the root of word (prefix, suffix, and compound words that split based on the original forms) and the special treatment features (like consonant plus /le/, e.g. *ta.ble*). In Acehnese, the syllabification of the multi-syllabic words are still occurred in avoidance of complex coda. Al-Harbi (2001) formulized that if the three type consonant cluster consisted in word medially, the first syllable will syllabify a consonant -in coda position- while the second syllabifies two consonants –in onset position- e.g. *men.tro*. In two type cluster of consonant, the first syllable is produced

in open condition left the second in complex onset, e.g. *cidra* /ci.dra/, this is occurred generally in Acehnese except for the onset with nasal homorganic ([n] and [ŋ]) and the laryngeals features ([h] and [ʔ]), e.g. *tanbo* /tan.bo/ or *sokmok* /sok.mok/. In conceptual comparison, the difference of Acehnese is lied at the rules of the one consonant division for first long syllable as for *dragon*, in Acehnese, it might be applied as /dra.gon/. However, it is similar to the second long syllables as for *behave*. The Acehnese is also different in the syllabification of two consonant to the English in term of its consonant division permit due to the complex restriction in the coda.

Of course, this elaboration is not adequate to cope the entire syllabification matter due to its rules, exceptions, elasticity and sonority quality of the features which accumulate into a complicated system. Roach (2009) specifically discussed the English syllabification process in words *extra*. He described that the maximal onset principle accepted in this word is as /ek.stra/, /eks.tra/, or /ekst.ra/. This description is not primarily to show the structure itself rather than the awry of the establishment in patterning the English syllabification that termed by Roach (2000) as the ambisyllabic.

4.3.8 Orthography

The languages orthographic differences are discerned by the transparency degree of the representative symbols toward the actual speech features in the language and the measurement over its distribution in words. The transparency is especially determined by the consistency of a symbol over its phonetic sounds relation, while the entropy quality is measured according to the distribution of the

related opaque symbols through the words in a language. Even though the model of orthographic representation used in Acehnese and English are different (Acehnese: transparent; English: opaque model), the direct comparison over the composition is somehow required since the quality of transparency –even in similar orthographic model- are established differently among languages. The comparison below includes the representative Latin (Roman) symbol used in both Acehnese and English for vocals and consonant. For some reason, the comparison is also included some of the Malay representee to pay attention for. It is due to the significant role of Malay orthographic to the Acehnese both in the configuration systems and the social distribution. First, the Acehnese Latin adopted works relies tremendously to the Malay tradition of perspective, the Acehnese has metamorphosed multiple times follow the Malay development in the last seventy years. And second, the Malay is what also normatively learned in initial by the Acehnese. Acehnese simply do not learn the Acehnese -except for some qualities- they are in fact transferring the capability -in reading Malay- to read the Acehnese. This also made the perspectives over Malay highly significant in this section.

4.3.8.1 Vocals

The comparison of vocal sound representation is divided into section of vowel and diphthong separately due to the different condition of establishment and the status of the features in language. However, a complete related note on distribution is given by the end of both sections.

The comparison of vowels representation is concluded by fifteen features of both languages. However, the twelve English vowels are the primary points

outlined in this discussion due to the target language objective. The mentioned Acehnese features are mainly aimed to give clues on Acehnese orthographic representation model as well as to consider the possibility of split in the transfer process. The comparisons are explained in the table below:

Table 14. Comparison of Acehnese-English Vowel in Orthographic Representation

Vowels	**Representation**	
	English	**Acehnese**
[i]	/ee, ea, e, ei, oe, eo, ae, i, e, y, a, uay, ey, ie, oi/	/i/
[ɪ]	/i, e, y, a^{+}, a-e, ai, ea, ei, ia, ie, o, oe*, u, ui/	*X*
[u]	/oo, u, u-e, o, ew, ou, o, eu, oe, oeu, ooe, ue, ui, wo/	/u/
[ʊ]	/u, oo, ou, o/	*X*
[ə]	/a, o, u, ou, e, i^{+}, y*, ae^{+}, eau*, ea, ie. ei*, eo, gh^{+}, o-e, oa, oi-e, ua/	/e/
[ɛ]	/e, a, ue, ea, ai, ae*, e-e, ei, eo, ie, e, oe*, u/	/è/
[ɜ]	/e, ea, u, o, i, e-e, eu, y/	*X*
[ʌ]	/u, ou, o, oe, o, oo/	/o/
[ɔ]	/au, au-e, a, o, aw, awe, oa, o-e^{+}, ao^{+}, oa^{+}, oo^{+}, ou^{+}/	/o/
[æ]	/a, au, ai, i, ea^{+}, ei/	*X*
[ɑ]	/a,aa, o, a-e, e, ea, ua, aae^{+}, au^{+}, i$^{*/}$	*X*
[ɒ]	/o, a, au, eau, ou, ow/	*X*
[a]	*X*	/a/
[ɯ]	*X*	/eu/
[e]	*X*	/é/

The incoming table shows the used symbol to represent diphthongs in Acehnese and English. It is somehow represented in the non-direct comparison table. Remember that the Acehnese-English diphthongs are not phonemically having any correspondence feature for a while. Thus, this table should be focused on the representation symbols rather than the representative features.

Table 15. Comparison of Acehnese-English Diphthongs in Orthographic Representation

English		Acehnese	
Diphthongs	**Representation**	**Diphthongs**	**Representation**
[eɪ]	/a-e, ai, ay, ea, ei, au, ey, e, a, ee, ue, ao^{+} /	[iə]	/ie/
[oʊ]	/oa, o, eau, ow, ou, oe, ow, owe/	[uə]	/ue/
[aɪ]	/i-e, i, y, ei, ai, oi, ae, eye, ie, ui, uy, ye, /	[ʌə]	/oe/
[ɔɪ]	/oi, oy, eu^{+}, uoy/	[ɯə]	/eue/
[ɪə]	/ea, ee, e-a, ei^{+}, eo^{+}, e^{+}, ie^{+} /	[ɔə]	/oe/
[eə]	/ai^{+}, e-e, ae^{+}, aye, ayo, ea, ei/	[ui]	/ui/
[ʊə]	/u-e/	[ɔi]	/oi/
[əʊ]	/o-e, ow, o^{+}, ao$^{+,}$ au, eau, eaue, eo, ew, oa, oe, oo, ou/	[əi]	/ei/
[aʊ]	/ou, ow, aow, au/	[ʌi]	/oi/
		[ai]	/ai/

Table 14 and 15 show the comparison of vowel and diphthongs orthographic representation in Acehnese and English respectively. The hyphen-minus symbols are specifically referred to the separation sequences of the represented symbols, this hyphen model is only occurred syllable finally, the first elements are distinctly recognized as the nucleus of the words while the second step across the close over consonant, e.g. /o-e/ in *come, home,* etc. The plus superscript refers to the special representation applied in British orthography while the stars refer to the American ones. Some English representations are also worked restrictedly on certain words, e.g. [eɪ] with /a/ in *bass*, /uaa/ in *quaalude*, /ae/ in *reggae*, /i-e/ in *boehmite,* or /ue/ in *merengue* and many other. Such words are usually adopted (mostly from French -see English orthography history for details) that follows the original orthography but change the pronunciation while others are immune towards the latest English orthography change in the ninetieth century. The complete number of those words are not mentioned on this page.

In terms of form, the Acehnese-English orthography concludes some differences as First, the English vowel are allowed to be represented in a single form or in a group of symbols that might consist up to three number of vocals alphabet. In Acehnese, vowel is somehow always single, except for the [ɯ]. In diphthongs, the English are also variously represented in a single form or in a group

of symbols that might consist up to four vocal alphabets. In Acehnese, diphthongs are always represented in dual vocal forms, except for the [ɯə]. Not just different, it is even systematically colliding to each other, particularly for the single representation in English diphthongs –that is always a vowel in Acehnese- and the double one in English vowels –that is always a diphthongs-. Thus, the English diphthongs and vowels forms are not generally distinct -not to count the projection-, even just to recognize them phonemically –see transparency-. According to these classifications, there are somehow only twenty-five percent of the right certainty could be reached in differentiating English vowels to diphthongs in words. In Acehnese, vowels are very much different to diphthongs that even if one is unable to read Acehnese, they would recognize those like distinguish vocals alphabet to a consonant. The words with close diphthongs-vowels sequenced -like *beureueh*- are somehow occurred rarely. Many words with this composition are somehow closed by a glottal stop [ʔ] that is orthographically represented by an apostrophe which also results an observable separation between the two features, as in *seu'ot* or *la'ot*.

Second, the English vowels are sometimes allowed to be represented in consonants alphabet as with /y/ or /w/, the English diphthongs also sometimes build their elements with variation of consonant and vocals. In Acehnese, vowel and diphthongs are always established with vocals and vocals variation symbols, particularly for the original words. However, the Acehnese widely recognize and develop the consonant vowel-sounded for specific words such as name, e.g. *sylvia*, or abbreviation, e.g. *sakaw.* Yet, it has no specific condition nor rules are required in establishing such representative symbols. In /y/ symbols, the Acehnese generally

regards the [i] sound due to the consonant prior order composition or prior to a vowel –although this distribution is never occurred-. In /w/, it regards the [u] sound due to the vowel prior order which is also mostly occurred words-finally since Acehnese tend to simplify their onset. This taping is somehow similar to the English but with richer constituents, as /y/ is also representative to [ɪ], [ɜː], [i] in vowels; and measures to [ɪ] and schwa in diphthongs. English /w/ is related to [ʊ], [ɔː], [ɒ], [u] in vowel; and refer to [ʊ] in diphthongs.

Third, the last forms of orthography differentiated Acehnese to English is the representation of the intervening letter model. In Acehnese, the vocal and consonant are always read according to the sequences established in writing. The consonants are only vocalized by the direct-touched vowel, e.g. *ku*, if the second vocals came after, the vowel sound became diphthongs or is voiced separately, e.g. *adoe* and *beureueh*. However, if a vowel step over a consonant, it will automatically vocalize the closest consonant, e.g. *kaca*. These rules are indeed what generally applied in all adopted Roman orthography languages. In English, this intervening model is somehow still questioning rather it is part of the vowel represented or not, this is reasoned due to the absence of rules accommodating the distribution, -where the actual problem does lied-. Say the composition in English *prove* (read as /pruːv/) to *proven* (read as /pruːvən/). Here, /e/ is represented as another sound (separated to /o/) as the syllable close, but it is grouped to /o/ in open syllable. This must have contradicted to the English *photo* or *auto*. This condition might be explained with a lot of rules and exception linguistically, but nothing to fully comprehend it in learning except to apply the phenomenological approach in executing the English

words and sentences in which philosophically is arbitrary. In conclusion, the difference in the intervening letter model is not merely related to its composition, but -as with many orthographic models- rather than to recognize their distribution contextually.

The further orthographic differences between Acehnese and English is related to the level of transparency projection. In general, this quality is specifically measured by the number of representative symbols refers to the feature. The more symbols allowed to represent a segmental feature, the less transparent a feature would be orthographically. This is due to the more processing of consideration required in interpreting the symbols. The table below shows the motion of vowels and diphthongs over the representative symbols in English and Acehnese.

The English orthographic vowels and diphthongs are widely distributed in multi-representee and irregularly operates on the basis of individuality (see the reading number in table 16). This basis has made the transparency quality might hardly be determined as a language rather than an individual feature in the language. In general, the English produced 21 vocals sounds represented by around 58 symbol consists of five singular, 44 group of symbols, and eight intervening letter model. The 12 English vowels are somehow orthographically represented by about 44 symbols. This number is similar to the nine English diphthongs that also have the similar 44 representatives throughout the symbols, -which is of course, almost five times number of the feature-. Furthermore, only 14 symbols which considered as diphthong and vowel only. Thus, there are 30 symbols that the English diphthong and vowel are shared to each other and three symbols are shared with the consonant.

Orthographical Relation on Vocal Representation

No			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	Writing Numbers
		Symbols	Representee																																																											
			ae	a	a-e	ai	au	au-e	aw	awe	ao	aa	aae	ay	aye	ayo	aow	i	ie	ia	i-e	ui	u	u-e	ue	ua	uay	e	ee	ea	ei	eo	ey	ew	eu	eau	e-e	eaue	eye	e-a	oe	oi	o	oo	ou,	oeu	ooe	o-e	oa	oi-e	oa	owe	y	wo	gh	ow	oy	uy	ye	uoy	
1	English (Features)	i	V	V														V	V								V	V	V	V	V	V										V	V																			14
2		ɪ		V	V	V												V	V	V		V	V					V		V	V											V		V									V									14
3		u																				V	V	V	V								V	V							V		V	V	V	V	V							V								13
4		ʊ																					V																			V	V	V																	4
5		ə	V	V														V					V			V		V		V	V	V				V							V		V				V	V	V			V		V					17
6		ɛ	V	V		V													V				V		V			V		V	V	V					V					V																		12
7		ɜː																V					V					V		V					V		V						V										V							8
8		ʌ																					V					V													V		V	V	V																5
9		ɔ		V			V	V	V	V	V																															V	V	V			V	V												11
10		æ		V		V	V											V											V	V																														6
11		ɑː		V	V		V					V	V					V							V		V		V													V		V																	10
12		ɒ		V			V																		V										V							V		V																	6
13		eɪ		V	V	V	V				V			V											V		V	V	V	V		V																													12
14		oʊ																												V						V					V		V		V																	7
15		aɪ	V			V												V	V		V	V								V									V			V																V	V			12
16		ɔɪ																																V								V																			4
17		ɪə																	V									V	V	V	V	V							V																							7
18		eə	V			V									V	V													V	V						V																									7
19		ʊə																						V																																						1
20		əʊ					V				V																					V		V		V		V			V	V	V				V	V								V				13
21		aʊ					V										V																											V														V				4
Reading Number			5	9	3	6	7	1	1	1	3	1	1	1	1	1	1	7	5	1	1	3	7	2	3	2	1	8	3	10	9	5	2	2	3	4	3	1	1	1	7	3	11	5	9	1	1	3	3	1	1	1	5	1	1	4	1	1	1	1	
1	Acehnese	i																V																																										1
2		u																					V																																					1
3		ə																										V																															1
4		ʌ																																																									1
5		ɔ																																																									1
6		a		V																																																							1
Reading Number			0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Table 16. The Orthographic-Phonemic Relation in Vocals of English and Acehnese

Table 16 shows the general accepted cooperation of the English and Acehnese vowel and diphthongs over the orthographic symbols unconditionally. The current collections are specifically arranged to the practical needs of the comparison, for detail representee, see writing representee in table 11. The 'V' mark is understood as the connector relation between the representee (symbols) to the constituent (feature). The reading number refers to the number of possibility in guessing a specific sound of a vowel or diphthong in a symbol refer as transparency quality. The writing numbers refer to the representative symbols that are allowed to represent a certain sound of vowel or diphthong known as the consistency quality. The English produced 21 vocals sounds represented by around 58 with switching possibility up to 11 times in reading and 17 times in writing. In general, the 32 symbols of the reading numbers are having repetitive representation for –at least- two features and 10 of the numbers are having more than six. There are somehow only 26 symbols with single feature delegation. The English writing numbers are dominated by the plural representation of more than six representee on 14 features, six features with five to six allowed representee, and only one features with transparent writings. The Acehnese consists of 28 vocals -the displayed features in the table below is limited at certain features needs to conditionally able be compared to the English- with relatively singular numbers of writings and readings except for the double readings /o/ that is also categorized as restricted distribution. These numbers are also similar true to Malay with another double reading in symbols /e/ -if also to count the Malay as the orthographic model learned by Acehnese-. However, the level of transparency measured in this discussion is focused on the quality of readability as in most orthographical comparison do.

In Acehnese –as well as in most Malay-, the reading number are relatively close that the 31 vocals represented by 27 symbols with a higher consistency of forms and a higher predictability level. The 14 Acehnese vowels are represented by 12 symbols which have specifically defined its opaque area on symbol /o/ and /`o/ with refraction level of two. Then, there are 17 diphthongs operate in 15 symbols with restricted opaque on /oi/ and /oe/ in similar level of refraction. Besides, the Acehnese share condition is also normally restricted on to its own kind as with the co-vowel and co-diphthongs, this is of course, aside from the special shared condition of the non-Acehnese original words explain in earlier paragraph.

The more distinct differences of quality would be seen through the numerical values quantified over a certain reading or writing numbers of one language orthography to another. The ideal quality of transparency can be measured through the following formula:

$$TQ = \frac{(wn \times 100)}{100}$$

The quality of transparency (TQ) is calculated by dividing the condition of reading towards the assumption number of standard representee (one to one), in which this percentage case takes as 100. The intention of the formula stands as, writing number (wn); conditioning denominator of hundreds (upper); and comparator values of the standard representee assumption number (beneath). In general, the quality is cognizable by the bigness of values begins from 1 (equivalent to one to one) to 0, 01 (similar to one to one hundred). Note that the quality means

here is secured from any situational effects as with other measurements models, e.g. Entropy, etc. These matters will have been discussed by the end of this talk.

Qualitatively, the English vocal composition are described in approximate number of transparent quality as [i], (0.071); [ɪ], (0.071); [u], (0.076); [ʊ], (0.25); [ə], (0.058); [ɛ], (0.083); [ɜ], (0.12); [ʌ], (0.2); [ɔ], (0.90); [æ], (0.16); [ɑ], (0.1); and [ɒ], (0.16). The Acehnese vocals are conversely always having in standard representee quality as -just say a few- for [i], [ə], and [u], which are all come by in the value of one. This result also concludes one of the total different in orthographic aspects between Acehnese and English. Meanwhile, it is also fascinating to discover the relative quality of both languages fraction throughout the symbols established (Consistency Quality (CQ)). This is simply possible by replacing the values of the writing number (wn) with the reading number (rn) in the formula. Here, the English transparent quality is ranged from (1) to (0.09). In Acehnese, it is somehow shorter to (0.5) from the similar inception value, which is also similar to the Malay to conclude a very unusual model of orthographic in the process of acquisition to English (from the basis of Acehnese or Malay). The other essential related factors of fraction quality are visible in the number of contributor over the symbols. In English, the fractioned symbols reaches more than 30, 32 for exact from the total symbols used while it is only two in Acehnese.

4.3.8.2 Consonant

The comparison of consonants representation is participated by 26 features from English and Acehnese. As for vowel, it is arranged towards the English priority needs on the process of transfer. The comparisons are explained below:

Table 17. Comparison of Acehnese-English Consonant in Orthographic Representation

Consonants	**Representation**	
	English	**Acehnese**
[p;pʰ]	/p, pp, gh/	/p/
[b]	/b, bb, bh/	/b/
[t;tʰ]	/t, th, tt, bt, cht, ct, ght, pt, tw/	/t/
[d]	/d, dd, dh, bd, ld*/	/d/
[k;kʰ]	/k, ck, c, q, x, cc, ch, cq, kh, kk, cch/	/k/
[g]	/g, gh, gg/	/g/
[f]	/f, ph, ff, gh, lf, pph/	/f/
[v]	/v, vv, f, ph, w/	*X*
[s]	/s, ps, ss, c, sc, sch, st, sth+, sw, z, tsw/	/s/
[z]	/z, zz, cz, s, sp*, sth+, x/	*X*
[θ]	/th, tth/	/s*/
[ð]	/th, y/	*X*
[ʒ]	/g, j, s, t, z	*X*
[ʃ]	/sh, ss, t, c, ch, s, sc, chs, sch/	/sy/
[tʃ]	/c, cc, ch, t, tch, th, cz, tsch/	*X*
[ç]	*X*	/c/
[ðʒ]	/dg, g, d, j, gg, dj, t, ch^{+} /	*X*
[ɟ]	*X*	/j/
[l]	/l, ll, lh/	/l/
[j]	/y, u, eu, j, l*/	/y/
[m]	/m, mm, chm, gm, lm, mb, mn, tm, mh/	/m/
[n]	/n, nn, dn, mn, gn, pn, kn, nd, ng+, cn, nh, mp*, ln/	/n/
[ŋ]	/ng, n, nc, nd/	/ng/
[r]	/r, rr, rrh*, l*, rh, rg, wr/	/r/
[ɣ]	*X*	/r/*
[w]	/u, w, wh/	/w/
[ʍ]	/wh/	*X*
[h]	/h, wh, j, ch/	/h/
[ʔ]	/tt/	/{‘};k;x/

Table 17 elaborates the representation symbols applied in English and Acehnese consonant orthography successively. As used before, the plus superscript in English rows refers to the special representation operated in British orthography while the stars refers to the American ones. The Acehnese starred symbols refer to the dual-projection representee that is by distribution operated on the basis of the accent, not the word. In this condition, the /s/ will automatically be projected as [θ] in greater Aceh and as [s] in the other three accents. This also occurs for symbol /r/ into the Greater Aceh [ɣ]; the West coast [ʁ]; and the Pidie/Northern cities [r]. Thus, it is

not merely categorized as opaque symbols –that increase the reading number- since the projection was basically transparent. It is also crucial to be reminded the categorical features established is a pure condition of words that exclude the manipulative ornament of speaking like devoicing, free variation, tapping, and other conditional adopted words such as name, places, and scientific terms. In English, many of these conditions are orthographically follow the original words, as for most of scientific words from Greece or Latin like *phthisis* or c*hthonic* that possess [θ] in both /ptth/ and /chth/ as well as the many places with non-English earlier cultured as with the many towns of Michigan. However, some other of these words are built for only certain words, as with named *Tzar* or *Tsarina* that restrictedly possess [z] in /ts/ and /tz/ forms. Also, the /u/ is restrictedly pronounced as determining alternative into [f] in British *lieutenant*.

The Acehnese-English orthographic forms are specifically distinguished by the allowance number of represented symbols in representing a consonant. This mainly includes on the dual and triple symbols representation produced in English. In Acehnese, the dual symbols are only occurred in small quantities as for [ʃ] and [ŋ]while the triple model is not totally used. The Acehnese orthography is somehow highly phonetics in terms of quantity. The English also produced the dual sounds symbol, as with /x/ that represented the sequence [ks] or [gz]. This model is not normally used in Acehnese nor the symbols. The Acehnese Latin always adopts the symbols with single determined sounds. However, the /x/ sound is widely recognized as [ks] in receptive orthography, as with *Meuraxa* (/mɯraksa/) -a district in Banda Aceh- but somehow with a rather unclear regulation in writing.

The difference is also detected in the alternative representee used in English particularly for vocal symbol /u/ -as in *united*- along with /ew/, /ewe/, /ue/, /ueue/, and /ui which are occasionally recognized as [ju]. In fact, the symbols of /u/ is the only vocal consonant-sounded symbol officially established in English, as it is also widely taught and is evenly acquainted in introductory alphabets, although the matter of /ju/ itself -as we will see later- is very much liquid orthographically. In

Acehnese, the vocal alternative representee is not generally occurred nor the phonemes-sounded symbol does, instead, the consonant does be represented alternatively in unsymbolic manner due to the inter-vowels transformation, as in *kueh* (/kuweh/) that generates [w] or *meuriam* (/mɯrijam/) that generates [j]. In English, this form is also occurred such as in *Onion* (/ənjən/) that generates [j] or *Persuade* (/pərsweɪd/) that generates [w]. However, there are significant differences in the allowance generators, quality, and distribution that are established. First, the English are having more generators symbols compare to what it is used in Acehnese due to the opaque symbols, second, the English quality could be hardly different to the Acehnese due to the aspects of supra-segmental, and third, the English distribution is very much having decency than it is in Acehnese.

The primary application of unsymbolic manner is work upon vowels transformation particularly in the condition of [i]-into or [u]-into. These sounds are also what generally established in English and Acehnese, even though phonologically –as we will see- not the only possible glides produced features. The difference however, due to the disparities both languages produced in representing the generators. In Acehnese, [u] is represented as /u/ and [i] is only relates to /i/. In English, not all the representee are used for glides generators, but it still a huge quantity and somehow opaque, as those includes /u/, /o/, and /ou/-into for [u]; and /i/, /ea/, /e/, /ie/-into for [i]. Besides, it is also crucial to see another applied manner of unsymbolic glides over [ɛ] that sometimes used in Malay, as with *bea* (bɛja) or in name like *Dea* (dɛja), -beside -of course- the [u] -as in *uang* (uwaŋ)- and [i] -as in *dia* (dija)-. In this case, the [ɛ]-into condition is mainly concerned on the

influence of reading perception towards the possibility of split to the English forms, particularly in the condition of into-/a/, /au/, and /o/ where the diphthongs forms are (also) not occasionally recognized.

The inter-vowels transformations that produced glides are qualitatively formed and influenced by the intensity duration of each contributed variables known as the level of prominence -the similar criterion that also used in diphthong quality measurements. Here just that, the sight focus is very much into the consequences of crescendo quality towards the quality of inter-vowels transformation rather than the vowels themselves or the intensity volume of two sounds as in diphthong –where the transformation do not occurred-. In general diphthongs, the crescendo quality of Acehnese-English have been differently established on the treatment over the first variable of the components –see section 4.3.2 for this details. Unfortunately, this condition is what also independently applied in each language, consequently, if the English vowels was a glides generators -/i/ and /u/-, the transformation quality would be heard as total type of consonant as the first variable is released into elsewhere, as in *onion* (/ənjən/ that suprasegmentally read as /ən-jən/). In Acehnese, the transformed variables are extremely recognized, felt, and had equal intensity of each, as in *meuriam* (/mɯrijam/ that would simply read as /mɯ-ri-jam/), if it is argued to be segmentally partial -between [i] and [y]-, it is absolutely negative. This quality might somehow have potentiated more quality differences especially in the condition of open transformation as in *Europe* (/jʊrəp/) where the transformation is not actually occurred, or in direct-touched consonant as in *view* (/vjuː/) that is conditionally

established as a consonant cluster rather than a phoneme. This section might not categorically part of orthography at first glance, it is somehow important to non-native English to perception the orthographic vocal (symbols) transformation -that results in glides- in English is different to the languages in general, as it would also be effectively applied than to perception the symbol as a consonant due to its opaque form, as well as to copied the need of supra-segmental aspects of the language.

The decency of alternative representee is the overall quality of the virtue values over an orthographic feature in a language, measured -mainly- by its development volume and function. In English, the consonant alternative, -particularly in case of vocal representee for glides generator-, are generally having quite similar values of decency to the main consonant symbols includes at its independence and determination level. In English, such a composition (with certain determined components) is normally recognized as a consonant that also allows an independent distribution, include the non-incentive position such as initial in *Europe* (/jʊrəp/) or *Ouistiti* (/wistiːtiː/) where the categorical consonant can normally be applied. The determination of the many words in this composition is certainly non-bargainable since English is also orthographically a determining-developed language. In Acehnese, the alternative representee in unsymbolic manner is always in need for condition of incitement such as the over involution or the possibility of bias assumption. In Acehnese *meuriam* for example, the normative *meuriyam* might have pleonastically printed [i] and somehow leaves a rather opaque status on /y/ itself, although the print is also scientifically legal.

Meanwhile, the many reasons of the form existence relates to the Malay orthographic in which the Acehnese lied on, as well as the level of determination in the language -that we are about to see-. In general, the unsymbolic manner is not a normal desired condition the Acehnese was developed. This also made the manner very nondependent and having lower decency. The unsymbolic manner simply cannot be established by an initial. In receptive orthography, symbol /y/ always be the first choice of applied. In fact, the huge number of the unsymbolic manner applied in Acehnese have a very close articulation to Malay (where the model adopted), include in *meuriam* and *kueh* that is *meriam* and *kue* in Malay while the original words of Acehnese or those in which are not shared have quite a consistency to avoid such manner. This condition is also what generally realized by Acehnese in reading. Any Acehnese who came to *kueh* before they hear the name for instance (read as /kuh/: a village in southern Greater Aceh) must have read the name in the gate as /*kuweh*/ due to such perception in reading. This occurred because the Acehnese was developed with pronunciation based and arranged to minimize the opaque. In English, if a word is -mainly- adopted, the original forms -of the original language- will also influence its English representation. In Malay, the vowel transformation is also maximally used to minimize the [y] particularly in the middle and final part of word as in *biar* (/biyar/) or *bea* (/bɛya/). These words are natively identified over the diphthongs prioritization. Thus, if such combination did not possible to create a diphthong, then it must be a vowel transformation. In Malay, the distinguished form is also uniquely used to differentiate meaning in written *iya* and *ia* in which simply have a similar pronunciation (/ija/). *Ia* is another

form of *dia* and rarely used in colloquial conversation. Thus, the intended meaning of the words is only identified through its orthographic composition.

The further orthographic difference between Acehnese and English also occur in transparency and the mechanism of reading. The detail of transparency quality is displayed in table 14 below. English reading mechanism -on the other side- is sometimes very unique that our definition of transparency might not always be applied in. Thus, this notes would be critical before systematizing the transparency itself.

In general Latin orthography, reading begins with recognizing the individual sound symbols before be developed into a series combination of elements known as phoneme, language with this rules is also -one of those- include Acehnese. In English, this does not always happen. Instead, many of the structures rather need to be recognized entirely or as a group of words to determine the real sound, this -as we have seen earlier- is widely occurred in vocals. English is somehow a syntax-awareness language rather than a symbol one. In consonant, reading is sometimes required for initial selection over the consonant items before be individually recognized in sound, particularly in the case of multi-number forms which the consonant clusters not possible to occur e.g. /mn/, /tsw/, etc. Here, the transparency is not meant as a projection or an abstraction hide - as we learned-, it is more like a multi choice with an agent of carrier. This is interesting to see since many of contributor representatives are arranged with their own phonetics affiliation except -of course- on the non-alphabetic (e.g. [ʃ], etc.) or affricatives (e.g. [tʃ], etc.). [r], [n], [m], [l], [g], [d], [t], [b] of the 16 (alphabetic) features are always

developed with its phonetic contribution with the most used intruder of /h/, /g/, and /p/, /c/, /l/, /b/; /w/ and also /k/, /t/, /d/, /n/, /m/ respectively. It is also founded that some relation of feature representee are close to its phonetics counterpart relation, as with [s] to [z] or [u] to [w], the non-phonetics representee -on the other side- like /c/ for instance, shares a lot of significances particularly towards [k] and [s] that even work as the main representee. Thus, the transparency by projection is systematically only occurred within the non-alphabetic, affricatives, and the shared representee between the two to the phonetics ones or among the three. It is especially crucial to comprehend in simplifying the process of symbols recognition that it might abridge the process compared to view them as the opaque abstracted material.

The English orthography is contributed by around 97 representatives consist of 21 singular and 76 group of symbols (63 duals, 12 triples, and a four-component) to represent the 25 consonants. Although the number is almost four times of the represented, the English reading numbers are somehow very low that reduces the possibility of switching during the activity into only 26 features with most reading number of two. This occurs because many of the symbols are purposely developed, even features like [b] and [r] are having negative switching affiliation at all. However, the real consequence of the huge representee is still in writing itself where the dictation predictability is very much low. In Acehnese, the 26 consonant are having exactly 26 representee, one for each. Refraction is somehow occurred by distribution in /k/ towards the final used of glottal stop and the initial applied of [k].

Although, [k] itself is never finally produced nor does the glottal stop initially in Acehnese to cause any switching possibility.

The significant differences of awareness -as we discussed- towards the features perception has somehow benefits in easing the categorical acquisition of both in writing and reading to consider any value-added number. Another similar kind of refraction also occurs in the used of apostrophe for the inter-vowels representee of glottal stop over the punctuation mark. The apostrophe in Acehnese is substantially a matter of sound representing a glottal stop or a nasal quality (of a vowel) while it is a purely grammar related in English i.e., possessive, contractions and omissions; and lowercase pluralization.

The Acehnese typical representee is generally developed on the basis of its phonetics-alphabetic relation as also with most English -except for [j]-. In English however, it is also functioned as -what known as- the mother representee, the symbols that generally became the basis of any further development and variation of a feature. If we follow the selected mechanism in reading, then the transparency quality of all the sixteen English phonetics would be similar to Acehnese as quality of one (the standard required quality), especially for those with its phonetic composition that having negative switching -that reach around 58 symbols-. The non-alphabetic -on the other side- is not generally produced a mother representee, there is -indeed- a significant symbol that used as it is with a lack of function as a mother representee. This can simply be determined in the way a language forms an orthography of the outsider terms. The Arabic /inʃaʔ/ from (إنشاأالله) for instance is formed differently as *insya* in Acehnese and *insha* in English but similarly with the

Consonants in Orthographic-Phonemics Relation

No	Writing Number	Representee (Acehnese)	Displayed Features		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	Writing Numbers	Normative Numbers
		Symbols			Representee (English)																												
					gh	t	th	tt	d	c	cc	ch	g	gg	f	w	s	ss	sc	sch	sth	z	cz	y	j	l	mn	n	nd	wh		
1	1		p	p	V																										1	3
2	1		b	b																											0	3
3	1		t	t		V	V	V																							3	9
4	1		d	d					V																						1	5
5	1		k	k						V	V	V																			3	11
6	1		g	g	V								V	V																	3	3
7	1		f	f	V										V																2	5
8	1		X	v											V	V															2	5
9	1		s	s						V							V	V	V	V	V	V									7	11
10	1		X	z													V				V	V	V								4	6
11	1		s	θ			V																								1	2
12	1		X	ð			V																	V							2	2
13	1		X	ʒ		V							V				V					V			V						5	5
14	1		sy	ʃ		V				V		V					V	V	V	V											7	9
15	1		X	tʃ		V	V			V	V	V											V								6	8
16	1		X	ðʒ		V			V			V	V	V											V						6	8
17	1		l	l																						V					1	3
18	1		y	j																				V	V	V					3	3
19	1		m	m																							V				1	9
20	1		n	n																							V	V	V		3	12
21	1		ng	ŋ																								V	V		2	4
22	1		r	r																											0	6
23	1		w	w												V														V	2	2
24	1		h	h								V													V					V	3	4
25	1		'	ʔ				V																							1	1
	1	Reading Numbers			3	5	4	2	2	4	2	5	3	2	2	2	4	2	2	2	2	3	2	2	4	2	2	2	2	2		

Table 19. The Orthographic-Phonemic Relation of Consonant in English and Acehnese

Table 19 shows the related cooperation of the English and Acehnese consonant over the orthographic symbols unconditionally. The ‘V’ mark is understood as the connector relation between the representee (symbols) to the represented (feature). The table is rarely arranged in dual-directed faces due to the different symbols composition of the languages to cope with an elegant form. (to the right) The English representee towards the 25 consonant produced that might reach around 97 symbols with switching possibility up to 5 times in reading and 7 times in writing. The dominated numbers of multi-quality are led by dual opaque in 17 features, four-opaque in four symbols, tri-opaque in three symbols, and five-opaque in two symbols. The normative number refers to the total representee established in the feature since only the opaque is displayed in the table (26 symbols). The alleviating of this number over the writing number would result an actual single reading quality symbols of each feature, while the collective number of this is 71 (symbols). The normative number is also functioned as the English writing number in general that is mainly dominated by the dual representee, however, there are four features with more than nine representatives in the list. (to the down) the 18 Acehnese representee displayed vertically towards the intentioned feature in the right with relatively singular numbers of writings and readings. This table is specifically excluded from the dialectal variation -particularly in Greater Aceh- as well as the features of funny nasals.

the beginning of /s/. It is interesting that the correspondence non-alphabetic feature like [ʃ] is similarly perceived as a ‘species’ of [s] quality in both Acehnese and English. /sy/ and /sh/ itself is the only differences of mother representee –if to simplify it since /sh/ itself only produced for [ʃ]-. However, such a condition is not making possible to arrange any possible reading mechanism as above, particularly for the large amount of representee in English. This quality -then- would rather be pushed into the common definition matter of transparency.

The laminar quality of English in writing is consist of [p], (0,33); [b], (0,33); [t], (0,111); [d], (0,2); [k], (0,90); [g], (0,33); [f], (0,2); [v], (0,2); [s], (0,90); [z], (0,166); [θ], (0,5); [ð], (0,5); [ʒ], (0,2); [ʃ], (0,111); [tʃ], (0,125); [ðʒ], (0,125); [l], (0,33); [j], (0,33); [m], (0,1); [n], (0,083); [ŋ], (0,25); [r], (0,166); [w], (0,5); [h], (025) and [ʔ], (1). Acehnese orthography is having negative laminar quality by thoroughly valued as (1). Meanwhile, the English consonant quality is fractioned

from (0, 5) to (0, 2) different to Acehnese that negatively fractions their contributed symbols. However, the English fraction might not seems that scary since the majority of the symbols are non-fractioned (that is around 71 forms and variations). In fact, some of these features are even totally have a standard values of their reading number, as with [b], [r] and [ʔ].

4.3.8.1 Summary and Addition

In comparison, the differences of English and Acehnese orthography are generally occurred in a greater scales than any other phonological aspects. Although both languages applied roman symbols, the similarities is still sporadically found throughout the structures. Some patterns also show that the Acehnese and English share a significant application but later differently established its volume while the other is totally different as with the alternative representee.

The general manner of English individual physical composition is to allow more contributor and types of symbol formation to represent a phonological feature while it is conversely arranged in Acehnese. In a wider classification, the English is also produced more representee to represent a feature compare to the Acehnese that broadly produced single representee for each feature. The Acehnese is also generally having a better-organized concept of approach in both of its forms and representee. In vocal forms, for instance, there is a clear separation between vowel and diphthong in which is not happening in English. The English projection towards the alphabetic sounds is broadly similar to Acehnese in consonant but somehow hardly different in vocals. The English transparency is also very low that show an unbound system of the language orthography, particularly on vocal. Even though,

some English consonant do have a consistent share between themselves, for example the [ð] and [θ] for symbols /th/.

Another finding of the research is also related to the representing and non-representing material of sound throughout the system. The aspirated quality in English for instance, is not generally represented nor attended in the orthography, perhaps because most of the distribution is in aspirated units. In Acehnese, it is somehow very much distinguished and clearly represented through the orthographical forms.

The real consequences of orthographical quality are primarily related to the writing and reading mechanism. In such condition, the Acehnese possibility of potentials mistake is higher in reading instead of writing, although it is less than only ten percent. On the other hand, the English seems to have a greater potential in writing, although it is not a denial that the reading is also complicated.

At the end, I like to note that the orthography approach used in this research is working in solitude in solitude quality. The customary measurement for orthography (e.g. regularity, consistency, entropy) is not possible to do yet due to the amount number of word corpus required. However, the orthographic depth study conducted by Ziegler et.al (2010) on onset entropy of five different languages (Finnish, Hungarian, Dutch, Portuguese, French, and English) put English as the most inconsistent orthographic system, followed by French and Portuguese. The Finnish is somehow the most consistent of all. Of course, further study would require to see the condition of Acehnese entropy even though at a glance, the quality would very not possible to get ahead of the English.

4.3.9 Articulatory Settings

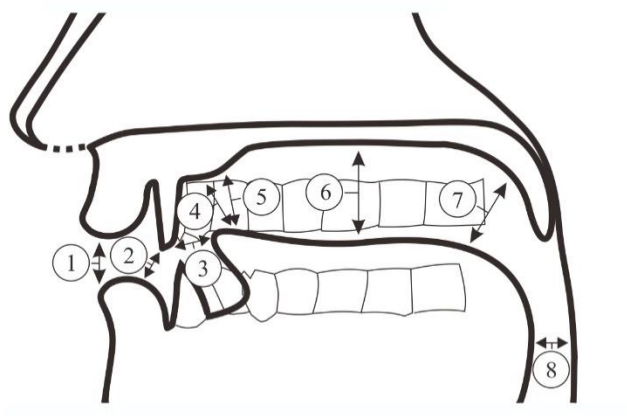
The articulatory system refers to a bunch of speech organs contributed at features production and its quality. The building of an articulatory system mainly consists of Manner, Place, and Energy of articulation. The Acehnese quality in general is produced in the similar English manners of stops, fricative, nasal, lateral, trill, and glides. Acehnese is only significantly distinguished to English in affricative, in which also become the main cause to a number of absence features in the transfer, and left the funny nasal into deceased.

Furthermore, the total quality is also significantly influenced by the actives place of articulation contributed to the production. The comparison Acehnese and English place of articulation is illustrated in figure 21 and 22 below show the significant differences of Acehnese-English actives speech organs are located at 1) label-2 labio-dental; 2) label-3 dental; 3) label-4 alveolar, and 4) label-5 palato-alveolar. Most of the differences –as the figure shown- are related to the shift quality since the terms used are the universal phonetic description and are not in particular, covering the exact place of articulation that often outwitted us from getting the real comprehension.

The Acehnese realization is generally different to the English quality at, First, the labio-dental form that is widely established in a more quality of bilabial instead of dentals. *more quality* is generally referred as the raising of a certain organs function in the production process. By this mean, it does not make the dental is then losing its function in total, it is just that somehow transferred to the lips. The

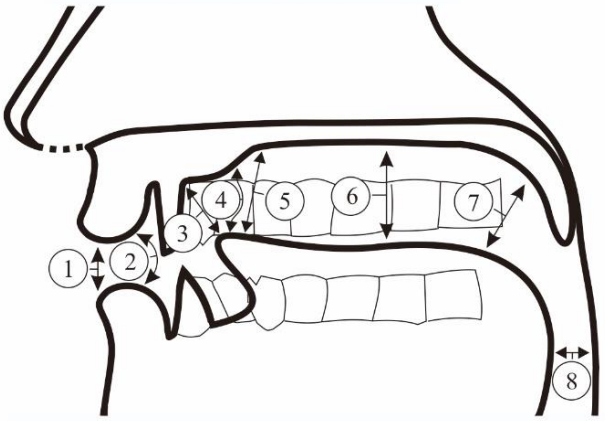
fricative manner in [f] for instance is contributed more by lips in air releasing than the upper tips. This has -of course- widely influence the features quality.

Figure 23. English Place of Articulation



1. Bilabial
2. Labio-Dental
3. Dental
4. Alveolar
5. Palato-alveolar
6. Palatal
7. Velar
8. Glottal

Figure 24. Acehnese Place of Articulation



1. Bilabial
2. Labio-dental
3. Dental
4. Alveolar (Retroflex)
5. Alveo-palatal
6. Palatal
7. Velar
8. Glottal

Figure 23 and 24 shows the comparison of English and Acehnese places of articulation from the view of the passive articulator. (right) the legend of the figures.

Second, dental, the dental features in Acehnese is generally established in the base point of upper teeth -sometimes also share to the alveolar ridge- than at the tip. This would also effect the quality particularly in fricatives where the air drove area is significantly determine the quality. In English, the tip is a normal form of a

dental touch even though some features also possible to be produced more extensive to the upper ends.

Third, the Acehnese alveolar is broadly produced in a deeper part of mouth than most languages do -but still categorized as alveolar- that results in a bit retroflex quality. The normal alveolar ridge is simply not an active area in Acehnese.

The palato-alveolar is the only area that terminologically distinguished the place articulation of Acehnese to English. Alveo-palatal (English) to Palato-Alveolar (Acehnese) is practically differentiated by the operated alveolar area. In Palato alveolar, the blockage tends to occur at the rear of the alveolar while the alveo-palatal is established frontier.

CHAPTER V

RESULTS

This chapter is the continuance of the contrastive analysis stages executed in the previous chapter. It consists of *prediction* part that contains some notion related to difficulties, variable of splits and errors that might be experienced by language learner during the process of transfer; and the *verification* part contains analysis participant testing results which will be taken to confirm the status of some predicted problematic and the non-exist features. In the end, the confirmed hierarchy of difficulty is established as the final notes on the transfer condition from Acehnese to English.

5.1 Prediction

The setting out of prediction is begins as the follow-up development of the expedience theoretical basis in existence. Its aim was -whether- to directly conclude the correlation between languages and the aspects; to explain the possible occurrence in the field, or even to give reason on the field cases. Prediction is a theoretical based-work follows the general assumption of accepted logic. It should not be treated as a claim since it is -more exact- basically established to warn the condition. The prediction process consists of the reasoning legalization of the certain condition consequences includes awareness: identified (correspondence feature condition) and unidentified (new feature condition); identical quality (similarities and differences); and sinny (motives and causalities, e.g. one thing that

cause other or that prohibit it). In the end, the results are to classify the transfer condition of the innate language to the target ones.

5.1.1 Generals

From the view of its condition, the English features over the innate language of Acehnese would be in the two main conditions. Firstly Aware, a condition where the difference of quality or existence of a feature is recognized by the Acehnese, and Secondly Unaware, it is where the difference of quality or existence of a feature is not being recognized by the Acehnese. Awareness is very much technical, learner's related and thus simply became the first significant condition that generally a prediction would be built on. In general, if a feature is unrecognized, it will be missed. The theorem is that if the receiver knows the truth, he/she will firstly follow it. It is normatively that the denial only occurred if the required manners are in the incapacitation. However, it should be noted that awareness is not giving a total clue on the decision of the problematic feature. It is practically rather qualify the passing quality and the cause of mistakes in the first place since not all the wrong adaptation in innate language is built on the basis of awareness, some of those are -in fact- mistakenly comprehend in the perception towards the features themselves in the first view. Thus, not just in prediction, awareness might also significant in the process of learning particularly on where certain problematic features should be fixed and developed first.

The main justified theoretical basis of the problematic features are predicted through the basis of the interlanguage similarities and differences. Here, the similarities are simply categorized as the passing aspect of a feature while the

differences are conversely realized as the non-passing one. The detail of similarities and differences are specifically elaborated in section of comparison as this section will only be focused on the criterion.

5.1.2 Compartmentation

The passing realization is being predicted into three classification as, **First**, the Aware Granted, a condition where the identified object of a feature is practically coped by the innate language, this condition is generally occurred where the right feature is perceived correctly and rightly coped whether by transferring the innate language feature or by creating a new one (however, since the correct perceived is only occur in correspondence feature, most of this occurrence is also only in correspondence ones). **Second**, the Aware Non-Granted, a condition of an identified object of a feature is technically incompetence to the innate language, this occurs where the feature is perceived correctly but wrongly coped in awareness, this is usually occurred due to the organal difficulties that prevent the process of production. In this condition, the organ would replace the meant feature with the closest one, (and this is -it- where most learners will define their condition as difficulties). And **third**, the Unaware Non-Granted, the condition of an unidentified object of a feature is mistakenly coped due to the wrong perception on it, this condition occurs where the feature is mistakenly perceived as another object that consequences at the reproduction of the feature. Here is where the difficulties condition is rather unclear to predict because the process of organal (whether imitating or transferring) does not occur. Thus, the problematic features are those features in which have failed in their production on whatever caused. The difficulty

is -on the other side- specifically relates to the issue of speech organs process. Another classification, the Unaware Granted –where the unrealized feature rightly developed- for instance, is also possible to define, although the occurrences might rarely happen in languages at most and rather to occur on transference than the developing feature. In general, the failure of recognition will also fail the process of transfer, except if the transferred feature itself is also similarly unrecognized and coincidentally succeed the transfer. In simply -and normally-, the unidentified condition means here is not merely at the target language, it is also at the innate language.

The classification of detail on the Acehnese-English transference condition predicted in the table below consist of all the technical aspects of the language. The non-technical aspects (phonology) is not included since the realization have already within its technical counterpart (e.g. phonetic constraints to consonant cluster, etc.)

Table 18. Predicted Condition of Acehnese to English Transfer

Language Components	**Awareness**	**Identicalness**	**Predicted Status**
Vowels			
[i]	YES	SIMILAR	GRANTED
[u]	YES	SIMILAR	GRANTED
[ɪ]	NO	DIFFERENT	IMPEDED
[ʊ]	NO	DIFFERENT	IMPEDED
[ə]	YES/NO	SIMILAR	IMPEDED
[ɛ]	YES	SIMILAR	GRANTED
[ɜ]	YES	DIFFERENT	GRANTED
[ʌ]	YES	SIMILAR	GRANTED
[ɔ]	YES	SIMILAR	GRANTED
[æ]	NO	DIFFERENT	IMPEDED
[ɑ]	NO	DIFFERENT	IMPEDED
[ɒ]	NO	DIFFERENT	IMPEDED
Diphthongs			
[eɪ]	NO	DIFFERENT	IMPEDED
[aɪ]	NO	DIFFERENT	IMPEDED
[ɔɪ]	NO	DIFFERENT	IMPEDED

Language Components	Awareness	Identicalness	Predicted Status
[ɪə]	NO	DIFFERENT	IMPEDED
[eə]	YES	DIFFERENT	GRANTED
[ʊə]	NO	DIFFERENT	IMPEDED
[əʊ]	NO	DIFFERENT	IMPEDED
[aʊ]	NO	DIFFERENT	IMPEDED
[oʊ]	NO	DIFFERENT	IMPEDED
Consonant			
[p]	YES	SIMILAR	GRANTED
[b]	YES	SIMILAR	GRANTED
[t]	YES	SIMILAR	GRANTED
[d]	YES	SIMILAR	GRANTED
[k]	YES	SIMILAR	GRANTED
[g]	YES	SIMILAR	GRANTED
[f]	YES	DIFFERENT	GRANTED
[v]	NO	DIFFERENT	GRANTED
[θ]	NO	DIFFERENT	GRANTED
[ð]	NO	DIFFERENT	GRANTED
[s]	YES	DIFFERENT	GRANTED
[z]	YES	DIFFERENT	GRANTED
[ʃ]	YES	SIMILAR	GRANTED
[ʒ]	NO	DIFFERENT	IMPEDED
[h]	YES	SIMILAR	GRANTED
[tʃ]	NO	DIFFERENT	IMPEDED
[ðʒ]	NO	DIFFERENT	IMPEDED
[m]	YES	SIMILAR	GRANTED
[n]	YES	SIMILAR	GRANTED
[ŋ]	YES	SIMILAR	GRANTED
[r]	YES	DIFFERENT	IMPEDED
[l]	YES	SIMILAR	GRANTED
[w]	YES	SIMILAR	GRANTED
[j]	YES	SIMILAR	GRANTED
[ʍ]	NO	DIFFERENT	IMPEDED
[ʔ]	NO	SIMILAR	GRANTED
Consonant Cluster			
Two Cluster			
Pre initial			
[sp]	YES	DIFFERENT	IMPEDED
[sn]	YES	DIFFERENT	IMPEDED
[sf]	YES	DIFFERENT	IMPEDED
[st]	YES	DIFFERENT	IMPEDED
[sj]	YES	DIFFERENT	IMPEDED
[sm]	YES	DIFFERENT	IMPEDED
[sk]	YES	DIFFERENT	IMPEDED

Language Components	Awareness	Identicalness	Predicted Status
[sv]	YES	DIFFERENT	IMPEDED
[pl]	YES	SIMILAR	GRANTED
[bl]	YES	SIMILAR	GRANTED
[gl]	YES	SIMILAR	GRANTED
[sl]	YES	DIFFERENT	GRANTED
[kl]	YES	SIMILAR	GRANTED
[fl]	YES	DIFFERENT	GRANTED
[pr]	YES	SIMILAR	GRANTED
[θr]	NO	DIFFERENT	GRANTED
[gr]	YES	SIMILAR	GRANTED
[br]	YES	SIMILAR	GRANTED
[tr]	YES	SIMILAR	GRANTED
[dr]	YES	SIMILAR	GRANTED
[fr]	YES	DIFFERENT	GRANTED
[kr]	YES	SIMILAR	GRANTED
[tw]	YES	DIFFERENT	IMPEDED
[sw]	YES	DIFFERENT	IMPEDED
[θw]	NO	DIFFERENT	IMPEDED
[dw]	YES	DIFFERENT	IMPEDED
[kw]	YES	DIFFERENT	IMPEDED
[ʃw]	YES	DIFFERENT	IMPEDED
[pj]	YES	DIFFERENT	IMPEDED
[vj]	NO	DIFFERENT	IMPEDED
[fj]	YES	DIFFERENT	IMPEDED
[sj]	YES	DIFFERENT	IMPEDED
[bj]	YES	DIFFERENT	IMPEDED
[lj]	YES	DIFFERENT	IMPEDED
[tj]	YES	DIFFERENT	IMPEDED
[mj]	YES	DIFFERENT	IMPEDED
[θj]	NO	DIFFERENT	IMPEDED
[hj]	YES	DIFFERENT	IMPEDED
[dj]	YES	DIFFERENT	IMPEDED
[kj]	YES	DIFFERENT	IMPEDED
[nj]	YES	DIFFERENT	IMPEDED
Final Cluster			
[nd]	NO	DIFFERENT	IMPEDED
[mp]	NO	DIFFERENT	IMPEDED
[lp]	YES	DIFFERENT	IMPEDED
[lb]	YES	DIFFERENT	IMPEDED
[lf]	YES	DIFFERENT	IMPEDED
[rp]	YES	DIFFERENT	IMPEDED
[rb]	YES	DIFFERENT	IMPEDED
[rtʃ]	NO	DIFFERENT	IMPEDED

Language Components	Awareness	Identicalness	Predicted Status
[lm]	YES	DIFFERENT	IMPEDED
[rm]	YES	DIFFERENT	IMPEDED
[rl]	YES	DIFFERENT	IMPEDED
[nt]	NO	DIFFERENT	IMPEDED
[sp]	NO	DIFFERENT	IMPEDED
[st]	NO	DIFFERENT	IMPEDED
[sk]	NO	DIFFERENT	IMPEDED
[pt]	NO	DIFFERENT	IMPEDED
[kt]	NO	DIFFERENT	IMPEDED
[mpt]	NO	DIFFERENT	IMPEDED
[nst]	NO	DIFFERENT	IMPEDED
[kst]	NO	DIFFERENT	IMPEDED
Plurality [s]	YES	DIFFERENT	GRANTED
Regular verbs [ed]	NO	DIFFERENT	IMPEDED
Serial [th]	NO	DIFFERENT	IMPEDED
Three Clustered			
[spl]	YES	DIFFERENT	IMPEDED
[str]	YES	DIFFERENT	IMPEDED
[spr]	YES	DIFFERENT	IMPEDED
[skr]	YES	DIFFERENT	IMPEDED
[skl]	YES	DIFFERENT	IMPEDED
[spj]	YES	DIFFERENT	IMPEDED
[stj]	YES	DIFFERENT	IMPEDED
[skj]	YES	DIFFERENT	IMPEDED
[skw]	YES	DIFFERENT	IMPEDED
Supra-segmental Aspects			
Isochrony	NO	DIFFERENT	IMPEDED
Connected Speech			
Elision	NO	DIFFERENT	IMPEDED
Linking	NO	DIFFERENT	IMPEDED
Assimilation			
[t] to [p]	NO	DIFFERENT	IMPEDED
[d] to [b]	NO	DIFFERENT	IMPEDED
[n] to [m]	NO	DIFFERENT	IMPEDED
[t] to [k]	NO	DIFFERENT	IMPEDED
[d] to [g]	NO	DIFFERENT	IMPEDED
[n] to [ŋ]	NO	SIMILAR	IMPEDED
[s] to [ʃ]	NO	DIFFERENT	IMPEDED
[z] to [ʒ]	NO	DIFFERENT	IMPEDED
Devoiced			
[b]	NO	SIMILAR	GRANTED
[d]	NO	SIMILAR	GRANTED

Language Components	Awareness	Identicalness	Predicted Status
[v]	NO	DIFFERENT	GRANTED
[g]	NO	DIFFERENT	IMPEDED
[ð]	NO	DIFFERENT	IMPEDED
Orthography			
Reading Mechanism	NO	DIFFERENT	IMPEDED
Alternative Representee	NO	SIMILAR	IMPEDED
Transparency	YES	DIFFERENT	IMPEDED
Forms	NO	DIFFERENT	IMPEDED

Table 18 shows the predicted condition of Acehnese (innate) to English (target) transfers. It consists of the usual language practical aspects of segmental (vowel, diphthongs, consonant, consonant clusters), supra-segmental (isochrony and connected speech aspects), and orthography. The table is segmentally arranged over its legalization reasoning. To conclude the passing realization criterion, the data in column two is needed to be combined with the four. The condition of production is printed in column four.

5.1.3 Some Notion on Problematic Features

The raising problem during the process of language acquisition is generally related to many important aspects and influences, from the background of language to the aspects of learning process. However, the raising difficulties are generally caused due to the uncomfortably and unfamiliarity of a certain feature (of the required moves and forms) the organs speech used to produce. Hence, the purpose of learning was also to reverse such condition. This section contains some notion on how such features in English would bring difficulties on Acehnese to pronounce. These notes are also worthwhile to understand the legal reasoning and justification view on the table of prediction that previously elaborated. At its eventual, I would like to also specifically give notion on what was meant as difficulty in relation to the process of acquisition in this research, difficulty does not mean the feature

would never be developed, it is just meant to -sometimes- takes time to master. The notions are elaborated as below:

1. English of [ɪ] and [ʊ] are broadly recognized by the Acehnese in split mode as vowel [i] and [u]. Both the shape of lips and position of tongue in [ɪ] and [ʊ] are definitely produced by the Acehnese since the required organs placement are not conduced in an overly expressive face as in [i] -or in case of [ʊ], as in [u]-. The first problem with the vowels are due to the excessive difficulty to qualitatively be recognized, particularly since it is not orthographically represented; and to be distinguished especially from its own counterpart [i] and [u]. Second, the quality arranger of both are also very much depend on the frequencies adjustment instead of the common tools a vowel does (with lips shape and tongue positions). Practically, frequencies would take time and drills to be produced in a precise quality and would bring difficulty on how it would be learned and began. Although the Acehnese non-face impression inclination would be beneficial to the construction process.

2. English of [æ] is broadly considered by Acehnese in split condition as vowel [ɛ] in General American or as [a] in British English, the vowels that also exist in Acehnese itself. Although each English has its own quality, the American and British quality share a similar form that rare to occur in Acehnese. If we look back at the Acehnese vowel chart, it is found that the normal switching lips shapes are only occurred in more backward areas, Acehnese do not have variation a lot in the front, particularly in the area of open. Orthographic representation and the awareness are only the initial problems. Furthermore, the technical problem with

English [æ] to Acehnese is due to the abnormal forms and variation required to the Acehnese manner in condition of smile lips shape at the flat tongue position. The lips shapes and tongue positions established in the first language are mostly as one package product. When it will be produced crossways or against the common, the difficulties would be then experienced.

3. English of [ɑ] is commonly considered into split condition by Acehnese as [a], although the quality differences between both are quite a distinct to be recognized. In particular, the lips shape and tongue position are indeed different from the Acehnese phonological culture organs of speech development as well as the facial impression contribution. However, the introductory of the vowel would be easier since the sounds characteristic are very much strong to be distinguished, even from [a] itself. The learning process is also able having a clear guidance due to the specific articulator placement. The problem with [ɑ] is generally related to the technical and its maintenance period. The difficulty will be felt as the tongue reversing movement -to the velum- are highly feel uncomfortable to the Acehnese learners. This also caused the shortening maintenance period in learners beside the primal instinct that always drives into the common quality produced. In Pidie however, the [a] quality is somehow produced in wider mouth shapes that cause more resonance to the air, particularly in open syllables e.g. *raya*. This quality is not in particular similar to the English due to the lesser velum effects, it is however, could be the approach into the real required quality in the target language.

4. English of [ɒ] is in split condition understood by Acehnese as vowel [ɔ]. In similar, the general problems and difficulties caused by [ɒ] are also related to the

velar accommodation as with its counterpart [ɑ]. However, English [ɒ] would also difficult to be introduced as an individual feature, particularly after learners had introduced to [ɑ] and became even more difficult to distinguish between the two. By the time goes, the ineptitude would result in the changing over between the two more frequently. Of course, it is also a choice to suppress the used of [ɒ] to simplify the learning, particularly since it is not basically required inter-accent.

5. English Diphthongs. The realization of English diphthongs is broadly recognized by Acehnese in split condition –especially at the absence element- from the real feature to the existing one in Acehnese. The main split particularly occurred in [ɪ] to [i] and [ʊ] to [u], as considered in diphthong [eɪ], [aɪ], [ɔɪ], [ɪə] into [ei], [ai], [ɔi], [iə]; and [ʊə], [əʊ], [aʊ], [oʊ] into [uə], [əu], [au], [ou]. The problem with these features include in the development of the element itself -as it is also problematic and difficult- and the adjustment into the quality of diminuendo glides. The source of the difficulties is especially related to the general prominence applied in Acehnese. Other than it is not to normally occurred, the Acehnese is also not giving too many prominences at the level of segmental during their utterance production that it does not influence their segmental quality a lot in general.

6. English of [r] is generally recognized by Acehnese as the actual retroflex quality rhotic differentiated to its counterpart rhotic in Acehnese. English [r] is also the only non-exist feature that highly well-recognized by the Acehnese throughout the transferred features. Rationally, the original Acehnese did indeed not possess any retroflex feature in total quality, -included the [t] and [d] that are in minor weight and also basically cannot be a pair of scales to the approximant features since it has

quite a significant differences of tongue form in the production process-. Thus, such a hanger and upright forms of the tongue could not found in any Acehnese feature to have this compared -even- beyond the rhotic. The problem with English rhotic is generally due to the higher setting of tongue placement. It would also become even harder to be set preceding a vowel, particularly those with closer quality. Although the awareness could be a worth taking to begin the development.

7. English of [ʒ] is generally identified by Acehnese into the coalescence form of [z] or aspirated [z]. This consonant is also frequently missed due to the opaque orthographic form. The construction of English [ʒ] is indeed quite different to the articulator development established in Acehnese, particularly on the outside area of protrude lips. The problem with [ʒ] to Acehnese is especially related to the dual activated speech organs that combine to produce *those* certain characteristics: first, the protruding lips to produce the fizzy quality and second, the tongue that maintains -not produce- the quality of voiced fricatives at the same time. This operating model (dual) is not only abnormally occurred in Acehnese but it is also against the settled articulators condition. In short, there is simply no sound produced in such way in Acehnese as the anvil, include in consonant like [ʃ] that is produced through the maximization of one organ. Of course, it would take great modification of manner and placement dealing with the difficulties that caused by such default situation.

8. English of [tʃ] is generally considered by Acehnese as consonant of [tç] -if it is medially and finally distributed- or as [ç] -if it is in initial-. The beginning attention of English [tʃ] is primarily related to the affricative manner in the production that

mainly problematic both to develop the awareness and the technical development. Acehnese seems to interpret the affricative quality of features -that is manifested as the alveo-palatal blockage- as the total palatal that then realized as a pure [ç] or aspirated [ç] -the consonant of Acehnese in existence- instead of [ʃ] that is considered too loose. Furthermore, the problem with the technical development is primarily related to the affricative manner since it -as with [ʒ] forms- is not operationally developed in the origin of the Acehnese manner of articulation. Besides, affricative is quite complicated to produce particularly those who not accustomed to be since it is required for two actions in sequence. The setting out of affricative would be difficult mainly because the stop manner is not always consciously develop by speakers in general. The learning of [b] or [t] for instance, is very much focused on its plosive quality instead. Then, when we are trying to modify the release stop -into fricative in this cases-, it is getting trouble that they get into plosive instead -as in the case with [ç]-. Besides, the general stop quality is also basically quite a soft product to differ whether it has correctly produced or not. However, this is also how this notion would also predict an easier accommodation of [tʃ] in middle distribution where the stop manner would be easier to be executed.

9. English of [dʒ] is broadly recognized by the Acehnese as the existed palatal [ɟ] in the language. Unfortunately, such a conception is also applied in other language program that possess the similar feature, included the Arabic -in which Acehnese commonly pay detail attention to- that was also mistakenly perceived, even the many teachers also not aware that the Arabic /ج/ is basically not a [ɟ] as in Acehnese. The awareness existence of [dʒ] is indeed the poorest rated among all the English

phonemics. Consequently, Acehnese is not having any related experience at all to the features to be benefitted both in awareness nor practice. Speaking of difficulties besides related to the manner -as also similar to [tʃ]-, [dʒ] is getting more difficult particularly due to the absence of required component in the source language developing the target feature. However, it is debatable on whether [ɟ] itself could be a constant and accepted supplementary material or not to an intelligible English; or simply only as a starting point of learning. For sure, [ɟ] in Acehnese is having rather flat lips compare to the English [dʒ] that required for protrusions in which significantly contribute to the fricative quality. The problem is that such a trumpet shape lips would not also theoretically in comfortable to continuously be adopted without facing any difficulties.

By the end of these sections (vowel, diphthongs, and consonant), it is crucial to also remember the other aspects surrounded that would also significantly contributed to the condition of adjustment and formation, particularly on the distributional quality and phonotactical aspects of words, -in which it is not entirely counted-. At the end, the prediction of features as a segmented object is basically only as the assumed condition. This is important to remember so that teachers do not develop the capability without entering to the contextual needs.

10. Consonant Clusters of English are identified well by the Acehnese, this includes the two-types and the three. However, some unrealized quality –mostly turn into coalesced- might be experienced due to the unidentified feature in the first place. It is also where the difficulty likely to occur, particularly those with fricative [θ] as in initial [θr], [θj] and [θw]. Furthermore, the quality of initial element [s]

cluster would also -at certain level- possibly realized with additional vowel [ə] before reaching the second consonant. Thus, /səkaɪ/ might realize instead of /skaɪ/ as well in [sp], [skr] and seems to occur at all the initial [s] cluster. It is a consequence of less-hissing quality the Acehnese own. To no outdistancing the verification, it oftentimes happens at the very beginning of acquisition that sometimes becoming a mock among learners themselves. The even greater possible problem however, lies at the final distributed clusters both the two and the three types. A complex coda is generally avoided in Acehnese that it is mostly limited into single consonant. The possible problems are mainly located in approximant and lateral combination as for [rb], [rm] and etc., [lf], [lp] and so on, and ultimately at the combination of the two features in *girl* cluster [rl]. The general occurrence of error is included the loss of one of the element. It is often heard *curl* is pronounced without lateral ended or *arm* without a clear [m]. Clusters such as [nd], [mpt] and [mp] are also often degraded into only its earliest consonant contributor. Another difficulty might show in the longer juncture created between cluster elements than in a normal consonant cluster. *Arm* for instance, might be produced as /ɑrʼm/. Juncture is the timing process in confirming the articulator position and movement. Then, the additional composition might also be automatically created in coping with the difficulty, and again with vowel [ə]. These would in particular, occurred to the plosive comprised cluster such [lp] in *pulp* and so. The further difficulty are also predicted to occur at the three-type model [kst] where more adjustment is required.

5.1.4 Some Notions on Valuable Features

Valuable features on prediction are especially related to the features that allow for direct transfer or those with highly capable to easily be acquired. These notions are carefully developed with various language aspects between the innate language to the target to consider, whether for the technical aspects of compared language or the other lingual proficiency that would influence the transference quality significantly. Afterwards, it is aimed to find out the concentrate relation between the existence (whether place, manner, or etc.) to the aimed result (target quality) by measuring the distance of possibility between the two. Some notions on this features are elaborated below:

1. English of [i], [u], [ɛ], [ʌ], [eə] and [ɔ] are entirely well recognized by the Acehnese since all the vowels are also produced the language. Furthermore, the identical quality of the language is also sufficient enough to allow the direct transference, although the Acehnese must carefully pay attention to the additional quality that distinguished between the two, particularly on the English glides and length.

2. English of [ɜ] is generally able to be correctly recognized by the Acehnese despite of the absence status within the Acehnese sounds list -and is the only one-. Acehnese especially gets the notion benefitted from the Malay phonological structure that produce so -the language that is broadly used in formal frame of the society-. The capability of this features is also very high and spread evenly in -particularly- both listening and speaking since the Malay is actively used by Acehnese. However, its entire quality to the English is not utterly coped in term of

length, since the Malay [ɜ] is normally produced in short as most Acehnese vowels. It is lamentable that the further comparison of the formant quality is not executed in this research that also detains the prediction even deeper.

3. English and Acehnese similar existence. The origins of the valuable features of Acehnese consist of all the features with similar existence to the English. These consonants are included as [p], [b], [k], [g], [ʃ], [h], [m], [ŋ], [w], [j], and [ʔ]. The basis condition of these features are somehow intelligible to the general English even though there are qualities that differentiate between the languages and might require for a little modification, particularly with [ʃ] and [ʔ].

4. English of [t], [d], [l], and [n] are roughly categorized as the corresponded features to its Acehnese counterparts -of the similar consonant- innate sounds. However, there are differences in the blockage that then results a small disparity qualitatively. The Acehnese is somehow missed to recognized such quality that then it is overgeneralized to be produced as in their innate quality. Note that, this quality is somehow acceptable to the intelligible English, just, it might sound a little bit dialectal in some way but still generally valuable towards the transfer. However, the modifiability of these consonants are also highly possible to the Acehnese for some reasons: First, the influence of Malay and Arabic quality –that are very much similar to the English- and Second, the light technical production of modifying both due to the shorten range between the innate to the target area or due to valuable forms of tongue in reaching such area of alveolar.

5. English of [f], [s], and [z] are included as the well-recognized features to the Acehnese knowledge although the features are not obviously produced in Acehnese

or having a relevance quality. In particular, the valuable condition of the features is taken through the Malay and Arabic, particularly on [f] and [z]. The Acehnese experiences towards the production of both features are beyond out of doubt. Yet, even the [s] quality in Acehnese is also experiencing the changing of quality into the hissing in massive proportion of the younger generation. Of course, this made the condition of transference even more valuable to the English.

6. English of [v] is generally considered the Acehnese as the coalescence form of [f], particularly since such way it is being orthographically represented in Malay -in which one of the most familiar writing forms to Acehnese-. [v] is clearly not produced in Acehnese nor is it benefitted from another language awareness. However, there is a number of conditions that would consider [v] to be easily formed than to fail in practice -or course, this only occurs after the awakening condition-. The conditions are included the technical production that is shared to the [f] in which could be the good anvil of spur to the real production of [v]. [v] and [f] is counterparts that generally distinguished by voicing quality. Other difference of both is related to the air circulation towards the blockage (fricative) of lips that as the [f] maintain the lips close to the teeth, [v] is having released in total after the similar model fricative blockage. Furthermore, there is howsoever no other adjustment that is especially needed to cope with the English quality that might require for another form of modification. This made [f] and [v] somehow cannot be compared to other counterpart features such [s] and [z] or [ʃ] and [ʒ] where the related manner and place of articulation are not utterly allowing to be taken the benefit from.

7. English of [ð] are generally recognized by the Acehnese as the coalescence forms of [d] or aspirated [d]. In general, the Acehnese awareness over [ð] in English is rated poorly compare to it is in the Arabic -which also possesses the similar consonant-. In common cases anyhow, the capability of recognition by ear towards a certain phonological quality is not really raising in significant since the Acehnese usually only learn to read. However, some cases show an even weird condition where [ð] is only not able to be recognized in the context of English, even when the person has such awareness in another language. This has habitually occurred in a massive number of students with the Arabic-English learning that I consider it as a phenomenon. It seems that learners tend to awake or possess their awareness (of a feature) only in the language it was constructed, to consider a certain feature to a certain language and to strongly relates a feature at a certain language. In the case of Acehnese, learners also tend to lean their awareness capability on the orthographical forms which simply would bring such damage to their English capability. However, the awakening of the feature would be easier due to the established background of knowledge and the trained technical implementation. In Arabic program –where it is mostly taught at kids-, [ð] is absorbing enough attention during the learning to correctly be produced. Thus, [ð] ought to easily be developed by the Acehnese due to this mature experience. At any rate, the dental features in English -as shown in the comparison of articulation places- are also having only less than a millimeter difference to the Acehnese quality in general. Besides, the fricative manner is also quite familiar to the Acehnese to produce.

8. English of [θ] awareness to the Acehnese is generally related to the orthographical representation of the feature in words, usually as aspirated [t] or [d]. The orthographical form of /th/ -that is used for both [ð] and [θ] representation- is simply clue-less outside its phonetic forms to the many learners. This note also concludes the additional information on how [ð] and [θ] used to alternate between each other to be orthographically interpreted by Acehnese. Other than that, the condition of [θ] is very much similar to [ð] both in its awareness or the realization in Arabic that is taken the benefit for. Thus, it is definitely in reason to consider such quality as valuable to the English transfer

5.2 Verification

The technical aspects of the upper table information are confirmed to conclude the real condition transfers of Acehnese to English. Verification simply relates to the ensuring acts of the normative-theoretical world towards the subject of doer in attesting and substantiating the condition. Verification is -in restricts- mainly lied at the life subjects of language with all the living contributed aspects outside the nature of an ideal theoretical language that -even- include the established contradicted-manner of another language. This made verification became slightly unbound over the previous contrastive analysis stages that can just freely give any surprising results. Unlike prediction, verification then should not be treated as the basis of information since it is basically rather an exercise to any Acehnese's English learners.

5.2.1 Contributed Features

The features to be verified are:

Table 19. Contributed Verification Features

Significantly Different in Quality					
[f]	[s]	[r]	[t]	[d]	
Absence Features In Acehnese					
[v]	[θ]	[ð]	[ʒ]	[ʧ]	[ðʒ]
[z]	[ɪ]	[ʊ]	[ɑ]	[ɒ]	[ɜː]
[æ]	[eɪ]	[aɪ]	[ɔɪ]	[ɪə]	[eə]
[ʊə]	[əʊ]	[aʊ]	[oʊ]		

5.2.2 Justification Review

The taken features are reasoned for:

1. Significantly different in quality of:

[f] : having more bilabial quality instead of Labiodental

[s] : less of hissing quality

[r] : established as trill feature

[d] and [t] : having more retroflex quality

2. Absence Features: The features that literally is not produced in innate language (Acehnese)

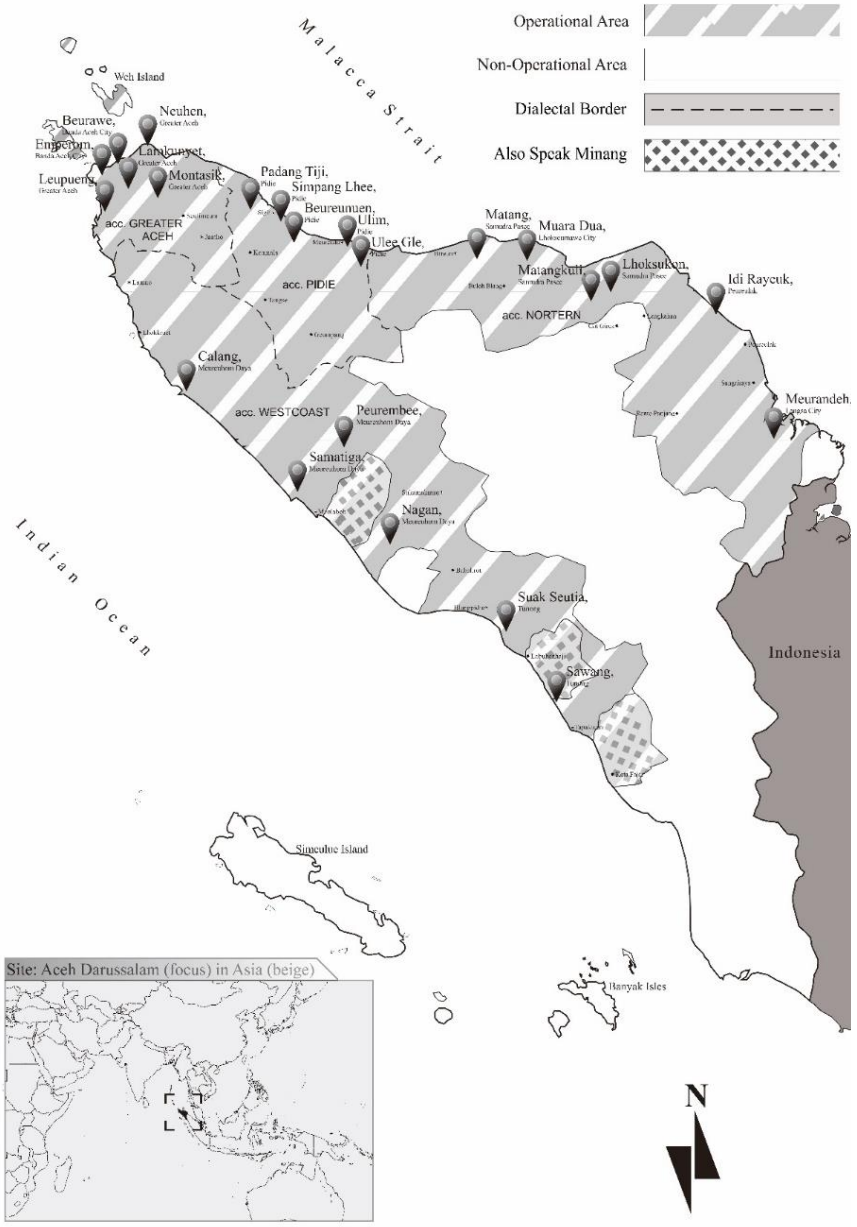
5.2.3 Analysis of Participant Test

The participant test firmly follows a bunch of action as first, to recognize and second to imitate the tested material. The participant is in special required condition as native of Acehnese and currently learn to study English (the detail of requirement is mentioned in chapter three, section 3.1 Participant).

The test of participant is to find out the three main condition of organ speech production: simply, troubled, and difficult, all of this categorization is only felt in critical sense of touch and movement of tongue, lips, jaws, etc. The participant was told and managed clearly in how to do categorization and firmly assed their speech organs condition and feelings since they the only one who made the decision. Meanwhile, the *simply* manner is marked by the fluency of reproduction and

easiness as the production of the innate language features (Acehnese), the *troubled* is refer to the succeeded process of production or transfer with an effort to consciously produced (to reach certain place or to replace the certain areas) and to avoid the failure (to commit and to touch the certain areas that generate the issues), and the *difficult* is refer to an extremely hard struggle in the process of production that mostly fall of the succeed (result to failure).

Figure 25. Participant Origin and Accent Distribution



In order to meet the accent variation of the anticipated particular condition that distinguished one to another, the gathered participants were also managed to fulfill all the required accents representing the wider quality of their society. On the greater Aceh, Pidie, the West coast, and the Northern Cities show in map figure on the actual seat of the participant acquisition of Acehnese and the practice. This map is adopted from the language spread map published by the language bureau in Banda Aceh (research on 2006). This record also reiterated regarding the devoid treatment of specialty towards the accentual features due to the irrelevantly comparable to the required English, this includes at all the features referred to, as well as at the greater Aceh [θ]. (see section 4.3.3.21 Acehnese Accent on Consonant Distribution for this comparison)

The analysis of participant test is elaborated in the section below:

5.2.3.1 Vowel

The verification of vowel is contributed by five features of [ɪ], [ʊ], [ɑ], [ɒ], [ɜ:], and [æ]. The early condition of all the vowels are similarly unidentified by the learners that the difficulty might not initially be acquainted, except for the [ɜ]. Thus, the test began with the recognition of the tested object. However, it is first found that identification and realization were somehow tactically difficult to explain particularly since some vowels are very much sensitive toward the change. Here, after the participants identify the sound, they get confused on where to begin as with [ɪ] and [ʊ]. It is also found that some characters of the vowels were not unrecognized, it -in fact- rather be walked through the attention as with the deep-back sound character of [ɑ] and [ɒ]. Acehnese in general, consider this deep

character as a pleonastic sound made by the English Native that they prevent to do so. This is usually realized after the description of sounds characteristic and -mainly- after the Englishes pronunciation of the Malay/Native sentences.

The other main troubles detected during the test are those, first, learners tend to pay less attention to their muscles both on the power to be produced and the arrangement of the controllers (the speech organs that play a significant role in the process of production). In vowel, the shape of the mouth and the placement of tongue height are mostly in alternating condition, particularly between [ɑ] and [ɒ] that having similar tongue placement but differently possess its mouth shapes. [æ] is also troubled -mainly- due to the unusual condition between the controllers. It is also observed that the length and glides are easy to explain but also rather easier to walk through the attention during the production.

Figure 26. Vowel Verification Result

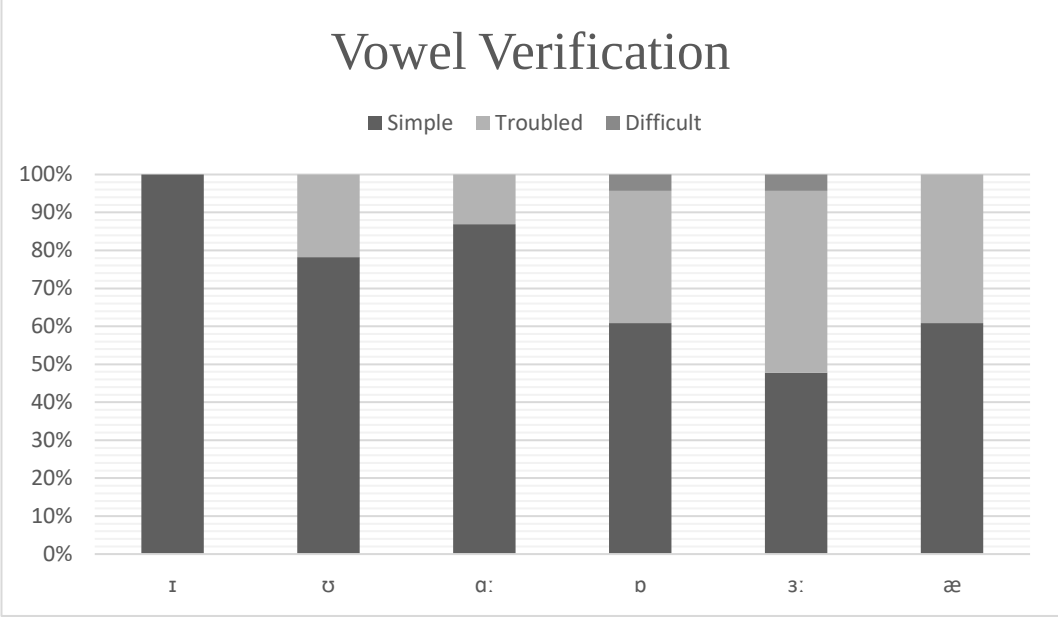


Figure 26 shows the result of verified vowel [ɪ], [ʊ], [ɑ], [ɒ], [ɜː], and [æ]. The [ɪ] is reaching the highest simple numbers among all the tested features follows by [ɑ], [ʊ], [ɒ], [æ] and [ɜ], the last three of these features are also having the highest troubled categorized while only [ɜ] and [ɒ] are categorized in difficult condition.

The features with the most usual difficult categorization [ɒ] are reasoned to the face impression aspects that as the feature produced with less open mouth, the quality will decrease significantly. Besides, the certain back area of the mouth required is normally inactivated in Acehnese. The sense of uncomfortable was very much felt during the organal pursuits. Meanwhile, [ɜ] was surprisingly difficult since it was conversely predicted. The 'earth' and 'hurt' were two of the feature generator in the test, the length and glides were quite a difficult to produce -in term of how exactly it should be produced and how to explain them-. There is somehow no significant measurement on these qualities since both are very much a feeling-relied component -that usually is produced in automatics after a couple of time using the language-.

However, it is crucial to understand that as if the glides intended to produce, the length would also automatically follows, but not vice versa. For many learners, the pure length quality seems quite an ambiquous to produce and to understand as well, particularly in term of what point or quality to exactly is wanted to reach or the certain beat quantification. For Acehnese, length without glides simply sounds musical, and musical is not a talk. Meanwhile, glides are somehow easier to be introduced and identified due to the increasing of piercing quality, and also to normatively produce -although some might left in doubt towards the frequencies-. I personally like to see them (particularly glides) as in the final Arabic form of 'in' as in '*mustaqim*' or '*sijjin*', this notion become significant especially since the Arabic gives mark on this quality -to distinguish from others- at the orthographical representation. Also, this clarification conclude still, a condition that become

problematic due to the earlier knowledge of the sound that learner -then- relies on it in complete. For sure, similarities are sometimes lasted in good but also sometimes it hurts instead.

The vowel [ɪ] that easily be realized as the decreased quality of [i] was also very much transparent to most of the participant. It is actually quite weird that it was well-produced but not contextually well-recognized. Half of the participant -at least- consider English /is/ was constructed with [i] instead of [ɪ]. Seem like it would require more textual knowledge on applied [ɪ] vocabularies to have a better distribution for an Acehnese. This condition is also occurred to [ʊ] with some exception, in particular to the American [ʊ] that is considered to possess an autonomous characteristic apart from [u] than it is in British is produced as a concise [u]. Consequently, it is also more recallable and distributionally distinguishable. Acehnese are broadly in doubtful value towards length in vowels.

The unusual arrangement of [æ] controllers also widely cause trouble pronunciation for some participants specifically at the role of lips in conducting the sound. [æ] was somehow put lips as a highly significant contributor to the creation that more pressure required is considered a principal. This prevail even from its categorized closer counterparts, e.g [i] and [e], -at least on how Acehnese could possibly produce all of those-. Producing [æ] without impressive lips association is possible but would loose a huge viscosity quality of the characteristic. [æ] is rather different from [i] or [u] where the inside organs role would totally supersedable as an alternative. Besides, this made the arrangement are rather cross-form to an Acehnese. The general Acehnese quality indeed works linearly at open vowels that

a higher and higher degree of openness is required. More non-linear forms (secondary vowels) are normally occurs at the back vowels, e.g [ɯ]. Although, it still rather insignificant due the less lips contribution in the production.

5.2.3.2 Diphthongs

The contributed features of diphthongs verification is consisted of [eɪ], [aɪ], [ɔɪ], [ɪə], [eə], [ʊə], [əʊ], [aʊ], and [oʊ] with the basis unidentified awareness of the features. The recognition of the objects is generally focused on the unidentified component of the features -which mostly located at the second component of the diphthongs- and the quality of shared duration. The comprehensive awareness -i.e an awareness that is intended to generate the abstract ideas in the head on how to reproduce them- of diphthongs quality was rather difficult to build compared to the partial one. However, the crescendo level was easier to be understood, perhaps because it is technically a very functional separated distribution. It is also found that crescendo could accelerate the construction awareness over the features in general as well as the component polarization. English diphthongs in general, are building the center of quality and the quality of pigmentation in sufficient detail.

The initial problem with the perception over the English diphthongs generally relate to the technical quality of duration sharing and other technical aspects of the production. As with the deep quality of English vowel, Isochrony, and a number of other language aspects, the crescendo quality is also widely recognized as ‘fast pronunciation’, even though the criterion was not totally wrong. However, it will simply lose its function –of the celerity quality- when the pronunciation is produced slower. In a more technical stage, the crescendo

reduction was also unmeasurable whether it is a shorter range or as a softer sound technically established, particularly when the dimension ratio of two per one is differently resized for each person. It is also found that the transformation of sounds could cause difficulties particularly when the component of the diphthongs was separately introduced.

Figure 27. Diphthongs Verification Result

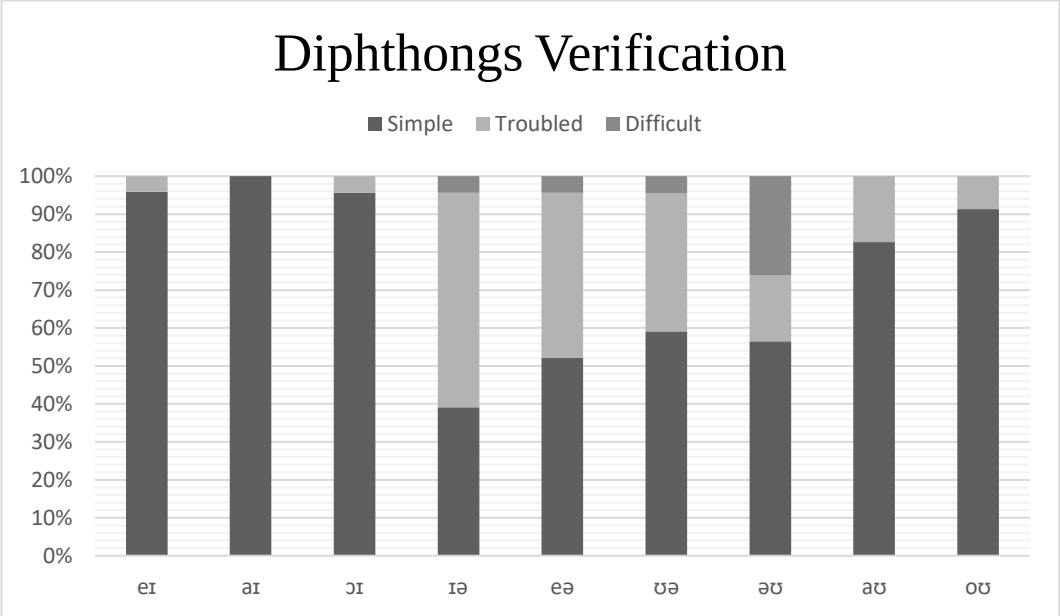


Figure 27 shows the diphthongs verification result of the English [eɪ], [aɪ], [ɔɪ], [ɪə], [eə], [ʊə], [əʊ], [aʊ], and [oʊ]. Here, the diphthongs with identified first components are generally reaching a higher simplicity criterion of production include [eɪ], [aɪ], [ɔɪ], [aʊ], and [oʊ]. However, the first schwa component diphthongs are evenly considered as features with the most difficult production that determined by almost 30 percent of the participant, before followed by the diphthongs with the first unrealized component such as [ɪə] and [ʊə].

The problematic aspects of the diphthongs acquisition are still generally influenced by the identified and the acquired components within the features, although the diphthongs acquaintances should be better done as a unit of sound, it is in fact really hard to introduce the exact quality without segmentation. The position of acquaintance also influences the successful transfer, it is found that the

certain English diphthongs -with crescendo quality- is easier to be produced in if the initial feature/components are identified while conversely harder if it is unrecognized. In conclusion, the crescendo reduction is seemed easier to be executed for the Acehnese non-innate features, particularly with [ɪ] and [ʊ] in which broadly understood as a reduced quality of [i] and [u] -the available feature in Acehnese-.

5.2.3.3 Consonant

The verified English-Acehnese consonant transfer is contributed by the twelve new consonants with various predicted passing condition. Here, the consonant verification was somehow executed on the basis prominent of the non-exist features and the significant quality differences between the two languages. The most significant number of verified features is identified with various source of identification, whether it is from Acehnese itself, Malayan, and Arabic. In its form, [v], [ʒ], [tʃ], and [ðʒ] are the main unidentified features throughout the transfer followed by with unidentified quality of [t] and [d]. The introduction of the features was easier than the vocal for sure. It is found that the earlier awareness possessed was -one of those- basically the simplification of the English quality into the mood of learners, as with the vibration quality while most of the rest are in condition of split with the existence innate features.

It is found that some technical differences of Acehnese and English have positively confirmed the cause of error in the conformation process, include the total organ and the organ starter feature -i.e. mimics that is not normally produced

in Acehnese-, the switching of non-vibrated/vibrated features -that sometimes different to English-, and the organ starter feature –that is never produced-.

Figure 28. Consonant Verification Result

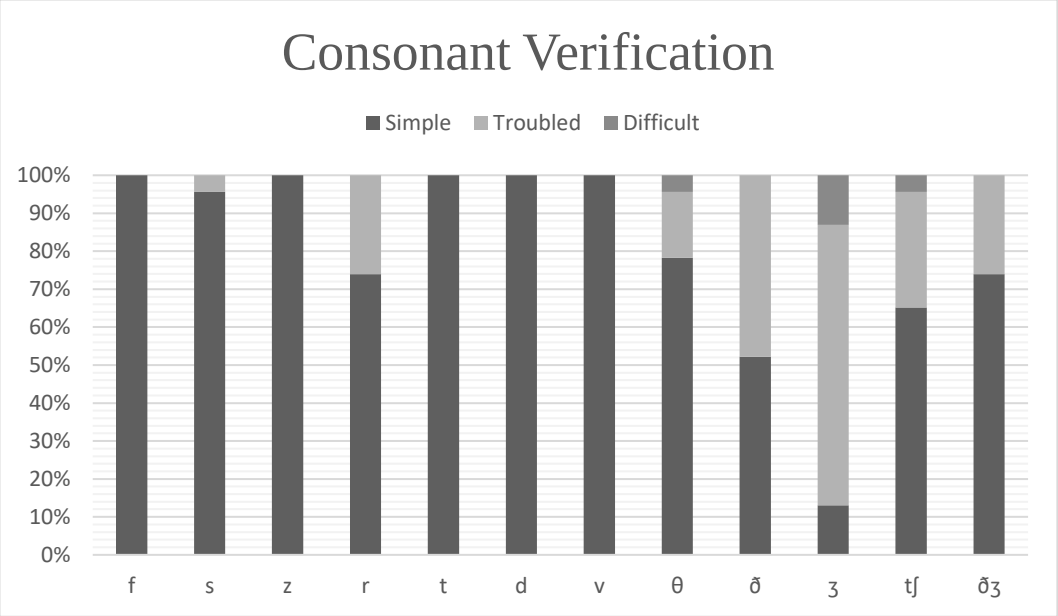


Figure 28 shows the verification result of the Acehnese to English consonant formation and conformation. The adjustment of [t] and [d] is reaching the most successful number of all the categories followed by the many Malayan realized feature such as [z] and [f]. [v] also surprisingly shows a successful production among all the new features while [s] became the only realized-produced features that shows issue to complete the other six most difficult feature of [r], [θ], [ð], [ʧ], and [ðʒ] that generally reach 20 to almost 40 percent troubled determination and lead up by [ʒ] which broadly considered troubled by more than eighty percent of the participant, that is also the most difficult feature on the research.

Generally, the verified problematic features in participant test are related to both the awareness and the contrast technical production of English to Acehnese. The identification capability is found to be problematic in similar to the earlier predicted as concluded at [tʃ], [ðʒ], and [ʒ]. [v] is also problematic to be identified contextually rather in partial form although it shows a highly successful creation of the new features.

The realization of English consonants in Acehnese show a higher amount of success compared to vowels or diphthongs. Some of the features do show relevancy to the language proficiency -even- in a more universal distribution contributed -in this Acehnese cases- in particular by the Malayans as occurred in [t], [d], [z], and [f]. This occurrence is somehow not fully follows by the Arabic [θ] and [ð], in which at a certain level might not as close to the identified activation features free from the orthographic bound. The problems in some English realization are related to the technical manner of controllers, particularly in affricatives and fricatives. [ʒ] was somehow found as having an automatic controllers, the participants were feeling trouble on managing the protruding lips and -at the same time- powering the production of fricative air types. It is somehow an unusual collaboration in Acehnese. Repeatedly, participant loose one of this technical formation as they managed to position both. It is always –during the test- took time to produce [ʒ]. Affricatives was also found to face such trouble to Acehnese, it is also included at the Greater Acehnese participant whom in normative produce the manner. The number of trouble or difficulties might legally -as I believe so- speculate higher than it is in the chart. The decreased number might have been affected due to the test sequence of the prior [ʒ] that participant took benefit to gain control over their organs earlier. The English rhotic is also still found problematic for some participants particularly in the mid position. It is interesting to take some notes on problematic English rhotic that is also related to the learner's capacity in determining the quality of English rhotic between tap and approximant. In fact, if speaker does force themselves to produce a pure approximant at all places,

difficulties will then come along due to the radical defection between features. Yet, the language in nature does not operate in such a way. For sure, tap itself exists in reacts to the contextual adaptation among features -where not all places allow a pure approximant quality-. Thus, besides the unusual related practice, a mistaken displacement -to a tap- would also cause difficulties in the production of the English rhoticity.

The fricative [θ] and [ð] was certainly easier to be introduced to Acehnese due to its relation in Arabic. However, it is not fully transferable to the English -except the knowledge itself, perhaps- to soften the realization. Specifically, it is found that [θ] and [ð] in English are hardly realized in mid position compare to final or initial. During the test for instance, *thin* was easier to pronounce than *author*, as well as *the* compared to *other*. However, it is rather unclear the reason lies behind since it should be replicable enough to the Acehnese nature. It seems that the surrounded vowels also contribute to the difficulties. In *Hijaz* standard -the learned Arabic- for sure, vowels are only in forms of [i], [u], and [a] compare to the accessible English. Of course, there must be study confirming on surrounded vowel aspects towards the success of new features replication to take as a truth. Well, no matter whether it is true or false, it is only a few steps more to an Acehnese into a standardized quality.

5.2.3.4 Summary Notes and Accentual

The verification on the problematic vowel, diphthong and consonant are followed by very few participants to take a final conclusion on the whole population of the Acehnese English learners. However, it gives some clues on the languages

accommodation and the learner condition overall. First, the capability of recognition is the initial problem of the participant followed by some practical needs of production in the second, these are included in the utilization of more outer part organs such lips, as well as the basic control over the air released.

Another important discovery also reveals the insignificant accentual benefits of Acehnese to the English acquisition. As it is observed, basis of accent are not significantly giving influence to the process that excludes others, includes at the Greater Aceh where a bunch of variations is collected. Throughout the verification process, participant among accents were similarly experiencing the problem or -at least- share the obstacles evenly. In numeral comparison, the farthest distance between accents is less than 0.2 by approximation of two persons consider a problem to zero such identification in other accents.

Ultimately, though the verification was not addressed to confirm certain English, it is also interesting to see some of the English accents condition to the Acehnese. For information, this study of comparing Acehnese to English are included both the British Received Pronunciation and the General American features, the broadly accepted quality of English. Verification somehow shows how more troubled are faced in British features, includes in vowel [ʊ] and [ɒ], and more diphthongs are produced. However, it relatively easier in consonant, particularly since it is a non-rhotic accent while there quite more variation in the American [t].

5.3 Hierarchy of Difficulty Construction

Hierarchy of difficulty refers to the quality level of acquisition or transference from one language to another. Simply, it is developed to conclude the

condition of measured variables to its counterpart relatively and shall be very beneficial to the classroom activities. However, the construction was build base on the result in contrastive analysis verification. Thus, as if the verification change, this arrangement would also follow so. Eventually, it is important to recall the variables measures in this research is especially related to the difficulty in speech organs to distinguished from usual variables in the hierarchy of difficulty (e.g. error or phonetic relation). The construction is elaborated as below:

Table 20. Hierarchy of Difficulty of Acehnese to English Transfer

Hierarchy of Difficulty **Acehnese to English Transference**													
[ʒ]	[ɪə]	[ɜ]	[ð]	[əʊ]	[æ]	[tʃ]	[ðʒ]	[θ]	[aʊ]	[ɑ]	[oʊ]	[s]	[t]
			[eə]		[ɒ]		[r]	[ʊ]				[ɔɪ]	[z]
					[ʊə]							[eɪ]	[d]
													[f]
													[v]
													[ɪ]
													[aɪ]

Table 20. shows the construction of difficulty hierarchy of transfer from Acehnese to English consist of the participated 27 phonemic features in verification. The table is read from the left sink down to the right as the most difficult to the easiest.

CHAPTER VI

CONCLUSION AND SUGGESTION

The contrastive analysis of Acehnese and English phonological has definitely shown the role of first language contributing the foreign language acquisition, whether it is for good -that help the accelerating process of certain required material conceptually or technically- or bad – that evade the process or even hinder the acquisition from succeeding and prospecting or -in smaller level- to give color on the features. Besides, the first language cannot be even more blamed on the failures. The difference is the customary condition between languages in transference that there are consequences of a certain language-based in language learning.

The relevancy of contrastive analysis to the teaching of pronunciation is specifically related to the increase of awareness phenomenon and the conscious-minded effort as the initial construction of the language learning. Here, awareness is the thought to simply differentiate the features in the target language to the innate one while the conscious effort refers to the objective exertion over the guidance in real. The atmosphere during the verification phrase has simply shown those who follow the contrastive information experienced the enhancement both of the aspects. The success is however very much a relative condition since the relevancy to contrastive analysis is intended to influence the core of teaching process and the way of learning -on whatever method and techniques derived- not to merely certify the success. Yet, this research is also not objectively to measure the partial

achievement of each feature but also to reveal the problem that learners face overall.

Practically, the analysis of the two languages also reveals the differences in which many learners, teachers, and material developers might firstly think it is identical but factually not and those aspects in which technically missed throughout the teaching process as well to jolty the settled believe on English and its transfer process and issue.

Last, the relevancy between a target language compositions to the learner skills development -particularly on pronunciation- will also especially determine a number of aspect in the teaching-learning process and the condition of language acquisition, include the contributed learning material; the learning approach used; as well as the celerity of acquisition process. This research is to take the conclusion and suggestion below:

6.1 Conclusion

This contrastive study of the English and Acehnese phonological system concludes several significant aspects of differences include in: the contributed features, the operational system, representation, and the phonological culture between the two languages in which has significantly contributed to the smoothness of the transference process. The contributed features of English phonemic is generally distinguished to the Acehnese by the existence of feature [ɪ], [ʊ], [ɜ], [æ], [ɑ], [ɒ], [v], [θ], [ð], [ʒ], [tʃ], [dʒ], retroflex [r] quality, [ʍ], [e], [ɛə], [f], and [z]. In rough measurement, the pure Acehnese phonemic composition only fills about 40 percent of the English needs. However, if an Acehnese read Arabic well and also speaks Malay –as most of younger generation do-, then they would have taken

benefit from some features produced that increase the filling needs of English up to 50 to 61 percent, particularly for sounds like ([e], [ɛə], [t], [d], [f], [z], [ʃ], [s], [θ], and [ð],). Other contrastive contributed features also occur in all the initial three-type and the final forms of consonant clusters; the applied stress-time isochronal; the connected speech aspects of Elision and Linking; and the allowed of complex coda throughout the syllables structure. Other significant attributes of English include glides and length quality in vowel, aspirated units, fricative [s] and [ʃ] hissing quality, and the quality of sonority.

The general operating system of English phonemic features are specifically produced following by the great contribution of the outside speech organs, manifested in –what so looked- face of impression. The garish lips shapes and its form -that would cause the wrinkle forms in the checks and the area around- has significantly influenced the quality –particularly the sharpness and hissing- and the tactical form of English phonemic variation. In Acehnese, the operating system is broadly focused at of the inside organs and its maximization to reach certain quality. Thus, there is no significant countenance resulted. Some features with significant quality but rather to have different way of production include [i], [u], [ʃ], [j], and [w]. Some problematic transference features due to this required condition are mainly [ɜ], [æ], [ʒ], [tʃ], and [ðʒ]. Other exclusive operational areas of English are the expansion of operational area throughout the area of velum that has significantly produced [ɑ], [ɒ], and the specific distribution of [k] and [g]. The velum-based vowels are not normally occurred in Acehnese while it is only slightly produced in consonants (that realized as a velum blockage).

The representation of sound (orthography) in English is specifically formed through the steadiness of forms to distinguish from Acehnese which is built on the basis of pronunciation. Such a regulatory idea has then significantly derived the different technical accessibility and in both language mainly at the reading mechanism -where the English is accessed its products through the capability of guessing and the phenomenon utility than to functionally assembly the sounds material as in Acehnese - and the technical production of representee -where the English required more constancy of memory than to functionally reassembly the sounds representee as in Acehnese-. Besides, the general projection of Acehnese orthographic symbols is developed on the basis of their phonetic affiliation while the English put attention more on the original word composition -if it is adopted- while mostly free determine of their phonetic form, this has also significantly contributed to a larger number of English form of symbols than it is in Acehnese as well as the transparency quality of the languages. Other differences are also included the English regulative deal over the alternative representee to have more significant place compared to the Acehnese alternative representee in general and the applied punctuation as sound representee.

Last, the cultural issue over the phonological matter of each language has also differently established that -at least- also influential to the cause of differences in general. Phonological cultures refer to how the native of a language unconsciously consider their language sounds and forms, and address the colloquial talk activity. In general, the Acehnese phonological structures give more prominence to their sounds composition compared to the English where the sound

is not as significant as the information brought -by mean that if the information is received, the sound is not a matter, include if it is phonologically flawed-. The act to nullify and alterate voice is very common in English pronunciation that the full form of a word is often -by undesign- degraded. This culture can also be generally seen as a manifestation in literature, the English poetries for instance -as most western form- is found its fervency at the diction, story, and massage while the Acehnese -besides the three-, a poetry is also benefitted by the sound content and the technical noise produced by the ends of each couplet (also called *pantun*). Such a powerful culture is establishing the practical element of speech into segmentation -we right now- to categorize: the connected speech aspects, isochrony, length, glides, etc. of each language basically operates on their own cultural perspective over sound and voice. Here, although the cultural difference is not as significant as other technical stuff -that is able to be learned-, the culture is somehow a despotic basis of a language component, composition, and condition in the first place.

The further conclusion of this research also taken that the general consequences of phonological differences between Acehnese and English has significantly leaded learner of Acehnese into difficulties in pronouncing English. It is -for sure- proven to significantly prevent the fluency and easiness of production (both refer to the organal process); that then required for critical consciousness during the production. This condition is also repeatedly manifested in the clumsy manner, time-consuming, and hesitancy of a learner attitude, or directly resulted in dialectal pronunciation and the failure of intelligibility that occurred in massive and systematics over a certain phonological element or condition. Although, -of course-

it is not be justified to rely all the error due to the first language influence and phonological differences to miss the learning factor -to avoid a majoritarian conclusion- of learning method and techniques, the quality and quantity of it, and even the quality of learners themselves in receiving the knowledge (e.g. memory and cognitive) and other supporting of personal matter (experience, other language influences, flexibility etc.)

A number of problematic features caused difficulties in transference process of Acehnese to English are respectively conclude to be: [ɒ], [ɜ], [ɪə], [eə], [ʊə], [əʊ], [aʊ], [oʊ], [θ], [ð], [ʒ], [tʃ], [ʊ], [ɑ], [æ], [eɪ], [ɔɪ], [r], [ðʒ]. This conclusion is definitely taken from the limited number of the verified features in this research -all are phonemic- since not all parts of the phonological structure are executed. Thus, such a map is only applied within the circle of phonemics. The related difficulty is expanded details into the main organal process of new developed movement or shapes -that earlier non-exist-; crossing variation of movement and shapes -variation in usual forms to earlier language habit-; dual and mix forms, and the dual movements. However, the problem that caused the transference prevention -the effort of correcting the protracted mistakes- mainly due to the unaware sense of existence or quality and the manipulative influences of orthographic perception.

6.2 Suggestion

The process of language learning is -significantly different to other major- required for more habitual adjustment to materialize the concept in mind -just like fingering over a guitar fret- that could practically consist of problem solving sequences for a couple of time. Thus, the perspective of tactical learning should

also be as the act to solve problems, besides to activate the cognitive ease. This research as the problem finder -then- should become the basis of engagement between language learning and the related problems. This section is not to give a suggestion of a total solution in learning but rather to have a small touch as an applicable information practically since it feels inadequate to only provide problems. This section simply offers some suggestion and admonition on how this examination along with all the results -should- be treated as well the further development of the learning process.

The contrastive analysis, even though it was scientifically justified should not be simplified the process of language acquisition. As a field researcher as well a teacher, I fully understood that the technical problem can be everywhere within the learning process. However, in effort to accelerate the learning process and to increase efficiency, the blockage indicated material -that resulted in contrastive analysis- of the language should be on attention -without inattentive to others-. Thus, the learning should begin with the introduction of the whole features in general, followed by the non-exist and the difficulties by the assumption that there might be additional problem found overall or individually throughout the process. In normal consumption, the general feature introduction would be very fast, soon as the deeper explanation required (on non-exist and difficult features), the longer time it takes. Thus, the features are not studied in an equal long of a time, its status and condition over the transfer determine it. This is how the efficiency is increased.

Furthermore, the sharpened of pronunciation learning process -mainly for problematic features- had to be respectively initialized by developing the right

perception, follow the practical realization and the preventing caused of mistakes. The perception should explicitly elaborate: first, to know and recognize the characteristics of sounds, and second, to distinguish the sound over other surrounded it and -mainly- those with the high possibility of split. Next, the technical development then is executed through the practical implementation of characteristics step by step -not entirely all at once- with a clear guidance and instructions illustratively in exampling towards the organ of speech position -not as an intuitive imitation-. In this stages, learner should be encouraged to develop their organs speech awareness, -i.e a conscious thought to feel the movement and touch of their speech instruments- that learners cannot rely on their instinct in such condition. In normal learning, the cognitive ease would take several times to be constructed after conscious repetitions that eventually will result as a habit.

The features acknowledging -that generally could be variously introduced through a different way of teaching methods- can also be developed with benefitting the phonological relationship of inter-features and -even- inter-lingual composition. It would be significantly effective and profitable both in increasing the awareness and the reproduction process. Some of these suggestions are taken follows the significant cordage found between features throughout the research elaborated below:

The general influential quality of transfer relates at the place and manner of articulation. If the features (particularly phonemics) share one of these qualities, then the transfer may begin with that active area. However, in general vowel production -that required six placements (three for each mouth shapes and tongue)-

, it is not that simple since the frequencies have a very significant influence to the quality, -and also do is not as easy talk- but for sure, almost all languages produce all the each three with different variation over their three couples. Thus, the realization could begin with such quality in existence. In consonant, -where the place and manner are much more required-, the realization is fortunately more determinable although some might harder to be described, as with the voicing - non-voicing quality or the sonorous one. Thus, to begin with the existence features is not always applied, as also need to generate a new one. Especially, the Acehnese-English voicing existence features that is systematically established in intersecting condition. Some benefitting phonological relation in the language transfer includes:

1. [ʒ] from [ʃ]. The conceptual awareness of [ʒ] is simply described as the [ʃ] with the quality of fizzy. [ʒ] is the voicing feature existence of English to transfer that theoretically shares everything with [ʃ]. The voicing quality in [ʒ] is realized as a fizzy quality that is produced inside the mouth. The vibration could easily be asserted as in [z], this is general view of Acehnese over what so-called the vibrated voices. To do the transference, the [ʃ] must firstly have a protrude lips shapes where the hissing quality depends on. Thus, the Acehnese [ʃ] must firstly be modified into the English [ʃ] to make the transfer possible while the fizzy quality is produced by the inside organs.

2. [v] from [f]. The conceptual awareness of [v] could simply be described as the [f] with a stronger bilabial quality, that is basically affected by the voiced quality instead of the contact of lips occurred as in [b]. However, Acehnese consider this voiced quality as the bilabial quality -[b] that avoid the lips density- this quality

is also supported by the releasing air -even not as strong as in plosive- after the fricative manner. The [v] itself differ to [f] due to this release as the [f] maintains its speech organs, the voiced quality is also strongly heard during the release. To do the transfer, the Acehnese [f] must firstly modify as the English quality to avoid the sounds of [p] as Acehnese do, then the technical application would require for total air released as made as if to produced [b].

3. [θ] from [s]. The conceptual awareness of [θ] could be made through the evocated of the similar features in Arabic represented as /ث/. However, many do not realise its existence in English due to the opaque forms of orthographic. I would have like to suggest the similar approach over the technical production before realizing the verification result since the feature was firstly predicted to be granted in the transfer. If we go back to phonological quality, [θ] is more like the Acehnese [s] with larger released during the air turbulence. This could be produced by outgrowing the turbulence area both by sending down the tongue tip to the tip of the mouth or to locate tongue tip in more distances against the gum than usual.

The lingual benefits of Acehnese specifically consist of the composition language of Malay and Arabic. The Acehnese activities over the two languages are sufficient although the quality from one person to other might differently establish, whether the language influences them or conversely instead. Malay are somehow habitually learned as a second language (Indonesian Norms) that actively contributes in all the four language skills. As most acquired language, it is mastered without the awareness of the organs speech roles. Arabic –on the other side- is especially learnt to achieve the reading capability thus studied with enough detail

of organs speech movement and touch. Most of the learning is done at a very young age that Acehnese in general, would become very familiar with the feature. Some benefitting condition of inter-lingua relation to Acehnese toward the English transference includes:

1. The alveolar quality of [t] and [d], [l], [n]. The pure quality of the four features in Malay is generally similar to the English (without counting other variation and aspects). This quality could be both as the introduction (to awake the awareness) or as a direct transfer features. Most of the Acehnese would not have problem with these as shown during the verification stages. However, since Malay is automatically learnt, the switch to Acehnese quality very much possible to occur.

2. [ð] from Arabic. The [ð] awareness ought to be awoken through the similar Arabic feature represented as /ذ/. This feature is getting enough attention by Acehnese particularly to be distinguished from [z] -that represented as /ز/-. Again -as with [θ]-, the existence is missed due to the English orthographical representation. Besides, as the Acehnese do not normally hear Arabic as an informational language, the form is not strongly identified, particularly when it occurs in another language.

Some other features that can be developed by benefitting the inter-lingual relation and awareness include the quality of [f], [z], [s] from both Malay and Arabic. However, there is advantage-disadvantage should be known from taking certain language relation. First, the original Malay do not produce [f] and [z] since most of the words also adopted from Arabic or -even English- that the quality sometimes spilling into [p] and [ɟ] out of the formal speech when [f] and [z] achieve

the exact quality. Yet, it takes beneficence due to its familiarity to Acehnese, particularly on the orthographic forms. Second, although the Malay introduces the three features more efficient, the [s] technical achievement should somehow be directed into the Arabic due to some qualities, particularly on the strong facial-impression relation as it is also produced in English.

Last, of course, not all the problematic features could be approached through its phonological relation. Some of those are indeed needed to be constructed, developed and drilled through a creative way of technical teaching-learning, especially in English rhotic quality, the affricative manners features, most of the consonant cluster, and vowels and diphthongs. Features with this classification also include all the supra-segmental objects: connected speech, isochrony, stress, intonation, orthography, and etc.

Some quality of features sometimes can also be approached by Englishing the source language. I remember introducing the velum quality of English open vowel -in jingle of /mɑu kemɑnɑ/- during the verification stages that was quickly responded by all the participant. Of course, the phonological relation is only one of the way introducing the features. In conclusion, the phonological treatment on the different features (unavailable) should begin with its similarity components, whether through the available features or the near quality of it. On the other side, the quality differences should be definitely modified, also be careful with it since the quality differences are mostly split in daily conversation.

Lastly, the learning process should also knowledgeable to prevent error and mistakes during the acquisition. In general, the English error pronunciation could

be significantly generated through the orthographical influence into the form, particularly in the opaque condition of English orthography that blocks the awareness of the true sound realization. Thus, the vocabulary enrichment should not be executed without the direct knowledge on the sound in which these days – with all the technological advancement- are very possible to do. Simultaneously acquainting the orthographic form and the symptomatic sound is always a better choice. This, is one of the way a teacher could apply the phenomenological approach in reading English. The real language experience should be somehow gained through the language learning the nature had ever performed. Another preventing variable is also related to the perception over the language in which will contribute both to the segmented feature and the language quality in general. In significant, language learning would need for models to be perceived as both another person to imitate or as the true self of the learner to prevent the act of innate the learned language (e.g. Malays the English, etc.). These are -at least- only several significant prevention particles within the phonological and first language influence during the learning process.

Besides the unreliable orthography, the process of coding would also -simply- escaping no way out of the orthographical complexity -that consist of rules, sequences, and exceptions-. There is no significant suggestion on this at somehow, but for sure, English orthography is a self-adjustment that soon as the language is getting more familiar, the registering capability would also significantly increased. Even though, it is not then the reason to postpone from knowing the orthographical logics of the English itself.

Of course, I like to also suggest this research as the worth considering resource towards the upcoming development of English learning -particularly pronunciation- for the Acehnese native, both for the material regulatory and course design as well the classroom technical approach. Principally, the curriculum and syllabus on pronunciation should be arranged on the phonological basis and requirement of the language since the acquisition process consists of adaptation formation of features. Phonology and pronunciation are somehow always hand in hand though, it is like the right moves to the right dance. The contrastive condition in learning -that is manifested in course design- would beneficial -at least- to: First, increase the learning efficiency due to the narrowing material, shorten the time and accelerate the process. Second, conducing the student to spend enough time to solve the language problem they are struggling with. And third, narrowing the teaching focus to find solutions. Learning design should simply be developed as the effort to upgrade the effectivity that is conversely gained by downgrading the obstruction.

The transfer condition elaborated in this research also suggests being the review on the classroom action. It is a killing expectation that the approach, method, and technique applied would significantly highlight such condition of learners. Generating the new learning techniques -especially for pop-up and jingles- is also a chance running throughout the phonological contents. Phonological utilization -as mentioned above- is only one of the tactical learning produced by. That is, not just each language have a different approach to English, each learned feature might also have a private and exclusive way of approach that significant to itself the only.

Finally, the informative content of this research should be treated in some way agree with the portion of the justified attributes. It must not then overrule nor overgeneralize the actions are taken. There are things to generally be minded covers the status the research that controls its capability of expansion, particularly on the last three stages of contrastive analysis themselves. For sure, verification is not in total meant as the final result on the language transference, the success reformation nor even the possibilities of achievement, -although it is indeed technically as the confirmation result of the research-. I like to consider the verified features however, as every Acehnese learner exercise and rehearsal. If we look at the contrastive analysis history, verification was -for sure- established after the accusation of the structuralist presuming over contrastive analysis that then researchers begin to confirm their prediction result. The heart of contrastive analysis is for absolute in the comparison stage, as it is unequivocal, constant and stable. Prediction is steady-state but not durable, it is somehow highly dynamic, this is how the hierarchy of difficulty -that earlier produced as the prediction result- changes over time. Thus, any contrastive analysis-based development should give priority to the comparison result, particularly when the verification –as in this study- joins only a small number of participant to intactly able claiming the certain condition over the huge portion of transferences.

Eventually, any further studies, evaluation, discussion, critics and notes over this research would be significant to improve the quality -of analysis, justification basis, and legalization verity-, fix the broken, and examine the survival value. That

is sounded better than to have this (thesis) *puduek fis sandeng* (put on the rack) *wa yaqrauhu tikoh teng* (eaten by the rats).

The study conducted -contrastive analysis of Acehnese and English and its relevancy to the teaching of pronunciation- is definitely not a complete guide into what its title sounded might have been expected. There a bunch of variables are not concluded thoroughly, or partially left due to the critical condition in resources and needs. First and mainly due to the Acehnese phonological sources sufficiency that does not broadly allow such a comprehensive study to be carried. And second, the quality of learning level -even in university- that is not touching such study significance. For instance, the verification on supra-segmental might be considered improvidence due to learning level to do so, particularly since the general learning level is at segmental, -meanwhile, the deferment of this level upsurge also prevents us from knowing a further obstruction in learning-.

For further research, I would like to firstly suggest the completion needs of the innate language information that would enable a deeper comparison and discussion over the languages relation. Meanwhile, this research has also significantly left huge portions to investigate particularly those to be verified, several aspects include the consonant cluster, orthography, and all the supra-segmental aspects from isochrony to phonetic constraints. Henceforth, I want to also suggest a verification with a larger number of participant and dialectally more diverse. By all of this completeness, it is expected would help the language practitioner to fully understand the condition of the language in grappling that contribute to a better teaching implementation. May it happen. *Yup!*

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APPENDICES

APPENDIX I

DATE / MONTH

PARTICIPANT DATA AND INTERVIEW CORPUS

NAME

AGE | SEX | SEQUENCE

ORIGIN | ADDRESS | ACCENTS

VERIFICATION FEATURES CORPUS

f Fee | Office | Life	s Saw | Basket| Miss	z Zoo | Busy | Freeze	r Run | Marry |Door
t Tip | Return| Bat	d Do | ladder | Pad	v Very | Over | Save	θ Thin|Author |Math
ð The|Other|Breathe	ʒ Usual | Mirage	tʃ Chest | Richer|each	ðʒ Jar | Agent| Large
ɪ Inch | Lift	ʊ Cook | Woman	ɑ Oxen | Watch	ɒ Option | Hot *b*
ɜː Earth| Hurt	æ Angry | Map	eɪ Ape | Place | Say	aɪ Icon |Rhyme |Lie
ɔɪ Oil | Foil |Annoy	ɪə Ear | Year *b*	eə Chair | There *b*	ʊə Cure *b*
əʊ Vote | Throw *b*	aʊ Out | Town | How	oʊ Open| Don't | So	

Categorization Recognized: Simple | Troubled | Difficult

RESEARCHER NOTES

TENSITY :

PRIORITY :

STATUS :

This paper is the related instrument designed to verify the difficulties experienced by Acehnese native towards the new developed features and the new developed quality of correspondence features of English. Follow the instruction of testimony in direct interview repectively as, filling up the data; practically understand the process of feature production intended; technically reproduced the feature; and taking conclusion on the tongue experiences. The self-fulfilment is required. See recognized categorization for detail values.

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Jl. Cut Nyak Dhien, km 8.2
Greater Aceh, 23351
Aceh

2018

APPENDIX II

ACEHNESE CORPUS

Words/ Terms	Phonetic	English
Adoe	/adɔə/	younger brother
Al-Fatihah		The first division in the Qur'an
Apam	/apam/	name of cake
Aree	/arɛ/	rice gauge in size of around 1.578 kg
Arok	/arɔ/	like, love
Ase	/asɛ/	Dog
Assalamu a'laikum		Greeting taken from the similar form in Arabic
Bagah	/bagah/	Quick
Banda Aceh	/banda açɛh/	name of a city
Bank	/bɛŋ/	Bank
Bara	/bara/	related to roof; a wood placed in the middle of the roof as the restraint to roof folds
Barai/ Baroe	/barai/; /barɔə/	Yesterday
Batat	/batat/	Naughty
Beso	/bɯsɔ/	Iron
Bak reu'ueh	/bak rɯʔuəh/	in a path; on a small road
Beureueh	/bɯrɯəʔ uəh/	name of a person
Beutong	/bɯtoŋ/	name of a village
Bieng	/biəŋ/	Crab
Bola	/bɔla/	Ball
Botol	/bɔtɔl/	Bottle
Bri/bre	/bri/	to give
Broih/ Broh	/broh/ /broih/	Rubbish
Cidra	/çidra/	Injury
Droen	/drʌən/; /drɔn/	You
Engkong	/əŋkɔŋ/	species of monkey
Fatimah	/fatimah/	lady name taken from arabic
Fulan	/fulan/	He; somebody
Gom	/gɔm/	lie face downward
Ka	/ka/	have/has occurred

Words/ Terms	Phonetic	English
Itam that	/itam that/	too dark; black
Kaca	/kaça/	glass; mirror
Karam	/karam/	Sink
Keih/ keh	/kɛih/; /kɛh/	Matches
Keng	/kɛŋ/	ferocious
Khong	/khɔŋ/	the only
Kiban	/kiban/	how
Kira	/kira/	to calculate; to consoder
Kirem	/kirem/	to send
Kleut	/klɯət/	wild
Kong	/kʌŋ/	strong
Ku	/ku/	dad; Father
Kueh	/kuweh/	cake
Kueh	/kuəh/	name of a village
Lam bada	/lam bada/	name of a village
Lam kunyet	/lam kuɲet/	name of a village
Lam pu'uk	/lam puʔuʔ/	name of a village
Lam teungoh	/lam tɯŋɔh/	name of a village
Laot	/laʔot/	ocean
Malam	/malam/	night
Masykur	/maʃkur/	name of a person
Mentro	/mɯntrɔ/	Chancellor
Meuraxa	/mɯraksa/	name of a districts
Meuriam	/mɯrijam/	Gun, canon
Meusee	/mɯsɯə/ ; /misɯə/	If; would be if
Mupeuneheut	/mɯpɯn ɯhɯət/	material to cause bitter taste
Neuk	/nɯk/	will; called name for children
Ngon so	/ŋɔn sɔ/	with who
Na	/na/	be present
Nyang	/ɲaŋ/	Which
Padok	/padɔk/	hindered;

Words/ Terms	Phonetic	English
Pantun	/panton/	a model of poem with rhyming form
Paroh	/paroh/	to expel; to chase away into a certain place
Pataih/ Patah	/patah/	Broken
Paya	/paya/	Marsh
Phet	/phet/	Bitter
Phon	/phon/	First
Pisang	/pisaŋ/	Banana
Pliek	/pliək/	a name of a cooking spices made from the coconut rotting
Plok ni	/plok ni/	name for a tin can in particular for the milk one
Pon	/pon/	called name from the original form of Ampon
Prang	/praŋ/	War
Pruih/ Pruh	/pruh/;	Blow
Rampok	/rampɔʔ/	Rob
Raya	/raya/	Great, Big
Reukok/r ukok	/rukɔk/; /rɯkɔk/	Cigarette
Rok mini	/rɔk mini/	short skirt
Seu'ot	/sɯʔɔt/	Answer
Seuk	/sɯəʔ/	to move while sitting; shifted
Siat	/siʔat/	for a moment; a moment
Sok mok	/sɔʔ mɔʔ/	Hesitant
Su	/su/	voice; sound
Syak	/ʃaʔ/	to suspect
Tak	/taʔ/	to cut
Tem	/tem/	wish, desire
Teubai	/tɯbai/	Thick
Teungoh	/tɯŋɔh/	while; in the middle of the process of something; in the middle
Tambo	/tambo/	Percussion instrument; a large mosque drum used to summon people to prayer; something used to strike percussion instruments.
Theun	/thɯn/	to hold
Top	/tɔp/	stab, or perforate
Turi/turi	/turi/	to know
Ujong lidah	/ujoŋ lidah/	Tongue tip
Ureung	urɯŋ	People
Uteun	/utɯən/	Jungle
Wi	/wiə/	Left
Yoh	/yoh/	during; as long as
Yoh awai	/yoh awai/	at first; at the past
Yu	/yu/	order someone to do something
Yum	/yum/	Price
Puduek fis sandeng wa yaqrauhu tikoh teng	The Acehnese proverb on critics towards the wasted thing. It is basically mix of Acehnese (*puduek* to put; sandeng *racks;* and tikoh teng *rat*) and Arabic (*fis* in; *wa* and; *yaqrauhu*; *read by*); to put on the racks and read (eaten) by the rats.	

MALAY	Phonetic	English
Bea	/bɛya/	Price; bea
Biar	/biyar/	let it be
Dia	/dija/	he/she
Ia	/ija/	he/she
Mau kemana?	/mawu kɜmana/	where are you going?
Uang	/uwaŋ/	Money
Sakaw	/sakau/	stand for: Sakit Karena Putaw

SURAT KEPUTUSAN DEKAN FAKULTAS TARBIYAH DAN KEGURUAN UIN AR-RANIRY
Nomor : B- 7188/UN.08/FTK/KP.07.6/07/2018
TENTANG
PENYEMPURNAAN SURAT KEPUTUSAN DEKAN NOMOR Un.08/DT/TL.00/5970/2015 TENTANG PENGANGKATAN PEMBIMBING SKRIPSI MAHASISWA FAKULTAS TARBIYAH DAN KEGURUAN UIN AR-RANIRY

DEKAN FAKULTAS TARBIYAH DAN KEGURUAN UIN AR-RANIRY

Menimbang :
a. bahwa untuk kelancaran bimbingan skripsi dan ujian munaqasyah mahasiswa pada Fakultas Tarbiyah dan Keguruan UIN Ar-Raniry Banda Aceh, maka dipandang perlu menunjuk pembimbing skripsi tersebut yang dituangkan dalam Surat Keputusan Dekan;
b. bahwa saudara yang tersebut namanya dalam surat keputusan ini dipandang cakap dan memenuhi syarat untuk diangkat sebagai pembimbing skripsi.

Mengingat :
1. Undang-undangNomor 20 Tahun 2003, tentang Sistem Pendidikan Nasional;
2. Undang-undang Nomor 14 Tahun 2005, tentang Guru dan Dosen;
3. Undang-undang Nomor 12 Tahun 2012, tentang Pendidikan Tinggi;
4. Peraturan Pemerintah Nomor 74 Tahun 2012 tentang Perubahan atas Peraturan Pemerintah RI Nomor 23 Tahun 2005 tentang Pengelolaan Keuangan Badan Layanan Umum;
5. Peraturan Pemerintah Nomor 4 Tahun 2014, tentang Penyelenggaraan Pendidikan Tinggi dan Pengelolaan Perguruan Tinggi;
6. Peraturan Presiden RI Nomor 64 Tahun 2013; tentang Perubahan IAIN Ar-Raniry Banda Aceh Menjadi UIN Ar-Raniry Banda Aceh;
7. Peraturan Menteri Agama RI Nomor 12 Tahun 2014, tentang Organisasi dan Tata Kerja UIN Ar-Raniry Banda Aceh;
8. Peraturan Menteri Republik Indonesia No. 21 Tahun 2015, tentang Statuta UIN Ar-Raniry;
9. Keputusan Menteri Agama Nomor 492 Tahun 2003, tentang Pendelegasian Wewenang, Pengangkatan, Pemindahan dan Pemberhentian PNS di Lingkungan Departemen Agama Republik Indonesia;
10. Keputusan Menteri Keuangan Nomor 293/KMK.05/2011 tentang Penetapan Institut Agama Islam Negeri Ar-Raniry Banda Aceh pada Kementerian Agama sebagai Instansi Pemerintah yang Menerapkan Pengelolaan Badan Layanan Umum;
11. Keputusan Rektor UIN Ar-Raniry Nomor 01 Tahun 2015, tentang Pendelegasian Wewenang kepada Dekan dan Direktur Pascasarjana di Lingkungan UIN Ar-Raniry Banda Aceh;

Memperhatikan : Keputusan Seminar Proposal Skripsi Program Studi Pendidikan Bahasa Inggris Fakultas Tarbiyah dan Keguruan UIN Ar-Raniry Tanggal 11 Mei 2016

MEMUTUSKAN

Menetapkan :

PERTAMA : Mencabut Surat Keputusan Dekan Fakultas Tarbiyah dan Keguruan UIN Ar-Raniry Nomor: UN.08/FTK/KP.07.6/7287/2016 tanggal 12 Juli 2016

Menunjuk Saudara:
1. Dr. Mustafa AR, MA — Sebagai Pembimbing Pertama
2. Masykur Mahmud, MA — Sebagai Pembimbing Kedua

Untuk membimbing Skripsi :

Nama	:	**Dinauliyansyah**
NIM	:	**231222745**
Program Studi	:	**Pendidikan Bahasa Inggris**
Judul Skripsi	:	**A Phonological Constrative Analysis of Acehnese and English and Its Relevancy to the Teaching of Pronunciation**

KEDUA : Pembiayaan honorarium pembimbing pertama dan kedua tersebut diatas dibebankan pada DIPA UIN Ar-Raniry Banda Aceh;

KETIGA : Surat keputusan ini berlaku sampai akhir semester Genap Tahun Akademik 2017/2018

KEEMPAT : Surat Keputusan ini berlaku sejak tanggal ditetapkan dengan ketentuan segala sesuatu akan diubah dan diperbaiki kembali sebagaimana mestinya apabila kemudian hari ternyata terdapat kekeliruan dalam penetapan ini.

Ditetapkan di: Banda Aceh
Pada Tanggal: 16 Juli 2018
An. Rektor
Dekan,

Mujiburrahman

Tembusan
1. Rektor UIN Ar-Raniry (sebagai laporan);
2. Ketua Prodi PBI Fak. Tarbiyah dan Keguruan;
3. Pembimbing yang bersangkutan untuk dimaklumi dan dilaksanakan;
4. Mahasiswa yang bersangkutan;

APPENDIX III

AUTHOBIOGRAPHY

Name	: Dinauli Yansyah
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