ARTICULATORY PHONETICS IN THE ENGLISH LANGUAJE PRONUNCIATION DEVELOPMENT

Wilson Gonzalo Rojas Yumisaca

MAGISTER EN EDUCACION A DISTANCIA Y ABIERTA

wilson.rojas@espoch.edu.ec

Escuela Superior Politécnica de Chimborazo (ESPOCH)

Riobamba-Ecuador

Nanci Margarita Inca Chunata

MAGISTER EN DOCENCIA UNIVERSITARIA Y ADMINISTRACION EDUCATIVA

ninca@espoch.edu.ec

Escuela Superior Politécnica de Chimborazo (ESPOCH)

Riobamba-Ecuador

María Guadalupe Escobar Murillo

MAGISTER EN DOCENCIA UNIVERSITARIA Y ADMINISTRACIÓN EDUCATIVA

mescobar@espoch.edu.ec

Escuela Superior Politécnica de Chimborazo (ESPOCH)

Riobamba-Ecuador

Nancy Georgina Rodríguez Arellano

MAGISTER EN DOCENCIA UNIVERSITARIA Y ADMINISTRACIÓN EDUCATIVA

nancy.rodriguez@espoch.edu.ec

Escuela Superior Politécnica de Chimborazo (ESPOCH)

Riobamba-Ecuador

RESUMEN

El presente proyecto de investigación "La Fonética Articulatoria en el Desarrollo de la Pronunciación del Idioma Inglés" tuvo como objetivo principal determinar si el uso de la Fonética Articulatoria ayuda al mejoramiento de la pronunciación del Idioma Inglés y también describir los sonidos del lenguaje, vocales y consonantes, mediante su forma de producción y clasificación, acento y entonación; además de, realizar una intervención dentro del aula y analizar los datos obtenidos antes y después de la misma; finalmente concienciar en el estudiante la necesidad de adquirir conocimientos relacionados con Fonética Articulatoria para mejorar su comunicación oral

mediante el uso del Idioma Inglés. Este estudio descriptivo tuvo un abordaje cuali-cuantitativo a través del cual se desarrolló un estudio cuasi-experimental basado en este se trabajó con dos grupos de estudiantes: el grupo de control con 121 estudiantes y el grupo experimental con el mismo número de estudiantes los cuales no fueron escogidos aleatoriamente. La investigación además, fue de campo ya que se realizó la intervención de los investigadores dentro del aula de clase así como también el tipo de investigación fue bibliográfica documental. La población del presente estudio estuvo conformada por estudiantes de seis paralelos del sexto nivel del Centro de Idiomas de la Escuela Superior Politécnica de Chimborazo en la ciudad de Riobamba durante el periodo académico Octubre 2017 – Marzo 2018. Para la recolección de datos, se aplicaron dos pruebas a los dos grupos de la población: una entrevista de pares antes de la intervención y otra después de la misma. Con los datos obtenidos y tabulados, la verificación de las hipótesis fue realizada con la prueba matemática T de Student. Por lo tanto se concluye que los estudiantes mejoraron su pronunciación del Idioma Inglés mediante el uso de la Fonética Articulatoria y se recomienda enfatizar estos temas en la planificación didáctica para motivar una correcta producción oral del Idioma Inglés.

Palabras claves: Fonética Articulatoria – Pronunciación – Acento – Entonación – Sonidos del Lenguaje.

ABSTRACT

The present research "Articulatory Phonetics in the English Language Pronunciation Development" is aimed to determine whether Articulatory phonetics use enhances English Pronunciation development or not; to describe the sounds of speech, consonants and vowels, through their manners of articulation and points of articulation, stress, and intonation; besides, to develop a teacher's intervention within the class and analyze the obtained data before and after it. Finally, it is aimed to socialize the necessity of improving English pronunciation development through the learning of Articulatory Phonetics issues; in this way, they would enhance their English Language oral communication skills. This descriptive research is focused on quali-quantitative approach and for the consecution of its goals, a quasi-experimental research is developed. Quasi-experimental research had two groups of students to implement Articulatory phonetics: the control group, which was formed by 121 individuals and the experimental one with the same number of students. Both, the control and the experimental groups of students were not chosen randomly. Besides, this investigation was focused on field research since the researchers made a class intervention. Furthermore, it was bibliographical research as well. The population was formed by 6 groups belonging to third English level in Language Center at Escuela Superior Politécnica de Chimborazo during the period October 2017 – March 2018. For collecting data, a pre and a post-test were taken by the students before and after the researchers' intervention. Pre and post-tests consisted in a pair oral interview. With the obtained and analyzed data, the researchers verified the hypothesis with T Student mathematical method. The obtained results showed that students did enhance their English language pronunciation development with the use of Articulatory phonetics in the researchers' intervention. Accordingly, it is highly recommended to emphasize those topics within the didactic class planning in order to encourage students to pronounce correctly for a better communication.

Keywords: Articulatory Phonetics - Pronunciation - Accent - Intonation - Sounds of speech.

INTRODUCTION

The present study titled "Articulatory Phonetics in the English Language Pronunciation Development" has as its main objective to analyze whether the use of Articulatory Phonetics enhances the English pronunciation. The research surveys valuable data based on Articulatory Phonetics, organs of speech, sounds of speech, vowels, consonants, stress and intonation. It was developed for a deficient pronunciation was detected. Furthermore, understanding to each other was almost impossible because of this problem.

This research focused in a quasi-experimental research because Articulatory Phonetics was applied in classes to the Experimental group of students for improving their pronunciation development. It centered on a quali-quantitative approach as well. Pre and Post-tests were the applied instruments. This process was extremely motivating because it allowed the researchers to try another way of teaching English from a different perspective. It was accomplished through the implementation of a proposal for helping in students' pronunciation development.

PROBLEM IMPORTANCE

English language is considered as the default one or even the only language at meetings around the world (Northrup, 2013); therefore, it is the most important language around the world because it is used in business, tourism, technology, and science among other fields (Crystal, 2003). However there are some problems at the moment of performing oral communication due to bad pronunciation; consequently, it is important to analyze what happens in the world, in our country, and at Escuela Superior Politécnica de Chimborazo.

English pronunciation problems stop oral communication around the globe. In China,

Phonetics is considered the most prominent problem in terms of oral communication. English students are generally quiet and shy and have a sense of fear due to their pronunciation mistakes; consequently, they have low self-esteem and poor social interaction because of pronunciation, stress, and intonation problems which widely affect their conversation skills (Zhang & Yin, 2009).

In Ecuador English pronunciation is a big problem. The Ministry of Education is demanding a B1 or B2 level at Universities, written English and oral English are two different things (O'Connor, 2009); in Ecuador there are pronunciation problems. For example, there is an influence of Spanish sounds in uttering English words (Olivo, 2016). Besides, Ecuadorian students emphasize that pronunciation is the most difficult issue at the moment of learning; similarly, Ecuadorian English teachers remark that uttering English words and the fear of making mistakes are big problems in class settings (Gonzalez, et al., 2015).

The present research is focused on the lack of Articulatory Phonetics knowledge that influences a low level of English pronunciation development of students in Ecuador, and especially at Escuela Superior Politécnica de Chimborazo (ESPOCH). This problem has four causes and their consequential effects.

First, there is a poor English pronunciation development which was evidenced in the diagnostic exam before starting English classes. Students tend to pronounce English words just like they write. Sometimes, they pronounce half of the word or change sounds. To face this problem, teachers do not help their students nor provide feedback. As the consequence of it, students have an inadequate pronunciation level; while speaking practice students do not seem interested but anxious. They get shocked when struggle with oral communication or stop

talking because they feel that their listeners do not understand them at all (Zhang & Yin, 2009).

On the contrary, teachers want their students to pronounce in a good way however they do not provide enough support to promote their students to a good English oral proficiency level. Furthermore, there is a non-effective spoken communication between teacher and student and among them. Therefore, they do not understand when others do not produce English sounds appropriately. Their message is unclear and the listener does not make appropriate responses. For example, it is very difficult to understand to Chinese people because they speak with their own rhythm and intonation (Zhang & Yin, 2009).

Consequently, there is weakness in communication channels. People who do not speak or pronounce in a right way tend to avoid conversations and lose many opportunities to empower their speaking skills. Besides the problems which were mentioned above, there is a traditional English teaching methodology in pronunciation practice. While students want interactive, meaningful, and motivational classes; teachers are using the Teacher-centered methodology that ends in a boring and repetitive class. The teacher just stands in front of the class with a marker and filling blanks in a book. The classes are neither meaningful nor relevant for students who are anxious for receiving feedback or teacher's support (Varatta, 2017).

Therefore, students show a clear English pronunciation fear because they do not feel confident. This problem happens in classes all the time because students are not self-confident due to their lack of teachers' motivation to speak.

Another big deal is the fact that students have few English pronunciation opportunities because they just repeat drills in the class hour. Benjamin Franklin quoted in Frost (2012) remarked: "Tell me and I forget, teach me and I may remember, involve me and I learn"; this is totally true because students must practice pronunciation in real life with real English speakers to enhance their pronunciation development every day.

Consequently, they have short vocabulary knowledge because when they do not use the acquired knowledge, they forget it. They do not practice the variety of words that were learned in class to establish communication.

OBJECTIVES

General Objective

To determine the effectiveness of Articulatory Phonetics use for enhancing English pronunciation development.

Specific Objectives

To diagnose the level of students' English language pronunciation development.

To describe how the Sounds of speech are produced and classified in English pronunciation development.

To analyze data before and after the teacher's articulatory phonetics intervention for students' pronunciation development.

To build up students' awareness about Articulatory Phonetics for a better pronunciation development through teacher's intervention.

HYPOTHESIS

General Hypothesis

The application of Articulatory phonetics enhances the English language pronunciation development.

Specific Hypothesis

The application of Articulatory phonetics does not enhance the English language pronunciation development

THEORETICAL FRAMEWORK

PHONETICS is the branch of Linguistics that studies the sounds of speech (Firth, 2008). Phonetics is the art which studies practical data about pronouncing and perceiving the sounds of speech that are used for communication purposes. Therefore, phonetics aims to provide an objective description of speech. Phonetics is narrowly connected with the issues related to the International Phonetic Association.

This Association has created the International Phonetics Alphabet, a set of standard symbols, which is widely used for the study of the sounds of speech through Phonetic transcriptions (Laver, 1994). There are three ways which describe the sounds of speech. Those are related to the subfields of Phonetics. Articulatory phonetics, Auditory Phonetics, and Acoustic Phonetics (Herbst, English Linguistics: A Coursebook for studenys of English, 2010)

Sounds of speech Sapir (1921) emphasizes that sounds of speech are those unformed and unburnt clay with bricks are modeled to produce the bricks of the structure or the elements of a language. Furthermore, he remarks that sounds of speech are produced in the auditory tract of the brain with the movements that involve the organs of speech to utter vowels and consonants. Therefore, sounds of speech are merely vowels and consonants which are also called as Phones (Yule, 2010). Those sounds of speech are represented in the International Phonetic Alphabet and are grouped into two main categories: vowels and consonants (Celce-Murcia, Brinton, & Goodwin, 1996).

Vowels sounds are produced without friction not any stop (Yule, 2010). Sometimes Y is considered as a vowel which is pronounced like I; furthermore, W substitutes U (Bigham, 2014). Vowels are analyzed by their Point of articulation, the degree of lip rounding, the level of the tongue, and their length (Herbst, English Linguistics: A Coursebook for studenys of English, 2010).

Consonants are considered those sounds which are produced by a closure or narrowing in the vocal tract where the mainstream of air may be completely blocked or limited to a friction (Crystal, 2008). Consonants are basic speech sounds which are classified according to their place of articulation and manner of articulation (Yule, 2010).

ARTICULATORY PHONETICS Yule (2010) states Articulatory Phonetics as the study of how speech sounds are made or articulated. It is also known as the physiological mechanisms of speech production by human beings (Brinton & Brinton, 2010). It concerns with the sounds of speech produced by the organs of speech and how the vocal folds adjust the flow of air while it is passing through them for producing different sounds (Zhu, 2015).

ARTICULATION OF VOWELS

Points of articulation. According to the highest position of the tongue, vowels can be: **front, central, and back** (Herbst, English Linguistics: A Coursebook for studenys of English, 2010).

Front vowels are those which are produced by the front part of the tongue towards the front of the mouth. They are / iː /, / i /, / e /, / æ /; on the opposite, back vowels are uttered with the back part of the tongue contacts with the back of the mouth / ɑː /, / ɔː /; / ɒ /, /uː /, / ʊ /. Lastly, central vowels are /ə /, / ɜː /, / ʌ / (Mojsin, 2016).

GRAPH 1: Points of Articulation
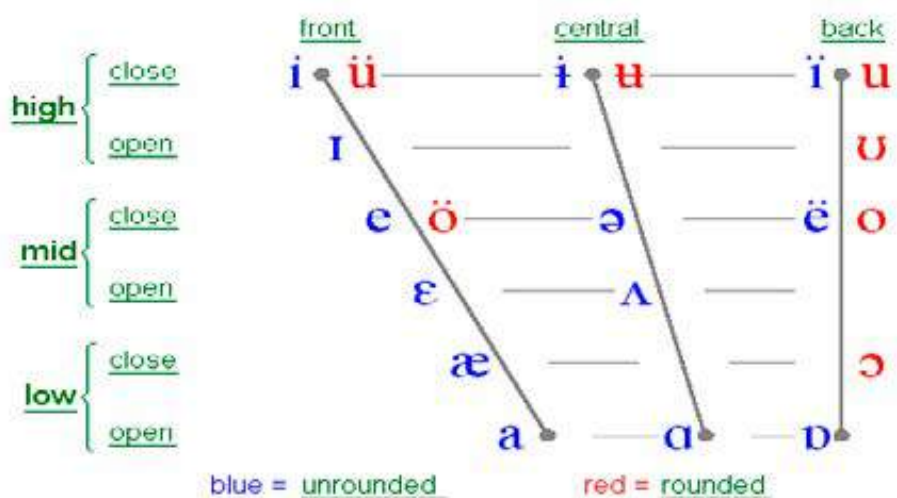
Source: Images Google.

ARTICULATION OF CONSONANTS

Places of articulation. Consonants are produced in certain places of articulation; for producing consonant sounds, vocal tract and its different parts are used. After the air stream produced in the lungs passed through the larynx, it goes and passes through the mouth or/and the nose. Consonants are the sounds of speech which are produced or articulated via closure or obstruction in the vocal tract (Crystal, 2008). They are classified according with their place of place of articulation or where they are produced as: bilabials, labiodentals, Dentals and Interdentals, Alveolars, Post-alveolars, Palatals, Velars, and Glottals (Yule, 2010).

GRAPH 2: Place of Articulation
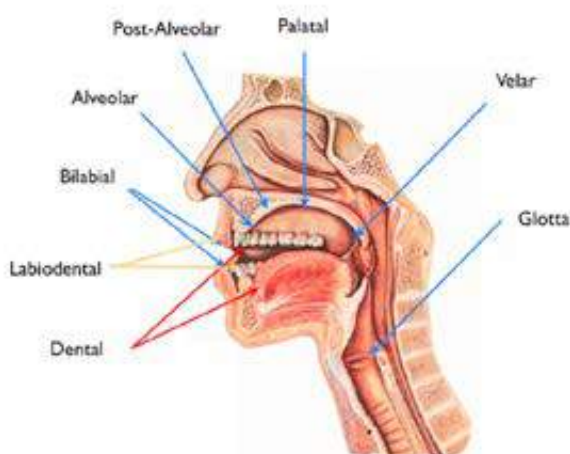
Source: Images Google.

Manners of articulation. Consonants are analyzed according to their manners of articulation. They refer to the way in which the air stream is modified in the vocal tract or the amount of constriction whether that constriction is complete or partial (Brinton & Brinton, 2010). The speaker utters sounds in different manners which are called Stops, Fricatives, Affricates, Nasals, Liquids, Glides, and Glottal Stops and flaps (Yule 2010).

GRAPH 3: English consonants. Manners and Places of Articulation

PVM Chart: English			PLACE							
			LABIAL		CORONAL				DORSAL	
MANNER		VOICING	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Palatal	Velar	Glottal
OBSTRUENTS	Stop	Voiceless	p			t			k	ʔ
		Voiced	b			d			g	
	Fricative	Voiceless		f	θ	s	ʃ			h
		Voiced		v	ð	z	ʒ			
	Affricate	Voiceless					tʃ			
		Voiced					dʒ			
SONORANTS	Nasal	Voiced	m			n			ŋ	
	LIQUID Lateral	Voiced				l				
	LIQUID Rhotic	Voiced					ɹ			
	Glide	Voiced	w					j	w	

Source: Images Google.

SPEAKING SKILLS. According to the CEFR (1991) Speaking skills are related to the person's ability to produce Spoken Interaction and Spoken production. The former is related to the capability to interact and communicate by using simple phrases and sentences in conversations. Spoken production deals with the ability to connect phrases about familiar topics. Speaking skills also involve sub-skills that make speakers more proficient in English language. Those sub-skills are: fluency, accuracy in pronunciation and vocabulary, appropriateness, turn-taking skills, relevant length, responding and initiating, repair and repetition, range of words and grammar, and discourse markers. All of the sub-skills can be improved by practicing speaking activities like short presentations (Lackman, 2010).

Linguistic competence. For communicative purposes, English users must accomplish certain language competences. Those competences are Linguistic competences and sociolinguistic competences. Linguistic competences refer to the ability to deal with discourse, conversation, reflection, composition in particular communicative acts (Council of Europe, 1991). Moreover, it refers to the knowledge that lets the speaker to use and understand English language tacitly and implicitly because speakers are unconscious about their knowledge (Nordquist,

2017). Linguistic competence regards with Grammatical, pronunciation, and vocabulary.

Grammar. CEFR (1991) names this as grammatical competence when the English users have the knowledge and the ability to use the grammar resources of the language. Further, this competence refers to the ability to understand and express ideas or phrases and sentences that are well fixed according to grammar rules. Besides, a good knowledge of the parts of speech is needed to have a good grammatical competence. Additionally, it is important to have clear understanding of other categories like number, person, tense, voice, and gender (Yule, 2010).

Pronunciation from the Latin "to announce" is the way or act of uttering a word. For some reasons words in English language are pronounced in a different way than they are written or spelled; therefore, sounds can be represented by more than one combination of letters; for instance the words 'does', 'was', and 'fuzz' rhyme to each other (Nordquist, 2017). It refers to the knowledge and ability of English users to perceive and produce sounds of speech and their use in particular contexts, phonetic features, phonetic composition of words, and sentence phonetics (Council of Europe, 1991).

Oral/Spoken Interaction means that human beings as language uses plays two different roles, they are both speaker and listener. In this regard, they follow cooperative principles through negotiation. Interaction deals with receptive and productive language strategies: collaborative or cooperation strategies and cognitive or discourse strategies. Teachers can improve their students' Oral interaction through different activities such as: turn-taking, establishing a line of approach, summarizing, proposing solutions, among others. Furthermore, they can propose

interactive activities in class (Council of Europe, 1991).

Casual Conversation is the communication the action that people perform with others that know very well. It happens in social interaction, therefore, the more social interaction the more casual conversation people develop. This social interaction is developed with friends, relatives, and family members. It involves less formal vocabulary, grammar, and language expressions such as slangs and idioms. Some of the meanings of casual conversation are: chat, gab, gossip, jesting, joking, kidding, dialog, small talk, making fun, ribbing, and so on (Bartley, 2018).

Informal Discussion is that conversation which is performed and flows in every direction; it means that it does not move in just one direction nor has only one channel. The transmission of information does not have any pre-defined way, therefore, it is fast. This type of discussion is developed naturally during the interaction with others and has as its main topic some issues like professional life, personal life, and others (Surbhi, 2015).

Formal Discussion is important to note that in enterprises or any other institution people need to communicate effectively. It occurs in large companies especially; so, formal discussion and communication takes place. Formal discussion involves formal channels of any institution. It also occurs horizontally among the parts of organizations in the same level of hierarchy (Grimsley, 2018).

Debate is a formal discussion when argumentation takes place; it is developed by two individuals or two groups of people. People who are debating must reason and argument ideas; moreover, they must tolerate others' points of view. They also mainly have opposite

points of view to discuss about controversial issues without falling to insult, emotional claims or personal prejudices. Debating does not always end in agreements but deep analysis (Popper, 2018).

Interview is a conversation which aims to obtain information about an issue in particular. This process implicates an interviewer, who is the coordinator and proposes the questions, and an interviewee, who answers those questions. These kinds of interviews are commonly used in surveys.

Oral Production is part of the productive activities of the language those are speaking skills. It also refers to speaking activities the English users perform for an audience or for more than two listeners (CEFR, 2001). Speaking productions mostly refer to those activities called as speeches, lectures, entertainment, and news broadcast, among others.

Speeches According to Oxford Dictionary (2018) a Speech is the ability to express thoughts and feelings orally; it is also a formal address or discourse surrendered to public audience. A speech is first written and have the form of an essay with its introduction, a body, and a conclusion; besides it can be addressed with three main goals: to inform, to persuade, or to motivate.

METHODOLOGY

This research was descriptive which means measured. In other words, a series of aspects are measured and described (Hernández, Fernández, & Baptista, 1997). Further, it was a Bibliographical documentary research. The researchers assessed and analyzed bibliographical data. It also included

authenticity, credibility, representativeness, and meaning. Authenticity deals with genuineness and originality. Credibility means that the researchers are honest and accurate. It also means that the evidence of the research was clear and comprehensible. The document was appropriately situated to its context as well; and, its methodology was ascertained (Kridel, 2016).

Beside, Applied Research and Field Research were used. They refer to Scientific research which aim to solve problems through the application of the information which is found in the books. They are useful in order to solve everyday problems (Cherry, 2017). Therefore, this research proposed a teachers' intervention for enhancing students' English pronunciation development. This let the students the opportunity to improve their English pronunciation. Besides, the present job was also Field Research. During classes the researchers had the opportunity to observe and determine the problem (Brown, 2011). And, findings were applied with the experimental group and results were obtained as well.

Moreover, this research was quasi-experimental. It had two groups of students that were not chosen randomly (Kowalczyk, 2003) to perform the present research. Those groups were the Control group and the Experimental group that took the pre-and post-tests (Cohen, Manion, & Morrison, 2007). The Control group of students was similar to the Experimental one; however they did not focus on Articulatory Phonetics learning within English classes while the Experimental group did have the teachers' intervention in order to enhance the English language pronunciation development (Hernández, Fernández, & Baptista, 1997). Finally, this research used T student test Mathematical. Hence, T is a hypothesis test in statistics and it is used for comparing means. Two groups, the control and experimental ones were compared (Frost, 2016).

RESULTS

A pre-test and post-test were carried out with an experimental group in order to obtain the results through the four Pronunciation Categories: vowels, consonants, stress, and intonation which were evaluated. Besides, a rubric was designed according to the four criteria mentioned above and the instrument was an adaptation based on the KET exam in its speaking part. It had seven personal information questions. This questionnaire was also based on the CEFR. The results were developed in three principals stages:

The first stage was the data interpretation about Pre and Post Test Pronunciation Categories with the Experimental Group.

TABLE 1: Pronunciation Categories Pre – Post Test Experimental Group

Pre and Post Test Pronunciation Categories		
Categories	Pre - test	Post – test
Vowels	1,46	2,86
Consonants	1,39	2,94
Stress	1,44	2,89
Intonation	1,38	2,74
Expected Average	4,00	4,00

Source: Pre - Post test results - Experimental Group

This table shows the obtained scores in the four pronunciation criteria, pronunciation of vowels, consonants, stress, and intonation, which have notably improved. Hence, in Pronunciation of vowels the score has been increased from 1, 46 to 2, 86. In the pronunciation of consonants the results increased as well from 1, 39 to 2, 94. Furthermore, in stress, the results also raised from 1, 44 to 2, 89. And, in Intonation the results were from 1, 38 to 2, 74. These results were

obtained because of the teachers' intervention with Articulatory phonetics emphasis in class. This was very helpful for students to be aware about improving their pronunciation development.

The second stage was about the results obtained after the table's interpretation based on four Pronunciation Categories with the control group.

TABLE 2: Pronunciation Categories Pre – Post Test Control Group

Pre and Post Test Pronunciation Categories		
Categories	Pre - test	Post – test
Vowels	1,36	1,51
Consonants	1,35	1,50
Stress	1,35	1,43
Intonation	1,33	1,41
Expected Average	4,00	4,00

Source: Pre - Post test results - Control Group

It demonstrates the obtained results from the pre and post-tests with the Control group. The first part shows the pronunciation of vowels which has a light difference because in the pre-test the result was 1,36 and in the post-test the result was 1,51. Similarly, there is not a great difference between the results concerning to the pronunciation of consonants which results were: in the pre-test 1, 35 and the post-test 1, 50. In the same way stress criterion did not have any advancement with the control group. Therefore, the result in the pre-test was 1, 35 and the average in the post-test was 1, 43. Finally, the results about Intonation did not have improvement as well; so, in the pre-test the general score was 1, 33 and the result in the post-test was 1, 41. In sum, it clearly shows that control group did not improve its pronunciation of English language.

Finally, the third and the last stage displayed the comparison and the final results of the Pre and Post-tests between the Experimental Group and

the Control Group to see about the students' improvement in their pronunciation development.

TABLE 3: Pronunciation Categories Pre and Post – Test Results - Comparison Experimental and Control Group

	CONTROL GROUP			EXPERIMENTAL GROUP	
Categories	**Pre - test**	**Post - test**	**Categories**	**Pre - test**	**Post - test**
Vowels	1,36	1,51	Vowels	1,46	2,86
Consonants	1,35	1,50	Consonants	1,39	2,94
Stress	1,35	1,43	Stress	1,44	2,89
Intonation	1,33	1,41	Intonation	1,38	2,74

Source: Pre and Post Test comparison results. Experimental and Control Group

As it was showed, the final average scores in the Experimental group have a great variation from the pre-test and the post-test different categories. Hence, in the pronunciation of vowel, the pre-test result was 1, 46 and in the post-test, the average was 2, 86. In the same way, the results varied in the pronunciation of consonants; therefore, the result in the pre-test was 1, 39 and in the post- test, it was 2, 94. Furthermore, in the stress category, the pre-test had a score of 1, 44 and in the post-test the score was 2, 89. Finally, the average score in the Intonation category was 1, 38 and in the post-test was 2, 74. As it was described, there is a considerable improvement between the results of the pre-test and the post-test belonged to the Experimental group because Articulatory phonetics topics were covered in class.

On the other hand, the control group had lower results than the experimental group. The pronunciation of vowels had 1, 36 in the pre-test and 1, 51 in the post-test. Moreover, the pronunciation of consonants obtained 1, 35 in the pre-test and 1, 50 in the post-test. Stress varied from 1, 35 in the pre-test to 1, 43 in the post-test. And, in the Intonation category, the result of the pre-test was 1, 33 and in the post-test was 1, 41.

In accordance with these results, the experimental group had a noticeable improvement in the English language pronunciation development because Articulatory phonetic was studied while the Control group of students did have English classes but they did not studied Articulatory phonetics themes.

Finally, the table 4 below displays final results of the Pre and Post-tests between the Experimental and the Control Group to see about the students' improvement in their pronunciation development. In the control group the pre-test result was 5, 35 and in the post-test the result was 5, 85. These data show that there was not a remarkable improvement. However, in the experimental group the difference between the Pre-test and the Post-test was noticeable. The result increased from 5, 68 in the pre-test to 11, 43 in the post-test.

The Experimental group's improvement is due to the researchers' intervention with Articulatory Phonetics with the objective of enhancing students' English language pronunciation development.

TABLE 4: Pronunciation final scores Pre – Post Test - Comparison Experimental and Control Groups

Experimental Group		Control Group	
Pre- Test	5,68	Pre- Test	5,35
Post - Test	11,43	Post - Test	5,85

Source: Pre and Post test results – Experimental and Control Group

CONCLUSIONS

According to T student test, it was determined that Articulatory Phonetics use enhances English pronunciation development to students in the Third English level at Escuela Superior Politécnica de Chimborazo (ESPOCH).

A diagnose about the level of students' English language pronunciation development was performed and the result was that students needed teachers' intervention with pronunciation issues because they had serious difficulties in their English language pronunciation. Even though they had an English teacher and classes they needed to focus their attention not only in English in general but in pronunciation as well.

Sounds of speech production and kinds were covered theoretically. This information provided by the researchers along the whole process helped the students to increase their knowledge of English language.

Data obtained before and after the researchers' intervention were analyzed. These data gave the researchers the opportunity to diagnose of the students' pronunciation level at the beginning. And at the end, these data provided information about the results of the intervention and to see that the general hypothesis was valid.

Students' awareness about Articulatory Phonetics for a better pronunciation development was built up. During the whole process students have shown their motivation and awareness to learn about pronunciation. From the present they have the commitment to continue growing their English pronunciation development.

BIBLIOGRAPHY

Kridel, C. (2016). *South Caroline Flagship University*. Obtenido de http://www.ed.sc.edu/museum/biography-doc_thoughts.html

Ball, R. (2002). *Introduction to Phonetics for Students of English, French, German, and Spanish* . Southampton: University of Southampton.

Bigham, D. (2014, August 19). *Lexicon Valley*. How Many Vowels Are There in English?: http://www.slate.com/blogs/lexicon_valley/2014/08/19/aeiou_and_sometimes_y_how_many_english_vowels_and_what_is_a_vowel_anyway.html

Brinton, L., & Brinton, D. (2010). *The Linguistic Structure of Modern English.* Amsterdam: John Benjamins Publishing Company.

British Council. (2014). *British Council*. https://www.teachingenglish.org.uk/article/intonation

British Council. (2015). *ESOL Nexus*. http://esol.britishcouncil.org/content/teachers/staff-room/teaching-articles/sentence-stress

Brown, C. (2011, January 31). *Inc. Startup Guide*. How to Conduct Field Research: https://www.inc.com/guides/201101/how-to-conduct-field-research.html

Cambridge Dictinary. (s.f.). http://dictionary. cambridge.org/es/diccionario/ingles/ pronunciation

Celce-Murcia, M., Brinton, D., & Goodwin, J. (1996). *Teaching Pronunciation.* New York: Cambridge University Press.

Cherry, K. (2017, August 8). *VeryWellMind*. What is Applied Research: https://www. verywellmind.com/what-is-applied- research-2794820

Cohen, L., Manion, L., & Morrison, K. (2007). *Research Methods in Education.* New York: Routledge Taylor & Francis Group.

Council of Europe. (1991). *Common European Framework of Reference.* https:// www.coe.int/t/dg4/linguistic/source/ framework_en.pdf

Crystal, D. (2003). *English as a Global Language.* New York: Cambridge University Press.

Crystal, D. (2008). *A Dictionary of Linguistics and Phonetics.* Miami: Blackwell Publishing.

Fachun, Z. (2009). A Study of Pronunciation Problems of English Learners in China. *Asian Social Science*, 141-146.

Firth, J. (2008). The use and distribution of certain English sounds. *English Studies*, 1-6.

Frost, J. (2016, April 20). *The Minitab blog*. from Understanding t-Tests: t-values and t-distributions: http://blog.minitab. com/blog/adventures-in-statistics-2/ understanding-t-tests-t-values-and-t- distributions

Frost, R. (2012, November 7). from https://www. quora.com

Gonzalez, P., Ochoa, C., Cabrera, P., Castillo, L., Quiñonez, A., Solano, L., . . . arias, M. (2015, July 25). *Canadian Center of Science and Education.* from EFL Teaching in the Amazon Region of Ecuador: A Focus on Activities and Resources for Teaching Listening and Speaking Skills: http://files.eric.ed.gov/ fulltext/EJ1075454.pdf

Herbst, T. (2010). *English Linguistics: A Coursebook for studenys of English.* New York: EBSCO Publishing.

Hernández, R., Fernández, C., & Baptista, P. (1997). *Metodología de la Investigación.* Mexico: McGRAW - Hill Interamericana de México.

Kowalczyk, D. (2003). *Study.com*. Retrieved February 2, 2018, from Quasi- Experimental Designs: Definition, Characteristics, Types & Examples: https://study.com/academy/lesson/ quasi-experimental-designs-definition- characteristics-types-examples.html

Lane, L. (2013). *Focus on Pronunciation 3.* New York: Pearson educatio, Inc.

László, S. (2014). *Put English Phonetics into Practice.* Beregszász: Transcarpatian Ungarian Institute.

Laver, J. (1994). *Principles of Phonetics.* Edimburg: Cambridge University Press.

Ministerio de Educación de Ecuador. (2017), from Fortalecimiento del Ingles: https:// educacion.gob.ec/fortalecimiento-del- ingles-prin/

Mojsin, L. (2016). *Mastering the American Accent.* Los Angeles: Barron's Educational Series, Inc.

Niglas, K. (1999). *Qualitative and Quantitative Inquiry in Educatinal Research: Is there*

a Paradigmatic difference between them? Lahti: Education Line.

Northrup, D. (2013). *How English Became the Gobal Language.* New York: Palgrave Macmillan.

O'Connor, J. (2009). *Better English Pronunciation.* Cambridge: Cambridge University Press.

Olivo, C. (2016, November). *The Influence of Spanish on the Pronunciation of the English Phonemes /T/ and /D/ in Students of the Eighth Level of the International Commerce Career at Pucese During the First Semester of 2016.* Retrieved September 24, 2017, from Repositorio Digital de la Pontificia Universidad Catolica del Ecuador: https://repositorio.pucese.edu.ec/ bitstream/123456789/907/1/OLIVO%20 TELLO%20%20KARLA%20MARIA.pdf

Oxford learner's dictionaries. (s.f.). Recuperado el 13 de 08 de 2016, de http://www. oxfordlearnersdictionaries.com/about/ pronunciation_english

Research Methodology. (2016). Obtenido de http://research-methodology.net/ research-philosophy/positivism/

Salazar, C. (2013). Estrategia Didáctica Para La Pronunciación De Los Sonidos [ʃ], [ʒ], [Ө] Del Inglés Americano. *Docencia Investigación Innovación*, 56-72.

Sapir, E. (1921). *Language. An Introduction to the Study of Speech.* New York.

Summer, J. (2003). Obtenido de http://www. cehd.umn.edu/trio/mcnair/attributes/ PDFs/ResearchParadigms.pdf

Universitat Bielefelt. (s.f.). Recuperado el 13 de 08 de 2016, de http://www.uni-bielefeld. de/lili/personen/vgramley/teaching/

HTHS/articulatory.html

Varatta, K. (2017, April 14). *Knowledge Works.*, from Teacher-Centered Versus Learner-Centered Learning: http://knowledgeworks.org/ worldoflearning/2017/04/learner-centered-learning/

Wei, Y., & Zhou, Y. (2002). *Insights into English Pronunciation Problems of Thai.* Washington DC.: ERIC Clearinghouse on Languages and Linguisitics.

Yule, G. (2010). The study of Language. New York: Cambridge University press.

Zhang, F., & Yin, P. (2009, June). *Asian Social Science.* Retrieved September 24, 2017, from A Study of Pronunciation Problems of English Learners in China : http://www.ccsenet.org/journal/index. php/ass/article/view/2490/2336

Zhu, X. (2015). Phonetics Articulatory. *International Encyclopedia of the Social & Behavioral Sciences,* , 65-74.