UNIVERSIDAD DE QUINTANA ROO

División de Ciencias Políticas y Humanidades

Exploring the influence of phonological aspects of the Mayan language in learning English as a foreign language

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Presenta
Carlos Luciano Torres Esquiliano

Director de Tesis

Mtra. María Isabel Hernández Romero

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COMITÉ DE TESIS

Director: _____
Mtra. María Isabel Hernández Romero

Asesor: _____
Dr. Alfredo Marín María

Asesor: _____
M.A. Magnolia Negrete Cetina

Chetumal, Quintana Roo, México, junio de 2008

Director: Mtra. María I. Hernández Romero
Student: Carlos L. Torres Esquiliano

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Abstract

Acknowledgements

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Abstract:

The aim of this research is to explore the phonological influence of the Mayan on English in a study conducted in the English Language Undergraduate Program, in the University of Quintana Roo. This research describes supra-segmental aspects (stress) of the Mayan influence on English. It also demonstrates some phonological features of Mayan such as segmental aspects (place and manner of articulations). This research also studies several problem areas in the pronunciation of English for students with a Mayan background.

Chapter 1
Introduction

While studying in the English Language Undergraduate Program offered at the University of
Quintana Roo, I noticed that students had different pronunciations. This peculiar stress in
producing the English language is identified in some students whose native language is Mayan
.Such stress of English pronunciation is similar to glotalization, which is a clear example of the
Mayan influence in the pronunciation of another language.

An example of this language manifestation was affirmed by Arzápalo (1997) who stressed that
"The Castellano language of the Yucatan Peninsula has changed and this change is noticeable in
terms of phonology and vocabulary". The variant of Castellano that is used in Yucatan
incorporated the occlusive sounds and glotalized affricates which were identified in the Mayan
spoken in the area. Besides, this influence is produced mainly before stressed vowels (Garcia,
1984). Barrera & Suarez (1937, 1979.) also supported those affirmations and said that in the
Yucatan peninsula, vocalic and consonant glotalization is presented in the Spanish language.

Nowadays, English is studied by people worldwide who intend to have better opportunities to
make a living. Thus, there are many people who register in the English language undergraduate
program, offered at the University of Quintana Roo. Some of these people are Mayan students
who also speak Spanish and are from the state of Quintana Roo. As a bachelor of the University
of Quintana Roo, the researcher of this research was interested in a peculiar stress that some of
these students produced when speaking Spanish. One reason why students might do so is
inhabitants from these places speak their native language and some years later they learn
Spanish as a second language. As an example, Farris (1984) ensured that the Mayan language is
the main language in the indigenous population of the Yucatan Peninsula.

This research was conducted to examine whether this special linguistic stress was produced in some Mayan students while learning English as a foreign language. Furthermore, some of the research questions were made to recognize the way this *phenomenon happens* and *the phonemes that are frequently influenced by this sort of pronunciation.*

Another concern of this research was to prove, to some people of the current generation of Mayan speakers and others interested in this indigenous language, the richness and beauty of this language through its manner and place of articulation of each segment. Due to the purpose of this research, the researcher was merely focused on speakers of Mayan who are studying English language at the University of Quintana Roo. As a result, the main beneficiary people from this research are Mayan students and People who are interested in learning this language.

The University of Quintana Roo is located in Chetumal, Quintana Roo and its location is considered a Mayan zone for two reasons. First of all, there is Mayan population; second, Mayan is spoken in this area. Therefore, the register of Mayan students might increase in some years . The previous declaration can be confirmed by the National Institute of Statistics and Geography (INEGI)– Ninth General Housing and Population Census, 1990. It states that "Mayan is the indigenous language spoken by 525, 264 people in Yucatan, by 86,676 in Campeche and by 133,081 in Quintana Roo". This data allows us to recognize how meaningful this research might be for the next Mayan students who study in this English language undergraduate program at this University. There were different reasons to carry out this research because it is possible to analyze and provide answers to the linguistic behavior of Mayan language. For this reason, the researcher established the following objectives and research questions in order to corroborate these theories.

Objectives:

Explore the phonological influence Mayan has on Mayan speaking students who are enrolled in the English Language Undergraduate Program at the University of Quintana Roo.

1. Describe each segmental aspect (place and manner of articulation) of the phonology of yucatecan Mayan

2. Identify the supra-segmental aspect (stress) of Mayan language and its influence over the students' production of the English language.

Research questions:

1. Does the Mayan language have a phonological influence over the English language spoken by students in the University of Quintana Roo?

2. What are the instances in which supra-segmental aspects of Mayan language are used in English language, causing stress shortcomings?

3. What are the segmental aspects of Mayan language which influence on the production of the English language speaking?

Chapter 2
Theoretical Background

Bilingualism:

The word "bilingualism" is derived from the adjective bilingual, comprised of bi: two, and lingua: language, which means bilinguis: in two languages. In this research, to present some differences of Bilingualism which arise when establishing definitions.

For instance, Weinreich (1968) mentioned that the alternate practice of using two languages is called Bilingualism and the person involved Bilingual. However, Bloomfield (1935) incorporated the notion of "a certain degree of perfection in bilingualism". Besides, Mackey (1957) claimed bilingual as the use of two languages.

So far, bilingualism has been defined as a general sense. But, a narrow sense it is necessary to use this concept because bilingualism is studied as an individual aspect in this research.

Some authors like Bloomfield (1935a) define bilingualism as a "near-native control of two languages". He mentioned that, to be considered bilingual, a person should have a complete mastery of the two languages; that means that a person is able to speak, read, write, and understand in both languages at a highest level. Thus, taking into account these considerations, the researcher agreed with the previous author's statements when considering a bilingual person. But, the important fact here is to establish that a bilingual person may have a "near native control of two languages" or have a complete mastery of two languages. Apart from these considerations the author of the current research suggests that a bilingual person may be also considered a person who can speak two languages in a fluent way. However, some people may speak their second language differently according to their situation in which they learn it ; as a

consequence, this situation may lead to two types of bilingualism: "artificial and natural bilingualism" (Beardsmore, 1982).

Firstly, artificial bilingualism is when a "second language is learned in a sort of artificial environment; this can be school, language courses, self-study etc". This fact means that artificial bilingualism is used when someone learns another language apart from their native language with a specific purpose. Consequently, this person may lack the natural fluency in a foreign language.

Secondly, Natural bilingualism means that the "second language is acquired without any study; for instance, in a bilingual family". Thus, that second language is acquired directly in the second language linguistic environment through contact with native speakers (Beardsmore, 1982a).

These types of bilingualism have some advantages which are necessary to mention: regarding natural bilingualism, the phonetic and phonological levels of the language are more stable and provide the "native-like fluency in both languages". Besides, "native fluency acquired in a natural environment is more grammatically stable" than in the case of artificial bilingualism (Harmer, 1989).

In artificial bilingualism, the accent is easier to change and dialect words and expressions are easier to replace. Regarding natural bilingualism, the change of pronunciation is sometimes impossible if the L2 was acquired from a specific target language environment (Kornakov, 1997). Harmer (1989) mentioned that the disadvantages of artificial bilingualism are that the language learner does not have a firm technique of pronunciation and this fact may lead to forget the pronunciation after a period of time, especially when it hasn't been used. What is more, some grammar rules are incorrectly understood by the learner. In short, in both types of bilingualism the learner needs to use both languages.

Thus, these two ways to learn a second language may be a factor when establishing whether a person has a complete mastery of a second language. That is why the author of the current research considered bilingual students according to their fluency and language interaction of the language being learned.

After mentioning some features of artificial and natural bilingualism, the author of this research considered to mention some aspects related to *proficiency*. To determine the degree of proficiency in a speaker was one question which emerged through this section. Thus, to integrate in this section "the *evaluation of the act of communication* "was crucial (*Korsakov1997a*). This evaluation is conformed by stages which are necessary to identify the degree of proficiency of an individual:

Self evaluation by the speaker. As a rule, a speaker has his own internal evaluation such as "satisfactory" or "failing" every time the L2 is spoken. He evaluates himself on how fully and adequately he expresses his thoughts, ideas, feelings and wishes.

Evaluation of the bilingual speaker (expressing him or herself in L2.): Even if the bilingual speaker evaluates himself with the highest mark, the native speaker also evaluates him, and his or her evaluation is not always the same as the bilingual speaker's.

Practice, it is used in the type of situation in which both the bilingual and the native speaker are wrong in their evaluations, and the first one is satisfied with his "speech" in the L2 and the second one is satisfied as well by what he thinks he has understood.

Finally, mentioning some aspects which have a sort of influence on someone who becomes a bilingual person is vital. The first aspect is age, the age of the speaker at the time of the acquisition may result in differences as suggested by the terms "early bilingualism and late bilingualism" (Pavlenko 2006). An example of early bilingualism may be a bilingual child and the case of the adult can be at the age of puberty or above.

The previous aspects were extremely in this study to identify bilingual students and their degree of proficiency to determine whether or not a student is able to produce and interact with another person in the target language (English). Besides analyzing these issues related to bilingualism there is another issue to consider which language interference is. There is a need to analyze the distinction of its behavior; the way that its manifestation is presented to a bilingual person and the way in which this is produced.

Interference:

Language interference has been defined by some researchers, as transfer, cross- linguistic interference or mother tongue influence. Dulay, Burt and Krashen (1982) suggested that there are two forms to describe interference: one is from a psychological perspective, which occurs when new habits being learned are influenced by old ones. The second is from a sociolinguistic perspective that describes the language interaction which happens when two languages are in conflict in a community.

In this research, the sociolinguistic perspective was considered, since the language to be analyzed is learned in a classroom environment. Such language is produced in different ways according to the informants' environment interaction. Berthold, Mangobhai and Batarwicz's (1997) agreed that interference may be viewed as the "transference of elements from one language to another at various levels (phonological, grammatical, lexical and orthographical)". These authors mentioned parts of the language in which interference is manifested, this influence which in the second language leads to a variation of the pronunciation according to the environment and the native language which the learner is immerged. Thus, in order to address this section in the objective of this study, it is necessary to consider. (Weinreich, 1953) mentioned that interference is the effect of one language on another producing "instances of difference from the norms of either language". This concept focused on negative transference and considered native language influence as an obstruction to the correct production of the target language. Another claim is that interference is seen as errors in the learner's use of the foreign language which can be traced back to the mother tongue (Flege 1987). These authors limited interference as errors presented in a target language by a speaker. But, to understand such a concept in a deeper form and describe the difference between mistakes and errors is central. To this, Ellis (1984) declared that "Errors reflect gaps in the learner's knowledge and they occur because the learner does not know what is correct. Mistakes reflect occasional lapses in

performance, they occur because, in particular instance, the learner is unable to perform what he or she knows."

But, Odlin (1989a) stated that not all errors made by language learners are the result of erroneous guessing and he stated that some errors are due to a conscious or unconscious process. He affirmed a "conscious process" is when the student may guess because he has not learned or has forgotten the correct usage. "Unconsciously", the student may not consider that the features of a language may differ, or he may know the correct rules but is insufficiently skilled to put them into practice, so he follows examples of his first language.

After explaining the difference between mistakes/errors and conscious/unconscious processes. The researcher understands Fledge's definition of interference as the result of the wrong use and these wrong uses are manifested in different language.

So far, interference has been viewed as a negative influence of students' native language on second language learning. nonetheless, in this study both influences, negative and positive , were analyzed throughout the process of second language .Oddlin (1989b) affirmed that , "The native language can also have facilitative effects in language learning, therefore, the term transference transfer changes to interference". Thus, definitions of transference will now be considered.

(Odlin 1989c) affirmed that transfer results from the influence of similarities and differences between the target language and any other language that has been previously acquired. But, that "positive transfer" only happens in some words which have concordances between L1 and L2; however it is worth mentioning that this does not mean that your learning process of the whole language (pronunciation or vocabulary area) may be facilitated. The only fact is that, the learning process would take place with little or not difficulty. By contrast, "negative transfer" occurs when there are some sort of difference between the L1 and L2. In this case the learning of the L2 would be more difficult and take longer because of the difficulty of the L2 structure.

In this research, both positive and negative transference were analyzed; nevertheless, the language level in which this manifestation occurs must be stressed. For the sake of this research,

the language transference was studied at phonological level, so the author considered including some references related to this part of language interference.

Berthold, M., Mangubhai, F., & Batorowicz, K. (1997) defined phonological interference as "items including foreign accent such as stress, rhyme, intonation and speech sounds from the first language influence and there are two ways in which this phenomenon might manifest itself.

First, "·speakers may try to apply the spelling to sound rules of his native language to the new language, resulting in an incorrect choice of target phoneme string (Crystal, 1983). Second, even if he is trying to produce the correct phoneme, the influence of his native phonological system might interfere with the production of sounds in the different systems".

All this process occurs because speakers of one language hear a sound in a foreign language which they tend to interpret as if were of their native phonological system and when they try to produce a foreign sound they produce one that is similar to a phoneme in their own language. Sometimes this process happens because "some phonemes of L2 are similar to L1 but frequently occurs because some phonemes in L2 do not exist in the L1" (Crystal, 1983a).

Finally, Wells (1990) introduced his approach of allophonic difficulties. He argued that in all languages, phonemes are pronounced differently according to the phonetic context in which they are found found, and this means that they comprise a number of distinct allophones. Thus, this can give rise to two sorts of interference problem: firstly, "a failure to acquire allophonic rules for the L2 but not the L1. Secondly, to carry over inappropriate allophonic rules of the L1 into L2

English Language Phonetics:

In order to identify some phonetic features of English and Mayan language, the researcher considered important to analyze in detail way the phonetic structure of English. This description covered each segmental part of the language. Due to this reason, the author of the current research based himself on Andersons' (1985) English phonetic description, which is from the author's viewpoint, a complete work related to English language description. Anderson's contribution helped the author to identify and describe the English and Mayan sounds. To accomplish the purpose of this research, this section not only involves English language phonetics itself but also the characteristics of its phonemes. Such characteristics are the distinction of their manner of articulation and voicing. But, before conducting to consider some significant features of the speech organs is pertinent. Besides, this description is meaningful to understand the names of different parts of the speech organs to refer to these speech organs which were also in the Mayan description.

Speech Organs:

The following picture shows the most important human organs in the production of sounds which will be analyzed further on this study. It shows the different organs involved regarding the presence or absence of obstructions in the course of the airstreams that modifies the nature of produced sounds.
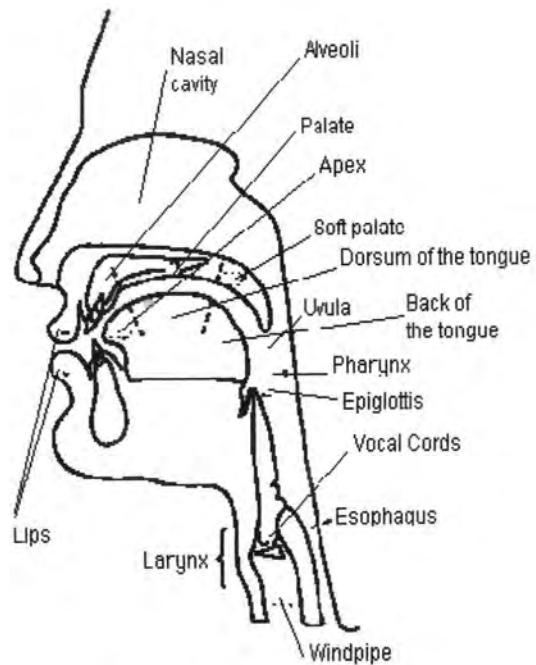
Figure 1.2: diagram of the speech organs
Benoit (2003), UNIL/ linguistic

Consonants:

The current English language phonetics review was based on Anderson's work (1996).He stressed that consonants sounds in English are produced by the airflow interference through the mouth and nose. Besides, consonants are created when the airflow is directly restricted so that the air cannot escape without creating friction that can be heard. Thus, the obstructed speech sound can be voiced or unvoiced. It can be obstructed in a number of different places in the vocal tract. The nature of the obstruction can be taken in a number of forms or manners. This section is essential to define each of the features of the English consonant in order to explain them in a detailed form. : To accomplish this objective the consonants were analyzed in different ways: voiced *or voiceless, place of articulation, manner of articulation and allophones.*

Voiced or voiceless:

The level of vibration of the vocal cords determines whether a sound is voiced or voiceless. Then, a sound is said to be voiceless when the vocal cords are separated and the air can escape without obstruction. On the other hand, a *voiced sound* is when the vocal cords are very close together. The air will blow them apart as it forces its way through so that this makes the cords vibrate.

Place of articulation:

Consonants are produced by obstructing the air flow trough the vocal tract. There are a number of places where these obstructions can take place. Such places are known as the articulators: Lips (Labial), teeth (Dental), alveolar ridge (Alveolar), hard palate (Palatal), soft palate (Velar) and throat (Glottal).

Lips:

If both of the lips are used to articulate a sound, then it is said to be a *labial* sound, for instances /p/, /b/, /n/. On the other hand, if two sounds use the lower lip together with the upper teeth they are called *labio-dental* consonants: for example /f/, /v/

Teeth (Dental):

The two "th" sounds in English are formed by forcing air through the teeth. If you say the soft /th/ in /thin/ and the hard /th/ sound in /then/; you can feel the air being forced through the teeth. The tongue tip and rims are articulating with the upper teeth

Alveolar Ridge:

An alveolar sound is when the tongue tip touches the bony prominence behind the top teeth. There are four sounds which are called *palato-alveolar*. This is because the tip of the tongue straddle both the alveolar ridge and the front of the hard palate as the air is forced through to make the following sounds:

The /ʃ/ in sheep.

The /ʒ/ in genre.

The /tʃ/ in cheap.

And the /dʒ/ in jeep

Hard palate (palatal):

This is the hard bit of the arched bony structure that forms the roof of the mouth. You can feel the fricative sound being forced between the tongue and the very top of the mouth. The /j/ sound in yes is an example of a *palato sound.*

The Soft Palate (velar):

The *soft palate* is toward the back of the mouth. It is where the roof of the mouth gives way to the soft area behind it. It can just be felt with your tongue if you curl it as far back and as high as you can. The *velar sounds* are usually made when the back of the tongue is pressed against the soft palate, for instance: the /k /,/g/and /ng/ .A *labio velar sound* is when one simultaneously uses both lips while raising the back of the tongue towards the velum, for example /w/.

Glottis (glottal-throat):

Glottal are those sounds that are made in the larynx through the closure or narrowing of the glottis. /h/ is an example of *glottal sound.* It is physically impossible to feel the process using your tongue.

Manner of Articulation:

There are two sorts of construction (manner of articulation) that often occur in English: Plosive and Fricative. Furthermore, there are other less common constrictions: Nasal, lateral and affricative.

Plosive:

A plosive sound is made by forming a complete obstruction to the airflow through the mouth and nose the first stage is that a closure occurs. Then the flow of air builds up and finally the closure is released, making an explosion of air that causes a sharp noise. Once the air has been released, the sound has escaped.

Fricative

A fricative sound is the type of consonant formed by forcing air through a narrow gap so that a hissing sound is created. Typically the air is forced between the tongue and the place of articulation for the particular sound. It is possible to maintain a fricative sound for as long as your breath holds out.

Nasal

A nasal consonant is a consonant which air escapes only through the nose. Thereupon, the soft palate is lowered to allow air to pass it, while a closure is made in the oral cavity to stop air escaping through the mouth.

Lateral

Regarding lateral consonant, the air is obstructed by the tongue at a point along the centre of the mouth but the sides of the tongue are left low so that air can escape over its sides.

Affricate

An affricative is a plosive immediately followed by a fricative in the same place of articulation. The /ch/ in chap and the /j/ in jeep are the two clear affricates in English.

<u>Individual Consonant Sounds:</u>

b

Possible position

- word initial as in boat /bəʊt/
- word medial as in , rubber/'rʌbə/
- word final as in cub /kʌb/

This is a voiced consonant, so the neck vibrates. Moreover, the use of both lips demonstrates that it is a bilabial sound. There is air coming out of the mouth which indicates that it is a plosive sound.

Luscombe (1996)

Voice - voiced

Place - Bilabial
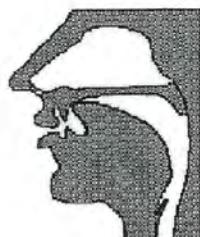
Manner - Plosive

d

Posible position

- word initial as in dish/_diʃ_/
- word medial as in middle /_mid_/
- word final as in third/_θəɪd_/

The throat vibrates when saying this consonant and the tongue touches the alveolar ridge, making it an alveolar sound. There is a small explosion of air, so it is a plosive sound. Furthermore, this consonant should be produced with the tip of the tongue touching the upper gum ride.

Luscombe (1996)

Voice - voiced

Place - Alveolar

Manner - Plosive

f

Possible position

- word initial as in final, /'fain//
- word medial as in selfish /selfiʃ/
- word final as in roof /ru:f/

The top teeth should touch your lower lip (labio-dental sound). Besides, there is a friction of the

air as it forces its way between the lips and teeth (fricative) as shows the picture below.

Luscombe (1996)

Voice - Voiceless

Place - Labio-Dental

Manner - Fricative

g

Possible position

- word initial as in goat /gəʊt/
- word medial as in figure /'figə/
- word final as in vague /veig/

This sound is made at the back of the throat. The back of the tongue should touch the soft palate as making the sound as the picture below. Besides, while producing this sound should be a rush of air (plosive)

Luscombe (1996)

Voice - Voiced

Place - Velar

Manner - Plosive

h

Possible position

- word initial as in heart /haːt/
- word medial as in, ahead /əˈhed/
- Does not appear in word final positions

This sound carries no voice. The sound comes from the very back of your mouth. The back of the tongue should touch the soft palate. In fact, it is articulated by the glottis, which is as far back as you can get. Being so far back, it is hard to feel that the air is being forced through the vocal cords as a fricative.

Voice - Voiceless

Place - Glottal

Manner - Fricative

k

Possible position

- word initial as in catch /kætʃ/
- word medial as in equal /iːˈkwəl/
- word final as in duck/dʌk/

The place of articulation is felt in the soft palate at the back of your mouth as in the figure. There is a strong release of air that clearly makes it a plosive.

Voice - Voiceless

Place - Velar

Manner - Plosive

1
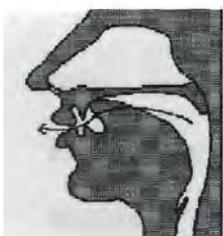
Posible position

- word initial as in live /liv/
- word medial as in asleep/ə'sli□p/

/l/ is divided into two different sounds: the dark /l/ and the light /l/. The difference between the two stems from the position of the back of the tongue. In the light /l/, the back of the tongue is in a more forward position. In the dark /l/, the back of the tongue is further back in the mouth. In both the light and dark /l/, the tip of the tongue is in contact with the alveolar ridge as shown in the following picture.

Voice - Voiced

Place - Alveolar

Manner - Lateral

m

Possible position

- word initial as in middle /' mɪdl/
- word medial as in fumble,/ fʌmbl/
- word final as in rhythm / ' rɪðəm/

Vibration on the throat can be felt when making this sound. The lips are used to create the sound, so it is bilabial. The air that comes out is felt through the nose, indicating that it is a nasal sound.

Luscombe (1996)

Voice - Voiced

Place - Bilabial
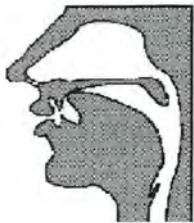
Manner - Nasal

n

Possible position

- word initial as in kneel /niːl/
- word medial as in thinker /θinkə/
- word final as in , down /daun/

The tongue is against the alveolar ridge (as in the picture below), indicating that it is an alveolar

sound. Besides, the air expulsion is through the nose, indicating that it is a nasal sound.

Luscombe (1996)

Voice - Voiced

Place - Alveolar

Manner - Nasal

P

Possible position

- word initial as in people /piːpl/
- word medial (intervocalic) as in capable /ˈkeipəbl/
- word medial (/s/ preceding) as in spill /spil/
- word final as in pump /pʌmp/
- Silent /p/ can occur as in psychologist /saiˈkɔlədʒist/

In order to make this sound this sound both lips are pressed together.

Luscombe (1996)

Voice - Voiceless

Place - Bilabial

Manner - Plosive

r

Possible position

- word initial as in rope/rəup/
- word medial as in arrow/ærəu/
- word final as in poor/puə/, but only when the next sound is a vowel.

In order to make this consonant sound, the tip of the tongue is curled upward but does not touch the roof of the mouth. Moreover, the tip of the tongue never touches the upper ridge.

Voice - Voiced

Place - Palato-Alveolar

Manner - Approximant

S

Possible position

- word initial as in seal, /siːl/
- word medial as in escape /isˈkeip/
- word final as in, famous/ˈfeiməs/

The air is forced between the tongue and alveolar ridge. The fact that there is friction means that

it is a fricative. It is articulated in the alveolar region as in the picture.

Voice - Voiceless

Place - Alveolar

Manner - Fricative

t
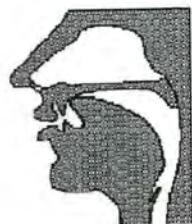
Possible position

- word initial as in town /taun/
- word medial as in butter/bʌtə/
- word final as in but /bʌt/

The tongue touches the alveolar ridge and the distinct explosion of air comes out classifying it as plosive as shown in the next picture it as being plosive as the next picture.

Luscombe (1996)

Voice - Voiceless

Place - Alveolar

Manner - Plosive

V

Possible position

- word initial as in vain /vein/
- word medial as in over /'əuvə/
- word final as in behave /bi'heiv/

In order to produce this sound, the air must go through your lower lip and upper front teeth as shown in the following picture.

Luscombe (1996)

Voice - Voiced

Place - Labio-Dental
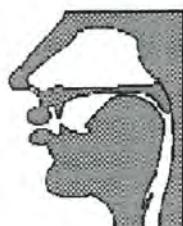
Manner - Fricative

W

Possible position

- word initial as in weather ,/ weðə /
- word medial as in , twelve /twelve/
- This sound doesn't appear in word final positions

The lips are rounded   and the articulation of this letter makes it sound as the /u/ vowel. The obstruction is never causes enough friction to make it sound like a fricative.

Luscombe (1996)

Voice - Voiced

Place - Labio-velar

Manner - Approximant

Possible position

- word initial as in, zinc /zɪŋk/
- word medial as in easy /'iːzi/
- word final as in was /wɒz/

The air is forced through the space between the tongue and the alveolar ridge, as in the next picture, meaning that it is a fricative being articulated at the alveolar.

Voice - Voiced

Place - Alveolar

Manner - Fricative

Possible position

- word initial as in think /θɪŋk/
- word medial as in ether, / 'iːθə /
- word final as in, path /pɑːθ/

It is a voiceless sound. The air is forced through the space between the tip of your tongue and your upper front teeth as shown in the picture.

Voice - Voiceless

Place - Dental

Manner - *Fricative*

ʃ

Possible position

- word initial as in shirt /ʃəːt/
- word medial as in fissure /ˈfiʃə/
- word final as in wish /wiʃ/

Clearly this is a voiceless sound. However, it is quite difficult to identify which place of mouth in the mouth is articulated. It seems to be between the alveolar ridge and the hard-palate .reason why people call it a palato-alveolar. However, others call it a fricative since the sound is being forced between the tongue and the palato-alveolar.

Luscombe (1996)

Voice - *Voiceless*

Place - *Palato-Alveolar*

Manner - *Fricative*

j

Possible position

- word initial as in young /jʌŋ/
- word medial as in, beauty /bjuːti/

It has some of the qualities of a vowel and of a consonant. It seems to start like the vowel /i/

before moving to a more obstructionist sound common in consonants sounds.


Luscombe (1996)

Voice - Voiced

Place -palatal
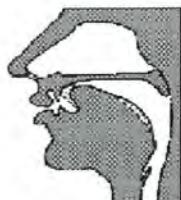
Manner -approximant

tʃ

Possible position

- word initial as in cheese |tʃiːz|
- word medial (intervocalic) as in feature /fiːtʃə/
- word medial (consonant preceding) as in mischief /mistʃif/
- word final (intervocalic) as coach |kəʊtʃ| word final (consonant preceding) as in, branch |brɑːntʃ|

This sound is voiceless. Besides, the fact that it is a fricative means that the tongue is spread over the hard palate and the alveolar ridge, as shown in the following picture, making it a palato-alveloar sound.

Luscombe (1996)

Voice - Voiceless

Place - Palato-Alveolar
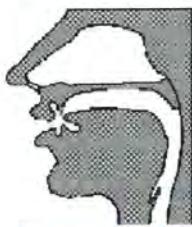
Manner - Affricate

ð

Possible position

- word initial as in , there /ðeə/
- word medial as in leather /'leðə/
- word final as in with, soothe /suːð/

The tip of the tongue is pushed against the upper front teeth. The fact that air is forced between the tongue and the teeth means that it is a fricative consonant.

Luscombe (1996)

Voice - Voiced

Place - Dental

Manner - Fricative

3

Possible position

- word initial (in French loan words) as in genre /ʒɑːŋr/
- word medial confusion /kən'fjuːʒən/
- word final (in French loan words) as in rouge /ruːʒ/

The position of the tongue is somewhere around where the hard palate and the alveolar ridge meet, making it a palato-alveolar consonant. The air is forced between the tongue and the palato-alveolar ridge, making it a fricative.

Voice - Voiced

Place - Palato-Alveolar

Manner - Fricative

Possible position

- this sound does not appear in word initial positions
- word medial as in hanger /*haŋə*/
- word final as in tongue /*tʌŋ*/

It is a voiced sound made by positioning the back of the tongue against the soft palate. There is an expulsion of air through your nose, which makes it a nasal consonant.

Voice - Voiced

Individual Vowels Sound:
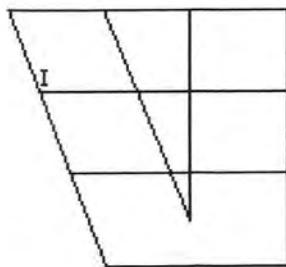
A vowel is a speech sound produced by vibrating vocal cords and a continuous unobstructed flow of air through the mouth. The articulators used in the production of vowels are the different parts of the mouth's area that are used when speaking; such as:the lips, tongue, teeth and jaw. There are the two vowel categories: short vowels and long vowel. In this study, both types of vowels will be described. In the next chart, it is possible to identify the position in which the different vowels are produced: front, central, back. Furthermore, specifies the degree of the mouth when it is opened while the sound is produced, closed, half-closed, half-opened and opened.

Short vowels:

# I

As in wit, mystic, thick, finish.

The front of the tongue is raised towards the palate. In fact, the position of the whole tongue is relatively high in the mouth, making it a closed vowel. The lips are slightly spread.
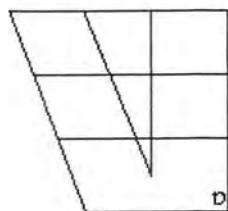
The tongue and jaw are lowered since the back of the tongue is used to articulate this vowel.
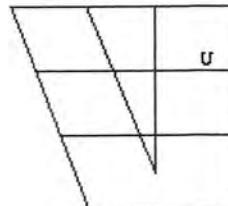
Hence it is a back, open (low) vowel. The lips are slightly rounded.

The tongue and jaw are raised as the back of the tongue is used to articulate this vowel. Hence it

is a back, close (high) vowel. The lips are rounded.

Place - <u>Velar</u>

Manner - <u>Nasal</u>

dʒ

Possible position

- word initial as in jest/ *dʒest* /
- word medial (intervocalic) as in fragile/ *fradʒail* /
- word medial (consonant preceding) as in soldier/ *əuldʒiəl* /
- word final (intervocalic) as in large/ *laːdʒ* /
- word final (consonant preceding) as in change / *tʃeindʒ* /

The fact that it is a fricative means that the tongue is spread over the hard palate and the alveolar ridge which makes it a palato-alveloar sound.

Luscombe (1996)

Voice - <u>Voiced</u>

Place - <u>Palato-Alveolar</u>

Manner - <u>Affricate</u>

æ
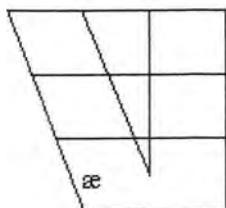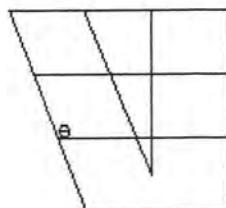
This vowel is a front vowel since the front part of the tongue is raised when it is articulated. It is also an open (low) vowel. This means that the tongue is in a low position and the jaw is lowered. The lips are slightly spreaded.

This traditionally short vowel has become slightly longer than the other short vowels. This lengthening is presented before voiced consonants such as in cab, bad, badge and man.


e
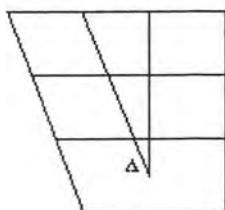
As in fell, set, many meant.

The front of the tongue is used in the production of this vowel, making it a front vowel. It is also a closed/middle vowel in that the position of the tongue and jaw is slightly raised. The lips are slightly spread.

As in cut, bus, come, rough.

This is a central vowel and is more open than mid-ranged. The lip position is a neutral one.
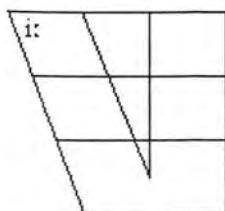
The schwa is an unstressed central vowel and is the most common vowel to appear in English.

Long vowels:
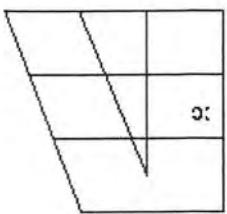
As in beat, receive, see, unique.

This vowel is long enough to be considered long vowel but it does not actually glide into another vowel sound. The lips are only slightly spread.
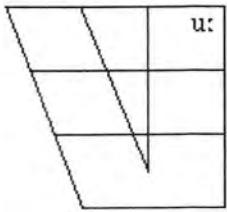

As in caught, port, talk, thought

uː

As in spoon, you, blue, balloon.
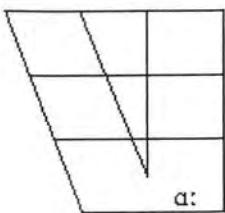
This vowel is towards the back and is a closed sound. The lips are only moderately rounded.

ɑː

As in cart, half, pass, laugh.
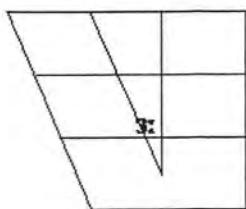
This is an open vowel, tending towards, but not completely in, the back position. The lip position

is neutral.

3ː

As in hurt, bird, word.

This is a central vowel. The lip position is neutral.

It is the author's desire to conclude presenting the previous description of each segment because the author needed to be involved with the whole phonetic description in order to be familiar with them and facilitate his work when conducting his interviews. Additionally, he needed to identify the Mayan language phonetics too. For this, the author conducted a description of the following topic

Mayan Language Phonetics:

The direct ancestor of the Mayan Yucatec language is the "Dead Classic Maya language" Campbell & Kaufman (1985) because the "Dead Classic Maya Language was spoken in the entire Yucatan peninsula. This language was spoken troughout the Pacific Coast and the Caribbean in the ; for example, in Guatemala, Belize and the Mexican states of Chiapas, Tabasco, Campeche, Yucatan and Quintana Roo" (Baer & Merrifield, 1971). Regarding the state of Quintana Roo state, Mayan language is still spoken as a first and second language in different village. Thus, this research was focused on the Yucatecan language.

The current phonetic analysis of the Mayan language was based on the adaptation of the 1984 alphabet. Such alphabet suffered a modification from the alphabet in 1981; which main goal was to use it as a written form of the language language (Comisión de Difusión del Alfabeto Maya, 1984).

The Mayan alphabet has 19 consonants which are divided into two sections: "Basic and Modified consonants". The basic consonants as Tec (1984) stated are: b, ch, j, k, l, m, n, p, s, t, ts, w, x, and y. The Modified consonants are: ch', k', p', t', ts'.

Classification of Mayan language phonetics according to their place and manner of articulation

	Labial	Alveolar	Palatal	Velar	Glottal
Occlusive	p b	t		k	'
Fricative		s	x		j
Affricative		ts	ch		
Glottal	p'	t' ts'	ch'	k'	
Nasal	m	n			
Lateral		l			
Semivowel	w		y		

Chart 1. Mayan alphabet adopted in the meeting of august 1984

Five vowels are considered in Mayan language: i, e, a, o, as shown in Chart 1. Mayan alphabet was adopted in the meeting of August 1984 .Such vowels can be pronounced in a variety of ways: long, falling tone, rearticulated, and glottal vowel (Tec, 1984 a).

1.-long vowels: aa, ee, ii, oo, uu,

2.-falling tone vowels: áa,ée,íi,óo,úu

3.-rearticulated vowels: a'a,e'e,i'i,o'o,u'u

4.-glottal vowels: a', e', i'o', u'

So far, the variety of consonants and vowels of Mayan language has been mentioned; nevertheless, most of the literature review conducted by the researcher was not enough to carry out a detailed description of the Mayan language phonetics like in the English language description. The author needed the description of its place and manner of articulation to identify the effects of Mayan on English, so this research explored the segmental aspects of Mayan language. This exploration allowed the author be immerged in this language and he was able to

described the manner and place of articulation (the linguistic segments and features which belongs to Mayan) of each segment. Therefore, to mention some of the difficulties Mayan students encounter themselves with when speaking English as a foreign language was possible.

Segmental and Supra-Segmental Features:

There are different interrogatives concerning to second language learning (SLL). Firstly, whether segmental and supra-segmental features of language phonology are independent aspects to be analyzed during the learning process of a foreign language learning (FLL).Secondly, second language learners tend to achieve differential pronunciation success due to the revision of segmental and supra-segmental components of learners' native and target language.

For this statement, Avery & Ehrlich (1992) stressed that "a foreign language learner and his sound structure of his native languages has some influence on the production of their second language". In other words, the foreign accent is determined by the learners' native language. Thus, the pronunciation errors made by second language learners are considered not only by random attempts to produce unfamiliar sounds but also by considering rules of combining sounds, and the stress and intonation patterns of their native languages (Swan & Smith, 1987).

ESL/EFL teachers may become more aware of the impact that learner's L1 backgrounds would bring to the learning of English pronunciation. Teachers may cultivate a strong understanding of the differences between English and the native language of the learners. Having such knowledge can be an advantage to teach, especially for those who are teaching English as a Foreign Language (EFL).

Vitanova and Miller (2002) stressed that students are motivated by their improvement in segmental and supra-segmental features. Perfection is important and possible even though "native-speaker-like pronunciation may be impossible after a certain age according to The Critical Period Hypothesis (CPH)".

The Critical Period hypothesis states that, after a certain period of time our language learning abilities decrease significantly (Vitanova and Miller, 2002a). It is said that, as we get older and our brains begin to mature, lateralization occurs as certain functions are assigned to either the left or right side of the brain.

But once lateralization is complete, people rely exclusively on their left hemisphere for language skills. Then, there is a short period of time before we lose this ability to use both hemispheres simultaneously for language learning (Brown, 2000).

Nevertheless, Krashen and Terrell (1983, 1989) mentioned that, while younger learners may have the advantage of being able to achieve such pronunciation proficiency, adult learners are able to use their "cognitive abilities" to improve through "self-monitoring and self-correction". Adults usually try to improve their fluency and comprehension levels in both the segmental and supra-segmental areas of pronunciation. After all, one of the major advantages of adult students is that they are usually aware of how they learn.

The role of phonology in teaching English has experimented different changes through the years. Language teachers used to start from the zero level teaching all segmental particles e.g. consonants, vowels, minimal pairs, and so on and prosodic features were taken for granted. To date, more books have adopted a holistic approach that focuses their emphasis on teaching the wide phonological aspects of pronunciation, i.e. supra-segmental. Through the time, there has been a debate regarding whether analyzing segmental aspects is better than supra-segmental components. Therefore, in the following lines the author of this research considered it necessary to include some linguists' positions to segmental and supra-segmental aspects.

Referring to segmental aspects, Hansen (1995) claimed that "segmental techniques like drilling, minimal pairs have lost favour in the current pedagogical process". One area which adult learners can improve is the pronunciation of individual sounds that can be divided and focused on individually..

Pronunciation instruction has often been concentrated on the mastery of segmental through discrimination and production of target sounds via drills consisting of minimal pairs (Celce-Murcia, Brinton, & Goodwin, 1996; Gilbert, 1990; Morley, 1991). They also claimed that segmental do not need to be taught technically, although a background in phonetics would be useful.

Taking into account these theories, it may be assumed that Mayan students can be taught to identify the differences between the sounds that are not present in the Mayan alphabet. Learning to distinguish differences can help students recognize individual, distinct sounds, so they are better able to focus on producing them. Improvement can lead to a feeling of accomplishment and increased motivation with segmental (Vita nova and Miller, 2002).

Vita nova and Miller, (2002a) mentioned that the term *supra-segmental phonology* is used with various intentions and interpretations. In this research, the term "*supra-segmental phonology*" refers to "phrase- and discourse-level" pronunciation components such as the manipulation of the fundamental frequency of the stress. "Stress is a measure of relative volume of sound between syllable peaks. Auditory, we hear an accented syllable of a word as relatively louder than the unaccented syllables" (Miller 2002b). Languages differ in how they use stress.

The supra-segmental aspects of pronunciation can be improved by adult learners. Supra-segmentals are comprised of language stress, rhythm, intonation, pitch, duration and loudness. Students whose first language is syllable timed, like Mayan, might master a stress timed language, such as English (Bell, 1996).

By placing more or less stress on certain words, the speaker's context can change completely. Therefore, the differences in supra-segmental between Mayan students' L1 and English are topics that students are not only aware of but also make a conscious effort to study.

Regarding Mayan students, teachers may discuss stressed words and another Mayan language features presented in English language with them, in this research. Mayan students might be aware of this language manifestation by stressing certain words in a sentence which implies in the context and might have positive results. Supporting these statements, Derwing & Rossiter (2003) provided evidence of the superiority of supra-segmental aspects to segmental ones. They are on agreement and mentioned that the study of supra-segmental aspects has superiority over segmental ones. They conducted a longitudinal study within a group of non-native speakers (NNSs) to research the influence of teaching pronunciation teaching in students' accuracy, comprehension, and fluency of L2 accented speech.

They concluded that, if the goal of teaching pronunciation is to help students become more understandable, they suggested that a stronger emphasis on prosody should be included

However, Goodwin (2001) discussed the current segmental/ supra-segmental debate and concluded that it is not a matter of supporting either of them and he mentioned that there is a need to identify which of these aspects are essential to guarantee "intelligibility and fluency of communication".

The author of this research agrees with Goodwin who thinks that it is necessary to identify both segmental and supra-segmental aspects of pronunciation. These two components need to be identified in the native language of the learner and the foreign language which he is being learned. This fact may lead the learner and help him to recognize his pronunciation shortcomings, therefore, improve them.

Review of Relevant Studies

This section provides summaries of some of the studies referring to linguistic influence on English language pronunciation. An exhaustive review of all the existing documents and investigations was not possible due to the limited amount of available information of the author of the current research. A first study "The phonological Differences between Japanese and English: several Potencially Problematic Areas off Pronuntiation for Japanese ESL/EFL learners" was conducted by Ohata, (1994 a). In order to conduct his research, he made a phonetic comparison between English and Japanese language.

Ohata's (1994b) study was focused on the phonological level by comparing supra-segmental and segmental aspects of both English and Japanese. He conducted a comparison and presented the description of both languages' phonemes in charts. There was a lack of information related to the place where this information was conducted and the method the author used to obtain his information. Besides, his study did not demonstrate the examples of transcripts which were used. Ohata's research illustrated the author of this research to distinguish the part of supra-segmental aspects (stress) in English needed to be identified in order to present the words influenced by the Mayan language.

Another study which is similar to the current one is : "A phonetic research in Corozal" carried out by Chuc (2004). She made a phonetic description of English and Spanish language. This research was conducted in Corozal, Belize. She used a qualitative method to obtain the relevant data and her results were presented through descriptive statistics.

The author described phonemes of English and Spanish language (similarities and differences). Because of the nature of her research, this researcher had little attention to the frequency and occurrence of interference. The previous investigations were different due to their purpose and are also different to the current research .But, some parts of these investigations

contain some steps regarding language phonetic description which were useful to identify parts which may enrich the intended research.

Bilingualism has been a topic of great controversy; therefore, knowing different authors' opinions to define a bilingual person was necessary. The purpose of this analysis is to recognize the level of language proficiency that is required to be considered a bilingual person.

Interference is one of the important studies included in this research. Previous research has already been done in the area of native language interference in second language learning; as a result, linguists have differed to define factors which have an effect in second language learning. These can be a number of factors which are essential to consider for this phenomenon. Besides, the author considered that there was another crucial topic to include in this research; this was the analysis of segmental and supra-segmental features.

This topic was helpful to the researcher to show some linguists' perception about these linguistic aspects when learning a foreign language. In this field the researcher was able to identify which of these aspects needed to be analyzed in order to identify the degree of interference. Thus, the current study was based on these linguists' claims and delimited them to make his purpose clear. For example, Dechert & Ellis (1983, 1997) claimed that one of the effects of language interference is that second language learners tend to rely on their native language (L1) structures to produce a response.

Then, if these structures of the two languages are different, then one could expect a high frequency of errors to occur in a second language (L2). Besides, Beardsmore (1982) suggested that second language learners have great difficulty with the phonology, vocabulary and grammar of the second language.

This fact is due to the interference of habits from their L1. The formal elements of L1 are used within the context of L2, resulting in errors in L2, as the structures of the languages, L1 and L2 are different. Thus, this study took into account some of these linguists' opinions to be concise and go straight forward to the scope of this research: the phonological influence of the Mayan on the production of English.

Bhela (1999) conducted a similar study to this research and carried out a language comparison: "Native language interference in learning a second language: Exploratory case studies of native language interference with target language usage". Such research provides an interesting comparison of four languages, Vietnamese, Cambodian, Spanish and Italian, which were useful for the local teaching context. Besides providing a language comparison, Bhela (1999a) mentioned explicitly language interference in his/her study. However, this research was focused on the writing medium which differs from the purpose of this.

Despite all studies, mentioned previously, were different from each other they provided relevant information according to the purpose which were designed. But, they were a little different to this one; as a result, the author of this research took into account some parts of those studies which were helpful and contributed to the development of this particular research which is focused on the influence of Mayan on English language.

Chapter 3
Method

This research is focused on a descriptive and exploratory method. The main objective is to explore some students' pronunciation and capture the complexity of the phonological phenomenon. Besides, it describes the complexity of language use in a specific group of language learners. The obtained results from this exploratory research are focused on segmental and supra-segmental aspects such as stress and intonation.

The informants:

Informants were Mayan students registered at the University of Quintana Roo in the English Teaching Undergraduate Program. According to the Unidad de Apoyo Académico para Estudiantes Indígenas (UAAEI), a Mayan student is considered a person who was born in one of the 8 municipalities of Quintana Roo States and/or one who can dominate the Mayan language. Quintana Roo State is divided into 8 municipalities and the main parts of indigenous citizens are found in three of these municipalities: Felipe Carrillo Puerto, Jose Maria Morelos and Lazaro Cardenas.

Most indigenous students registered in the University of Quintana Roo are mainly from one of these places. The number of Mayan informants was obtained from the application of a background questionnaire to students from the English language Undergraduate Program (from 3rd to 9th semester). The data obtained from this questionnaire were useful to identify and classify Mayan students.

The selection of informants was determined according to their level of English and level of Mayan proficiency. As a result, seven undergraduate English language students from the University of Quintana Roo were selected for the following stage. The selected students were native speakers of Mayan language and they were in the 6th and 8th term of the English Teaching Undergraduate Program.

Instruments:

For the aim of this research some specific instruments were used to gather the corresponding data. These instruments were used as they were needed in the development of the research. They are described in the same order as they were used: a background questionnaire, two speaking tasks, an interview and observations. The application of speaking tasks and the interview were taped and video recorded.

Background questionnaire

A background questionnaire was piloted before the formal administering. It was piloted in two groups: one from third semester another from fifth semester. The questionnaire was divided into two sections: linguistic and family background. The involved questions were related to English language level, Mayan language proficiency and parents' language use (see appendix A).The background questionnaire was in Spanish because its purpose was to obtain information about the research informants.

Speaking task 1

After identifying Mayan students, they were asked to perform in the first speaking task. This speaking task was divided into four speaking activities in English . Interviewees were able to select one activity which was related to their daily life activities (see appendix B). This activity allowed students to feel relax and secure. The purpose of this stage was to elicit them to interact

with the interviewer and record their English language performance as they usually do in a classroom environment to find the corresponding evidence related to language interference.

Speaking task 2

The second speaking task was in English and was composed of four speaking activities too. Interviewees were also managed to choose and perform one activity, which was related to their childhood. Informants were asked to perform it in Mayan language (see appendix C). This instrument was carried out to record interviewees' performance in their mother tongue and collect data to describe Mayan language's segmental and supra-segmental aspects. Those descriptions were analyzed with the support of a Mayan speaker.

Interview

A semi-structured interview was carried out and an interview guide in English language was elaborated. Such interview guide was divided into three components: briefing, questions concerning to the linguistic information and debriefing (see appendix E).In the briefing, the questions were referred to the overview of the instrument, instructions for developing the interview, questions related to college.

Regarding the linguistic information, this was divided into two sections: the acquisition of Mayan language and the English language influence. These sections were focused on their process of their native language acquisition and related to their English language learning.

In the debriefing, the interviewer had the opportunity to thank the informants for their participation and they were allowed to express any comments related to the interview. The focus of this interview was to gather data to be analyzed later through observations and find more evidence of Mayan language influence on English language.

Procedure:

Establishing an exact number of Mayan students of English language degree at the University of Quintana Roo was required. Although there was available information in the UAAEI database, an up-to-date was needed. As a consequence, a background questionnaire was applied.

First of all, the background questionnaire was piloted in order to identify any misunderstandings referred to readability and validity. Ten students were chosen for piloting the questionnaire: five students from different semesters.

After analyzing the corresponding questionnaires, some corrections were made. The final version of the questionnaire was applied to students from the 3rd, 5th, 7th and 9th terms from the English language Undergraduate Program. Then, an identification of students was possible. Afterwards, the chosen students were asked to develop the speaking activities.

The next stage was the application of the first speaking task .This activity was performed individually. Informants agreed to be taped and video recorded while developing the speaking activities in English language. This activity lasted 10 minutes per student

In the second speaking task, the same informants were asked to answer certain questions but in Mayan language. This activity lasted around 10 minutes per student.

Finally, an interview in English language was carried out. At this point, informants seemed to be more comfortable and confident in expressing themselves.. This activity lasted around 20 minutes per student.

After the interviews, the researcher conducted the observations of the interviews and both speaking tasks were videotaped. Then, the researcher could analyze the way the students spoke in Mayan language and described, in English language, the manner and place of articulation of each phoneme in Mayan language. Besides, the segmental aspects of Mayan language were also represented by drawings (see chapter IV).

An assistant was required, a Mayan speaker, who helped the researcher with the descriptions and drawings of each segmental aspect of the Mayan language. She verified each pronunciation with the corresponding description and drawing.

Although, video-recording could have had a negative effect on the interviewees, in this research, informants were not inhibited by the video recordings and the communication was effective.

Data analysis:

The following data was obtained through analyzing the background questionnaire, speaking tasks, interviews and observations. The obtained results from these instruments were analyzed in order to distinguish the frequent Mayan language influence on English language.

In the background questionnaire, the data provided by the students were analyzed. One hundred sixteen informants were identified according to their Mayan language proficiency and background. They were categorized by their competence in speaking and listening Mayan language. As a result, seven students were chosen to participate in the following stage because they covered with the required elements for this research.

In the second speaking task, Mayan language was described. This description of Mayan language was possible by analyzing the videotapes of the language production of the Mayan students. These videotapes contained the performance of each informant in their mother tongue. The researcher observed and described the production of the Mayan vowels, consonants and diphthongs.

The manner and place of articulation of consonants and vowels were described in English language. The position of mouth, tongue, jaw and production of airstreams were drawn next to each described phoneme for a better comprehension of their production (see chapter IV). The purpose of this description was to have a better understanding of Mayan language phonetics and to identify the Mayan language phonemes that have influenced on the English language pronunciation.

In the first speaking task, the researcher analyzed the tape scripts obtained from the tape recording. The researcher wrote the informants' speech, this fact allowed him to read them while he was listening to the conversation. Thus, the researcher was able to find out enough evidence of

influenced words and demonstrated it in phonetic transcriptions based on the International Phonetic Alphabet (IPA).

The interview provided relevant information to be analyzed and identify influenced words on English language. The way of identification was the same as the conducted in the first speaking task. Additionally, the researcher verified the stressed words by using a computer program called Gold Wave, a digital audio editing software which has a collection of features which define the program like real-time graphic visuals: such as bar, waveform, spectrogram, spectrum, VU meter, etc. This program allowed him to observe and demonstrate the intensity of stressed words. Besides, excerpts from the speaking tasks and interviews were also added to demonstrate in a concise way the informants' pronunciation in English language.

Chapter 4
Results and Discussion

This thesis stated the following research questions:

R.Q.1 What are the instances where supra-segmental aspects of Mayan are used in English, causing stress shortcomings?

R.Q.2 What are the segmental aspects of Mayan which have an influence over English?

R.Q.3 Does the Mayan have phonological influence over English in the University of Quintana Roo?

With regards to the research question one, this dissertation was focused on the supra-segmental aspects (the stress of influenced words' phonemes) in English language. Therefore, in order to obtain relevant data for this dissertation, speaking tasks and interviews were applied this data collection was useful to demonstrate the degree of Mayan language influence over English language.

Furthermore, 1696 words per informant were obtained and each word was counted per minute and their average was seven minutes per informant. However, either informant's fluency varied, so the quantity of words per student differed. Having conducted the language analysis, several different Mayan features in English language were identified and their influence was presented not only in consonants but also in vowels of English language.

English Consonants:

The first sort of language influence is a strong stress that some English consonants received. This influence makes these words different from the ones in English language. Such phonemes are mainly [t], [p] and [k]. Commonly, these consonants, in English language, do not receive the sort of strong stress as it is detected in informants from this research.

In English, the consonant [k] is felt in the soft palate at the back of the mouth and there is a release of air that makes it plosive (see chapter II). Regarding phoneme [p], both lips are needed to produce this sound; it is aspirated and produced with a strong puff of air (see chapter II). Phoneme [t] touches the alveolar ride and there is also a plosive release of air (see chapter II). It can be mentioned that this plosive release of air which is produced in these phonemes is not the same as the one produced in this research.

On the one hand, these phonemes exist in Mayan language but per either consonant exists two sorts of phonemes. They are similar but their pronunciation and meaning changes according to their writing. For instance, the Mayan letter [k]: the tongue is closed to the soft palate, the tip tongue is downward and there is a strong puff of air (see chapter IV).

Regarding phoneme [p], lips are closed for a while and the tongue does not move when lips are opened and there is a plosive puff of air which passes through the mouth (See chapter IV). Regarding [t], the tip tongue touches the alveolar ride and both lips are spread while producing these consonants and there is a small plosive of air (See chapter IV).

On the other hand, there is also another sort of these Mayan consonants. These consonants are similar, in writing, to [k], [p] and [t] but they are different in their meaning. Besides, an apostrophe is added to these kinds of consonants to make them different to the first phonemes, for instances [k'], [p'] and [t']. Furthermore, these sounds are produced with a closure of the

glottis and with a raising tone and air pressure in the mouth, so when either sound is released it carries out a strong burst of air.

This sort of Mayan Phonetics was presented in English language. All informants presented this kind of Mayan sounds [t'], [p'], and [k'] at least in one of these three types of English phonemes [t], [p], and [k].

The author, in this research, described such phonemes and their occurrence in either informant. Beforehand, interference of [t'], [p'], and [k'] Mayan phonemes in English consonants and their degree of the affected words were showed and they appear in the same order as they were mentioned above. Thus, The influence of [t'] in English language phonemes was mainly presented in the following terms : s [t'] reet, s [t'] udy, [t']ime, s [t'] arted, some [t'] imes, [t']hink, [t'] alk, [t'] welve, [t']own, [t']all, [t'] ongue, s[t']op, [t']one, [t'] aking.

Regarding [p'] influence was detected in: s [p'] eak, s [p'] anish, [p'] art, ex [p'] lain, [p] lay, s [p'] end, [p'] ark, ex [p'] erience, [p'] robably, [p'] ractice, [p'] arents .

Furthermore, [k'] influence was detected in words like: s [k'] ool, [k'] all, [k'] ame, [k'] an, [k'] ind, [k'] ould, des [k'] ribe, in [k'] ontact.

Having applied speaking activities before the interviews helped either informant as an ice breaking in this research .This fact allowed the students to feel more comfortable and establish confidence with the interviewer before the interviews. At the beginning of the speaking tasks, only an informant (S3) felt confident and talked more fluently.

This fact was reflected on the production of influenced words but his/her production was fewer than the ones produced in the interviews section. The rest of the informants were careful with their words and they did not want to express in a freely way.

Students also took their time before speaking. Since (S3) was careless, he/she produced more influenced words than the rest of the students, in the speaking task.

Speaking tasks and the interviews were helpful for the author of this research to identify the different influenced English words presented in each informant. But, both activities speaking tasks and interviews provided a variety amount of influence words and, as it was expected, all informants produced more influenced words in the interview section.

This task developed as it was expected because the informants trusted the interviewer.. Also, the length of these two activities and the natural production of language in the each activity performed by the informants helped in the rhythm of the interaction. Detailed information can be appreciated in the followings table.

Table 4.1 demonstrates the occurrence of each influenced words, with glotalization, presented in either informant. Next to each word there is a number which represents the number of occurrence per word.

Table 4.1. Number of Occurrence of influenced English words

	[t']	[p']	[k']
Informant 1	[t']ake **(1)** s[t']art **(1)** [t']own (2) [t']me(1) some[t']mes(3)	Speak(6) S[p']anish (5)	[k']alled(1) S[k']lool(3)
Informant 2	[t']hink **(1)**		
Informant 3	[t']one **(1)**	[p']ark **(1)** ex[p']lain **(1)** s[p']eak(7) S[p']anish(3) [t']me(2)	[k']ome(1) [k']alled(1)
Informant 4	s[t']reet **(1)** [t']ired **(1)** [t']own(1) [t']me(7) some[t']mes(3) S[t']art(1)	[p']laying **(2)** [p']ractice **(1)** [p']robably **(1)** ex[p']erience **(1)**	s[k']ills **(1)** [k']ontact **(1)** S[k']lool
Informant 5	[t']ongue**(1)** [t']me(2) some[t']mes(3)	s[p']eak(2) S[p']anish(10)	[k']an **(1)** S[k']lool
Informant 6		s[p']eak(3)	S[k']lool(1)
Informant 7	[t']me **(1)**	s[p']end (1) [p']ark(1) [p']lay(4)	
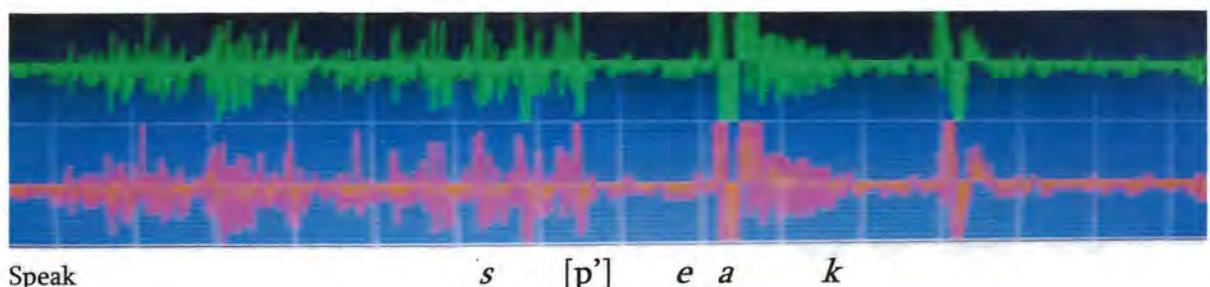
The influenced words were also demonstrated in transcripts taken from the communicative activities.

These samples are from some informants' use of the most frequent influenced words. Such words are sł

following transcripts where the natural speech of some informants. Additionally, each influenced

demonstrated through Waveform.

In this research Waveform is conceived as a physical speech signal that represents a sound signal or recording (Ladefoged, 1982). The most common representation of the speech signal is oscillograms which show the changes in amplitude over a certain amount of time.

In the following oscillograms, the frequency of some influenced words is physically demonstrated. The axis is the horizontal, axis from left to right and the curve shows how the pressure increases and decreases in the signal. Through this way, the most remarkable English phonemes [t], [p] and [k] with Mayan influence are represented. Each phoneme has a phonetic representation, based on the International Phonetic Alphabet (IPA) , of its representative influenced word (below each picture).

Figure 4.1

Speak   s   [p']   e a   k

After each oscillogram representation, the most frequent influenced words of each informant's performance in the interviews are demonstrated below. These influenced words have been taken from the informants' transcripts.

S1 transcript

Where did you practice Mayan language?

M..mm, sometimes I practice in my house when I go to my parents' house I s[p']*peak* Maya with them, with my cousins with my uncles and aunts because they used to s[p']*peak* Maya emm.. Every day in my house

How many times per week do you speak Maya language?

In a week, I s[p']eak Maya every day but I s[p']eak Maya a little but everyday ...I usually s[p']eak Maya

When speaking in English language do you think in Mayan language pronunciation?
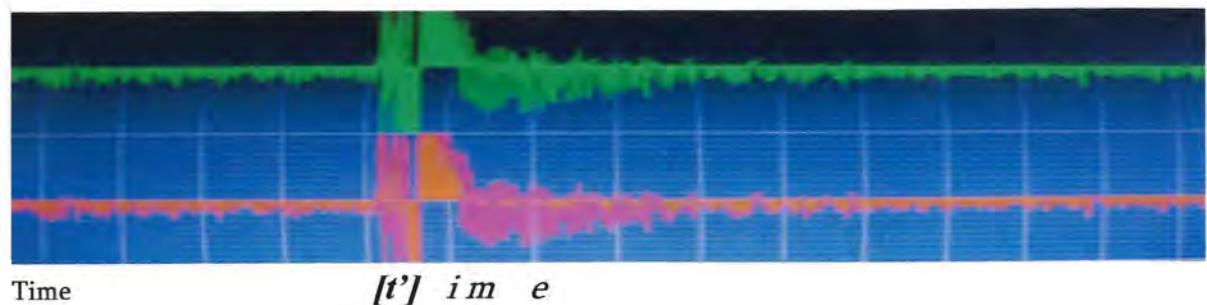
No, no because I never think in Mayan language when I s [p']eak English but in Spanish yes. I think in Spanish because this language is the more used in this city because of that I don't think in Mayan language but I understand this language

Do you think in Mayan language words?

Sometimes I think in some words, because nowadays I use more Spanish, I s [p'] eak more Spanish because of this situation

As shown in the transcripts from S1, the informants' interaction with the interviewer can be appreciated and their natural performance as well. Since they were developing confidence with the interviewer, the informant was more interested in the topic and attracted their attention, so there was a real communicative interaction.

Figure 4.2

Time   *[t'] i m e*

S4 transcript

What other activities did you do with them?

Well, *some [t']imes* we use to go em... to the jungle and try to hunt eh.. squirrels

How long did you use to play with them?

Actually, I yes I just play those games with them after school *[t']ime* then I used to come.. I go back home then be there and casa. Always, most of the time I use to be there with my brothers playing, running, doing things.

Concerning your childhood, did you practice Mayan language in everyday life?

Yes, with my parents with my friends after school most of the *[t']ime*. Uuhh, yes all *[t']ime* until I was twenty an da when I left and came here to Chetumal to study at the university I stop speaking in Maya....

When speaking English language do you think in Mayan language pronunciation?

Actually, no at the very beginning yes.. but nowadays if I wanna say something in English I think in English emm *some[t']times* comes up in English ...

Do you compare Mayan language words with English language ones?

Some [t'] times for instance the structure the syntax...

Which skills of English language are difficult to improve?

Listening of course because we are not in contact with the speakers. Here in the major you just hear but mainly English in the classroom and *some[t']imes* the teacher doesn't speak.

When speaking English language do you translate it into Mayan language?
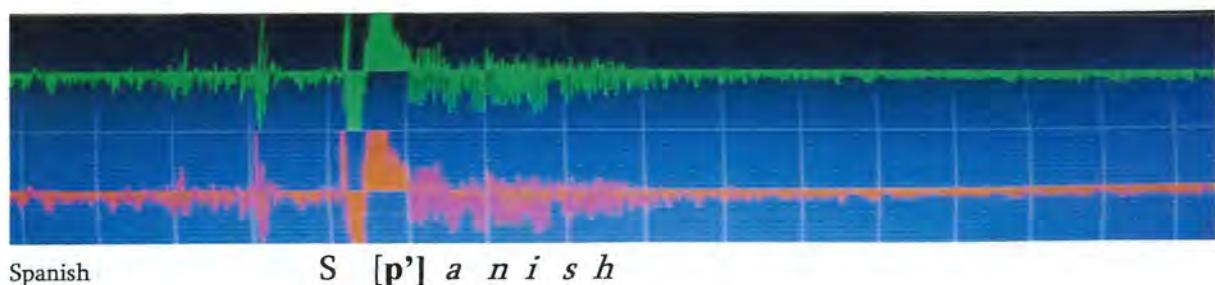
Actually I don't do that, because mainly here at the University, here in Chetumal people speak in Spanish almost all the *[t']ime*

Are you conscious of difficult sounds of English language?

Uhuhuh... yes the words that are large some[t']imes are very difficult to pronounce .I just listen them many [t']imes as possible and then try to pronounce it in my mind and when I am sure I produce it

This transcript from S4 demonstrates that the informants were not conscious with his/her words; he/she was concentrated on formulating answers to the inquired questions. Therefore, she/he produced the influenced word without focusing on her/his English pronunciation.

Figure 4.3

Spanish   S [p'] *a n i s h*

What did you use to do when you were a child, in your hometown?

Well, I live in a very small town, there are not many child, I didn't spend a lot of time with them. All the people from there speak Maya even in the school emm....teachers emm... Used to teach us in Maya they explain us the lessons in Maya because nobody speaks *S* [p']*anish.* But, now the children can speak S [p']anish in Maya also.

I think it was a king of challenging because they explain us the lesson in Maya and the exam in *S* [p']*anish* you have to answer the question in S[p']anish and I think also we were learning S[p']anish in that way

I din't speak S[p']anish very well until I went to high school, there are when I started the high school it was difficult for me because I didn't speak a lot of in S[p']anish.

Concerning you're your childhood did you practice Mayan language in everyday life?

When I was a child? Ehh, yes when I was a child I used to speak Maya every single day because my parents didn't spoke speak S[p']anish
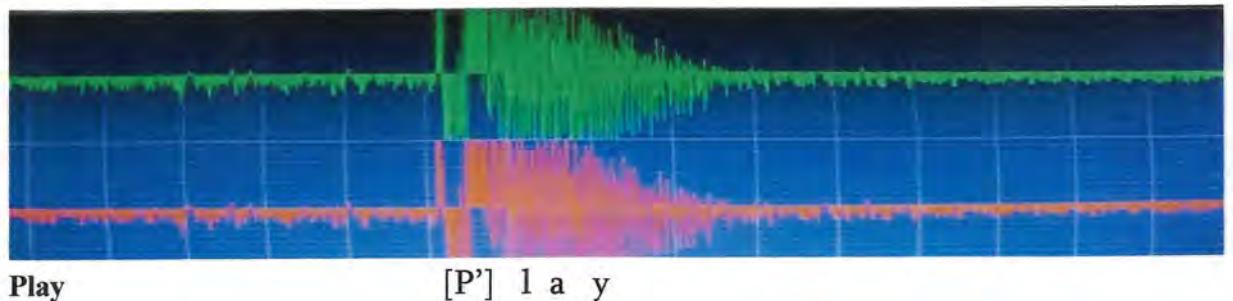
When speaking English language do you translate it into Mayan language?

No I don't think in Maya before yes. I think in Maya I speak in Maya I listen Maya but when I started speak in s[p']anish I didn't think in Maya anymore when I am thinking something I think in S[p']anish ...

As demonstrated in this transcript, the stress received in the word s [p'] anish can be appreciated. This stress was when the speaker, most of the time, wanted to emphasize this part of his /her answers.

Figure 4.4

Play   [P'] l a y

S7 transcript

Tell me about some things that you usually do when you were a child

Well, when I was a child I used to play with my cousins because I have a lot of cousins and we use to go to [p']
lay with my cousins to my aunt's house. but, we always went to [p']lay with them and also ehh in front of my
house live two boys and one girl and we use to [p'] lay with dolls..

 My mother my sister and my brother we used to go to the church every day and we [p'] lay in the church ..

Through these transcripts can be noticed that informants were allowed to express their
thoughts as much as they could. As both activities' questions were related to their life and daily
activities (see appendix B and E). Students produced a variety of influenced words. These
transcripts only demonstrated the representative influence words with strong stress
(glotalization): *[t'] ime*, S [p'] *anish, [*p'] lay and *s* [p'] *ea k* .Conversely, a sample with variation
of influenced words can be appreciated (see appendix F)

Additionally, in this research, apart from glotalization a different type of Mayan language
influence that, was not expected, was also presented. This influence was only manifested in one
informant but several times. This kind of interference is the aspiration of some consonants at
final position.

This aspiration is presented in English language but in initial position with consonants [k] [t]
and [p] as *pen* and *ten,* nevertheless, un-aspirated consonants occur at final position (Cho;

Ladefoged, 1997). But, in this research was found that "informant I" produced these aspirated consonants, in English words, but in a final position. This aspiration was mainly produced in "t" consonant in words like: bu [t^h] and tha [t^h] but with a high frequency as it can be appreciated in the chart below (See table 4.1).

There is another sort of Mayan influence which occurred in less degree than glotalization in this research. It should be pointed out that three informants from seven demonstrated a sort of influence where students tend to substitute [x] sound instead of [ʤ] .These sounds were detected in words like: langua[x] and pronun[x]ia[x]ion.

Furthermore, there is also another sort of sounds substitution which is also presented in this research: this influence is the production of [t] sound instead of [d]. Such substitution was primary produced at the final position of English words like: an[t], worl[t]s, and min[t].Besides, this sort of interference, in contrast of [ʤ]substitution, is detected in six informants from seven. Then, it is likely that this phenomenon might be presented in other Mayan students, so this influence must be verified in order to be aware of this kind of interference.

In addition, there is another sort of sound substitution; this is the production of [m] sound instead of [n] which was also found in this research. The English word: the[m] was mainly affected and this phenomenon was detected in two students from seven which means that this sort of influence does not occur frequently as glotalization and [d] substitution.

But, other Mayan students, like it is demonstrated in this research , might produce this sort of influence in their English language production and this can be reaffirmed by (Yager, 1982, 1989) who mentioned that there is another Mayan phonology influences like the pronunciation of /n/ as /m/. Therefore, in order to describe a wide knowledge of this phenomenon a chart of the variety of Mayan influence was designed.

Table 4.2 demonstrates the occurrence and the variation of each influenced word are presented in either informant. Next to each word, there is a number which represents the number of occurrence per influenced word.

Table 4.2. Occurrence of the most frequent influenced English words

	[x] instead of [ʤ]	[tʰ]	[t] instead of [d]	[m] instead of [n]
Informant 1	langua[x](6)	bu[tʰ] (16) tha[tʰ] (9)	an [t](4) ol[t](1) wor [t]s(12)	
Informant 2	langua[x](2) pronun[x]ia[x]ion(3)			
Informant 3	langua[x](1) pronun[x]ia[x]ion(2)		an [t](2) wor [t]s(3)	
Informant 4			wor [t]s(2)	
Informant 5				
Informant 6			wor [t]s(1)	
Informant 7			ol[t](1)	

Furthermore, in "table 3" a complete number of informants and Mayan language phonemes that interfered in their English language production are demonstrated. Besides, the numbers of time that these sounds were produced, in either formant, are also described.

Table 4.3. *The most common Mayan phonemes influenced in Mayan students of English as a foreign language.*

	[t']	[p']	[k']	[x] instead of [dʒ]	[tʰ]	[t] instead of [d]	[m] instead of [n]
Informant 1	9	6	4	7	25	19	
Informant 2	16	12	3			2	2
Informant 3	4	11	3				
Informant 4	4	10	2	2		5	
Informant 5		1	1			1	
Informant 6	3	10	2			3	
Informant 7	2	1		3		1	1

As can be appreciated in table 4.3 informant 1 and informant 2 demonstrated more influenced phonemes. This fact was produced because these informants felt more comfortable with the researcher (this may be produce because these ones and the researcher were the same gender) so that they were able to express as they do daily in their English classrooms.

Vowels Interference:

In the current research not only English consonants are influenced by the strong stress of Mayan language but also vowels. To make a clear distinction, it is needed to mention some features of some Mayan vowels. First of all, it should be pointed out that in Mayan language exist five types of vowels: short, long, falling tone, glottal and with intermediate glottal vowels. They are written in the following form (a), (e), (i), (o) and (u).

They can be produced in different forms and either form corresponds a different phonetic representation: (long vowels) have a longer duration [aa], they can be accompanied by (falling tone vowels) [áa] (see chapter IV). (Glottal vowels) are those who are produced by closing the

glottis immediately after the vowel sound is produced [a']. (Intermediate glottal) is produced as its name refers and this sort of vowels is rearticulated [a'a] (see chapter IV).

However, this research was only focused on the sort of Mayan vowel which has an influence over English language; these vowels are the glottal ones. In this language exploration a kind of Mayan interference was specially detected in words which contain these English sounds [ʌ], [æ],

[a], [ɔ], [e], [i]. Such sounds were influenced by sounds of Mayan language [a'], [o'], [e'], [i'].

The degree of interference is presented at the same order as they are showed.

Regarding Mayan sound [a'] is presented in English words like: [a'] t, [a'] nderstand, w [a'] tching, [a'] ntil, [a'] fter, [a'] re.. [o'] sound has an influence over: h [o'] me, [o'] ll, [o'] ld and [o'] nly. Furthernore, [e'] sound is detected in, d [e'] y, [e'] ge, and [e'] rly. On the other hand, [i'] sound is also detected in English language words but in less degree, such words are [i'] xist, [i'] leven, [i'] t. So far, taking into account these influenced words their number of frequency can be identified.

As in consonants influence, "table 4.4" demonstrates the number of informants and the Mayan language sound (vowels) that influenced in the English language production. Besides, the number of times that these sounds were produced, in either format, is also described.

Table 4. 4 *The most common influenced Mayan vowels in Mayan students of English as a foreign language.*

	[a']	[o']	[e']	[i']
Informant 1	5	2		2
Informant 2	7	2	4	2
Informant 3	3	4	1	
Informant 4	1			
Informant 5		2		
Informant 6	2	2		
Informant 7				

Comparing tables 4.3 and 4.4 can be noticed that consonants presented more influence than vowels in English. This fact was produced due to the number of times Mayan speakers use phonemes [p'], [t'],[k'] in their native language. On the other hand, although there are different sort of vowels in Mayan, only the glottal ones have presented more influence over English vowels.

In early years, contrastive analysis technique was used to analyze the sound segments of first and second language. This method was used for several decades to point out areas where first language errors were likely to occur. Throughout this research, the demonstration of the interference of Mayan students of English as a foreign language was possible.

This research was possible by focusing on segmental and supra-segmental aspects which was very helpful to identify and demonstrate the manifested errors in Mayan students of English as a foreign language. Besides, to analyze the English pronunciation as it behaves in real classroom environment was needed -not in isolated way as is done in theoretical contrastive analysis.
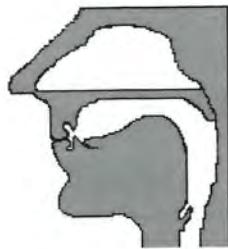
Description of Segmental Aspects of Mayan:

Research question two, this description of the segmental aspects of Mayan language was really necessary to determine segmental aspects of this language which are influenced in Mayan speakers of English as a foreign language. Furthermore, to describe segmental aspects of Mayan language was really needed to distinguish its place and manner of articulation. Moreover, without this description would have been impossible to detect any influence over Mayan students' production in English language (see chapter five for further details).

In Maya language there are 19 consonants as Tec (1984) mentioned and they are divided into two sections Basic and Modified consonants (see chapter 2). But, anything has been mentioned about segmental aspects which are crucial in this research. Thus, due to this lack of information this dissertation described each consonant and vowel's place and manner of articulation.

Mayan consonants:

[Ɓ]
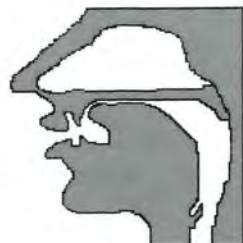
Mayan key Words: Ba'alche' (animal), Boox (black), Ba'alo'ob (things)

To produce this consonant is necessary to close both lips enough to avoid air stream. The tongue does not move at all and the air is released in a plosive way when producing this consonant.

Place: Labial

Manner: Plosive

[CH]
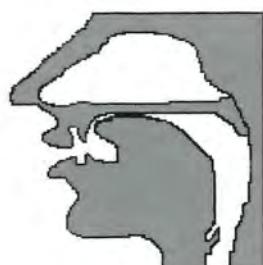
Mayan key Words: Chowak (large), chaapal, Chaan (to watch)

The front part of the tongue is pressed against the hard palate whereas the tip tongue is slipped toward the alveolar ridge close to the upper teeth. There is a small explosion when exhaling air, so the tongue is addressed down ward.

Place: Palatal

Manner: Affricative

[CH']
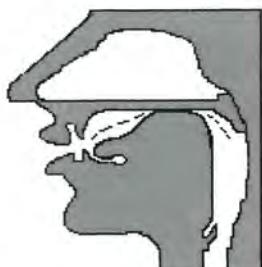
Mayan key Words: Ch'óoy (small cask), Ch'úupal (girl), Ch'aaj (to drip)

To the production of this consonant is necessary that, as in letter "ch". But, the front part of the tongue is pressed stronger against the hard palate while the tip tongue is slipped toward the alveolar ridge close to the upper teeth. There is also a stronger explosion of air from the glottis when exhaling.

Place: Palatal

Manner: glottal

[J]
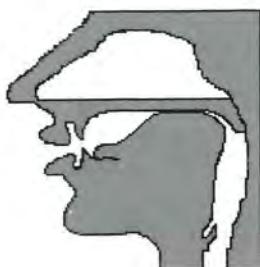
Mayan key Words: Je' (egg), Joonaj (door), Ja'ab (year)

The place of articulation is in the soft palate while the tip of the tongue is positioned downward.

Place: Glottal

Manner: Fricative

[K]
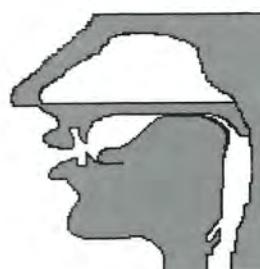
Mayan key Words: **Kíimi (die), Ka'atéen (twice), Kiik (sister)**

The back part of the tongue is stick to the soft palate and the tip tongue is downward and there is a strong puff of air when producing this consonant.. Vocal cords are not vibrating

Place: Velar

Manner: Affricative

[K']
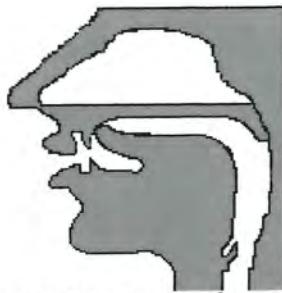
Mayan key Words: Kʼiʼik (blood), Kʼéekʼen (pig), kʼoos (to cut)

The back part of the tongue is stick to the soft palate and the tip tongue is downward and the air is exhaled strongly when producing this consonant.

Place: velar

Manner: Glottal

[L]
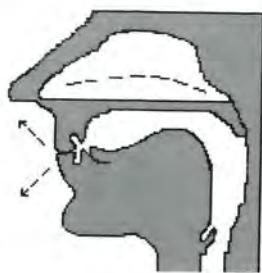
Mayan key Words: luuk' (mud), luuch (cup)

In this word the tip tongue is pressed against the alveolar ridge next to the upper teeth. The air stream is through both sides of the tongue.

Place: Alveolar

Manner: Lateral

[M]
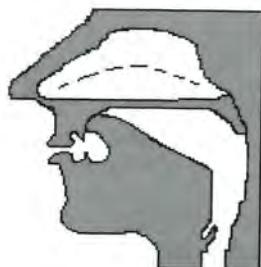
Mayan key Words: Mina'an (there is nothing), Ma'alob (well), Maantats' (always)

Both lips are closed enough to retain the air for a while. Then, the air steam is released by the noise and the lips are wide opened at the same time.

Place: Labial

Manner: Nasal

[N]
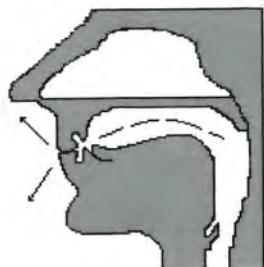
Mayan Key Words: Nej (tail), Nal (ear of green corn), Nojoch (big)

The tip of the tongue is strongly presses against the alveolar ridge and the air stream passes trough the noise as in letter "m", when the tip tongue is downward.

Place: Alveolar

Manner: Nasal

[P]
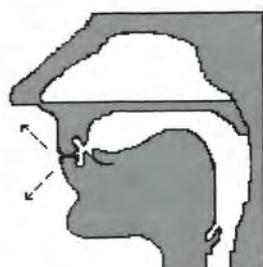
Mayan Key Words: Pichi' (guaba), Paal (child), polok (fat)

While producing this consonant the lips are closed for a while and the tongue does not move. When the lips are opened and there is a plosive puff of air which passes through the mouth.

Place: Labial

Manner: Plosive

[P']
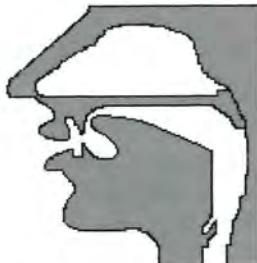
Mayan key Words: P'o' (to wash), P'uktaj (to lean over), P'aak (tomato)

While producing this consonant the lips are strongly closed enough to avoid air release and the tongue is not moved. When the lips are opened, there is a stronger puff of air which passes throat to the mouth.

Place: labial

Manner: Glottal

[S]
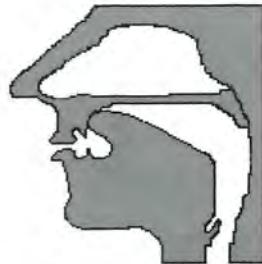
Mayan key Words: Sáansamal (every day), Sáamal (tomorrow), Si' (deadwood)

Regarding this word, the tip tongue rises near the alveolar ridge but it does not touch it. The air stream passes forcefully between the alveolar ridge and the tip of the tongue.

Place: Alveolar

Manner: Fricative

[T]

Mayan Key Words: Tuunkuy (heel), Tuunich (stone)

This consonant is produced as in the position of the letter "s" but this time the tip tongue touches the alveolar ridge and both lips are spread. When pronouncing this consonant, there is a small plosive of air and the tongue goes downward.

Place: <u>Dental</u>

Manner: Fricative

[T']
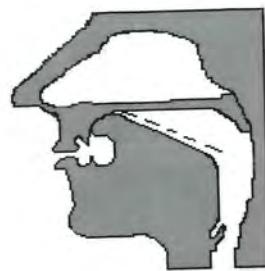

Mayan Key Words: T'aan (to speak), T'uup (smaller), T'iit' (to spread)

This consonant is produced as in the position of the letter "s". Both lips are spread as in a smile but this time the tip tongue presses strongly the alveolar ridge. When pronouncing this consonant, there is a strong plosive of air and the tongue goes downward.

Place: Dental

Manner: Glottal

[TS]
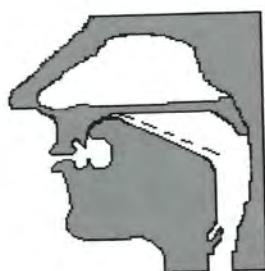
Mayan Key Words: Ts'iimin (horse), Tsibal (to talk)

Both lips are opened and the teeth are not closed enough to let the air flows. The blade of the tongue is pressed against the hard palate, so when it is moved downward the air is s released.

Place: Alveolar

Manner: Affricative

[TS']
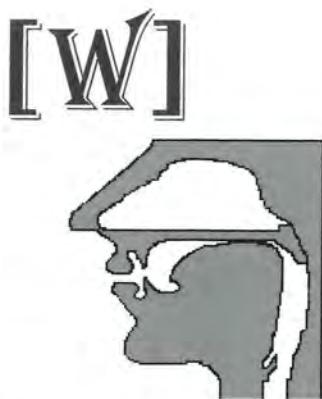
Mayan Key Words: Ts'aak (medicine) Ts'oon (shotgun)

The teeth are opened enough to let the air flows. The blade of the tongue is strongly pressed against the hard palate, so when the tongue is moved downward the air is s released forcefully.

Place: Alveolar

Manner: Glottal

[W]

Mayan Key Words: Waakax (livestock), Wiinklil (body), Waaj (tortilla)

The lips are rounded and the back of the tongue is rises up to the soft palate and the tip of the tongue is downward. There is not friction when producing this consonant.

Place: Labial

Manner: *fricative*

[X]

Mayan Key Words: Xaana' (shoes), Xeej (vomit), Xook (to read)

The teeth are slightly closed and the lips are spread. The tip and the middle part of the tongue are closed the alveolar ridge and hard palate but they do not touch them. There is forcefully a puff of air.

place: Palatal

Manner: Fricative

[Y]

Mayan Key Words: Ya'ax (green), Yáanal (under)

The lips are spread and tense. The tip and middle part of the tongue are rise near the roof of the mouth (hard palate)

Place: Palatal

Manner:

Mayan Vowels
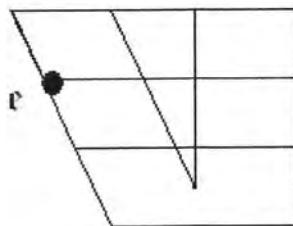
Short vowel:

[a]

Mayan key words: **am,**

This is the first Mayan vowel to be analyzed, to produce this vowel the form of the lips are un-rounded and completely separated. The position of the jaw is lower than any other Mayan vowel, so the tongue is positioned on the floor of the mouth.
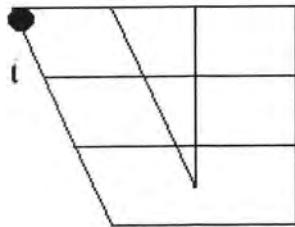
[e]

Mayan key words: elel

Regarding this vowel one should take in to account that lips are slightly spread and the jaw is a little bit low, so is an open-mid vowel. The front part of the tongue is slightly raised; as a result, this is a front unrounded vowel.
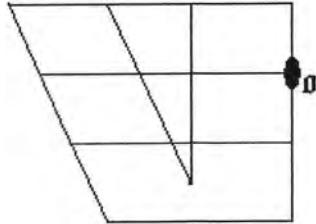
[i]

Mayan key words: ich

For this vowel, lips are spread enough as in the semivowel "y" in Mayan and the jaw is situated in a high position. The position of the tongue is near the roof of the mouth. This vowel is a front closed one.
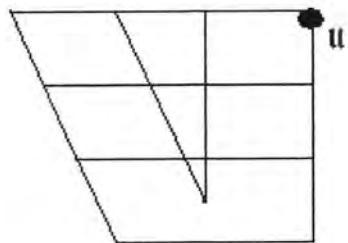
[o]

Mayan key words: ok'ol

The back part of the tongue is a little humped and the front part of the tongue is positioned on the floor of the mouth. The jaw is addresses a little lower than "i" and lips are slightly rounded.

[U]
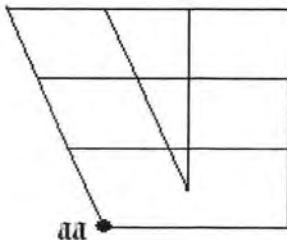
Mayan key words: uj

Lips are completely rounded and the jaw is raised in a high position close to the roof of the mouth. The back of the tongue is used to produce this vowel so that is a close back rounded vowel.

Long vowels:
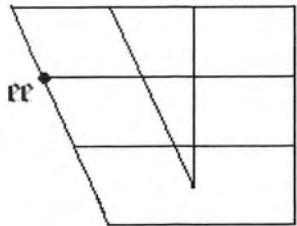
The production of these kinds of vowels is quite similar to the short ones. The only difference is that, as their name says, long vowels production is longer that the short vowels. Their release of air through the mouth takes more time, so the movements of lips, tongue and jaw are hold enough to allow these vowels' production. Then, the tongue position in the mouth, the degree of high and low, and the degree of front ness and back ness are the same from sort vowels.

# [aa]

aa
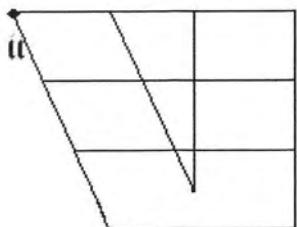
Mayan key words: Paal (child)

[ee]

ee
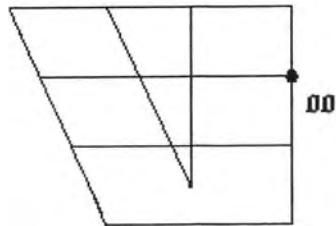
Mayan key words: peek' (dog)

[ii]

ii
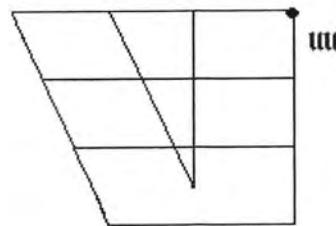
Mayan key words: iik' (wind)

[o]

oo

Mayan key words: xook (to study)

[uu]

uu
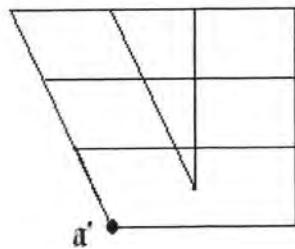
Mayan key words: chuuy (

Glottal vowels:

Glottal stopped vowels are also similar to short vowels- in some aspects. But, it is needed to describe individually the form of production from these vowels because there are particular aspects which are only presented in these ones.
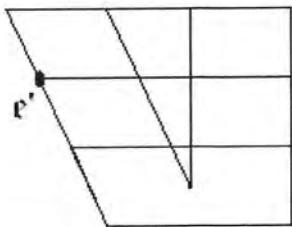
[a']

Mayan key words: K'a' (hand)

Both lips are completely separated; as a result, the jaw is in a lower position as the tongue. To produce this vowel, the mouth must be wide open due to the glottis is closed after the sound is produced. The produced sound must be sort and stronger than the short vowel.
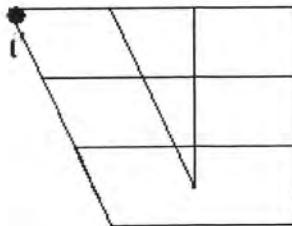
[e']

Mayan key words: je' (egg)

This is a semi opened vowel. Thus, the position of the jaw and the tongue are alike the vowel "e". The attempted sound is a strong one and this is produced by releasing the air through the glottis forcefully while closing it.
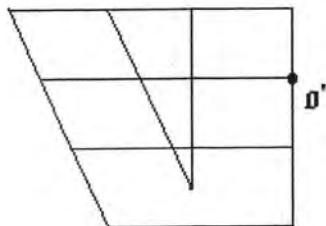
[i']

Mayan key words: ki' (delicious)

It seems that the teeth are slightly closed and lips are not separated. The jaw is raised and the tongue almost touches the top of the mouth. In addition, there is there is a strong released of air when producing this vowel.
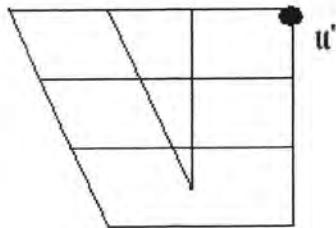
[o']

Mayan key words: p'o' (to wash)

Lips tend to be rounded and the tongue is a little bit lower than the vowel "i" and its front part is humped when the air comes forcefully from the glottis so that is a close mid-vowel. Thus, the produced sound is short and strong.

[u']
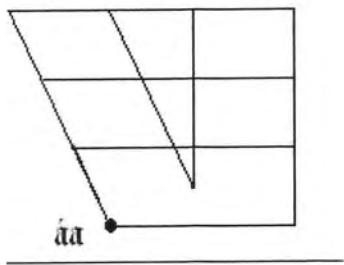
Mayan key words: tu' (to stink)

The sound production of this vowel is short but with a strong puff of air which passes through the glottis. The jaw and tongue are closed to the roof of the moth besides the lips are completely rounded.

Falling tone vowels:
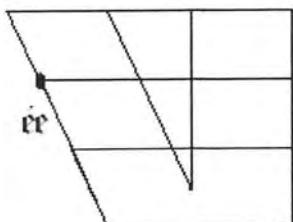
The form of production of these vowels is similar to the short ones. Nevertheless, these vowels' production last a little bit longer than short vowel besides the initial sound of "falling tone vowels" begins with a high intonation and this sort of stress is decreasing while this vowel has been producing. It is relevant to point out these features because vowel's length and tone make a difference in words meaning.

[áa]

áa
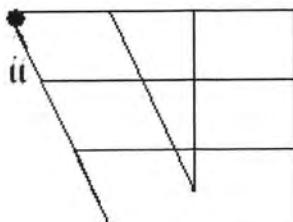
Mayan key words: páajtaj, káajlu,

[ée]
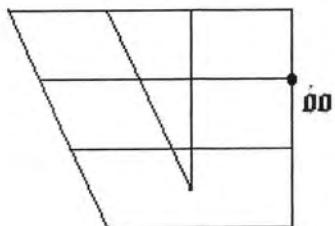
Mayan key words: yéetin, yéet

[íi]
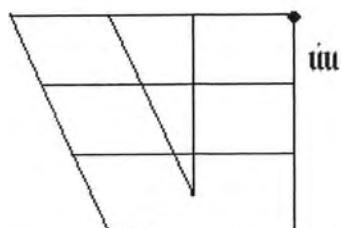
Mayan key words: tíin, píibtik

[óo]

Mayan key words: tóokinb'aaj, sóolpaja

[úu]

Mayan key words: múuchkíinsink, meentúun

Diphthongs:

Mayan diphthongs are short vowels which are combined with semivowels such as /y/ and /w/: for instance, /ay/, /ey/

[ay]

Mayan key words: Kay   (fish)

Lips are in an unrounded wide open position and glide to a spread one. The jaw rises from an open location to a close one; the form part of the tongue is in a lower position afterwards it closes to the roof of the mouth.

[ey]

Mayan key words: bey (then)

Initially, lips are a little bit spread and glide to a completely spread position. The jaw rises from close-mid position to a close one, the tongue is firstly in close-mid position then it almost sticks to the top of the mouth.

[iy]

Mayan key words:

The form of articulation to produce this diphthong is similar to the long vowel "ii"

[oy]

Mayan key words: ch'ooy (bucket)

Lips pass from an oval form to a spread one. The jaw is situated in a close-mid position and rises to a close one, at the same time, the tongue rises from an open position to a close situation.

[uy]

Mayan key words: chuuy

Lips glide from rounded tense position to a spread form, the movement of the jaw remains in the same close position and the tongue rises near the roof of the mouth.

[wa]

Mayan key words: wa'ake', waay, wal

The lips glide from tense rounded position to a parted unrounded one and the jaw is located in a high position passing to an open form. The tongue is near the roof of the mouth and it ends in lower position.

[we]

Mayan key words: wet, weenej

Lips start as in short vowel "u" afterwards they change to a semi-parted position. The jaw begins in close position then it glides to a slightly low position and the tongue appears to be in the same close position but it has a slightly low movement.

[wi]

Mayan key words: wik, wilaj, wiike'

Lips glide from rounded tense position to a spread one (as in a smile). The jaw keeps its close position the whole time this sound is producing and the tongue is located near the roof of the mouth.

Research question three, although the obtained data was enough to answer completely the previous research questions of this investigation (**for further details see chapter five**), the researcher could notice that to affirm widely the influence of Mayan over English language is necessary to conduct another research work which may complement this one. This is because through the development of this investigation, the researcher was aware of additional information on aspects related to Mayan speakers that needs to be analyzed and it goes beyond the scope of this research.

Chapter V
Conclusion

The main objective of this research was to explore the phonological influence of Mayan on English in the University of Quintana Roo. According to the findings, this influence was established. As it was expected, three phonemes of English were influenced by glottalized consonants of Mayan phonology. In contrast, besides of glotalization, there were others phonemes that were affected by Mayan but were influenced in a different form. These English phonemes were [ʤ], [d], and [n], which were substituted by [x] ,[t] and [m], Mayan phonemes.

Regarding vowels, sounds like [ʌ], [æ], [a], [ɔ], [e], [i] in English were also influenced. Such sounds were also influenced by [a'] [o'] [e'] and [i'] sounds of Mayan. These findings supports that there really is a linguistic influence of Mayan on English in Mayan speaking students in the University of Quintana Roo.

The obtained results from this research provided vital material for teachers and Mayan students of English as a foreign language. This is because teachers need to be aware of this phenomenon which is manifested in Mayan students. Thus, teachers may be able to help Mayan students distinguish the sounds and pronunciation which differ from their native language.

Furthermore, Mayan students will be the main beneficiary people from the results obtained in this research because teachers may be able to point out students' weaknesses and strength when learning phonetics and phonology of English as a foreign language. Thus, these observations may help students improve their speaking skill in English.

There were many challenges involved in this research, the main confront was the lack of information of segmental aspects of Mayan. This made it difficult because without the description of segmental aspects (Mayan) the current research would not have been carried out.

This research had to deal with this side of phonetics and a detailed description of each segmental aspect of Mayan was carried out.

This language description provides information which is really essential in this research. Since segmental aspects' explanations were extremely useful to conduct this research, in the same way, this research provided data which may encourage other people to carry out others like this one. Thus, through the information obtained, text books might be created which will cover the same aspects as this in research was focused on.

Through text books, the Mayan language phonetics might be described English or Spanish. Thus, Mayan people may have the opportunity to recognize Mayan language through these text books where each place and manner of articulation of consonants, vowels and diphthongs might be described.

Furthermore, not only Mayan people can learn about the production of this language but also foreigners and other people who are interested in identifying and learning the language's phonetic production. Besides, text books might be also focused on the common inaccuracies of Mayan speakers where the influence of Mayan language pronunciation is present in some English words.

After analyzing the benefits that this sort of research may provide, the author of this research points out that to carrying out another research focused on this area of Mayan language phonology will be required. Such research might provide information to create text books which will be useful for teaching English to Mayan students.

Moreover, this research might benefit many people but mainly Mayan communities because this is a Mayan area where English is needed due to the tourism sector and industrialization. Thus, English language will be studied further by younger Mayan speakers in middle school. As a result, this phenomenon may be presented in these Mayan students in their early years. In order to carry out another investigation in this aspect it is crucial to demonstrate these disadvantages and avoid possible shortcomings in their pronunciation.

References

Anderson, S. (1985). *Phonology in the Twentieth Century: Theories of Rules and Theories of Representations.* Chicago: University of Chicago Press

Arzápalo, R. M. (1997). Las Políticas lingüísticas en la zona del Maya Yucateco (Cuestiones Éticas de las Interrelaciones Sociales). México, DF: Centro de Investigaciones Interdisciplinarias en Ciencias y Humanidades, UNAM, pp. 217 – 228

Avery, P. & Ehrlich, S. (1992). Teaching American English pronunciation. Oxford: Oxford University Press

Barrera, A. V. (1937).Mayismos y voces mayas en el español de Yucatán. México: Investigaciones lingüísticas, 4, pp. 9-35

Beardsmore, H.B. (1982). *Bilingualism: Basic Principles,* Tieto, Avon

Bell, M. (1996). Teaching pronunciation and intonation to E.F.L. learners in Korea. Retrieved on 14 October, 2004, from http:// www.geocities.com/Athens/ Acropolis/9583/PRONUN.html

Berthold, M., Mangubhai, F., & Batorowicz, K. (1997). Bilingualism & Multiculturalism: Study Book. Distance Education Centre, University of Southern Queensland: Toowoomba, QLD.

Bhela B. (1999). Native language interference in learning a second language: Exploratory case studies of native language interference with target language usage, Flinders University School of Education. Retrieved March 20, 2005, available on: http://ehlt.flinders.edu.au/education/iej/articles/v1n1/bhela/bhela.pdf

Blanch, J. L. (1987). Estudios sobre el español de Yucatán. México: Instituto de Investigaciones filológicas, pp. 32-47

Blanch, J. L. (1990). Investigaciones sobre dialectología mexicana. México: Instituto de Investigaciones filológicas, pp. 44-45

Bloomfield, L. (1935).Language. London: Allen and Unwin.

Brown, H. D. (1994). Principles of language learning and teaching (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.

Celce-Murcia, M., Brinton, D., & Goodwin, J. (1996). *Teaching pronunciation: Reference for teachers of English to speakers of other languages.* Cambridge: Cambridge University Press.

Cubillos, E. M. (1988). The bilingual education act: Legislation. Forum, no. 7.

Cho,T.& Ladefoged, P.(1997). Variations and universals in VOT. In *Fieldwork Studies of Targeted Languages V: UCLA Working Papers in Phonetics* vol. 95

Chomsky, N. and Halle, M., (1968). *The sound pattern of English.* New York: Harper
Chuc M. (2004). A phonetic research in Corozal, Chetumal, México:University of Quintana Roo.

Crystal, D. (1987). The Cambridge Encyclopedia of Language. Cambridge:Cambridge University Press
Dechert, H.W. 1983, 'How a story is done in a second language' in *Strategies in Interlanguage Communication*, eds. C. Faerch and G. Kasper, Longman, London.

Derwing, T. & Rossiter, M. (2003). The effect of pronunciation instruction on the accuracy, fluency and complexity of L2 accented speech. *Applied Language Learning, 13(1),* 1–17.

Dula,H.,Burt,M.&Krashen,S.(1982),Language two, New York: Oxford University Press,

Ellis,R.(1984). Classroom second language development: A study of classroom interaction and language acquisition.Oxford: Pergamon Press,

Ellis, R. (1997). *Second Language Acquisition*, Oxford University Press, Oxford

Farris N. (1984). Mayan society under colonial rule. Princeton: Princeton University press.

Flege, J. E. (1987). Effects of equivalence classification on the production of foreign language speech sounds. In A.

García F.J. (1984) Fonética del español de Valladolid, Yucatán. México: Universidad Autónoma de México.

Goodwin, J. (2001). Teaching Pronunciation. In M. Celce-Murcia(Ed.), *Teaching English as a Second or Foreign Language* (pp. 117-123, 130). Boston, MA: Heinle & Heinle.

Hamer,J.F.(2007). Bilinguaty and bilingualism(2nd Edition).Cambridge university press.

Hansen, D. (1995). A study of the effect of the acculturation model on second language acquisition. Ed. Eckman, P. *Second Language Acquisition: Theory and Pedagogy.* Mahwah, NJ: Lawrence Erlbaum Associates.

INEGI- National Institute of Statistics and Geography – Ninth General Housing and Population Census, 1990. Retrieved March 24, 2005, available on http// www.inegi.gob.mx/inegi/default.asp

Kornakov, P. (1997) Bilingualism in children: Classifications questions and problems, BILINGUALS and BILINGUAL INTERPRETERS. Scotland : University of Glasgow

Krashen, S. (1982) *Principles and Practises in Second Language Aqcuisition*. Oxford: Oxford University Press.

Krashen, S. & Terrell, T. (1983). *The Natural Approach*. Hayward, CA. Alemany

Odlin, T.(1989).Language transfer: Cross-linguistic influence in language learning.Cambridge: UK Cambridge University press

Pavlenko, A. (2006) *Bilingual Minds: Emotional Experience, Expression and Representation*. Clevedon: Multilingual Matters.

Swan, M. & Smith, B. (Eds.). (1987). Learner English: A teacher's guide to interference and other problems. Cambridge: Cambridge University Press.

Terrell, T. (1989). Teaching Spanish pronunciation in a Communicative Approach. *American Spanish Pronunciation – Theoretical and Applied Perspectives,* ed. Bjarkman, P. and Hammond, R. Washington, DC: Georgetown University Press.

Mackey ,W. F. (1956) Toward a definition of Bilingualism. In://*Journal of the Canadian Linguistic Association*, March.

Mackey William F. (1957) The Description of Bilingualism: in://*Journal of the Canadian Linguistic Association.*

Vitanova, G. & Miller, A. (2002). Reflective practice in pronunciation learning. *The Internet TESOL Journal,* Vol. VIII, No. 1, January. Retrieved 14 October, 2004, from http://iteslj.org/Articles/Vitanova-Pronunciation.html.

Weinreich, U. (1953).Languages in contact: Findings and problems.9th Ed.New York:Mouton Publishers

Weinreich, U.W. (1968) Languages in contact: Findings and Problems. Mouton Publishers, The Hague.

Wells, J.C., (1990). *Longman Pronunciation Dictionary*. Harlow: Longman

Yager, K. (1982) Estudio del cuadro consonántico del español de Mérida, con consideraciones posibles de influencia maya. M.A thesis, Santa Barbara: University of California

Yager, K. (1989) La –m bilabial en posición final absoluta en el español hablado en Mérida, Yucatán. México, Nueva Revista de Filogía Hispánica 83-94

Appendixes

Appendix A .Cuestionario de diagnostico

Estimado estudiante, el propósito del presente cuestionario es el de obtener información especifica para la realización de una exploración lingüística. Es importante destacar que dicha investigación se enfocará mayormente a estudiantes con ascendencia maya de la licenciatura en lengua inglesa.

Datos lingüísticos

1.- ¿Nivel de ingles que cursa actualmente en la carrera de lengua inglesa?....................

2.- ¿Se le dificulta alguna habilidad de la lengua inglesa? *(indique con una tache)* sí O   no O

3.-En caso de contestar afirmativamente, ¿que habilidad se le dificulta? *(indique con una tache)*

O Comprensión de lectura *(leer)*
O Comprensión auditiva *(escuchar)*
O Expresión escrita *(escribir)*
O Expresión oral *(hablar)*

4.- ¿Domina alguna habilidad de la lengua maya? *(indique con un tache)* sí O no O

5.-En caso de contestar afirmativamente ¿que habilidad domina?

O Comprensión de lectura *(leer)*
O Comprensión auditiva *(escuchar)*
O Expresión escrita *(escribir)*
O Expresión oral *(hablar)*

En caso de haber contestado negativamente, determine si tiene algún grado de conocimiento de

las siguientes habilidades de la lengua maya *(indique con un tache)*:

O Comprensión de lectura *(leer)*
O Comprensión auditiva *(escuchar)*
O Expresión escrita *(escribir)*
O Expresión oral *(hablar)*

6.- ¿Como adquirió esta habilidad?..

7.- ¿A que edad adquirió esta habilidad?...

Datos del padre

8.- ¿Nombre del padre? *(nombres y apellidos)*...

9.- ¿Lugar de nacimiento? *(especifique)* ....

10.- ¿Grado de estudios?...

11.- ¿Domina alguna habilidad de la lengua maya?) *(indique con un tache)* sí O no O

12.- En caso de contestar afirmativamente, ¿que habilidad domina? *(indique con un tache)*

O Comprensión de lectura *(leer)*
O Comprensión auditiva *(escuchar)*
O Expresión escrita *(escribir)*
O Expresión oral *(hablar)*

Datos de la madre

13.- ¿Nombre de la madre? *(nombres y apellidos)*...

14.- ¿Lugar de nacimiento? *(especifique)*...

15.- ¿Grado de estudios?...

16.- ¿Domina alguna habilidad de la lengua maya? *(indique con un tache)* si O no O

17.-En caso de afirmativo, ¿qué habilidad domina? *(indique con un tache)*

O Comprensión de lectura *(leer)*
O Comprensión auditiva *(escuchar)*
O Expresión escrita *(escribir)*
O Expresión oral *(hablar)*

Datos personales

Apellidos...Nombre(s).......................................

Dirección...

Teléfono...........................Celular.......................................

Correo electrónico..

Semestre...............................Lugar de nacimiento *(especifique)*

....

Appendix B. Speaking Task 1

*Briefing

○   Purpose of the activity
○   Instructions

1.-Mention some activities that you would like to do in your summer vacation. Tell your partner some places which you would like to visit with your family. Afterwards, ask your partner about some activities that he would like to do and places that he would like to visit with his/her family for the next summer vacations.

○   **Follow up questions**
Why would you like to visit that place?

2. - Mention some things that you would like to do on Christmas Eve and tell your partner what you are the accustomed to doing with your family on this special day. Your partner will do the same.

○   **Follow up questions**
Does your family usually get together to celebrate this day?
Do you usually visit your friends in this day?
What kind of food do you usually eat?

3.-Mention some of the reasons for you studying the English language career and some aspects that you like or dislike. Then ask your parter to do the same the same question

○   **Follow up questions**
Do you think this career is difficult? Why?

4.-Mention some plans that you have after finishing your career. Mention what kind of jobs you would like to have. After that, ask your partner and he / she will do likewise.

○   **Follow up questions**
Would you like to work as an English teacher?

Debriefing
○   To thank students for their time and participation

Appendix C. Speaking Task2

Briefing

- Purpose of the activity
- Instructions

(Act out similar conversation)

b) Tell your partner some things that you used to do when you were a child in your hometown and whether you used to play with your neighbors. Then, ask your partner what he used to do when a child and he/she will give you information in the same way as you did
- Follow up question

Did you use to spend lot of time with your friends?

c) Tell your partner about yourself and the things that you usually do during a week. Besides, describe your parents' normal activities that they generally do in their house or job in a week. Then, your partner will also comment about his / her activities and her /his parents' activities.

- Follow up question

What do your parents look like?

Describe your parents' personality?

d) Tell your partner about the goals you have in your life and the way you will accomplish them. Afterwards, ask your partner about his own goals and the way he will accomplish them.
- Follow up question

Are they short or long time goals?

What profit will you obtain from your goal?

e) Tell your partner about your plans for the next Easter vacation. You should mention the place (s) or relative(s) that you would like visit. Then, you will ask your partner the same question and he/ she will try to answer as explicit as possible.

- Follow up question

How long will you visit your relatives?

Is it since you seen them last ?

Debriefing

- To thank students for their time and participation

Mention some reason for you studying the English language career

(Informant 5)

teene' es.. utslaj in wik e ingleso' tumeen em… de… emm.. desde chichnene' k'aja'antene' in papaje' e…ku,ku xookik xan ingles tumeen utslaj u yik em.. meen in, in abueloe' em.. ka'ach ti, ka'ach kajakbaj esten Betania e, u, u yaan u, u tu k'aj óotaj em .. máako'ob pero esten, ts'uulo'ob, esten Ingles ku t'aanko'ob u yoojlo'ob español tumeen suuk u máano'ob ti' kajakajo'ob estes e,e,e, máako'ob tu kaj óota' evan… evangeliza… esten evengelizadoreso'ob em .. ku máan u esten u, u tsikbato'ob u, u palabra Dios esten bey uch u k'aj óotko'ob, u k'aj 'ootko'obo' em in wa'ake' leeti' meet u , u, u, utstal y yik in papaje ingleso' em.. ka'a… ka'apu xookik xaan em.. je'elo' teene´ kin, kin wik tun xookik, kin wúuyik tun xookik leeti' meet u, u, utstal y yik in papaje ingleso' em.. ka'a.. ka'apu xookik xaan em ..je'elo' teene' kin, kin wik tun xookik , kin wúuyik tun xookik leeti' meet u utstal in , in, in wik em .. je'elo' bey tu ya'alaj in papaj esten teene' k'a'abéet in xook, k'a' béet in jóok'o xook tumeen wa ma'e' chéen ts'o'oke' ku ts'o'okla beel esten chen ts'o'oke' chéen u meyaji ich naajo'ob ken ameete' ki. em.. je'elo' ka'ata ya'ale' esten k'a'abéet in k'a'abéet in biin xook, k'a'abét inseguerkin xook, ka'a… pues ka' a tin seguerta. Bo'oráa estes waay yaanene'. Desde desde chichnenebeyo' uts in wik e ingleso', je'elo ka' ya'alin k'uchu tun waye' ka'… em.. way te' univeridade' ka'.. ka' tin wilaj báaxo'ob ku jach xo'oko waye', ka' atin wilaje' ichile yaan yaan a ingleso bey uts in wiko' ka' a tin wa'ale' pos ingles ken in xooke' je'elo ka tin ch'a'aj tun e ingles in xooko' em.. em.. em..uts in wik tumeen esten esten taak in Kankan t'aane', in t'aanik jach uts em.. meen waka t'aanik inglese'.. tin tuuklaje' kiin kan in t'aan ingles jacch utse' ju'… ju' b'eeytal I esten in biin in k'ajoót

nukuch kaajo'ob n'aachi estes em.. yéete xaane' esten chen ts'o'okok chen ts'o'okin utsi kaantike' in esten in k'áat in kaaxtu p'ée meyaj, u p'ée meyaj tu'ux in.. estes in.. ti' ingles em.. uts in wik in xookik , uts in wik in xookik , but ... pero ..ba'ale' esten tin bin yaanlaj in jóok'ol tin kaaja i..in xooke ka' taaten waaye' náach... náach in kaaja waaye' esten pero tumeen uts in wike' waay yaanene' es..e.. u,, ba'ax ba'ax kás.. u k'aasa'anile' tumeen ma' tin juunaj , esten mina'anen tin nay, mina'anen yiinka in papa , es.. pero uts tumeen ya'ab ba'a ka kaanik yéete xaan u jee ba'axe' yaan horae´ jach ya'a' mejayo'ob ku p'a'atlik meete chen ts'o'oke ts'u' jach áak'atale' man weene meen mix ats'o'oksi'i' em.. pero em.. wa uts a wike' keex.. keex beyo', keex ya'ab u meyajile' ka.. ti' yaaneechi' esten táan.. taán a meetik tumeen esten taak a kanik, taak esten a kanik tu láakal ba'a ku ka'ansa'ateech.

Mention some aspects that you like

(Informant 5)

An leete'... leete' ts'i'in wa'akteecho' estene ba'ax utsin wik ti'e' pos tin wiike' sáansamale' tin kan ku jee ba'alo'ob esten em...ju'u béey tal in..in.. in.. wa'ak wa ba'axo'ob es... ich inglese' esten ma' je'ex ka'ache' ka'ache' chéen chéen wa jay p'ée esten taano'ob in woolin wa'ale' pero bejla'e' ju'u beeyta in kax tsikba esten ich inglese' I yaan... yaan in esten máako'ob in k'ajóolo'ob te'.. te'.. u kaalo'ob te' náachiló ingles u t'aano'obe' bejla'a'ke' ju'u beeytal in... in kax tsikbal yéetelo'ob esten ich inglese', leete'lel uts in wiko'

Mention some aspects that you dislike...

(Informant 5)

Mm... je'ex wal ts'i'in yáax a'ako' este .. mm.. chéen ba'ax yaan... mmm yaan kiino'ob ma' jach uts in wike' esten yaan horae', yaan kiino'obe' jach ya'ab me'yajo'ob ku p'a'atlik meetej em.. em.. aan yéetele' tumeeen ma' tin naay yaá neni'i esten way yaanene' kajakbalen tin juuna, náach yaanen esten tin naay, pero tumeenwal uts in wike' la'aten way yaanene'.

Appendix E. Interview guide

This interview guide is prepared to obtain information about your acquisition, throughout your life, of Mayan language. This information will be necessary to describe the manner and form of production of Mayan language. Besides, the results of this research will be useful for some students, who are Mayan descendents, to demonstrate them some linguistics' features, so they may improve when studying a foreign language.

Briefing

- Ice-breakers (to talk about the college and English language degree)
- Purpose of the interview
- Instructions

SECTION I (Mayan language acquisition)

1.-Concerning your childhood, did you practice Mayan language in every day life?

- Follow up questions:

 Where did you practice Mayan language?

 How did you practice Mayan language?

2.-How did you acquire this language?

- Follow up questions:

 Did you listen to anybody?

 Did anybody help you to understand this language?

3. What age did you have when acquiring Mayan language?

- Follow up questions:

When did you acquire this language?

4.- Which skills of Mayan language did you first develop:

reading?

speaking ?

listening ?

writing ?

○   Follow up questions:

Which skill was the easiest to acquire

5.- Nowadays, which skills do you have plenty comprehension:

reading ?

speaking ?

listening ?

writing ?

○   Follow up questions:

Which skills do you understand the best?

Which skills do you use the most?

6.- How many times per week do you speak Mayan language?

○   Follow up question:

Do you speak Mayan language frequently?

7. - Have you practiced Mayan language?

○   Follow up questions:

Have you taken a Mayan course?

Have you ever read in Mayan language?

SECTION II (Mayan language influence)

1.- When speaking English language, do you think in Mayan language pronunciation?

●   Follow up question:

Do you think in Mayan language words?

2.- Do you try to produce English pronunciation when speaking?

●   Follow up questions:

   Are you aware of English pronunciation?

   Do you think both languages have the same pronunciation?

3. - Do you compare Mayan language words with English language's ones?

●   Follow up questions:

   Do you find similarities in some words?

   Do some words have similar pronunciation in both languages?

4.- Do you substitute similar Mayan words with English ones?

●   Follow up question:

   Do you pronounce Mayan words, which are similar, in English language?

5.- Which skill of English language was/is difficult to learn:

   reading ?
   speaking ?
   listening ?
   writing ?

●   Follow up questions:

Which skills of English language are difficult to improve?

From you point of view, why do you think is difficult to improve these skills?

6.- When speaking English, do you translate it into Mayan language?

●   Follow up questions:

Do you think the meaning of English words in Mayan language?

Is better for you to think in Mayan language before speaking English?

7. – are you conscious of difficult sounds of English language?

●   Follow up question:

Do you try to memorize complicated words in English language?

(Informant 1)

Do you think in Mayan language words?

Sometimes , I [t'] hink in some wor[t]s because nowadays I use more S[p'] anish I s[p'] eak more S[p'] anish because of this situation.

Are you conscious of difficult words in English Language?

Yes, there are difficult wor[t]s only I nee[t] to practice more. In English language are difficult wor[t]s for me because people don't know how to pronounce these words because it is something new bu [tʰ] I think that teachers need to teach better

(Informant 4)

 Until we get [t'] ired .Actually, I yes I just play those games with them after s[k']lool [t'] ime then I use to go back home the[m]   be there and casa. Always most of the [t'] ime I use to be there with my brothers [p'] laying running, doing things. I get along well with them Any, they are always [p'] laying w[à] tching.

If it is not the same as going to the laboratory language to be in [k']ontact with the speakers of that language and because here at the Uqroo the major you just hear but mainly English in the classroom and some[t']imes the teacher don't doesn't s[p'] eak in English but S[p'] anish and that causes some contradictions of problems when you g[ò] out.

(Informant 7)

We use to go to [p']lay with my cousins to my aunt's house an[t] my mother always [k']alled us because we always [k']ame back late at home . so, but we always went to [p']lay with them and also ...eh in front of my house... eh two boys and one girls and we use to [p']lay with dolls with Anna and my sister but most of the [t'] ime we s[p']ent the day with my cousins.