



Pontificia Universidad  
Católica del Ecuador | Sede  
Ambato

**Topic:**

**KINESTHETIC TEACHING TECHNIQUES FOR THE CORRECT  
PRONUNCIATION OF BEGINNING CONSONANT BLENDS -SP IN THIRD  
GRADE STUDENTS**

**Research project prior to obtaining the degree of Magister on English  
Pedagogy as a Foreign Language**

**Line of research:**

Innovative pedagogies, teaching methods

**Author:**

Adriana Vanessa Martínez Zambrano

**Director:**

Elizabeth Auxiliadora Ortiz Lozada, Mg.

**Ambato – Ecuador**

**May 2022**

**PONTIFICIA UNIVERSIDAD CATÓLICA DEL ECUADOR**  
**SEDE AMBATO**  
**APPROVAL SHEET**

**Topic:**

KINESTHETIC TEACHING TECHNIQUES FOR THE CORRECT PRONUNCIATION OF BEGINNING CONSONANT BLENDS -SP IN THIRD GRADE STUDENTS

**Líne of research:**

Innovative pedagogies, teaching methods

**Author:**

Adriana Vanessa Martínez Zambrano

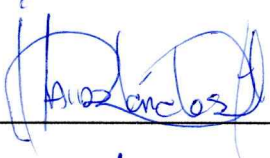
Elizabeth Auxiliadora Ortiz Lozada, Mg.  
MEMBER

f.  Firmada electrónicamente por:  
**ELIZABETH  
AUXILIADORA  
ORTIZ LOZADA**

Juan José Ramos Paredes, Mg.  
MEMBER

f. 

Jairo Vicente Sanchez Freire, Mg.  
MEMBER

f. 

Juan Carlos Acosta Teneda, P. PhD.  
POSTGRADUATE OFFICE DIRECTOR

f.  Pontificia Universidad Católica del Ecuador  
OFICINA DE POSGRADOS

Hugo Rogelio Altamirano Villaroel, Dr.  
PUCESA GENERAL SECRETARY

f.  Pontificia Universidad Católica del Ecuador  
SECRETARIA GENERAL  
PROCURADURÍA

Ambato-Ecuador

## STATEMENT OF AUTHENTICITY AND RESPONSIBILITY

Yo: **Adriana Vanessa Martínez Zambrano**, con CC. **0920383114**, autor del trabajo de graduación titulado: **“Kinesthetic teaching techniques for the correct pronunciation of beginning consonant blends -sp in third grade students.”**, previa a la obtención del título profesional de **Magister en Pedagogía del Inglés como Lengua Extranjera, Maestría en Pedagogía en Inglés como Lengua Extranjera**, en la oficina de **POSTGRADOS**.

1. Declaro tener pleno conocimiento de la obligación que tiene la Pontificia Universidad Católica del Ecuador, de conformidad con el artículo 144 de la Ley Orgánica de Educación Superior, de entregar a la SENESCYT en formato digital una copia del referido trabajo de graduación para que sea integrado al Sistema Nacional de Información de la Educación Superior del Ecuador para su difusión pública respetando los derechos de autor.
2. Autorizo a la Pontificia Universidad Católica del Ecuador a difundir a través de sitio web de la Biblioteca de la PUCE Ambato, el referido trabajo de graduación, respetando las políticas de propiedad intelectual de Universidad

Ambato, mayo 2022



Adriana Vanessa Martínez Zambrano

CC. 0920383114

**DEDICATION**

To my beloved grandmother, Angela Cuadros who deeply loved and supported and guided me. I am sure you are looking after me from heaven.

## **ACKNOWLEDGEMENT**

Being grateful is an act of recognizing of what has contributed to your growth, for this reason, I firstly want to thank God since his infinite Mercy gave me the wisdom, I needed to carry out this investigation. I also wish to express my deep gratitude to PUCESA, because it opened the doors for me and gave me the opportunity to continue training with excellent teachers. Within this prestigious group of trainers, I especially want to thank my tutor, for her time to guide me on this path of investigation. Last but not least, I want to thank my family, for their understanding and unconditional support throughout the time of study of this program besides, I want to thank them for their words of encouragement.

## RESUMEN

Este proyecto evidencia los resultados del estudio sobre el uso de técnicas cinestésicas en la producción de grupos de consonantes -sp por parte de estudiantes de tercer grado de la Unidad Educativa La Inmaculada. La pronunciación de grupos de consonantes es un desafío para los hablantes nativos de español, dado que ese patrón lingüístico no ocurre en L1. Por eso, hay interferencia mientras se aprende L2. Además, los estudiantes asocian un grupo de consonantes a un sonido existente en español lo que resulta en errores de pronunciación. Es por esto que la presente investigación busca mejorar la pronunciación del sonido inicial -sp mediante el uso de técnicas cinestésicas. Para alcanzar este objetivo, los sujetos del estudio fueron expuestos a una lista de palabras y leyeron esas palabras mientras era grabada su producción. Las grabaciones proporcionaron datos para analizar los sonidos creados por los estudiantes. El análisis se realizó mediante el software PRAAT en el que los espectrogramas sirvieron de base para el análisis. Es importante destacar que, los sujetos del estudio se dividieron en dos grupos, ambos trabajaron en la pronunciación utilizando el marco comunicativo para la enseñanza de la pronunciación propuesta por Celce-Murcia. Además, el grupo experimental utilizó técnicas cinestésicas para modelar la pronunciación de / sp /. Los resultados revelaron que ambos grupos mejoraron su pronunciación; sin embargo, el grupo experimental mejoró significativamente más ya que utilizaron técnicas cinestésicas. Como resultado, se logró la conciencia de los estudiantes sobre la percepción y producción de sonidos.

**Palabras clave:** grupos de consonantes, sonidos de consonantes, pronunciación, técnicas cinestésicas.

## ABSTRACT

This project reports on the results of a study about the use of kinesthetic techniques in the production of -sp consonant blends by third graders at Unidad Educativa La Inmaculada. The pronunciation of consonant clusters is a challenge for Spanish native speakers. It is because that linguistic pattern does not happen in L1. Because of that, there is interference while learning L2. Besides, students associate a consonant cluster to one existing sound in Spanish which results in pronunciation errors. That is why, the current research aims to improve the beginning blend-sp pronunciation by using kinesthetic techniques. To address the objective the subjects of the study were exposed to a list of words, they read those words while being recorded. The recordings provided data to analyze the sounds created by students. The analysis was done through the software PRAAT in which spectrograms served as the basis for analysis. Important to note that, the subjects were divided into two groups, both groups worked on pronunciation by using the communicative framework to teach pronunciation proposed by Celce-Murcia. Additionally, the experimental group used kinesthetic techniques to model /sp/ pronunciation. Results revealed that both groups improved their pronunciation however, the experimental group improved significantly more since they used kinesthetic techniques. As a result, students' awareness of accurate sound perception and production was achieved.

**Keywords:** consonant blends, consonant cluster, pronunciation, kinesthetic techniques.

## TABLE OF CONTENT

STATEMENT OF AUTHENTICITY AND RESPONSIBILITY.....	iii
DEDICATION.....	iv
ACKNOWLEDGEMENT .....	v
RESUMEN .....	vi
ABSTRACT .....	vii
INTRODUCTION.....	1
CHAPTER I: STATE OF ART AND PRACTICE .....	5
1.1.    Kinesthetic teaching techniques .....	5
1.2.    Teaching pronunciation .....	12
1.3.    English language.....	18
1.4.    English phonology .....	22
CHAPTER II: METHODOLOGICAL DESIGN .....	27
2.1. Research Approach and level .....	27
2.2. Data collection and analysis: instruments and techniques .....	28
2.3 Statistical analysis .....	35
2.4. The proposal .....	36
CHAPTER III: ANALYSIS OF THE RESULTS.....	53
3.1. Analysis of results and data interpretation.....	53
3.2. Hypothesis Verification .....	57
CONCLUSIONS .....	62
RECOMMENDATIONS .....	63
BIBLIOGRAPHY .....	64
ANNEXES.....	68

## **INTRODUCTION**

### **Theoretical and practical background**

Currently, there is no doubt that, English is considered a global language, which is the reason to teach it all over the world. Certainly, English cultural council estimated that by 2050, half of the world's population will be proficient in using English (Jiao & Wenjing, 2013). Regarding proficiency, communicative skills are fundamental to be developed. Thus, there is the necessity to teach pronunciation, especially to children since this segmental pattern could be a challenge due to inexistence of sounds in L1 which may result in language interference. That is why, Liang-Cheng (2014) states that, teaching methodology to cope with pronunciation patters is vital since it provides high quality input since childhood to obtain efficient results in speech.

One key factor to consider is that, Ecuador's population is not formed by Spanish speakers only; because of that, English is taught as a foreign language instead of a second language. This diversity in the native language makes it hard for the acquisition of English pronunciation to happen in a smooth way. Actually, the Ecuadorian constitution states that, Spanish, Kichwa and Shuar are the official languages in the country. The varieties of languages recognized in Ecuador result in perception problems regarding English sounds. The initial consonant sound -s- is a clear example of this difficulty. Indeed, Spanish does not have this specific sound place in an initial position, thus, students mispronounce it which can alter the message conveyed.

### **Context of the problem**

It is a fact that, most of children make mistakes pronouncing some words, especially when their L1 is not English, and it is because "A sound that is not present in one's native language will likely be difficult to hear and, in turn, produce" (Hekman, 2004). For example, the blends such as -SP are the most common error in pronunciation among third-grade children, because Spanish does not allow this sound at the

beginning of any word. In English, the /SP/ feature is a blend or consonant sequence which represents the pronunciation of two sounds in a row. Since in Spanish this word pattern is not evidenced students tend to leave off a sound either /s/ or /p/; other students add an initial sound to compensate the lack of exposure of that pattern in their L1. As a consequence, in Ecuador, students end up pronouncing an /e/ initial sound. Thus, instead of saying /'stu:dnt/ they produce /'estu:dnt/.

Undoubtedly, the speaking skill is essential in the English teaching-learning process, the correct input in the early years of education is the key to the successful acquiring of this skill. "Due to the complexity of the English language system with the use of a letter system and the sometimes-complex association between letters and sounds, the need for purposeful instructional methods in primary grades is important. To overcome or assist in this difficulty, there are positive benefits from a more hands-on and kinesthetic approach to the teaching of phonological and orthographic skills" (Lewis, 2014). For this reason, providing a kinesthetic technique that can help with this issue is a fundamental goal in teaching English, specifically /st/ consonant blend.

The Oxford dictionary (2020) defines kinesthetic, as an adjective which describes the awareness of the position and movement of body parts. This recognition is done through sensory organs present in muscles. Besides, it states that, kinesthetic is learning through movement. As mentioned above, using kinesthetic teaching techniques in /sp/ blend beginning sound pronunciation may help children acquire the correct pronunciation. Also, it is known that every single human being is different from one another, and our learning process differs, too. This is aligned to what psychologist Howard Gardner proposed the theory of multiple intelligences in 1983. In which eight types of intelligences were mentioned.

### **Problem statement**

Based on this, it should be acknowledged that, that children, teenagers, and adults have different ways to acquire knowledge. Also, according to the Ecuadorian New Curriculum (MINEDUC, 2019), in which the learner-centered approach is one of the

core principles, it says that students acquire language in a variety of ways and at different pace and it is exactly why the teaching and learning process should be personalized. Due to this, the teaching technique should be selected according to the age range the teacher teaches. Due to this, the current research project focuses on techniques that can help in this teaching-learning process in the hope for correcting the pronunciation of beginning consonant blends in children.

### **Hypothesis**

As evidenced above, teaching speaking can be challenging for educators, based on the differences between both languages and learning styles. The key is to find out a strategy that can help people despite their prominent learning styles which creates a personalized technique. Particularly, according to Odisho (2014), speaking is a multisensory action in humans, and effective pedagogy to teach speech should be in the same format. This means that, we use more than one sense to develop our communicative ability, and educators should be able to teach to achieve the aims of the learning process of any language. In that way, the hypothesis of this investigation is that kinesthetic techniques improve -sp pronunciation.

### **Objectives**

Regarding the objectives, the main one is to improve the beginning blend -sp pronunciation by using kinesthetic techniques in third grade students. This objective is supported by three specific ones. The first one is to identify the use, steps and forms of kinesthetic teaching techniques used in pronunciation. The second one, to establish the beginning blend -sp pronunciation problems, The third, to generate a booklet including a strategy involving a series of techniques aimed at better oral pronunciation of beginning blend -sp pronunciation. Finally, to show the effect of kinesthetic techniques in the beginning blend -sp pronunciation.

## **Justification**

Therefore, giving the correct pronunciation in the early years of education is crucial to achieve the main objective of learning a language which is to communicate effectively. Hence, according to the USC's Research Guides (2020), qualitative research gives decisive importance to the social experience and considers communication a social one for instance, the current research work is based on the qualitative approach. During experimenting, data will be collected by audio recorders from the subjects, then, data and results will be compared to written journals. This data will contribute to the reflection process of improving the given instructions from educators to learners in speaking consonant blends.

As a consequence, some conclusions could be drawn. The first one is related to the effectiveness of the kinesthetic technique, which is helpful to any educator when teaching pronunciation. Giving this alternative to teachers will support them to explore different tools to achieve the language learning goals. Another conclusion is the progress in children speaking skills. As mentioned above, the speech starts in the brain, using multisensory pedagogy in the input children receive will record in the brain and create a cognitive awareness for the sound in consonant blends. This will develop significant learning in children. Also, forward research should be suggested in order to confirm the efficacy of the developed tool.

## CHAPTER I: STATE OF ART AND PRACTICE

### 1.1. Kinesthetic teaching techniques

In order to understand kinesthetic teaching techniques an analysis of multiple intelligences should be carried out since one of them corresponds to bodily-kinesthetic. Every human being differs from one another in its physical appearance and its emotional development. Based on this, there is no doubt that every person learns differently. Indeed, according to Howard Gardner (1983), every person has a different kind of intelligence. That is the reason why, intelligence is looked at in a different way than only intellectual potential. What is more, Gardner's theory suggests that there are eight different intelligences. Besides, Gardner theorizes that a person does not have only an intellectual capacity to demonstrate abilities and talents. Thus, Gardner, in his theory, establishes different intelligences like musical, interpersonal, spatial-visual, and linguistic intelligence.

On the contrary, psychologists and educators have criticized Gardner's idea. These detractors claim that Gardner's concept of intelligence is too broad and that his eight "intelligences" are nothing more than a collection of talents, personality traits, and abilities. Besides, Gardner's idea is likewise plagued by a scarcity of empirical evidence to back it up. Despite this, educators are enthusiastic about the hypothesis of multiple intelligences and many teachers incorporate Gardner's theory into their teaching philosophies and seek to integrate it into the classroom.



**Figure 1.** Multiple intelligences

**Source:** Intelligencias multiples (2020)

When it comes to Howard Gardner's Theory of Multiple Intelligences, he clarifies that the visual-spatial learning style is one of eight sorts of learning styles. A person's capacity to see, decipher and get visual data within the world around them is alluded to as visual-spatial learning style or visual-spatial insights. In substance, they can visualize concepts in their minds. Moreover, master's in visual-spatial learning style, Linda Kreger Silverman, Ph.D. (2020) has found some basic characteristics of this learning sort which incorporate the truth that this sort of learners has dynamic creative impulses and are experts at concocting novel or shocking arrangements to issues. Other than, rather than considering in words, they think in pictures.

In addition, this type of learners learns in the following ways: written, modeled, or diagrammed teaching and visual media work better for people with visual-spatial intelligence. Likewise, students that are visually and spatially gifted have an excellent visual memory for details. Lecture, recitation, drill, and repetition are examples of auditory-sequential teaching modalities that they struggle with (Ecoembes, 2020). Next, verbal-linguistic intelligence is another type of the eight intelligences proposed by Howard Gardner. Gardner's theory, which was created in the 1960s, assists in adapting its techniques to meet the needs of different learners.

In the same way, people with verbal-linguistic solid abilities succeed in school tasks like reading and writing. They can communicate well and are usually good listeners, having a high memory for reading materials and strong recall of spoken information. Also, people with verbal-linguistic learning styles are fascinated by language, and they enjoy learning new words and exploring new ways to apply language creatively, such as in poetry. For example, learning new languages, memorizing tongue twisters, playing word games, and reading are all things they might love. In fact, tests based on responding quickly and accurately to oral or written instructions are generally successful for verbal-linguistic learners. These activities make standardized exams, IQ tests, and quizzes simpler for such students to pass.

It is essential to understand and keep in mind that language-based assessments only assess one type of intelligence. The best way to teach people with verbal-linguistic learning styles is to use spoken or written materials. Equally important

interpersonal intelligence relates to an individual's ability to comprehend and interact with people. They are motivated to improve relationships and resolve disagreements. Politicians, teachers, therapists, diplomats, and negotiators are some of the vocations that are a natural fit for persons with interpersonal intelligence. In fact, these people learn best when they can communicate with others, whether verbally or nonverbally. Social learners enjoy being among others, working in groups and teams, and thriving due to social connections. They prefer to spend much time with people.

Similarly, their capacity to give and receive criticism is critical in the classroom, especially in schools where teachers want students to communicate their various viewpoints. These pupils with high interpersonal intelligence can benefit from cooperative projects, especially when assigning duties and fulfilling deadlines. Consequently, teachers can create several activities that allow them to interact with others while also practicing their listening abilities. Since these students are natural communicators, these activities will help them improve their communication skills and serve as role models for other children. Indeed, their capacity to manage connections can be used to their advantage, especially when resolving conflicts. Finally, these students with interpersonal intelligence will naturally support and encourage others to take academic risks when given the opportunity.

Important to notice that a solitary and independent learning approach characterizes an intrapersonal learner. This learner likes to work alone rather than in groups and prefers to learn through self-reflection rather than more extroverted activities such as group discussions. On the contrary, a social learner prefers to work in groups, whereas an intrapersonal learner prefers to work alone. Hence, plenty of space and silence are essential for solitary-intrapersonal learners to succeed. These kids prefer to work independently and concentrate best in a calm, peaceful setting. However, because some students may find it difficult to ask for help, it is critical to check in frequently. If a teacher can notice that a student is having difficulty, approach them gently and ask if somebody can help them.

Moreover, a logical-mathematical learning style is the ability to think, solve problems, and learn using numbers, abstract visual information, and cause-and-effect linkages. That is why, logical-mathematical learners are meticulous and think in a logical or linear order. They may be good at mentally solving math issues and enjoy logic puzzles and games. To absorb information, people with logical-mathematical learning styles use reasoning and logical sequencing. Their strengths are in math, logic, pattern recognition, and problem-solving. They enjoy working with numbers, coming up with logical answers to questions, classifying, and categorizing. In conclusion, learners prefer logical order in instruction and frequently thrive in structured, organized environments.

Besides, they succeed at visual analysis, memory, and problem-solving. They are natural tinkerers and builders who enjoy bringing mathematical and conceptual ideas to life through hands-on projects such as computer-aided design, creating electronic devices, using computer applications, and programming computers. In fact, people with the logical-mathematical learning style look for rules and procedures and may be less confident when they do not find them. They may also be intolerant of others who do not follow logical sequences, rules, or procedures. Also, they may need to improve their ability to see the big picture and think in terms of systems. Therefore, human beings with logical-mathematical learning styles learn best when exposed to visual materials, computers, statistical and analytical software, and hands-on projects.

In the light of multiple intelligences, musical intelligence is, defined by Howard Gardner (1983) as the ability to perform, compose, and appreciate musical patterns. In detail, musical intelligence can recognize and create musical pitch, rhythm, timbre, and tone, as Beethoven and Ed Sheeran demonstrated. People with this type of learning are more likely to learn songs or play musical instruments with ease. Specifically, they listen to music in their heads throughout the day while recognizing the various instruments in a song. For that reason, these types of learners use intonation in their voices when speaking to others, so they might be good at transferring L2 sounds. Songs work best for musical learners, so do not be afraid to give them many.

In like manner, Gardner defines naturalistic intelligence as recognizing, classifying, and manipulating elements of the environment, such as objects, animals, or plants. As an illustration, they are concerned about the environment and enjoy being in touch with nature. Besides, they are adept at recognizing fauna and flora. In fact, Gardner observes that "people with a high level of naturalist intelligence are acutely aware of how to distinguish the various plants, animals, mountains, or cloud configurations in their ecological niche." Therefore, naturalistic learners learn exceptionally well when working outdoors with nature. They are naturally interested in plants, animals, natural events, weather, and other things. As a result, they tend to excel in science and become active school members on environmental issues.

Finally, the bodily-kinesthetic intelligence can process information physically through hand and body movement, control, and expression referred to as bodily-kinesthetic learning style or intelligence. Also, it is known as the tactile-kinesthetic learning style or the physical learning style. Bodily-kinesthetic learners prefer bodily information to other types of information. To clarify this, movement aids memory and they remember movement from others as well as their own. When learning about objects, they may seek out opportunities to touch and manipulate them. Bodily-kinesthetic learners enjoy making things with their hands, may have a lot of energy and a strong desire to move, and maybe talented athletes. As a result, kinesthetic learners enjoy school activities such as drawing, modeling, sculpting, drafting, shop, athletics, dance, and hands-on sciences.

Important to note that. people with bodily-kinesthetic learning styles learn best when their tactile senses and fine and gross motor movement are used as part of the learning process. They frequently prefer direct interaction with the material they are learning over worksheets or reading from a book. Additionally, students with a bodily-kinesthetic learning style understand and remember material better when they apply it actively. Notably, writing can also assist them in remembering and processing the information they are writing about. Also, they are more interested in interacting with a computer or keyboard than in reading. Projects that require

students to create displays and props that explain subject matter, such as shadow boxes, models, animations, or videos, may be beneficial.

Because of that, they will enjoy taking things apart and putting them back together. Indeed, they will be more interested in acting out subjects, role-playing games, demonstrations, experiments, and lab work. Students can participate in field trips and scavenger hunts. To illustrate, they frequently enjoy physical activities such as games, exercise, dance, drama, and sports. Given that fact, kinesthetic learners perform worse when tasks consist solely of reading or listening to a lecture without the ability to manipulate an object or move. In such cases, a teacher may provide a sports-related example so that the student can connect the material to physical actions (Inteligencias multiples, 2020).

What is more, a person who is a kinesthetic learner tends to require other individual's touch as a support of information that aids to remember them. One of the ways they support their internalization of information is by using their hands to associate words or actions. To illustrate this, an EFL student with a kinesthetic learning style may create hand actions to associate vocabulary, when checking vocabulary about appearance they may use their hands to relate and distinguish words such as bangs, curly hair, freckles, and so on. Thus, by using movement the information will be quickly absorbed. Individual with learning kinesthetic styles also tends to absorb information easily and understands it by plagiarizing a picture or word, learning to pronounce it or understanding the facts.

Besides, these types of learners are keen on touching everything they meet that is why they use their senses while learning. For instance, an optimal example of using senses to learn with these types of learners is by introducing a "magic box" with realia in order to relate vocabulary, in this way, they can smell, touch, taste and see the object in order to internalize it. Same case with grammatical structures, students can get cards to order and create sentence, the movement will definitely create a meaningful learning context (Ginting, 2017).

Similarly, another relevant characteristic of kinesthetic learning style is that they require all types of motion and emotion created nor remembered which means they

need to experience content in order to store it in the brain. To enumerate, movement, coordination, rhythm, emotional response and physical comfort play a prominent role when teaching these students. However, abstract concepts are a challenge for kinesthetic students in particular, not being able to feel a concept may delay its internalization and it may cause frustration during the teaching and learning process. Since mathematics and numbers are based on abstract concepts, a way to cope with these contents may be storytelling and blocks.

Another key point, the teacher could tell a story which includes different numbers and ask students to use blocks to illustrate the numbers, mentioned in the story. A key element in these types of activities is to use clear and simple instruction as well as modeling the task students need to complete (Syofyan & Kurnia, 2018). In addition, games are also an optimal teaching technique when it comes to kinesthetic learners. Besides, these types of students tend to experience difficulty when it comes to retaining new information especially vocabulary because of that, when incorporating movement to the teaching process the chance for long lasting internalization increases.

To illustrate this, an example of games is a one of charades. Students were able to produce English through acting and creating physical movement, these helped students express the language point understood to their classmates while internalizing new language through movement. Likewise, the game could also be used to practice grammar points, grammar structures, reading and listening. The game consists of dividing the class into two groups, the teacher would write different activities in small pieces of paper. Then, one student picked a piece of paper and would act the activity out, the class would guess the correct answer a point would be assign to the winning group. Therefore, the game also fostered a relaxed learning environment since students were learning by playing without the pressure of formal structure (Olivares, Brenes, & Evelyn, 2020).

Equally important, the kinesthetic learning style also fosters autonomous learning and active participation in the EFL classroom. To exemplify this, let's take the example of an escape room activity. This activity involves movement and

cooperative work while focusing on reading. It consists of dividing the class into small groups. Then, each group gets an envelope which contains a task, the task could be one in which students order cards, or where they act out vocabulary words or one which they need to look for clues around the class. Once they complete the task, they receive another envelope with instructions of a new activity, next, they repeat this procedure until all the tasks have been completed. A key element on this type of activity is that there is no specific time to finish all the tasks so, it fosters scaffolding (Hassan & Awad, 2011).

## **1.2. Teaching pronunciation**

The way a learner acquires his or her first language, directly influences the manner the student learns an L2. This impact is often useful, such as when a few sounds within the two dialects are exceptionally comparative. Knowing how to articulate /m/ in one dialect, for illustration, makes it simpler for a learner to articulate /m/ in another. In any case, learners' first-language articulation propensities can make it more troublesome to articulate sounds within the unused dialect that don't exist in their L1 or are utilized in an unexpected way. So, this sort of impact is alluded to as local dialect impedances or dialect exchange.

Certainly, teaching English pronunciation is a difficult task with different goals at each level. At the beginning level, English students should concentrate on the fundamentals of Pronunciation. In general, rote learning works best at this level. Grammar chants, for example, are an excellent way to help students learn pronunciation skills through repetition. Most beginning-level English learners are unable to learn another alphabet for Pronunciation. Specific patterns, such as the Pronunciation of -SP at the beginning of some words, are difficult to achieve because this blend does not exist in the mother tongue.

Surely, having different sounds in both languages makes pronunciation a challenge to achieve in children. Due to this, teachers need to emphasize some skills. Teachers need to model specific sounds that are not part of the Spanish alphabet sounds to produce a suitable input and help children pronounce these specific sounds. Another feature for pronunciation is word stress. The unpredictability of

word stress is frequently a source of contention. In many languages, the first syllable is always stressed, so speakers know which syllable is stressed because it is the same in every word; for example, in Hungarian, the first syllable is always stressed. Therefore, students are frequently unaware of what they do in their native language and, as a result, do not understand why they are having difficulty with English sounds and stress patterns.

Of course, stress is noteworthy in English sentences since it is regularly utilized to show the meaning and significance of certain data. There may be apportioning in communication in case the stress is inaccurate. Indeed, these issues can influence both oral production and oral comprehension. Activities to raise students' awareness of segmental and suprasegmental features are unimaginably advantageous since it creates independent students who can benefit from autonomous work. Undoubtedly, intonation is vital in pronunciation, since it is not so much what we say as it is how we say it that conveys meaning.

However, discussing intonation in isolation is silly because it is frequently influenced by stress, tone, and rhythm. On a word level, this can be seen when one syllable is stressed for emphasis, the pitch falls from high to low. Without any doubt, intonation is an essential aspect of pronunciation. We must make our students aware of this fact and encourage them to participate in intonation activities to help them improve their hearing and production of different intonation patterns. What is more, it is essential when using contrastive intonation which is the focus of meaning in utterances.

Additionally, connected speech is an essential aspect of pronunciation in producing the correct sounds and understanding what people hear. Indeed, many students struggle to understand native English speakers for this reason. They have learned words and sounds separate and struggle when a word is pronounced differently due to connected speech. One such focus should be included from the beginning of English learning and not left until students reach the intermediate or higher level. Even the most basic phrases and word combinations in English contain examples of assimilation, elision, and liaison.

According to Collin's dictionary, a technique is a method of doing an activity, usually involving practical skills. In this light, teaching is a well-defined process for carrying out a specific activity or task to teach learners about any subject. Different techniques have been practiced in the teaching-learning process, and some are more likely to be used than others. Because of that, every teacher looks for the best technique to teach language. Techniques like repetition, role plays, storytelling, among others, are the most common techniques used by teachers. However, many other teaching techniques have not been explored and practiced yet.

English spelling has not changed much over time, but the way words are pronounced has. This change makes Pronunciation a real challenge for language learners. However, good pronunciation is not just about "pronunciation of words and letters." intonation (how the voice shifts up and down in a sentence), accent (what words and syllables have a great "weight" when speaking), linked voices, and other similar things to consider. It has essential properties how words can sound different when combined into natural words. All these qualities contribute to good pronunciation, but they should not be confused with stress.

What is more, it is stated that there are three practical approaches to teaching pronunciation, which are analytic-linguistic, intuitive-imitative, and integrative. The approaches mentioned are associated with various methods of language teaching. They are discussed further below. What is important to notice is that every learner in foreign language studies should include a pronunciation component. However, a student may require more than one strategy for dealing with English Pronunciation. Students will be more successful with English pronunciation and gain the confidence that comes with it if there are various pronunciation lessons.

To illustrate this, there are many different activities such as singing, listening and repeating, isolation, minimal pairs, recording and replay, phonetics, and tongue twisters, which will help learners master pronunciation. However, talking about young learners in elementary school, teachers need to innovate and improve new methods or techniques to achieve this challenging goal. As it was mentioned above, every human being learns in different ways. Moreover, knowing that bodily-

kinesthetic learners use their bodies to learn, it is essential to know that there are different techniques to teach English using this type of learning that helps children.

In English teaching, teachers can apply some activities such as using realia, crafts, experiments, magic, songs with movement, charades, fostering imagination, and achieving meaningful learning. Besides, using hand gestures helps children to imitate and recognize different vocabulary in English. As well as in grammar or vocabulary, teachers can use hand gestures or body movements to teach sounds in English. Similarly, using these body movement help children to master specific sounds that are not in their native language. The blends are the most challenging sound to produce by Spanish speakers because there is no sound in their mother tongue.

In effect, research has shown that by including a multisensory approach in the teaching-learning process, students can retain the information better and learn in a better way. All in all, hand gestures are a great way to feel what students are asked to do with letter sounds and normal hearing. They are more likely to remember what to do with hand involvement and more likely to do it themselves because they do not rely exclusively on listening skills. Lewis, M. A. (Lewis, 2014) publishes a thesis titled "Kinesthetic Approach to Word Study, 22. This thesis presents in-depth research about the kinesthetic approach in word study in primary grades.

As a result, it shows that by implementing some kinesthetic techniques, students improve their spelling. This action research shows the effectiveness of using kinesthetic techniques to strengthen spelling and enforce it. Moreover, this thesis is constructive to understand what the kinesthetic approach is and how it works. This research applies the kinesthetic techniques in spelling, and it is a guide to provide processes to be learned and applied to new research. Also, this gives the teacher the idea that if kinesthetic techniques help in written spelling, it could be possible to help with Pronunciation.

Additionally, in their book, Bochner, S & Jones, J. talk about the process of speak in a child. It directly relates to this research because it talks about gestures and how

the child learns to talk. The main objective of this paper is to discover how pronunciation works in our brain and determine if it is possible to implement new techniques to teach it. Besides, in chapter 12, the authors talk about the influence of gestures in pronunciation, especially in children. It gives a clear idea about what can be implemented and how to do it. Because of that, learning how the brain works and how pronunciation skills are developed in children help this research figure out some questions.

By the same token, in the article called EFL Pronunciation Teaching: A Theoretical Review, written by Nikbakht, H. (2010), the author talks about the pronunciation approaches in different stages of history. Also, this article provides suggestions about new techniques that can be helpful when teaching pronunciation. It is not just pronunciation; it is also communication; both are linked and cannot be separated. Similarly, in the article named "A Brief Comparison of the Current Approaches in Teaching Pronunciation." Written by Aydin, S., & Akyüz, S. (2017). The authors explain some problems in the pronunciation input that Turkish teachers give to their students.

In fact, the information provided in this paper helps teachers understand the functions of vowels and consonants in different languages. The input provided by teachers is significant to have good speakers. Thus, it is connected to this research topic because it talks about one of the teacher's weaknesses, pronunciation, and how to teach it as a second language. It is essential to mention that, many other languages transfer their sounds to English as in Spanish, so pronunciation is crucial to be well-spoken. For this reason, this research is meant to give teachers a guide to developing new techniques that can improve children's pronunciation in early childhood.

Likewise, Odisho, E. (2015) in his book, pronunciation is in the brain, not in the mouth: a cognitive approach to teaching shows pronunciation pedagogy. It also has a specific part about multisensory access and explains how the language occurs first in the brain rather than in the mouth. Besides, it describes the natural pronunciation process in children. It is an excellent resource because it puts

together all the things such as pronunciation, the kinesthetic process, and the children's ability to produce pronunciation naturally. Therefore, it gives a great perspective about this topic and gives some peace in the mind that this research has some history, and it is not a new tendency.

As evidenced above, the kinesthetic tools to help pronunciation are a great field to research. In this way, it could be stated that kinesthetic techniques have been explored in the field of language acquisition therefore, the following section examines kinesthetic teaching techniques in depth. Kinesthetic techniques are a group of activities where hand signals and body movements augment other instructional practices. (Celce-Murica & Goodwin, 1996) To illustrate this, let's take the example of a suprasegmental feature which is often neglected, intonation. Intonation is a complex language component since it merely relies on the "way" English sounds.

Additionally, intonation might be imperceptible since it is an abstract concept. As a result, it becomes a problem for Spanish native speakers. In a general way, English uses two types of intonation, raising and falling. In the case of information questions, falling intonation should be used. However, due to L1 interference, Spanish native speakers tend to use a raising intonation pattern. So, kinesthetic techniques could be developed to highlight intonation in a concrete way. During control practice students may read information questions and use their hands to emulate falling intonation (Crison, 2018). Therefore, this would help them see and perceive intonation in an explicit way. Thus, pronunciation can be improved.

By the same token, visualization of abstract English components has been introduced. To exemplify this, adults tend to experience the process of fossilization, especially in aspects such as intonation and stress. It could be the result of the time they have not been exposed to English or because they are too careful on the patterns they produce. Because of that, real time aids can be part of teaching lessons. In that way, students are able to differentiate the components that are being produced and the ones that are expected to be pronounced. Thus, regarding stress, a teacher could write the stressed syllable in capital letters.

In addition, the teacher could ask students to clap the stressed syllable. Besides, a teacher is likely to apply dots to highlight word stress. In this way, students draw a small dot above unstressed syllables while drawing larger dots on stressed patterns (Thompson, 2018). Once again, an explicit instruction could foster accurate pronunciation patterns. Giving this information, kinesthetic techniques definitely improve pronunciation production. The fact that these types of activities are part of explicit teaching, raises awareness in students on facts that undergo a deficient process. In the light of explicit teaching, kinesthetic techniques break down complex skills and concepts into smaller instructional units, they set a clear and achievable goal besides, they provide step-by-step demonstrations as well as supported practice (Archer & Hughes, 2011).

Undoubtedly, kinesthetic teaching techniques have been used in various contexts. Indeed, Celce–Murcia (2010) states a teaching framework for pronunciation which is formed by five categories. The first one corresponds to description and analysis; it is about creating oral or written descriptions of how a sound is produced in the hope of raising awareness of the pronunciation feature. The second step is listening discrimination, it aims to create the ability to discriminate the sound in an isolated way. Next, controlled practice, this step highlights the language feature to create consciousness in students while integrating the previous steps. So, here students are expected to discriminate the way a sound is produced and how to produce it accurately. The fourth step is guided practice, students are encouraged to use the pronunciation trait in a structured communication exercise. The last category corresponds to communicative practice in which students become independent learners and are expected to accurately use the patterns analyzed.

### **1.3. English language**

English is one of the foremost prevalent and talked dialects around the world. Additionally, it is the third dialect most talked after Chinese and Spanish. Due to this, English is considered a worldwide dialect, and it is utilized to communicate with other nations. Agreeing to this information, it is obligatory to master this language to

urge the leading comes about in all perspectives of existence. Concurring to the Oxford's Dictionary (2020), English is characterized as a lingua franca which is utilized all over the world.

Considering this, learning English is a mandatory skill that needs to be developed since early childhood, even more, if it is not the native language. In Ecuador, Spanish is not the only language that the population speaks; that is why teachers need to keep it in mind when teaching English. Also, being a primary teacher means a more significant challenge because primary teachers are the first input children have, and because of this, teachers have the responsibility to have an excellent English level. Since 2016, Ecuador has a new curriculum in English. According to this document, teachers in Ecuador need to have at least a B2 level; this increases the opportunity to get a significant input in lower levels of English in schools.

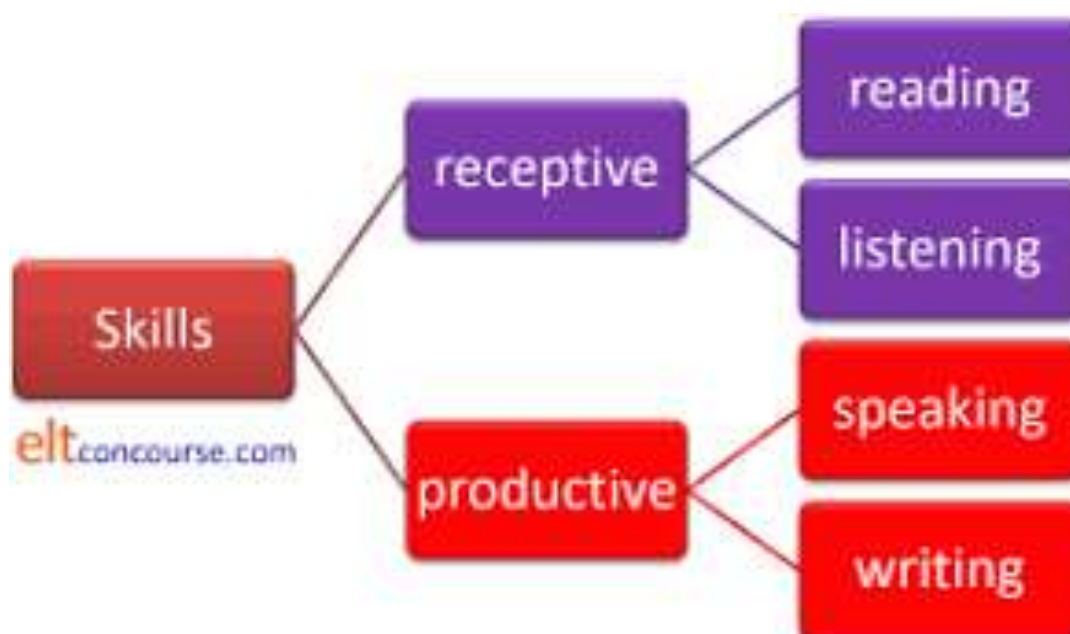
Moreover, the document indicates that English is instructed as a foreign language since in Ecuador, the L1 is Spanish, and de L2 is Quechua. Additionally, there are five distinctive curricular strings in this document, and each one has its abilities; this is often exceptionally vital to instructors of English and how to utilize it in everyday lives. Learning a modern dialect includes the advancement of numerous abilities. The English language has isolated its four large scale abilities into two primary bunches. On the one hand, listening and reading are known as receptive skills; since they include accepting data. On the other hand, writing and speaking are portion of the beneficial abilities since they empower the learner to produce language.

To develop each of these macro skills, teachers use different techniques. For example, in listening, teachers encourage learners to listen, interpret, analyze, and get the information needed. Reading is also a receptive skill, and teachers ask learners to understand the passages. Teachers use techniques as skimming and scanning, to help students comprehend the message of the specific reading. On the other hand, English also has productive skills. In these skills, teachers need learners to produce language. Writing skill is developed through answering questions and giving an opinion. Nevertheless, teachers have to pay special attention to the

speaking skill without forgetting the other skills. Also, teachers need to emphasize the subskills to get better results.

The four skills complement each other since receptive skills may be seen as the basis for productive skills. Indeed, there are teaching methodologies which integrate various techniques aimed to reach communicative purpose. An example of these is the process genre approach for writing. It is about presenting specific reading genres which become the basis for analyzing the way it should be written so, it serves as a model to support the writing process. In the case of this methodology, students need to be competent readers to be able to understand the text to support their writing. In this way, a receptive skill, reading is closely linked to a productive one, writing. All in all, it reflects the importance of combining skills towards creating classroom activities thus.

**Figure 2.** English skills



**Source:** eltconcourse.com

Learning a language is not only about learning to read, write, listen and speak. To master these macro skills, learners have to know grammar, vocabulary, pronunciation, non-verbal, collocation, and usage skills. These sub-skills are

essential to be a great communicator in a foreign language. Vocabulary and grammar are strongly associated; also, they are part of the language system. However, pronunciation is related to the spoken language. According to Oxford's Dictionary (2016), pronunciation is a noun that describes the way a word should be uttered. Due to this, pronunciation is one of the most crucial skills to be developed in any language. However, pronunciation involves more than only sounds. It is essential to have the correct stress in words and sentences and the intonation and fluency to be understood.

An issue caused by first-language differences is the inability to hear certain English sounds that the native language does not have. Many learners cannot distinguish between vowels, such as 'ship' and 'sheep.' That is why, listening is critical in these situations because students cannot produce a sound they cannot hear. Students can benefit from sound and mouth position descriptions to become more aware of subtle sound differences. Indeed, many sounds in English do not exist in Spanish. One of the most challenging sounds for Spanish speakers is the -sp blend sound. This difficulty is caused because the Spanish alphabet does not have this beginning sound, and learners cannot identify it. Due to this, the teacher is responsible for giving the best input to children to achieve this sound pronunciation.

**Figure 3.** speaking skills



**Source:** eltconcourse.com

#### 1.4. English phonology

In order to understand the English sound system, two subdisciplines in linguistics should be discussed. On the one hand, phonetics regards the analysis of the variety of sounds which are involved in any language. Therefore, phonetics is in charge of recognizing the speech organs and muscles involved in producing sounds. Then, those sounds are uttered from a speaker to a hearer so, phonetics looks at the physics of speech since waves are created while speakers interact. Indeed, phonetics focuses on the effect those waves have on the ears and brain of the hearer, which corresponds to sound perception. In this sense, phonetics has a strong relationship with anatomy, physics, and neurology (McMahon, 2002). Because of that, phonetics is a vital feature to take into consideration when teaching sounds.

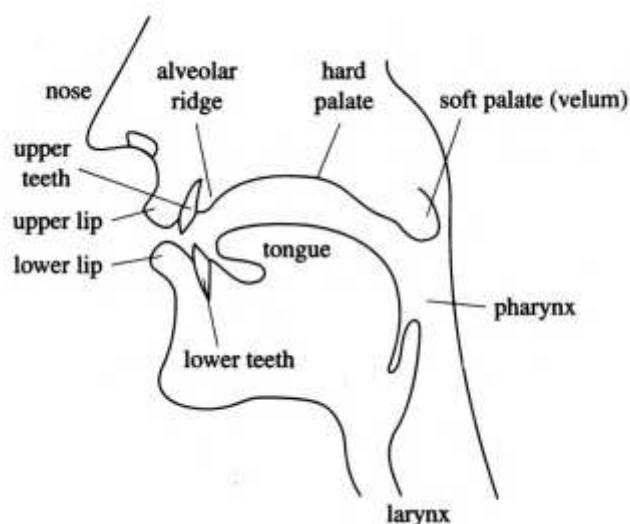
On the other hand, there is phonology. It analyzes the unique characteristics of sounds in a particular language more specifically the possible, producible, and distinguishable sounds in a specific language, in this case English. There are specific sound patterns that can only be used in English and not in other languages, that is the case of consonant blend at the initial position in words. Particularly, these patterns are not possible in Spanish. Indeed, the way native speakers perceive the unique sounds of their L1 is an unconscious one, a person may not be truly aware of the specific possible sounds, but they are completely capable of recognizing if there are sounds that could not be part of their sound system (McMahon, 2002). Because of this, phonology plays an important role at the moment of recognizing feasible sound possibilities while learning English.

All in all, it is clear that recognizing articulatory phonetics is a crucial matter for pronunciation. There are seven key parts from the vocal tract which correspond to the complex set of muscles responsible of producing sounds. Starting from the external parts, the lips are important in speech production. If pressed together they can create sounds as in /p/ and /b/. When lips are brought into contact with the teeth,

they may create sounds as /f/ and /v/. Besides, the shape lips take may be part of vowel production. Secondly, there are the teeth, they are constantly in contact with the tongue to produce most of the English sounds also, they play a vital role in dental sounds such as h /θ/ am, /ð/. Next, the tongue, this articulator shapes its position and place inside the mouth to create sounds.

Similarly, the alveolar ridge which comes between the upper teeth and the hard palate is fundamental when producing sounds in which the tongue touches it, such as /t/ and /d/. The hard palate comes behind the alveolar ridge, by pressing the tongue towards this articulator palatal sounds as /j/ can be uttered. The soft palate contributes to the production of velar consonants like /k/, it allows air to pass through the nose to the mouth and it is raised during speech. Last but not least, the pharynx is placed at the back of the oral cavity, the way it contracts make the vocal cords vibrate thus, producing voiced and voiceless consonants. (Roach, 2012)

**Figure 4.** The articulators



**Source:** (Roach, 2012)

Clearly, sounds are organized according to the articulators involved in their production, the manner, place of articulation and phonation. Indeed, that is exactly how consonants can be described. When it comes to the **manner of articulation**

consonants are divided into **stops** which are produced by fully closing the mouth as a result, airflow is blocked. **Nasals**, need the back of the velum lowered so that air passes through the velo pharyngeal port. **Fricatives** involve a narrow channel through which air passes. **Affricatives** are a combination of stop and fricative patterns. **Approximants**, involve the touch of the tongue with the alveolar ridge while keeping a low side of the tongue. By the same token, consonants can be identified in terms of **place of articulation**.

There are **bilabial** consonants, which are produced by closing both upper and lower teeth. **Labiodentals** involve the contact of upper teeth and lower lip. **Dentals** are produced by the contact of the tongue tip and the upper teeth. Besides, **alveolars** involve constriction of the tongue tip and the alveolar ridge. **Post-alveolars**, are created by the tongue tip and the hard palate. **Palatals**, need the body tongue and the palate to be in contact in order to be produced. While **velars**, involve the tongue body and the velum. Finally, **glottals** require the constriction of the glottis. Likewise, consonants are analyzed regarding phonation which means **voiced** and **voiceless** sounds. When a consonant is a voiced one it means that there is vibration of the vocal cords. While voiceless sounds allow air to pass through the glottis without vibration (Carr, 2013).

**Figure 4.** Classification of English consonants

		bi-labial	labio-dental	den-tal	alve-olar	post-alveolar	pala-tal	velar	glot-tal
stops	voiceless	p			t			k	
	voiced	b			d			g	
fricatives	voiceless		f	θ	s	ʃ			
	voiced		v	ð	z	ʒ			h
affricates	voiceless					tʃ			
	voiced					dʒ			
nasals		m			n			ŋ	
approximants	central	w			ɹ		j	(w)	
	lateral				l				

**Source:** (Carr, 2013)

Consonants as well as vowels are combined in segments into admissible syllable types. Consonant clusters or blends are the name given to the union of two or three

consonants together in a word. There are four major categories for consonant clusters: r-clusters, s-clusters, l-clusters and three letter clusters. These patterns can take three positions in a word an initial, middle, and final one. In the initial position, the maximum cluster is three and they must be followed by a vowel so, the pattern will be CCCV. When the first consonant is /s/ the second must be either /p/, /t/ or /k/ while the third should be one of /l/, /r/, /w/, /j/. If the cluster is formed by two consonants the possible combinations can be /pl/, /tr/, /kl/, /sl/, /st/ among others (Russel, 2018).

As seen above, consonants have a particular way of being produced. It depends on the articulators as well as the combinations they may create. Perception also plays a crucial role when producing consonants and consonant clusters. In the same way, children perceive sounds in their L1, students do in their L2, the difference may be that when learning L2 sounds there is information already stored in the brain which creates connections to the new sounds, there is where interference might occur and affect negatively to the production of English sounds. The acoustic cues recognized are mostly the ones students are able to relate in their native language (Alshangiti, 2015). Thus, when it comes to -sp consonant clusters, students could associate the sound with a common Spanish pattern -esp resulting in pronunciation issues.

In order to analyze acoustic features of sounds several software can be used. PRAAT is one of the programs which is designed for scientific analysis and speech synthesis, it also allows own scripts writing and exporting the results to files (M., Sulka, Tomanova, & Vozar, 2019). PRAAT is a tool to do speech analysis which include procedures as spectrographic data, articulatory synthesis, pitch analysis, intensity data and waveform study (Lieshout P. , 2003). Thus, PRAAT provides a deep analysis when studying sounds, it not only provides visual data but also numeric one based on Hertz frequency.

PRAAT allows sound recording and sound reading, these two actions can be done directly through the program or by uploading an mp3 file. Once the file is ready two sections will be displayed, the upper part of the window from the program will display a visible representation of the sound. While the lower part of the window will show

the spectrogram of the sound which reflects high and low frequencies of a sound (Boersman & Heuven, 2001). In addition, PRAAT allows you to zoom in a particular part of a sound while modifying the time of production which actually enhances a more detailed study. Therefore, PRAAT is a practical way to visualize, analyze and interpret sounds produced.

PRAAT is not the only software to analyze speech, another popular program is MDVP. It is a computerized speech lab software which stands for Multi-Dimensional Voice Program. This system only recognizes voice samples saved in .wav which could be a difficulty when recording mp3 files. Besides, the acoustic parameters obtained from MDVP are named with abbreviations so it could become a challenge to understand the data reflected, especially if you are beginning to use the software (Oguz & KILIC, 2011). One last thing to consider is that MDVP is a paid program. Because of all the reasons mentioned above, PRAAT is more feasible to use and that is why it was used in this research.

## **CHAPTER II: METHODOLOGICAL DESIGN**

### **2.1. Research Approach and level**

Quantitative research risen around 1250 A.D. and it pointed to measure information in arrange to form concrete, objective scenarios for examiners. That is the reason why the quantitative approach has ended up ruling in western inquire about research, for analyzing information, interpreting results and drawing conclusions within the field of dialect procurement. A statistical approach, survey and experimentation are key components of a quantitative approach; the utilization of these methods gets to be the tipping point for collecting autonomous data. Subsequently, information is utilized to equitably degree reality whereas keeping the investigate itself free of the analyst (Kivunja & Ahmed, 2017).

Quantitative approach is often used to create relations between variables within a research work. Quantitative processes aim to determine explanations and predictions that can be used and replicated in other contexts. Because of that, the quantitative approach establishes a solid and verified relationship between two variables, the relationship created contributes to an already established theory. This approach starts by observing a problem based on which a hypothesis is created. In order to support the hypothesis a literature review is established, and it is used to analyze the data collected. Another characteristic of a quantitative approach is the way variables are identified. They need to be measurable specifically through numbered data and instruments, in turn, they can be verified by using statistical procedures (Bostrom, 2007).

In the light of a quantitative approach an empirical paradigm is used. This doctrine establishes experience as the ground for knowledge. It also claims that the mind requires involvement in order to create concepts and connections. Therefore, experience is seen as a vital factor; empiricism defines experience as something that people learn from situation in which they get involved, events that happened to them and observations that they made through what they lived. Experience can also be “staged” which may refer to prepared events through organized and pre-planned experimental arrangements. Thus, experience becomes the source of all the

information stored in our brains (Antwi & Huanza, 2015). That is why, in a quantitative approach an artificial experience is created for the subjects of the study to sense and react to it.

Experimental research is a study which strictly follows a scientific research design. To illustrate this, it includes a hypothesis and variables. The hypothesis is tested either to support or reject it. The variables are of two types, an independent one through which a treatment can reflect results; and a dependent variable which can be manipulated, both variables should be measured, calculated, and compared. Thus, the context in experimental research is controlled by the researcher. that can be measured, calculated, and compared. Most importantly, experimental research is completed in a controlled environment. The researcher collects data and results will either support or reject the hypothesis. The results obtained by an experimental research study, determine a relation between the variables.

This type of research could be supported by qualitative data in order to interpret the results objectively. a correlation between a specific aspect of an entity and the variable being studied is either supported or rejected. Minder (2019) argued that data in experimental research must be able to be quantified or measured. The current study is an experimental one therefore, the subjects of the study are divided in two groups, an experimental and a control one. The experimental group is exposed to a particular pronunciation treatment while the control group remains working in a traditional way. Students will be randomly selected for the groups. The researcher uses a pretest and a posttest to validate the treatment exposed. Based on the results from these evaluations, the researcher draws conclusions on the relation of the variables and the effectiveness of the experiment.

## **2.2. Data collection and analysis: instruments and techniques**

The subjects of the study were twenty third graders from Unidad Educativa La Inmaculada in Ambato. Students age range is between seven and eight years old. They are Spanish native speakers. This characteristic is relevant because English

is taught as a foreign language their main context to practice is the classroom. Additionally, it is important to note that on average the children have a basic English level. This could be evidenced through the way students interact in English at a simple and personal level. However, pronunciation problems have been detected in this group of students, particularly about -sp blends.

For the purpose of the study, the class was divided into two different groups. The criteria chosen for the grouping was a random one. The researcher wrote number one and two on small pieces of paper then, students were asked to choose a piece of paper. Therefore, students who obtained number one were part of the control group. While number two corresponded to the experimental group. This study took three steps, a pretest, a treatment, and a posttest. During the pretest, a Power Point presentation was shown to both groups. It contained a list of words for students to read.

The list of words was created based on a blueprint done to the book used in third grade. In this way, the most frequently used words were selected. Besides, those words were compared to the list of words students are supposed to know according to their level. This comparison was made based on the list of the Starters Cambridge test. Students were explained that they would see a list of words for them to read, while they did it, they were recorded. They were recorded individually. In order to record, a cellphone was used, it was crucial to find a quiet place in that way the sound was as clear as possible.

**Figure 5.** -sp word list

Word list	
1. Spider	6. Sponge
2. Sport	7. Spoon
3. Spell	8. Spinach
4. Space	9. Spin
5. Spy	10. Spaghetti

**Source:** Self-made

Before explaining the treatment in detailed, it is crucial to note that both groups of students devoted two hours a week to work on pronunciation, each group worked separately by using Zoom breakout rooms. Both groups performed activities based on Celce - Murcia, Brinton, & Goodwin (1996) communicative framework for pronunciation instruction and its sequence of five task-types were applied. Thus, it became the research framework.

1. Description and analysis
2. Listening discrimination
3. Controlled practice
4. Guided practice
5. Communicative practice

**Figure 6.** Zoom class



**Source:** Self-made

**Figure 7.** Zoom class



**Source:** Self-made

Since the main purpose of this research is to improve pronunciation specifically of words containing /sp/ beginning sounds, both classes were explained the number of sounds containing in the blend, as well as the way those sounds are produced. After the analysis, students focused on listening to six different recordings. The recordings contained correct and incorrect pronunciation. So, students were asked to distinguish the pronunciation perceived as the accurate one. After individual recognition, whole class feedback was conducted. Finally, students were encouraged to compare and contrast the sounds on the recording, it was done in the hope of raising awareness of incorrect pronunciation patterns. (Description and analysis)

The next step corresponded to listening discrimination, the instructor read some words out loud. Those words included /sp/ beginning sounds, students were elicited information about the number of sounds and the pronunciation of that specific consonant cluster. As a result of the analysis an explicit explanation of the pronunciation problem was done. So, students were exposed to the case in which a sound is added to the /sp/ cluster, the sound is an initial one which corresponds to /e/. In this way, students became aware of the way the consonant cluster is incorrectly pronounced.

The following session, different pictures were shown to students. The pictures described words which contained /sp/ beginning sounds. They were different from the list students used in the pretest. Students were asked to write the name of the image and they were encouraged to circle the -sp sounds. Then, they were encouraged to read the names they wrote down. During this stage of the research, the experimental group included a differentiated activity. The instructor introduced kinesthetic techniques in order to support the performance of accurate pronunciation.

The instructor modulated a clap for /s/ sound while she stood up when pronouncing /p/. Students practice this strategy while telling the names of the pictures presented before (Controlled practice). By the same token, the control group continued working on pronunciation only without the use of kinesthetic techniques. During the next sessions, both groups looked at different pictures and short lists of words. They were supposed to read them by using correct pronunciation. A relevant feature during this stage, guided practice, is that students gained little freedom when practicing because they chose to write the word down and read it or just saying it out loud. It fostered autonomous learning which results in meaningful learning.

The last step of the communicative framework is communicative practice. Although this step was not fully completed, students were exposed to several images from which they chose to create a sentence or a short story. It was part of scaffolding the activity since some students have not attained a level in which they can communicate freely. After working on the treatment for a month, students took a posttest. Similarly, to the pretest, students read the words containing /sp/ beginning sound. The list of words was exactly the same since the researched wanted to create the same opportunity for both groups. Students were recorded as they read the words, those, these recordings served as the data for analyzing the results.

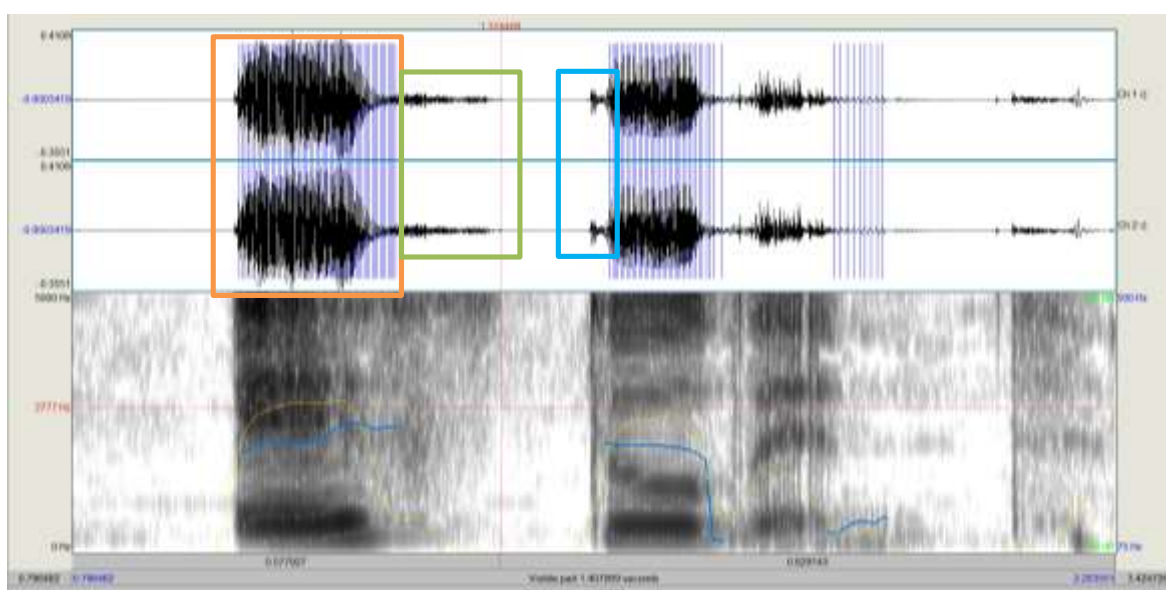
After the data was gathered, it was run on PRAAT. It is a software used to process and analyzed speech production. The software processes standard and non-standard procedures, including spectrographic analysis, articulatory synthesis, and neural networks (Lieshout, 2003). Therefore, the software was used to revise the

sounds produced in detailed in order to determine the accuracy of the production. The first step done was, identifying the /sp/ sound then, it was separated from the rest of the sounds in each word. After narrowing the sounds for the study each sound was given a number.

If there was a sound made it received one point if no sound was produced no points were given. The values reflected the number of sounds used in the words, in principle the consonant cluster should only use two sounds, meaning two points. Next, the values were tabulated in Excel and they were used to run a statistical analysis. Equally important, PRAAT was used to identify the sounds made through the study of the spectrogram created. Thus, they were part of a visual aid to support the values obtained. Figure 6 shows an inaccurate pronunciation of the sound /sp/ specifically in the word spider. The spectrogram shows the visual representation of the sounds produced.

On the one hand, the sound framed in orange shows the pronunciation of /e/ which means that an initial sound was added to the word, one that is unnecessary and incorrect. The /e/ sound is a front vowel produced with a forward shift of the tongue from its neutral or rest position. Resulting in a pronunciation error. On the other hand, the sound framed in green shows the production of the sound /s/, this is a lingua-alveolar sound which refers to a consonant produced with the tongue contracting the upper alveolar arch. In addition, the sound in blue shows the production of the sound /p/, this is a stop which is characterized by the complete obstruction of the outgoing airstream by the articulators, a build up of intraoral air pressure and a release.

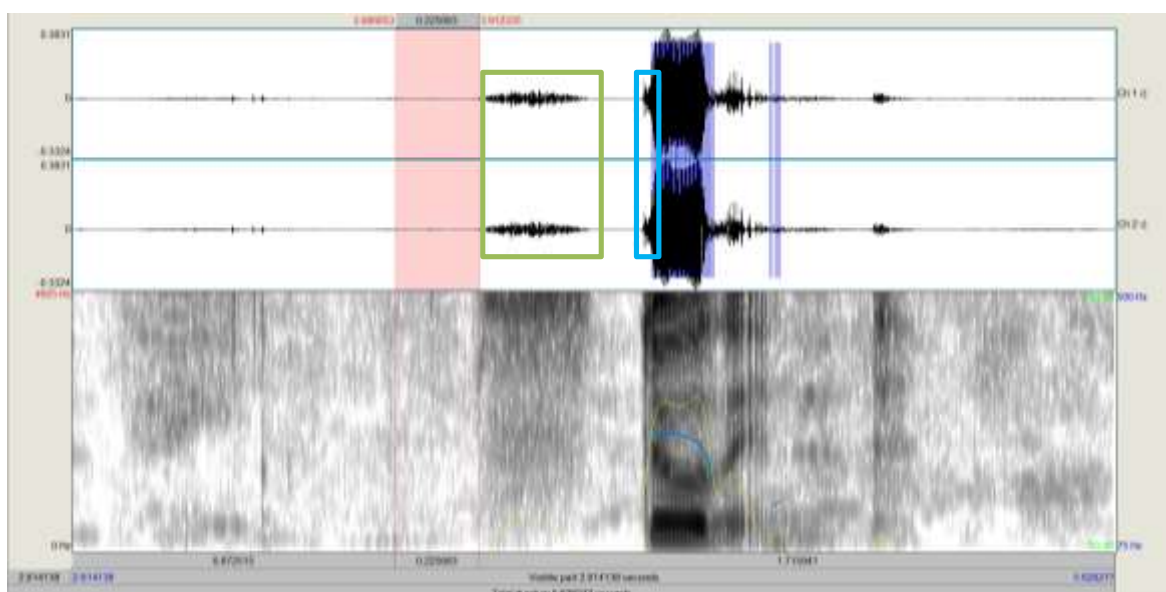
**Figure 8.** student incorrect pronunciation



**Source:** Self-made

Figure 7 shows an accurate pronunciation of the sound /sp/ specifically in the word spider. The spectrogram shows the visual representation of the sounds produced. On the one hand, the sound framed in pink shows the lack of an initial sound which means the pronunciation is correct. On the other hand, the sound framed in green shows the production of the sound /s/, this is a lingua-alveolar sound which refers to a consonant produced with the tongue contracting the upper alveolar arch. In addition, the sound in blue shows the production of the sound /p/, this is a stop which is characterized by the complete obstruction of the outgoing airstream by the articulators, a buildup of intraoral air pressure and a release.

**Figure 9.** student correct pronunciation



**Source:** Self-made

### 2.3 Statistical analysis

The statistical analysis was carried out through t-tests. A t-test indicates whether or not the difference between two groups' averages reflects a significant difference in the population (Runkel, 2013). There were four t – tests used in the study, the aim of running those tests was to identify whether there was a significant difference between the control and the experimental group before and after the treatment.

- T- test 1: Control pretest vs. experimental pretest
- T- test 2: Control posttest vs. experimental posttest
- T- test 3: Control pretest vs. control posttest
- T- test 4: Experimental pretest vs. experimental posttest

The t- tests were run in Excel, they were based on a two-tail test and a 0.05 alpha value. Therefore, if the p value was  $< \alpha$ , the researcher considered a statistically significant difference.

## 2.4. The proposal

**Topic:** Pronunciation booklet to improve the production of /sp/ beginning sounds.

### Informative data

**Name of the institution:** Unidad Educativa La Inmaculada

**Location:** Ambato

**Beneficiaries:** Third grade elementary school

**Researcher:** Vanesa Martinez

**Time of execution:** School year

Undoubtedly pronunciation has been neglected in the EFL class especially in the Ecuadorian context. It is reflected in the English level the country has attained, indeed Ecuador reflects a very low proficiency level because of that, it occupies position nineteen in Latin America which corresponds to the last place in the region. Besides, it is number ninety-three over a hundred countries evaluated (EF, 2020). Therefore, changes in teaching techniques and strategies should be done, that would be the only way in which the proficiency level increases. Kinesthetic teaching techniques could serve the purpose of changing the framework in a traditional class principally in elementary school. Children at that stage of formal education are more likely to retain information that could have long lasting effects.

Traditionally, the techniques used in the EFL classroom have been teacher centered which do not align to the principles of communicative language teaching. This approach focuses on students' autonomy and active participation in the teaching-learning process (Tergujeff, 2012). So, using kinesthetic techniques would create a context in which students are responsible of sensing a sound while pronouncing it accurately. They become independent learners since they are provided by a manner of analyzing pronunciation patterns. By doing so, they are able to discriminate correct and incorrect sounds. That leads to controlled and guided practice. Resulting in the ability to produce native like sounds while freely communicating.

Evidently, the current research study has provided vital information for applying kinesthetic techniques to foster pronunciation of /sp/ beginning sounds. Besides, they promote the awareness of accurate English pronunciation. What is more, it provides an explicit teaching technique for teachers to use in the classroom. Thus, creating a concrete concept for students to internalize pronunciation patterns. Furthermore, kinesthetic teaching techniques have proven to be efficient when it comes to generating a visual aid for abstract English concepts. It is clear that, the effects of kinesthetic techniques will certainly be beneficial for students at an early age.

Therefore, creating a booklet which include activities applying kinesthetic techniques would contribute to the field of language acquisition. The booklet proposed is embodies the communicative framework for teaching pronunciation. Thus, analysis of the language point is established after that, listening discrimination is promoted. Then, controlled, and guided practice will be developed. Finally, the booklet provides activities to create free practice. However, the effects of the use of kinesthetic techniques in real contexts should be part of future studies.

As a result of the use of the proposed booklet, students may feel more motivated since their pronunciation will be improved. Besides, parents might evidence the improvement and that would prompt extrinsic motivation for their children. Besides, a native like pronunciation would be attained and that could set a basis for future English performance.

## **Objectives**

### **General Objective**

- Create a pronunciation booklet for third grade students.

### **Specific Objectives**

- Identify an appropriate teaching framework for teaching pronunciation.
- Determine efficient activities to improve /sp/ blends in an initial position.
- Apply the booklet in third grade students.



Look at the syllables. Paint the /sp/

sp

tr

br

st

sp

bl

pr

pl

sp



Description and analysis

Look at the words. Circle the /sp/

**spider**

skate

**space**

skin

**spy**

**spin**

spray

**spinach**

smile

**slime**

**spoon**

spin

**sport**

star

**sponge**

Look at the words. Paint the circles corresponding to the sounds you hear.

**SP**ider



**SP**ort



**SP**onge



**SP**oon



**SP**ell



**SP**inach



**SP**ace



**SP**y



**SP**aghetti



Look at the letters. Make the sound /s/ and /p/ clap stand up.



/S/



/P/



Now, your teacher will pronounce a sound, pay attention maybe you need to clap or to stand up.

Listen to the audio. Clap and stand up.



Sp

Sp

Sp

Listen to the audio. Circle the words you hear.

**Spider**

**Spy**

**Spinach**

**Sport**

**Sponge**

**Spin**

**Space**

**Spoon**

**Spaghetti**

Listen to the audio. Circle the words you hear.

**Spider**

**Spy**

**Spinach**

**Sport**

**Sponge**

**Spin**

**Space**

**Spoon**

**Spaghetti**

Listen to the audio. Circle the words you hear.

**Spider**

**Spy**

**Spinach**

**Sport**

**Sponge**

**Spin**

**Space**

**Spoon**

**Spaghetti**

Look at the sentences. Read the sentences.

**The spider is black.**

**The space is blue.**

**The sponge is yellow.**

Controlled practice

Look at the story. Read the story.



**Sophie is a spider  
The spider is in  
space. The spider  
loves spaghetti.  
The spider loves  
sports.**

Look at the pictures Choose some images. Say the names.



Free practice

Look at the pictures Choose some images. Create a sentence



Look at the pictures Choose some images. Create a story.



Evidently, the booklet is created based on the communicative framework for teaching pronunciation. That is why, there are five main stages developed. During the first stage description and analysis, students are expected to recognize the -sp spelling in the frontal position in words. Besides, they are expected to distinguish the two sounds produced in -sp blends. In this way, students acknowledge that instead of three sounds, corresponding to the addition of a sound to the -sp beginning blend, there are only two, not only that but they become aware of words containing the evaluated blend. The second set of activities correspond to listening discrimination, in this step, students associate sounds to kinesthetic techniques, besides they are asked to recognize words containing /sp/ sounds.

In this stage students will encounter correct and incorrect pronunciation of the -sp blends. As a result, they will differentiate accurate and inaccurate pronunciation. During controlled practice, students read fixed sentences containing words checked in previous activities. In addition, they read a story where they find different words containing /sp/ sounds in the front position. Consequently, students relate the specific sounds used in simple utterances which lead and prepare them to free practice. In this final stage, students see some pictures and say their names out loud, they create sentences and for those who have a more advanced English level, the creation of a story is prompted. Therefore, students will be able to use the sounds checked in a correct and communicative way.

## CHAPTER III: ANALYSIS OF THE RESULTS

### 3.1. Analysis of results and data interpretation

The data was collected through recordings of the list of words presented on the last chapter. Each recording was analyzed through PRAAT, this software was used to determine if the word was produced accurately. By using the spectrogram on PRAAT, a value was determined. If the sound was correct the value given was one and if the sound was incorrect the value was zero.

Table 1.

*Pretest: control group*

		Words										
Student		Is the sound correct?										
Word		1	2	3	4	5	6	7	8	9	10	
1	Subject 1	0	1	0	0	0	0	0	1	0	0	2
2	Subject 2	1	0	0	0	0	0	0	0	0	0	1
3	Subject 3	0	0	1	0	0	0	0	0	0	0	1
4	Subject 4	1	0	0	0	1	0	0	1	0	0	3
5	Subject 5	0	0	0	0	0	0	0	1	0	0	1
6	Subject 6	0	0	0	0	0	0	0	0	0	1	1
7	Subject 7	0	0	0	0	0	1	0	0	0	0	1
8	Subject 8	0	1	1	0	1	1	0	0	1	1	6
9	Subject 9	1	1	1	0	0	0	0	0	0	0	3
10	Subject 10	0	0	0	0	0	0	0	0	0	0	0

**Source:** Self-made

Table 1 shows the results from the control group during the pretest. As evidenced in the chart, most of the ten subjects of study were able to produce less than five sounds correctly. It implies that the majority of the group was adding an additional sound at the beginning of the /sp/ consonant cluster. Indeed, the extra unnecessary sound was /e/, in this way it is proved that the pronunciation mistake originates in the lack of that pattern in students' L1.

Table 2.

*Pretest: experimental group*

		Words										
Student		Is the sound correct?										
	Word	1	2	3	4	5	6	7	8	9	10	
1	Subject 1	1	0	0	1	0	0	0	0	0	0	2
2	Subject 2	0	1	0	0	0	0	0	0	0	0	1
3	Subject 3	0	1	0	0	0	0	0	0	0	0	1
4	Subject 4	0	0	0	0	1	1	0	0	0	0	2
5	Subject 5	0	0	0	1	1	0	0	0	0	0	2
6	Subject 6	0	0	0	0	0	0	0	0	0	0	0
7	Subject 7	0	0	1	0	0	0	0	1	0	0	2
8	Subject 8	0	0	0	0	0	0	0	1	1	1	3
9	Subject 9	0	0	0	1	1	1	0	0	0	0	3
10	Subject 10	0	0	1	0	0	0	0	0	1	0	2

**Source:** Self-made

Table 2 displays information about the experimental group during the pretest. In this part of the evaluation a pronunciation issue was also evidenced since the vast majority of the students could not produce the sounds correctly. It means that the -st blend was not internalized thus it was not produced accurately. It could also support the fact that, pronunciation has been neglected in the EFL classroom as well as showing that students tend to transfer L1 patterns into their L2 pronunciation which may result in communication issues. More importantly, it definitely means that students are not competent at a pronunciation level.

The results from the pretest study reflect clear data about the situation in which students were involved before the treatment. The fact that the two groups did not attain high levels of correctness means that they were under the same conditions prior the treatment which indeed is an optimal scenario. By having these results, the treatment becomes more reliable since neither the experimental nor the control group presented an advantage over the other. Therefore, results reflected after the

treatment can be closely and strongly related to the steps that were taken to foster pronunciation in the class.

Table 3.

*Posttest: control group*

		Words										
Student		Is the sound correct?										
Word		1	2	3	4	5	6	7	8	9	10	
1	Subject 1	1	1	1	1	1	1	1	1	0	0	8
2	Subject 2	1	1	1	1	1	1	1	1	1	0	9
3	Subject 3	1	1	1	1	0	0	0	0	0	0	4
4	Subject 4	1	1	0	0	0	0	0	0	0	0	2
5	Subject 5	1	1	1	1	1	0	0	0	0	0	5
6	Subject 6	1	1	0	0	0	0	0	0	0	0	2
7	Subject 7	1	1	1	1	1	0	0	0	0	0	5
8	Subject 8	1	1	0	0	0	0	0	0	0	0	2
9	Subject 9	1	1	1	1	1	1	1	1	0	0	8
10	Subject 10	0	0	0	0	0	0	0	0	0	0	0

**Source:** Self-made

Table 3 represents the results obtained from the control group during the posttest. It is important to note that, during the posttest students were once again exposed to the list of words containing the /sp/ beginning sound. The list was the same as in the pretest, this was done because the researcher aimed to provide the same type of opportunities for students to produce the sounds. Besides, the researcher did not want to expose students to a different or more complex list in which understanding could be threaten. There was the possibility if having a new list of words but if students were not able to understand the meaning of them or if they had not encountered the words before, they would have demanded the meaning of those words first. Thus, it may have affected the purpose and focus of the study which is pronunciation.

Turning back to the specific results from table 3, it is clear that, there was an improvement in the pronunciation of the -sp blend in the control group. This is the result of focusing explicitly on segmental features during the teaching and learning process. Although, the control group did not incorporate kinesthetic techniques as an aid for pronunciation, the researcher still devoted two hours a week to focus on pronunciation patters. It shows that, pronunciation should not only be seen as an element which may improve by providing comprehensible input but as one that should be analyzed in the class in order to achieve correctness.

Table 4.

*Posttest: experimental group*

		Sentences										
Student		Is the sound correct?										
Word		1	2	3	4	5	6	7	8	9	10	
1	Subject 1	1	1	1	1	1	1	1	0	0	0	7
2	Subject 2	1	1	1	1	1	1	1	0	0	0	7
3	Subject 3	1	1	1	1	1	1	1	1	0	0	8
4	Subject 4	1	1	1	1	1	1	1	0	0	0	7
5	Subject 5	1	1	1	1	1	1	1	0	0	0	7
6	Subject 6	1	0	0	0	0	0	0	0	0	0	1
7	Subject 7	1	1	1	1	1	0	0	0	0	0	5
8	Subject 8	1	1	1	1	1	1	1	1	1	0	9
9	Subject 9	1	1	1	1	1	1	0	0	0	0	6
10	Subject 10	1	1	1	1	1	1	0	0	0	0	6

**Source:** Self-made

Table 4 displays information from the experimental group, during the posttest. Undoubtedly, there is an improvement in the way students pronounce the -sp beginning blend. All of the students except for one managed to produce an accurate sound of most of the words presented in the test. So, it is clear that kinesthetic techniques support better understanding of segmental patters. What is more, it shows that this group of students raise awareness of the sound presented that is why they were able to pronounce it correctly. Besides, it supports the use of explicit

teaching for pronunciation, the fact that students improved after the treatment suggests that as teachers, we ought to apply a particular framework to teach pronunciation.

Clear steps may not only help students to know exactly what they are focusing on but also the teacher to create specific activities to cope with the framework. In the case of this study, the Celce – Murcia (1996) communicative framework for teaching pronunciation was used and it is highly recommended since it goes from analysis to free practice, allowing students to become independent learners. Lastly, the results of the posttests are a clear probe that students are able to improve pronunciation even in a foreign language context when there is precise and clear attention to this feature. Both groups improved although it is seen that the experimental group presented a steady shift towards accurate pronunciation. This result suggests that kinesthetic techniques are indeed helpful in the teaching and learning process.

### **3.2. Hypothesis Verification**

The main objective of this research was to improve the beginning blend -sp pronunciation by using kinesthetic techniques in third grade students. Thus, the hypothesis lays on proving the effect of kinesthetic techniques in the beginning blend -sp pronunciation. In order to test the hypothesis a T- test was used, it is a type of inferential statistic which determines whether there is significant difference between the means of two groups. Four different t-tests were applied in this research. The first one evaluated control and experimental groups at a pretest level. The second statistic focused on control and experimental groups during the posttest. The third evaluation was aimed to compare the results in the control group during both the pre and posttest. Lastly, the researcher examined the experimental group and the results for the pretest and posttest.

### T- test 1: Control pretest vs. experimental pretest

Table 5.

#### T-test 1

	<i>Variable 1</i>	<i>Variable 2</i>
<b>Media</b>	1.9	1.8
<b>Varianza</b>	2.988888889	0.844444444
<b>Observaciones</b>	10	10
<b>Diferencia hipotética de las medias</b>	0	
<b>Grados de libertad</b>	14	
<b>Estadístico t</b>	0.161514571	
<b>P(T&lt;=t) una cola</b>	0.436997926	
<b>Valor crítico de t (una cola)</b>	1.761310136	
<b>P(T&lt;=t) dos colas</b>	0.873995851	
<b>Valor crítico de t (dos colas)</b>	2.144786688	

**Source:** Self-made

Table 5 shows that there was not significant difference in the mean scores from the control group (M= 1.9) and the experimental group (M=1.8);  $t(0.16)$ ,  $p= 0.43$ . Since the p value is  $<0.05$  it could be implied that there is no great difference in both groups prior using the treatment. Thus, both groups started the experiment under the same circumstances which represents that any outcome is due to the use of the treatment itself.

## T- test 2: Control posttest vs. experimental posttest

Table 6.

### T-test 2

	<i>Variable 1</i>	<i>Variable 2</i>
<b>Media</b>	4.5	6.3
<b>Varianza</b>	9.388888889	4.677777778
<b>Observaciones</b>	10	10
<b>Diferencia hipotética de las medias</b>	0	
<b>Grados de libertad</b>	16	
<b>Estadístico t</b>	-1.517668454	
<b>P(T&lt;=t) una cola</b>	0.074303831	
<b>Valor crítico de t (una cola)</b>	1.745883676	
<b>P(T&lt;=t) dos colas</b>	0.148607661	
<b>Valor crítico de t (dos colas)</b>	2.119905299	

**Source:** Self-made

Table 6 shows that there was a significant difference in the mean scores from the control group (M= 4.5) and the experimental group (M=6.3);  $t(1.51)$ ,  $p= 0.07$ . Since the p value is  $>0.05$  it could be implied that there is great difference in both groups after using the treatment. Because of this, it should be mentioned that the difference reflected is the result of the use of kinesthetic techniques on the experimental group, which supports the hypothesis of the current study.

### T- test 3: *Control pretest vs. control posttest*

Table 7.

T-test 3

	<i>Variable 1</i>	<i>Variable 2</i>
<b>Media</b>	1.9	4.5
<b>Varianza</b>	2.988888889	9.388888889
<b>Observaciones</b>	10	10
<b>Coefficiente de correlación de Pearson</b>	0.325107661	
<b>Diferencia hipotética de las medias</b>	0	
<b>Grados de libertad</b>	9	
<b>Estadístico t</b>	-2.750847902	
<b>P(T&lt;=t) una cola</b>	0.011222829	
<b>Valor crítico de t (una cola)</b>	1.833112933	
<b>P(T&lt;=t) dos colas</b>	0.022445659	
<b>Valor crítico de t (dos colas)</b>	2.262157163	

**Source:** Self-made

Table 7 shows that there was a significant difference in the mean scores from the control group regarding the pretest (M= 1.9) and the posttest (M=4.5);  $t(2.75)$ ,  $p=0.01$ . Since the p value is  $>0.05$  it could be implied that there is great difference after the treatment. Because of this, it is supported that the control group also improved by the end of the research. Surely, it reflects the application of a framework to teach pronunciation. In this way, it is implied that when devoting time in the class for focusing on pronunciation, it could improve.

### T- test 4: Experimental pretest vs. experimental posttest

Table 8.

#### T-test 4

	<i>Variable 1</i>	<i>Variable 2</i>
<b>Media</b>	1.8	6.3
<b>Varianza</b>	0.8444444444	4.677777778
<b>Observaciones</b>	10	10
<b>Coeficiente de correlación de Pearson</b>	0.592595052	
<b>Diferencia hipotética de las medias</b>	0	
<b>Grados de libertad</b>	9	
<b>Estadístico t</b>	-7.99670985	
<b>P(T&lt;=t) una cola</b>	1.11038E-05	
<b>Valor crítico de t (una cola)</b>	1.833112933	
<b>P(T&lt;=t) dos colas</b>	2.22077E-05	
<b>Valor crítico de t (dos colas)</b>	2.262157163	

Source: Self-made

Table 8 shows that there was a significant difference in the mean scores from the experimental group regarding the pretest (M= 1.8) and the posttest (M=6.3);  $t(-7.9)$ ,  $p= 1.1 E-05$ . Since the p value is  $>0.05$  it could be implied that there is great difference after the treatment. Because of this, it is supported that the experimental group improved the production of -sp blends because of the use of kinesthetic techniques. So, it is statistically proven that there is a relationship between kinesthetic techniques and /sp/ pronunciation, so the effects of using these strategies evidently create a positive consequence in the EFL classroom.

## CONCLUSIONS

The current research project about Kinesthetic techniques and -sp beginning blends resulted in significant information in the pre and post-test in both the control and the experimental groups. Therefore, some conclusions have been drawn.

- The traditional EFL classes neglect pronunciation, specifically the segmental features. A clear way to evidence this is, by recognizing production problems such as -sp beginning blend. This problem occurs because of the lack of the consonant cluster in Spanish as a result, interference occurs. In Spanish there are no words starting with a CCV pattern; the common way for a word to start contains a VCC arrangement. It is this specific way that transfers to L2, resulting in a mispronunciation of -sp consonant clusters. To illustrate this, students produce the sound /e/ in front of a CCV cluster, in words as spider they might say /'espaɪdər/ instead of /'spaɪdər/.
- Kinesthetic teaching techniques have been proven to support pronunciation teaching. Associating a sound to a concrete and explicit technique contributes to raising awareness of sounds produced so that students rely on the way they perceive the sound in order to produce it. The current study used two specific kinesthetic techniques, the first one was clapping to associate the /s/ sound and standing up for /p/. The continuous use of these techniques helped students internalize that there are only two beginning sounds in words as space and that there is no need to add an /e/ sound at the beginning. Thus, they pronounced the /sp/ cluster accurately.
- Kinesthetic techniques work better together with a well-organized teaching framework. In the light of this study Celce – Murcia's communicative framework for teaching pronunciation was used. It includes five stages which start in analysis and finish in free practice. So, it is concluded that it is an optimal framework to use when there is a explicit focus on segmental patterns in the classroom.

## RECOMMENDATIONS

- After analyzing the data collected, it is recommended to teach pronunciation in an explicit way by applying kinesthetic techniques, the sensorial experience will definitely create a better learning context for students to improve the production of specific English sounds.
- It is also suggested to use the Celce -Murcia's communicative framework to teach pronunciation. This framework has a bottom - up approach which begins in analysis and description of patterns, this creates autonomous students since they become aware of language features. At the end of this process, communicative practice is fostered so, it is an optimal and holistic framework.
- The use of the proposed booklet is recommended, it is aligned to the framework mentioned before and the activities aimed to be used in third grade. So, English teachers could try the activities posed in the booklet and reflect on the pronunciation issues, performance, and improvement it may result in.
- A limitation from this study was that free practice could not be done in extend since the time of the study was only a month, so it is suggested to use kinesthetic strategies for a longer of period of time such as a full school year. In that way, long lasting effects could be evidenced.

## BIBLIOGRAPHY

- Antwi, S., & Huanza, K. (2015). Qualitative and quantitative research paradigms in business. *European Journal of Buisness and management*, 217-225. Obtenido de <https://core.ac.uk/download/pdf/234626233.pdf>
- Archer, A., & Hughes, C. (2011). *Explicit instruction: effective and efficient teaching*. The Guiliford Press. Obtenido de <https://explicitinstruction.org/download/sample-chapter.pdf>
- Bostrom, R. (2007). Empiricism, paradigms and data. *Communication monographs*, 343-351.
- Cambridge. (2017). *Cambridge English*. Obtenido de Cambridge English: Flyers (YLE Flyers): <http://www.cambridgeenglish.org/exams/young-learners-english/flyers/preparation/>
- Carr, P. (2013). *English phonetics and phonology*. West Sussex: Wiley-Blackwell. Obtenido de <https://abru.ac.ir/files/teachers/doc-1586546452.pdf>
- Celce - Murcia, M., Brinton, D., & Goodwin, J. (1996). *Teaching pronunciation: a reference for teachers of English to speakers of other languages*. Cambridge: Cambridge University Press. Obtenido de [https://books.google.com.ar/books?id=twC-H4a8VcYC&printsec=frontcover&hl=es&source=gbs\\_ge\\_summary\\_r&cad=0#v=onepage&q&f=false](https://books.google.com.ar/books?id=twC-H4a8VcYC&printsec=frontcover&hl=es&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false)
- Celce-Murcia, M. (2010). *Teaching pronunciation: a coursebook and reference guide*. Cambridge: Cambridge University Press.
- Celce-Murica, M., & Goodwin, B. (1996). *Teaching pronunciation: a reference for teachers of English to speakers of other languages*. Cambridge: Cambridge University Press. Obtenido de [https://books.google.com.ec/books?id=twC-H4a8VcYC&printsec=frontcover&dq=Celce-+Murcia+Teaching+Pronunciation.+A+reference+for+Teachers+of+English+Speakers+of+other+languages+pdf&hl=en&sa=X&redir\\_esc=y#v=onepage&q&f=false](https://books.google.com.ec/books?id=twC-H4a8VcYC&printsec=frontcover&dq=Celce-+Murcia+Teaching+Pronunciation.+A+reference+for+Teachers+of+English+Speakers+of+other+languages+pdf&hl=en&sa=X&redir_esc=y#v=onepage&q&f=false)

- Crison, R. &. (2018). The practical application of hand gestures as a means of improving English intonation. *International Symposium on Applied Phonetics*, 45-50. Obtenido de [https://www.isca-speech.org/archive/pdfs/isa\\_ph\\_2018/crison18\\_isaph.pdf](https://www.isca-speech.org/archive/pdfs/isa_ph_2018/crison18_isaph.pdf)
- Ecoembes. (1 de April de 2020). *Ecoembes*. Obtenido de <https://ecoembesempleo.es/inteligencia-visual-espacial/>
- Ecuador. (2008). *Constitucion del Ecuador*. Obtenido de <https://educacion.gob.ec/wp-content/uploads/downloads/2012/08/Constitucion.pdf>
- EF. (2020). *EF English proficiency index*. Obtenido de EF: <https://www.ef.co.uk/epi/regions/latin-america/ecuador/>
- Hekman, L. (2004). *Building on the Sound System of Spanish: Insights from the Alphabetic Spellings of English-Language Learners*. The Reading Teacher. Obtenido de <http://www.jstor.org/stable/20205383>
- Inteligencias multiples. (2020). *Inteligencias multiples*. Obtenido de <https://www.lasinteligenciasmultiples.com/corporal-kinestesica/>
- Jiao, X., & Wenjing, Z. (2013). *English Dominance and its influence on International Communication*. Finland: Academy publisher. Obtenido de <https://www.academypublication.com/issues/past/tpls/vol03/12/16.pdf>
- Khan, A., & Shehzad, W. U. (2017). Articulation of English consonants. *Canadian Center of Science and Education*, 19-33. Obtenido de <https://scihub.mkksa.top/10.5539/ijel.v7n5p19>
- Kivunja, C., & Ahmed, B. (2017). Understanding and applying research paradigms in educational contexts. *Internatiional Journal of Higher Education*. Obtenido de <https://files.eric.ed.gov/fulltext/EJ1154775.pdf>
- Lewis, M. (2014). *Kinesthetic Approach to Word Study. Kinesthetic Approach to Word Study*. New York.

- Liang-Chen, L. (2014). Understanding pronunciation variations facing ESL students. *International Journal of Humanities and Social Science*, 16-20. Obtenido de [http://www.ijhssnet.com/journals/Vol\\_4\\_No\\_5\\_1\\_March\\_2014/3.pdf](http://www.ijhssnet.com/journals/Vol_4_No_5_1_March_2014/3.pdf)
- Lieshout, P. v. (2003). PRAAT: Short tutorial. *University of Toronto, Graduate Department of Speech Language Pathology*, 2. Obtenido de [https://web.stanford.edu/dept/linguistics/corpora/material/PRAAT\\_workshop\\_manual\\_v421.pdf](https://web.stanford.edu/dept/linguistics/corpora/material/PRAAT_workshop_manual_v421.pdf)
- May Good Schools. (s.f.). Obtenido de [https://www.maygoodschools.org/site/handlers/filedownload.ashx?moduleinstanceid=185&dataid=478&FileName=story%20elements\\_ppt.pdf](https://www.maygoodschools.org/site/handlers/filedownload.ashx?moduleinstanceid=185&dataid=478&FileName=story%20elements_ppt.pdf)
- McMahon, A. (2002). *An introduction to English Phonology*. Edinburgh: Edinburgh University Press. Obtenido de <http://staffnew.u.nyu.ac.id/uploaded/132107096/pendidikan/Book+one.pdf>
- Midner, V. (2019). Experimental research. *SAGE*, 728-732. Obtenido de <https://core.ac.uk/download/pdf/10199381.pdf>
- Oxford dictionary. (5 de August de 2020). *Oxford dictionary*. Obtenido de [Lexico.com: https://www.lexico.com/en/definition/kinesthetic](https://www.lexico.com/en/definition/kinesthetic)
- Roach, P. (2012). *English Phonetics and Phonology*. Cambridge: Cambridge University Press. Obtenido de [https://www.uoanbar.edu.iq/HumanitarianEducationCollege/catalog/English%20Phonetics%20and%20Phonology\\_Peter%20Roach.pdf](https://www.uoanbar.edu.iq/HumanitarianEducationCollege/catalog/English%20Phonetics%20and%20Phonology_Peter%20Roach.pdf)
- Runkel, P. (10 de June de 2013). *The minitab blog*. Obtenido de What is a t-test? And Why Is It Like Telling a Kid to Clean Up that Mess in the Kitchen?: <http://blog.minitab.com/blog/statistics-and-quality-data-analysis/what-is-a-t-test-and-why-is-it-like-telling-a-kid-to-clean-up-that-mess-in-the-kitchen>

- Russel, C. (2018). *Linguistics for English Language teaching*. Kansas: New Prairie Press. Obtenido de [http://fpik.bunghatta.ac.id/files/downloads/E-book/Linguistics%20for%20English%20Language%20Teaching/chapter\\_6-english\\_phonology.pdf](http://fpik.bunghatta.ac.id/files/downloads/E-book/Linguistics%20for%20English%20Language%20Teaching/chapter_6-english_phonology.pdf)
- Styler, W. (2017). *Using Praat for Linguistic Research*. Creative Commons. Obtenido de <http://savethevoicelibrary.org/praat/UsingPraatforLinguisticResearchLatest.pdf>
- Tergujeff, E. (2012). English pronunciation teaching: four case studies from Finland. *Journal of language teaching and research*, 590-607. Obtenido de <https://www.academypublication.com/issues/past/jltr/vol03/04/02.pdf>
- Thompson, C. (2018). Kinesthetic instruction and pronunciation. *The speech accent archive*. Obtenido de [https://cor.e.ac.uk/display/267851548?utm\\_source=pdf&utm\\_medium=banner&utm\\_campaign=pdf-decoration-v1](https://cor.e.ac.uk/display/267851548?utm_source=pdf&utm_medium=banner&utm_campaign=pdf-decoration-v1)

## ANNEXES

### Annex 1: -sp blueprint

This blueprint was made by analyzing the book, **Guess what for Ecuador** which is used in third grade at Unidad Educativa La Inmaculada. The focus was merely done on words containing -sp beginning consonant clusters.

Word	Number of repetitions	Type of activity
Spider	8	Word search Say the name
Sport	10	Order the letters
Space	5	Match the picture to the name
Spy	3	Crossword puzzle
Sponge	1	Read and write
Spoon	4	Talk about the picture
Spinach	6	Listen and color
Spin	3	Talk about the picture
spaghetti	5	Listen and color

## Annex 2: Data collection: Control group

Pre-test

		Words										
	Student	Is the sound correct?										
	Word	1	2	3	4	5	6	7	8	9	10	
1	Subject 1	0	1	0	0	0	0	0	1	0	0	2
2	Subject 2	1	0	0	0	0	0	0	0	0	0	1
3	Subject 3	0	0	1	0	0	0	0	0	0	0	1
4	Subject 4	1	0	0	0	1	0	0	1	0	0	3
5	Subject 5	0	0	0	0	0	0	0	1	0	0	1
6	Subject 6	0	0	0	0	0	0	0	0	0	1	1
7	Subject 7	0	0	0	0	0	1	0	0	0	0	1
8	Subject 8	0	1	1	0	1	1	0	0	1	1	6
9	Subject 9	1	1	1	0	0	0	0	0	0	0	3
10	Subject 10	0	0	0	0	0	0	0	0	0	0	0

Post-test

		Words										
	Student	Is the sound correct?										
	Word	1	2	3	4	5	6	7	8	9	10	
1	Subject 1	1	1	1	1	1	1	1	1	0	0	8
2	Subject 2	1	1	1	1	1	1	1	1	1	0	9
3	Subject 3	1	1	1	1	0	0	0	0	0	0	4
4	Subject 4	1	1	0	0	0	0	0	0	0	0	2
5	Subject 5	1	1	1	1	1	0	0	0	0	0	5
6	Subject 6	1	1	0	0	0	0	0	0	0	0	2
7	Subject 7	1	1	1	1	1	0	0	0	0	0	5
8	Subject 8	1	1	0	0	0	0	0	0	0	0	2
9	Subject 9	1	1	1	1	1	1	1	1	0	0	8



7	Subject 7	1	1	1	1	1	0	0	0	0	0	5
8	Subject 8	1	1	1	1	1	1	1	1	1	0	9
9	Subject 9	1	1	1	1	1	1	0	0	0	0	6
10	Subject 10	1	1	1	1	1	1	0	0	0	0	6

**Data collection: Data summary prior t-test**

**Is the sound correct?**

		Control	Experimental
Pre-test	1	2	2
	2	1	1
	3	1	1
	4	3	2
	5	1	2
	6	1	0
	7	1	2
	8	3	3
	9	6	3
	10	0	2
Post-test	1	8	7
	2	9	7
	3	4	8
	4	2	7
	5	5	7
	6	2	1
	7	5	5
	8	2	9
	9	8	6
	10	0	6

### Annex 3: Parents permit

The parents from third grade at Unidad Educativa La Inmaculada, filled in an online survey after a meeting was held. The meeting explained the purpose of the study, the objectives, the treatment and its duration. After that, the results evidenced their acceptance in being part of the project.

	Marca temporal	Está de acuerdo con que su hijo/hoja sea parte de la investigación?
1	15/10/2020 16:29:38 PM	SI
2	15/10/2020 16:29:38 PM	SI
3	15/10/2020 16:29:38 PM	SI
4	15/10/2020 16:29:38 PM	SI
5	15/10/2020 16:29:38 PM	SI
6	15/10/2020 18:29:38 PM	SI
7	15/10/2020 18:29:38 PM	SI
8	15/10/2020 18:29:38 PM	SI
9	15/10/2020 19:29:38 PM	SI
10	15/10/2020 19:29:38 PM	SI
11	15/10/2020 19:29:38 PM	SI
12	15/10/2020 19:29:38 PM	SI
13	15/10/2020 19:29:38 PM	SI
14	16/10/2020 10:29:38 PM	SI
15	16/10/2020 11:29:38 PM	SI
16	16/10/2020 13:29:38 PM	SI
17	16/10/2020 18:29:38 PM	SI
18	16/10/2020 19:29:38 PM	SI
19	16/10/2020 19:29:38 PM	SI
20	16/10/2020 19:29:38 PM	SI