



*Interferencia de los sonidos vocálicos quichuas en la pronunciación del inglés
como tercera lengua en el Colegio Pujilí*

*Quichwa Vowel Sound Interference on English Pronunciation in Third
Language Learners at Pujilí High School*

*Interferência do som da vogal Quichwa na pronúncia do inglês em alunos de
terceira língua na Pujilí High School*

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Resumen

En la actualidad, el aprendizaje del inglés es importante, porque permite interactuar con diferentes comunidades a nivel mundial, para ello, es fundamental comprender el andamiaje lingüístico que es la plataforma central para el conocimiento de otras lenguas. Para efectos de esta investigación, se realizó una triangulación del enfoque socio-constructivista en la interacción personal entre el profesor y el alumno de diferentes autores, y se propuso un enfoque cualitativo, La población que participó en la recolección de datos estuvo conformada por seis estudiantes indígenas pertenecientes al segundo año de bachillerato especialidad Contabilidad y Electricidad del colegio Pujilí que provienen de comunidades pertenecientes al cantón Pujilí ubicado en la provincia de Cotopaxi, un voluntario norteamericano del Cuerpo de Paz y cuatro docentes, de los cuales uno es quichua hablante y tres son profesionales ingleses con experiencia en trabajo con comunidades indígenas. Los instrumentos aplicados fueron entrevistas semi estructuradas y una práctica de aula, cuyos resultados permitieron determinar la interferencia que presentan los sonidos vocálicos en el inglés de los quichua hablantes del colegio Pujilí.

Palabras clave: Multilingüismo; Lengua materna; Globalización; Enculturación.

Abstract

Nowadays, learning English is important, because it allows interacting with different communities worldwide, for this, it is essential to understand linguistic scaffolding, the central platform for acquiring other languages. For the purpose of this research, a triangulation of the socio-constructivist approach in the personal interaction between teacher and student from different authors was carried out, and a qualitative approach was proposed. The population that participated in the data collection consisted of six indigenous students belonging to the second year of high school and studying accounting and electricity specialties at Pujilí High School and that come from communities that belong to the canton of Pujilí located in the province of Cotopaxi, a North American Peace Corps volunteer, and four teachers, of which one is a Quichwa speaker and three are English professionals with experience working with indigenous communities. The instruments applied were semi-structured interviews and non-invasive speaking observations, the results of which allowed analysis of the interference presented by the vowel sounds of Quichwa on English in students of Pujilí High School.

Keywords: Multilingualism; Mother language; Globalization; Enculturation.

Resumo

Hoje em dia, aprender inglês é importante, porque permite interagir com diferentes comunidades a nível mundial, para ele, é fundamental compreender o andamiaje lingüístico, plataforma central para a aquisição de outros idiomas. Para efeitos desta investigação realizou-se uma triangulação da abordagem socioconstrutivista na interação pessoal entre docentes e ex-alunos de diferentes autores e plantou-se uma abordagem qualitativa. A população que participou da coleta de dados esteve conformada por seis estudantes indígenas pertencentes ao segundo ano de segundo ano das especialidades de contabilidade e eletricidade no Liceo Pujilí e que forneceu comunidades pertencentes ao cantão Pujilí ubicado na província de Cotopaxi, de forma voluntária do Corpo de Paz da América do Norte e quatro professores, de los cuales uno es quichwa-hablante e tres son profesionales de inglés com experiencia en el trabajo con comunidades indígenas. Os instrumentos aplicados fueron entrevistas semi-estruturadas e observações habladas não invasivas, cuyos resultados permiten analizar a interferência que apresentam os sons vocálicos da quichwa sobre o inglês em estudantes do Liceo Pujilí.

palavras-chave: Multilingüismo; Língua materna; Globalização; Enculturación.

Introduction

The term “third-language learning” normally signifies the acquisition of a language that is different from the first and second that are gained before it (Leonet & Cenoz, 2020). Teaching across languages presents a promising educational instrument of multilingual teaching (any way that languages engage with the educational experience) (Mellinger & Jiménez, 2019). Third-language acquisition frequently happens in school settings; in these settings, multilingual teaching tends to be important when two unknown dialects are taught (Ramadiro, 2022).

Gibson (2018) argues that English has turned into the unquestionable predominant language of the world. This reality has significant implications when one considers the developing world. Given the ubiquity of English, third-world legislatures ought to focus their endeavors on how to generate the circumstances for the teaching and learning of this language. To achieve these circumstances, it is necessary to consider the multilingual repertoire and the social context of the multilingual speaker, as well as the concept of cooperative learning. For the implementation of ideas related to the teaching of a third language, it is necessary to understand that they are not only fundamental

aspects of multilingual education, but that they constitute the overall narrative that guides pedagogical practices (Olaya, 2018).

School infrastructure, pedagogical factors, educational policies affecting teachers of English as a foreign language (EFL), and preparation, perceptions, and status of these teachers, are aspects that significantly influence the work of an EFL teacher. Furthermore, in the Ecuadorian context, students communicate in Spanish and, in some parts of the country, a specific number of students speak Quichwa as well. Therefore, English educators must be familiar with the various social environments, the conceivable effect on learning that a third language can have, and how Quichwa conditions the process of learning a third language (Izmailova & Sheinova, 2020).

Related to the aforementioned Ecuadorian context, the study presented here aims to determine the influence of Quichwa vowel sounds on the English pronunciation of students from Pujilí High School whose mother tongue is Quichwa, and who are learning English as a foreign language. In particular, the analysis of this study is based on teachers' perceptions of the interference of Quichwa vowel sounds on the English pronunciation of students whose mother tongue is Quichwa.

To clarify how Quichwa vowel sounds influence English pronunciation (González & Garita, 2019), this study starts with reviewing current pertinent ideas that are put forward by different authors. Specifically, this study considers the socio-cultural impacts of one language on another (Laboy & Maldonado, 2017), the impact of personal background on language teaching (Gibson & Bernal, 2020), and the impact of knowledge formed in one language upon the acquisition of another language (Flores, 2019). Following this literature review, the research questions are formulated immediately below.

What is the influence of Quichwa vowel sounds on the English pronunciation of students at Pujilí High School whose mother tongue is Quichwa and who are learning English as their third language?

What is the perception of teachers who work with students whose first language is Quichwa regarding the interference of Quichwa in the English-speaking learning process?

General objective

To examine the influence of Quichwa vowel sounds on the English pronunciation of students at Pujilí High School whose mother tongue is Quichwa and who are learning English as their third language.

Specific Objectives

- To analyze the perception of teachers who work with students whose first language is Quichwa regarding the interference of Quichwa on these students' English pronunciation.
- To identify the similarities and differences between vowels in Quichwa and vowels in English.

Among the research and theories on the acquisition of a third language relevant to this study, Lev Vygotsky's ideology on the scaffolding of learning a third language and cooperative learning stands out: "...Vygotsky states that language fulfills a central function for the development of the mind; it is also a tool with a cultural foundation, and it facilitates logical thinking and the acquisition of new behaviors..." (Veraksa, 2018, p. 152). Therefore, language scaffolding predicts that language has greater influence than the context of the acquired knowledge itself on language learners.

To gain a broader idea about the scaffolding of a third language, it is fundamental to understand the explicit definition of speech, which is described as follows: "Speech is an interactive process of language construction, involving producing, receiving and processing information" (Hamidi, 2018). The form and meaning of speech depend on the context and nature in which it is produced, including the participant's own and collective experiences, the physical environment, and the purposes of a conversation that occurs in a spontaneous, open, and evolving way. Speech is not always unpredictable, language functions (or patterns) tend to repeat themselves in certain discursive situations, which can be identified and traced, for example, when declining an invitation or requesting time off from work (Krasnoyarova, 2019). In addition, other examples can be cited; when a salesperson asks, "May I help you?", the expected discursive sequence includes a statement of need, a response to the need, an offer of thanks, an acknowledgment of thanks, and a parting exchange.

Speaking requires learners to understand when, why, and how to produce language (sociolinguistic competence) and how to produce specific language items such as grammar, vocabulary, and

pronunciation (linguistic competence). And, in particular, pronunciation is considered the production of vowel sounds. The most relevant problem that non-native speakers have when learning a foreign language is pronunciation. Ineffective communication can be the result of poor pronunciation (Peñuela, 2018). Relevant details about pronunciation in general speech, and its aspects, in particular, form central elements of linguistic scaffolding, a concept introduced earlier in this discussion and expanded upon in what follows.

Speaking is a productive skill and inseparable from listening; it produces meaningful content so that the listener can interpret the message. The process of speaking is essential, wherein the listener understands the physical form of the message, the intonations, pauses, speed, consonant and vowel sounds, that is to say, wherein the listener understands the pronunciation of the language and speaking becomes an orientation process. Speaking and pronouncing correctly is linked to the field of linguistic scaffolding so that a linguistic teacher can instruct a language student and understand its importance.

Regarding the above-mentioned process of speaking, Durán and Garcia (2021) describe that when a teacher teaches speaking, it is essential to apply three main stages:

- Introduction to the speech sounds of the new language;
- Guided practice of these sounds in the new language;
- Open communication with these sounds in the new language.

The evaluation of the speech process could be carried out on the basis of various parameters; Miranda (2019) reveals the importance of evaluating the bio-psychosocial, psychological, and sociological realities of language learners when learning a new language. That is, the biographical background of a language learner conditions her way of speaking a new language.

Finally, speech has its own skills, structures, and conventions that are different from written language. A good speaker synthesizes this set of skills and knowledge to succeed in every speech act. According to Miranda (2019), Vygotsky's principles influence learning in three ways: Training, which represents the structure for the learning of students in an interactive way, with the purpose of promoting the social development of a community or society; instruction, which consists of teachers adequately enabling students to perform tasks that without instruction they would be unable to complete on their own; and evaluation, which comprises the set of assessment methods that pay attention to the zone of proximal development (ZPD).

The concept of scaffolding is closely related to the idea of ZPD that was used by other theorists; Vygotsky links it to educational contexts (Kurt, 2020). Resuming the line of thought above, scaffolding is a process by which a teacher with more competence provides assistance to a learner in her ZPD as needed, and gradually reduces this assistance as it becomes unnecessary, much as scaffolding is removed from a building during construction: "...Scaffolding refers to the way in which the adult guides the child's learning through focused questions and positive interactions..." (Verenikina, 2018, p. 165).

However, to understand scaffolding concretely, it is necessary to describe some aspects that are directly involved with the present research topic, among which, include knowing more about the Quichwa language, its general characteristics, and its influence on learning English. According to Howard (2021), the Quichwa language, also called Quechua, has its origin in the Peruvian Andes, but it has managed to spread to several South American countries, and, at present, has between eight and ten million speakers throughout South America. Chasiquiza (2019) reports that the language family from which Quichwa derives originated in territory of the central and western regions of what is now known as Peru. Moreover, Chasiquiza (2019) explains that the Quichwa language possesses an agglutinative morphology, with a regular root and a wide repertoire of productive suffixes, which facilitates the formation of new words with a regular format. The phonology of Quichwa revolves about the composition of syllables with a nucleus of at least one vowel. As a general rule, only a single consonant attack and coda (beginning and ending of these syllables, respectively) should be accepted in any syllable, however, at present, it is acceptable for up to two consonants to occur in an attack, specifically two liquid consonants; intonation, and accentuation have minimum roles (Shimabuku & Chávez, 2018). Within the same context, Duchi (2022) argues that the vowel phonemes in the Quichwa language have three distinctions; an open vowel /a/, a closed rounded vowel /u/, and an unrounded vowel /i/. The Quichwa speakers of the central Ecuadorian region differentiate two vowel quantities, short and long, /a/, /i/, /u/ and /a:/, /i:/, /u:/ respectively, whose accurate pronunciation is variable according to the environment. It can be understood that vocalization and pronunciation depend on the tone and environment in which a conversation takes place. Some vowels and consonants have similarities in the pronunciation of Quichwa and Spanish. For example, the **w** and **u** have the same sound, likewise, the **SH** in Quichwa has the same sound in English words like show and sheriff (Romero & Estrada, 2017). However, several differences exist in the pronunciation of sounds in Spanish and in Quichwa; for instance,

the h in Quichua is not silent and is pronounced like the j in Spanish. This is the case of hamuy (to come), which is pronounced /jamuy/.

Once the vocalic phonemes of Quichwa are understood, it is also necessary to understand the context of the English language. Herrera (2017) explains that English is an insular Germanic language, originating in the Anglo-Saxon kingdom of England and spreading to the north, to the present-day southeast of Scotland. Zwisler (2018) states that the study of English is widespread as a second language, and at present, in most countries of the European Union and several world organizations, English is the official language. According to the contexts described above, it is understood that English is a predominant language in several countries of the world, and it is considered a universal language.

Despite having described in the previous paragraphs elements that contribute to the study in a significant way, it is also necessary to illustrate other aspects mentioned below, such as biography-based instruction (IBB). Murry, Kavimandan, Herrera, and Holmes (2021) consider the diversity of learners important by incorporating sociocultural, language, cognitive, and formative variables based on biographies to acquire new knowledge. IBB strategies assist teachers to impart English as a foreign language, and include such strategies as biography quilts, that is, the taking into account of pupils' backgrounds when providing classroom activities and establishing classroom work groups.

The consideration of the impact of biography on oral expression aids teachers to establish friendly work environments, wherein students can interact with the pronunciation of words, and English phrases and pose concrete definitions with their own ideas based on biography driven instruction (BDI), effective tools for the development of communicative skills (Murry, Kavimandan, Herrera, & Holmes, 2021). BDIs affect the pronunciation of vowel sounds in English as a foreign language when people have another primary language; Wang (2021) mentions the BDI method specifically integrates the four dimensions of a student (academic development, sociocultural development, intellectual development, and linguistic development); however, the pronunciation is most relevant to the sociocultural development because it influences the habitual way that the students communicate with their environment and acquire new knowledge.

Another important consideration when carrying out this research is multilingual identity. Rutgers (2021) mentions that identity encompasses crucial characteristics of an individual who studies new languages. Some identities are evident, such as gender, race, ethnicity, nationality, etc.; at present,

multicultural identities differ from others in that they are hybrid compendiums of identities; therefore, multilingualism becomes the undisputed protagonist of the evolution of multicultural identities. According to Bakic (2017), multilingualism entails the existence of several languages within the same social group or the same territory; for example, in the multicultural case of Ecuador, people speak Spanish, Quichua, and English, among other languages. In this environment, in particular, pronunciation is variable when mentioning the same word (i.e., the Spanish pronunciation of word A differs from the Quichwa pronunciation of said word A).

Villegas (2018) expresses that the paradigmatic case of linguistic identity is that in which a speaker positively appropriates a new language to his linguistic repertoire in order to assume membership in the group in which that language is spoken. Lingual identity occurs when an individual or social group uses a single language to differentiate itself, thus forming and delineating the ingroup from the outgroup. However, in order to link themselves to other societies with different languages, members of given linguistic groups must learn and adapt by acquiring knowledge of new languages, linguistic structures, and ways of expressing ideas and thoughts towards their environment.

When a discussion of a specific topic takes place between two or more people in the classroom, it implies various theoretical and empirical approaches to the study of multilingualism in school contexts (Gibson, 2018). A traditional approach is oriented to the study of a single language, while a holistic approach refers to all or most of the languages a learner may be taught (Gibson & Bernales, 2020). The holistic approach is most commonly used in the process of learning different languages and facilitating literacy practices and knowledge of new languages (Izmailova & Sheinova, 2020).

Support for the value of multilingualism, appreciation for the linguistic richness afforded to those who know multiple tongues, is provided by the fact that translators and interpreters who work for the European Union need possess a deep knowledge of more than two languages. That is, these translators and interpreters must develop interpretive skills not only in their B language, which may be, for conversation, French, but also in their C language, which may be German, and their mother tongue, which may be English. From this context, the need to analyze the interlinguistic interaction in multilingual performing translation tasks arises (Olaya, 2018). Studies related to cross-linguistic interaction, provide insights into the mechanisms governing multilingual lexical organization and the related processes of lexical selection and lexical control (Flores, 2019).

It is important to mention how cross-language influences bear on students; they are significant due to the fact that they determine the linking of information between different languages and condition communication (Freeman & Long, 2018). The vicissitudes in the use of a different language occur in participation with different language systems and take the form of transfer, interference, avoidance, borrowing, etc. This is evidenced in current studies about language production in third-language acquisition (TLA) (Znanstveni, 2021). The characteristics of a habitual or native language can sometimes influence the acquisition or learning of a second language (Romero & Manjarres, 2017). This assertion, in particular, is supported by documented cases of groups of bilingual speakers who have seen their lexical and reading skills in their mother tongue affected by their acquisition of a second language (Kaushanskaya et al, 2018).

Literature Review

The bibliographic review presents the conclusions reached by some research related to the present project, in order to define the support or controversy of the results obtained. Vygotsky emphasizes that the exact formation represents a significant value to establish a cultural model. It facilitates presenting in a systematic and orderly way the experiences of society and culture, which has proven to be an effective strategy to transmit diverse cultural experiences (De Rosa, 2018).

In the research on second language acquisition, it is concluded that the concept of interconnected systems has a centric meaning in all of Vygotsky's work. In studying the work of foreign languages, Vygotsky emphasized the importance of studying the interconnectedness of the processes of second language acquisition, taking as a basis the mother tongue and the procedures found in developing the unity between the mind and brain of a human being. Vygotsky's research illuminates the importance of context on the learning system of a new language and expresses that this learning system forms the essence of a learner, (Mahn & Fazalehaq, 2020).

In "Scaffolding and learning: Its role in the formation of new learners", it is concluded that the scaffolding metaphor, provides teachers with an appropriate way to understand the importance they have and the role they play in teaching a second language to their students, however, this terminology of scaffolding can be interpreted as any kind of help and even as any variety of the concrete training, (Verenikina, 2018).

In "Effectiveness of ACA strategies in biography-based science teaching", it is concluded that teachers who teach science-related subjects, by using various teaching strategies enable their students to acquire high levels of performance due to sufficient receptive development. It is contemplated with the integration of mixed ANOVA, involving students with BDP, complementary grades as a variable that keeps dependence, with certain teaching strategies or also without strategies in the teaching of content related to science and mathematics (Miller & Murry, 2018).

Izmailova and Sheinova's (2020) "Holistic approach to multilingual education" analyzes multilingualism, adopting a poststructuralist perspective. Its specific approach questions the celebration of multilingualism and highlights its complexity and highlights the need for more studies on the complex role of testing in multilingual contexts because research focused on multilingual analysis is scarce.

The research of Lallier (2019) "Interlinguistic interactions influence reading development in bilinguals: a comparison between French and Spanish-Basque early bilingual children", evaluates two groups of students who speak two languages in a balanced way, with a high level of reading, with transparent pronunciation. The results of this research reflect the interactions and relationships between the two languages spoken by the students, and the author concludes that the interactions had a significant impact on the processing of phonological and visual data, as well as on writing with transparent spelling.

Methodology

The approach of the present research was qualitative since qualitative research emphasizes a comprehensive understanding of the social environment in which research is conducted, e.g. what is happening in classrooms in terms of how educators and students move towards the application of various dialects during illustrations, and take into account the mindsets, skills, and encounters of students and teachers in these spaces (Lanka, 2021). To emphasize, this research was developed under a qualitative design as an ethnographic study of the students of Pujilí High School, who speak Quichua as their native language.

Instruments

It was taken into consideration that the research was qualitative. For the collection of inquiry data, semi-structured interviews and classroom practice were designed to obtain qualitative information. Semi-structured interviews were considered, because the interviewer posed significant questions in the same way each time, however, he was allowed to modify these questions at his disposal to test and obtain more data. In this way, the questioner could adjust the exploration instrument to the respondent's degree of understanding and articulation and could manage the mode of response to certain questions, which could be further asked (DeJonckheere, 2019). The interview focused on Vygotsky's sociocultural theories, the BBI Framework, and multilingualism. The questions allowed finding answers regarding how teachers perceived the influence of Quichwa as a first language on the teaching-learning process of English as a third language.

Classroom practice included aspects such as the development of the classes, the simultaneous inclusion of Quichwa in classes, teachers' techniques, and students' reactions and participation during classes (Haza & Veliz, 2020). Therefore, the practice allowed identifying the reality of the students, regarding the difficulty students from Pujilí High School present when pronouncing vowels and what sounds they emitted, due to the fact that their mother tongue was Quichwa.

Participants

The participants in this research were six indigenous students in their second year of high school - majoring in accounting and electricity at Pujilí High School who come from communities that belong to the canton of Pujilí, which is located in the province of Cotopaxi. Also, United States Peace Corps volunteers who work as English teachers at Pujilí High School and in Pujilí at large were included as participants. Additionally, four English Area teachers, one of whom is a Quichwa speaker, and the other three are English professionals with a high academic level and experience in working smoothly with people from indigenous communities, participated in this study.

Data collection

The data collection process was developed through interviews, which were carried out inside Pujilí High School, during a period of approximately one month, according to the time available to the participants. The interview was carried out in different parts of the school, some were interviewed in the library, others in the bar, and in classrooms, so that they could respond without interruptions

and in a concrete manner based on their knowledge and experience in teaching English to Quichwa-speaking students. In addition, the classroom practice was organized in an organized schedule taking into account the policies of Pujilí High School.

For the data analysis, we started from the method applied by Thom and Morris (1999) in which they defined a vital large-scale system based on examination is thus offered not as a creed for neglected recognition, but as a possibility of basic evaluation taking into account new and growing encounters, trial, error in L2 learning and education. In turn, it is anticipated, that the result of the research was divided into three domains like Culture Enhancement. According to Haza and Veliz (2020), this is because they emphasize the importance of the analysis by categories and according to the positive results.

Finally, it is expected to perform the analysis of informative training, due to the fact that Guillen (2020) exposes that term emphatically influences the expert advancement of instructors and the learning of students. Where such an instrument respects that significant position and obviously describes things to give the perfect sum and type of help for competent development to happen.

Results and discusión

Through the intervention of the interviews applied to the participants, it was possible to evidence the reality in which the Quichwa-speaking students find themselves, with respect to how the vowel sounds of their mother tongue interfere in their learning of English as a third language. In addition, it was possible to know the perception of the teachers in relation to the above-mentioned problem. The following are the results obtained from the interview with the teachers.

Interview with teachers

In the first question regarding the teachers' place of residence, they state that they do not live near the Educational Unit, for example, two of them take 45 minutes to get there, and another lives in Canton Saquisilí, so they have to travel every day, however, one teacher lives a few blocks from the institution. Regarding the behavior of the students at the time of learning English, all the teachers responded that their students have fun or show interest at the time of teaching, especially

younger students, because they use didactic materials and resources to make their class time interactive and to call their attention. In addition, they pointed out that many of their students are happy to learn English because they would like to travel to the United States, however, a small group of students does not show the same interest in learning English as a third language.

With respect to the language spoken by students and their origin, the participating teachers stated that, in the institution, a large percentage of their students come from indigenous communities, where their parents also spoke Quichwa, so this language is native and common among them. Therefore, most of them communicate through this language, although many of them do not like to speak Quichwa out of embarrassment and fear of being marginalized because there are also mestizo students who only speak Spanish or Castilian.

It was also found that most teachers do speak and teach English in a combined way, especially when they explain certain topics that in Spanish are difficult for students to understand; therefore, they use Quichwa as a methodological means of teaching, thus improving communication with their students, but there are also teachers who do not know how to do it due to their lack of knowledge, which represents a difficulty when teaching their English classes.

Concerning the difficulty that Quichwa represents as the native language of some students in their learning English as a third language, especially in pronunciation, several of the teachers responded that in an effective way, it does interfere because these students pronounce certain words in English as they would in Quichwa.

This creates confusion because Quichwa has three vowels (a, i, u) and English has twelve vowel sounds. The pronunciation of these students specifically confuse is that of the /e/ with the /i/, as in Spanish. For example, when pronouncing the word "Listen", these students say "Lesten" when pronouncing the word "table", /teibl/ they pronounce /tabli/, and when pronouncing the word "computer" they pronounce /compiuter/, that is, they are unable to pronounce /u/. These examples certify the mispronunciation of words and this directly limits the progressive learning process.

In regards to didactic and resources that the participating teachers use to improve the pronunciation of their students in English and to avoid the confusion of words, all teachers stated that they work in classes with graphics, videos, and songs specifically in English, so that their students become familiar with the sound of English; they also practice the vowel sounds suggested in the English modules provided by the Ecuadorian Ministry of Education using cards and different group activities, such as educational games.

In addition to mispronunciation, words confusions are also evident. For instance, the word "can" in Quichwa means "you" whereas, in English, this word is a modal verb that means "ability to do something". Another instance of word mismatch occurs with "hapi" in Quichwa, meaning "to take" and in English "happy" an adjective expressing joy. False cognates such as these create significant difficulties for Quichwa speakers when they attempt to learn English. In these cases, it is essential that the teacher knows and speaks Quichwa in order to facilitate the explanation of differences between words that have the same pronunciation, but different meanings and spelling.

In the last question, all teachers said that they create friendly working environments with their students, so that they have enough confidence to speak in English in class, either with their classmates or with the teacher, so that at the beginning of the class, they always use English phrases of greeting, such as "good morning" "How are you?" and respond with phrases such as "very well teacher. And you?".

Interview with Peace Corps Volunteer (Native English Speaker)

As with the interviews with the teachers, the first step was to find out where the Peace Corps volunteer lived, who stated that he lives half an hour away from the Educational Unit. Regarding the second question, that of knowing if students enjoy learning English, the Peace Corps volunteer indicated that on several occasions, he has seen that they get bored, however, he mentions that 15% of the students have shown interest in learning a new language and that, this value increases depending on the quality of the class that is taught and how it is done.

In reference to the language of the students, the Peace Corps volunteer indicated that, it is not very common to hear the students speak Quichwa even though they come from Quichwa-speaking families. With respect to the native language, which is Quichwa, the Peace Corps volunteer emphasized that the pronunciation is clearly affected by the fact that they are Quichwa speakers. In particular, he mentioned that it seems that some students are afraid to speak and this is associated with the fact that they come from a family that speaks perhaps only Quichwa in their homes, which produces less confidence in speaking Spanish and even less in English.

Responding to the question of if Quichwa as a native language interferes with pronunciation when learning English as a third language, the Peace Corps volunteer pointed out that many times the vowels in English, especially those that have to do with /e/ /i/ and /ai/ are different, this is because of the influence of Quichwa which has only three vowel sounds, and in English, there are twelve, but typically words as simple as /I am/ are often pronounced with a different tone of voice that gives to understand another sense of what it really means.

Similarly, to identify the difficulty of students pronouncing English words depending on the location of these words in a sentence, the Peace Corps volunteer responded that it is difficult to assess, because, among many students, there is too much shyness impeding their ability to make a complete sentence and observe how the pronunciation of a given the word in a sentence varies depending on its location. Personally, the volunteer hypothesizes that yes, and also expresses that he has noticed that students who do not know a certain word often only add an “tion” ending to it.

As with the teachers, the Peace Corps volunteer was asked what methodologies, techniques, or strategies were used for the students in order to help them improve their English pronunciation, and responded he used music specifically with English content, this strategy has helped his students partially to develop their hearing and vocal fluency, understanding the messages that the singers and speakers emit.

Finally, to identify if there was confidence between students and teachers when speaking English, from the perspective of the Peace Corps volunteer, it was stated that yes because they use simple words like "teacher", "May I...", greeting words like "Good morning" "Good night" they use these phrases between keys yes or as a type of colloquial slang, but in terms of having the confidence to say complex sentences, complete ideas.

Results of classroom practice

The class practice, also hereto references as the non-invasive speaking observation (NISE), was carried out with the purpose of knowing in a personal way, how the pronunciation of certain words varied between native Quichwa speakers and native English speakers. Refer to Appendix B for the complete NISE.

Table 1.

Words	Students' pronunciation who speak Quichwa
1. Aim	Aem
2. Apple	Apol – aple
3. Ant	Ant – an
4. Elephant	Elepan – Elan
5. Echo	Echo – eo – echo
6. Ecosystem	Ecoistim – Eostem - Escoitem
7. Island	Aislan
8. I	Ai
9. Igloo	Iglo – iglú
10. Onion	Onion – oneon
11. On	On
12. One	Uan – oan
13. Uniform	Oniform – Iunifom
14. Union	Onion – Oneon
15. Under	Onder - uder

Evaluated by: Segundo Rea

According to Table 1, the difference between the pronunciation of the participating students and the standard North American English pronunciation can be noted. This divergence supports the suspicion that speaking Quichwa as a native language interferes in the of learning English as a third language.

In the samples-sentences section of the NISE, a certain degree of difficulty in pronunciation appeared. Specifically, it proved difficult to decipher what participants said, because they distorted the speech sounds of words and failed to follow directions (e.g., in the presentation of their name and their places of residence, after being requested not to provide complete names nor exact locations, participants proceeded to reveal complete names and addresses).

Discussion

After having evaluating the results based on the interviews applied to the teachers and the Peace Corp volunteer, in addition to the execution of the NISE, it was possible to identify various factors that interfere with the learning of English as a third language in students who have Quichwa as their native language and to compare these results with those of other studies

As a point of departure, it was important to identify if students enjoy themselves when they learn English in their classes. According to the answers received from participating teachers, it seems that they do, thanks, in part, to the fact that said teachers use didactic methods and materials to call the attention and awaken the interest of their students. However, many of their students lack a certain interest in learning English. This reality coincides with a study conducted by Verenikina (2018), who highlights the importance of teachers knowing the language of the place where they work, the use of strategies to make teaching motivating and interactive, and the use of didactic materials to improve the development of certain skills, such as reading, writing and speaking in a language other than the native language of students.

With respect to the complexity that Quichwa as a native language poses in the pronunciation of certain words in English for students at Pujilí High School, it is evident from the interviews conducted with participating teachers that many students regularly mispronounce several vowel sounds in weekly English classes. In this context, the research by Miller and Murry (2018), which mentions that English is a language of worldwide use, comes into contact with the reality that, Quichwa speakers, at least some of those at Pujilí High School, struggle to produce the standard pronunciation of English vowels. This difficulty, in turn, sometimes translates, per interviewed teachers, into students being disturbed or frustrated for not knowing how to communicate with their peers in the new language. Nevertheless, per these same participant teachers, many students

desire to learn English for reasons of personal and professional improvement despite the interference of their mother tongue on their acquisition of a new language.

All the results described in the presentation stage and the discussion of the most relevant have demonstrated that there is an interference in the learning of English as a third language in Quichwa-speaking students at Pujilí High School, however, teachers and Peace Corps volunteer alike were able to show that, despite the difficulty in pronunciation, most students demonstrate rudimentary confidence in the use of English as a different language. That is they manage to pronounce words or short phrases that allow interactive communication between students. Among these main words are “good morning” and “how are you.” In this regard, this study corresponds well to that by Sheinova (2020), which highlights that there is an increasing need to learn English as a second language, and that speaking it with confidence and fluency can be more difficult than one might think.

Conclusion

After having carried out a qualitative approach and analyzing the data collected from teachers and students regarding the interference of Quichwa vowel sounds on the English pronunciation of native Quichua students at Pujilí High School who are learning English as their third language, it is concluded that a). in spite of having professionals specialized in teaching English, not all teachers have knowledge of Quichwa, making it difficult for them to teach and explain certain English terminology in Quichwa; b). according to the objectives of the project, the analysis of the perceptions of teachers who work with students whose first language is Quichwa about the interference of Quichwa vowel sounds on the pronunciation of English of said students was satisfactorily achieved through the application of interviews and of the NISE; c). likewise, the similarities and differences between the vowels in Quichwa and the vowels in English were identified (this was achieved according to the answers obtained from the interviews applied to the teachers and the volunteer of the Peace Corps and from the NISE carried out directly with students).

Recommendation

According to the conclusions drawn from the present research, the several recommendations are made. It is recommended that teachers periodically be trained on the knowledge of the native language of their students. As the students in question come from indigenous communities, in this case, teachers ought to deepen their knowledge of Quichwa, so that teaching methods, especially those related to subtle explanations of English grammar in the students' first language, may be more effective. It is advisable to take into account the criteria and perceptions of teachers about their students since they are directly responsible for their academic training. In the same way, in order to distinguish the similarities and differences between the vowels in Quichwa and the vowels in English, it is necessary to practice reading texts or simple sentences that involve vowel sounds.

References

1. Bakic, A. (2017). The Relationship between Bilingualism and Identity in Expressing Emotions and Thoughts. *Íkala, Revista de Lenguaje y Cultura*, 22(1), 142-164. Retrieved from <https://revistas.udea.edu.co/index.php/ikala/article/view/26189>
2. Chasiquiza, M. (2019). -El quichua y el proceso de estandarización de su escritura. *Consideraciones históricas, dialectológicas y sociolingüísticas*, 10(4), 339-383. Retrieved from <https://doi.org/10.7476/9789978104965.0008>
3. De Rosa, A. (2018). Psychoeducational Approach of Vygotsky and its relationship with the Symbolic Interactionism. *Propósitos y Representaciones*, 6(2), 631-669. Retrieved from http://www.scielo.org.pe/pdf/pyr/v6n2/en_a1758n2.pdf
4. DeJonckheere, M. (2019). Semi structured interviewing in primary care research: Teachers College Press, 65(14), 192-258. doi:doi: 10.1136/fmch-2018-057
5. Duchi, J. (2022). Innovación didáctica en la enseñanza, el aprendizaje de la lengua quichua desde el enfoque comunicativo. *Revista Chakiñán de Ciencias Sociales y Humanidades*, 42(17), 109-121. Retrieved from http://scielo.senescyt.gob.ec/scielo.php?pid=S2550-67222022000200109&script=sci_abstract&tlng=en
6. Durán, E., Garcia, K, (2021). Exploring EFL Teaching and Learning Processes in Two Undergraduate Mandatory Courses. *Profile Issues in Teachers` Professional Development*,

- 23(1), 25-87. Retrieved from http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S1657-07902021000100145
7. Flores, F. (2019). The Impact of Language Attrition on Language Teaching: The Dynamics of Linguistic. *SciELO: Ilha Desterro*, 72(3), 130-156. Retrieved from <https://www.scielo.br/j/ides/a/wJYq8LK5XGwLRYtn4nB88rP/>
 8. Freeman, D., & Long, M. (2018). An introduction to second language learning. *Revista de Educación*, 16(4), 85-92. Retrieved from <https://www.verywellmind.com/what-is-sociocultural-theory->
 9. Gibson, J. (2018). Affordance theory and multiple language learning and teaching. *International Journal of Multilingualism*, 15(2), 442-445. Retrieved from <https://doi.org/10.1080/14790718.2016.1223081>
 10. Gibson, T., & Bernales, C. (2020). The influence of language background and second language phonetics training on the perception of lexical stress in a second language. *Revista Signos. Estudios de lingüística*, 53(102), 80-103. Retrieved from <https://www.scielo.cl/pdf/signos/v53n102/0718-0934-signos-53-102-80.pdf>
 11. González, I., & Garita, R. (2019). English vowel sounds: Pronunciation issues and student and faculty perceptions. *Revista Actividades Investigativas de Educación*, 19(3), 33-67. doi:DOI: 10.15517/aie.v19i3.38629
 12. Guillen, J. (2020). Validation of an instrument on information skills. *Apertura (Guadalajara, Jal.)*, 12(1), 152-162. Retrieved from <https://doi.org/10.32870/ap.v12n1.1812>
 13. Hamidi, E. (2018). The logical problem of scaffolding in second language acquisition. *Journal of Second and Foreign Language Education*, 94(19), 78-95. Retrieved from <https://sfleducation.springeropen.com/articles/10.1186/s40862-018-0059-x>
 14. Haza, L., & Veliz, J. (2020). Research object and field of action: components of the scientific research design. *Journal Edumecentro*, 12(3), 241-260. Retrieved from http://scielo.sld.cu/scielo.php?script=sci_abstract&pid=S2077-28740241&lng=es&nrm=iso&tlng=en
 15. Herrera, S. (2022). *Biography-Driven Culturally Responsive Teaching: Honoring Race, Ethnicity*. España: Teacher Collage Press.

16. Herrera, S., Kavimanda, S., & Holmes, M. (2018). Crossing the Vocabulary Bridge. *Journal Science*, 450-580. Retrieved from <https://www.iosrjournals.org/iosr-jrme/papers/Vol-12%20Issue-1/Ser-5/E29.pdf>
17. Herrero, A. (2017). The phonetics and phonology of Eastern Andalusian Spanish: A review of literature from 1881 to 2016. *Íkala, Revista de Lenguaje y Cultura*, 22(2), 12-87. Retrieved from http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0123-34322017000200313
18. Howard, R. (2021). Quechua languages in three Andean-Amazonian countries: from census data to citizen action. *Revista Káñina*, 45(1), 15-74. Retrieved from https://www.scielo.sa.cr/scielo.php?script=sci_arttext&pid=S2215-26362021000100007
19. Izmailova, R., & Sheinova, T. (2020). Pedagogical conditions for the formation of senior preschool children's foreign language competence. *Ensaio: Avaliação e Políticas Públicas em Educação*, 20(107), 163-198. Retrieved from http://educa.fcc.org.br/scielo.php?script=sci_arttext&pid=S0104-40362020000200335
20. Jessner, U. (2019). The Nature of Cross-Linguistic Interaction in the Multilingual System. *Springer*, 41(3), 45-55. Retrieved from <https://www.ncbi.gov/pmc/articles/PMC6910737/>
21. Jiménez, G., & Garay, J. (2021). Social representations of English language learning: A systematic review. *Dilemas contemporáneos: educación, política y valores*, 8(4), 50-98. Retrieved from <https://doi.org/10.46377/dilemas.v8i.2757>
22. Kaushanskaya, M., & Viorica, M. (2019). The Effect of Second-Language Experience on Native-Language Processing. *Journal of Applied Linguistic*, 86(12), 54-77. Retrieved from <https://www.iosrjournals.org/iosr-jrme/papers/Vol-12%20Issue-1/Ser-5/E120pdf>
23. Krasnoyarova, A. (2019). Grammar Skills Development in Studying Foreign Language. Through the example of the Chinese non-copular predicative structures. *Revista Religación*, 16(4), 22-98. Retrieved from <https://www.redalyc.org/journal/6437/6421045/>
24. Kurt, S. (2020). Vygotsky's Zone of Proximal Development and Scaffolding. *Revista QMet*, 41(56), 12-97. Retrieved from <https://educationaltechnology.net/vygotskys-zone-of-proximal>
25. Laboy, J., & Maldonado, J. (2017). Study of the language from a sociocultural perspective. *Perspectiva sociocultural*, 24(43), 17-38. doi:<https://doi.org/10.30854/anf.v24.n43.2017.353>

26. Lallier, M (2019). Cross-linguistic interactions influence reading development in bilinguals: a comparison between early balanced French-Basque and Spanish-Basque bilingual children. *Developmental Science*, 45(15), 76-89. Retrieved from <https://www.tpress.com/biography-driven-culturally-responsive-teaching-976484>
27. Lanka, S. (2021). Why We Need Qualitative Research in Management Studies. *Revista de Administração Contemporânea*, 25(2), 25-60. Retrieved from <https://www.redalyc.org/journal/8406001/html/>
28. Leonet, O., & Cenoz, J. (2020). Desarrollar la conciencia morfológica en todos los idiomas: Pedagogías de translenguaje en la adquisición de un tercer idioma. *EBSCO Industries*, 29(1), 41-59. doi:<https://www.tandfonline.com/doi/epdf/10.1080/%EF%BB%BFhttps://doi.org/%EF%BB%BF10.1080/09658416.2019.1688338>
29. Mahn, H., & Fazalehaq, H. (2020). Vygotsky and Second Language Acquisition. *Wbeal1272*, 1.
30. Mashuri, S. (2020). An introduction to second language learning. *Journal of Research & Method in Education*, 12(1), 123-145. Retrieved from <https://www.iosrjournals.org/iosr-jrme/papers/Vol-12%20Issue-1/Se29.pdf>
31. Mayr, R., & Montanari, S. (2018). Cross-linguistic interaction in trilingual phonological development: the role of the input in the acquisition of the voicing contrast. *Cambridge University*, 36(24), 1-13. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMChk87937/>
32. Mellinger, C., & Jiménez, L. (2019). Challenges and opportunities for heritage language learners in interpreting courses in the U.S. context. *Revista signos*, 52(101), 78-93. Retrieved from <http://dx.doi.org/10.4067/S0718-09342019000300950>
33. Miller, S., & Murry, K. (2018). Efficacy of ACA strategies in biography-driven science teaching: An investigation. *Cultural Studies of Science Education*, 18(3), 12-30. Retrieved from <https://www.scielo.br/j/gp/a/Gfgthilkj8p6WGFjVvnPyw/>
34. Miranda, C. (2019). Chilean Graders' Behaviors and Perceptions of a Foreign Language Reschooling Program Towards Verbal Feedback on Pronunciation. *Revista Electrónica Educare*, 23(3), 41-6. Retrieved from https://www.scielo.sa.cr/scielo.php?script=sci_arttext&pid=S1409-425820089

35. Murry, K., Kavimandan, S., Herrera, S., & Holmes, M. (2021). Phenomenological Research on Biography-Driven Instruction Use in Highly Diverse Classrooms. *Teacher Education Quarterly*, 48(2), 7-23. Retrieved from <https://www.jstor.org/stable/27094727>
36. Olaya, L. (2018). Reflective Teaching: An Approach to Enrich the English Teaching Professional Practice. *Journal How*, 25(2), 250-280. Retrieved from <https://doi.org/10.19183/how.25.2.386>
37. Pamplona, J., & Cuesta, J. (2019). Teacher teaching strategies in basic areas: a look at school learning. *Revista Eleuthera*, 21, 13-33. doi:<https://doi.org/10.17151/eleu.2019.21.2>
38. Paronyan, H., & Cuenca, M. (2018). Educación intercultural bilingüe en Ecuador: retos principales para su perfeccionamiento y sostenibilidad. *Transformación*, 14(3), 123-452. Retrieved from http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2077-29552018000300310
39. Peñuela, D. (2018). Using Metacognitive Strategies to Raise Awareness of Stress and Intonation in EFL. *Colombian Applied Linguistics Journal*, 20(1), 120-251. Retrieved from http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0123-46412018000100091
40. Ramadiro, B. (2022). Implementing Multilingual Teacher Education: Reflections on the University of Fort Hare's Bi/Multilingual Bachelor of Education Degree Programme. *Education as Change*, 26(1), 20-74. Retrieved from http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S1947-94172022000100022
41. Romero, W., & Estrada, S. (2017). Syntax interference caused by Kichwa and Spanish when writing in English. *Revista Publicando*, 4(12), 284-296.
42. Romero, Y., & Manjarres, M. (2017). How Does the First Language Have an Influence on Language. *Canadian Center of Science and Education*, 123-145.
43. Rublik, N. (2017). Language acquisition and cultural mediation: Vygotskian theor. *Apiar*, 334-336.
44. Rutgers, D. (2021). Multilingualism and its role in identity construction: a study of English students' perceptions. *International Journal of Multilingualism*, 69(32), 354-425. Retrieved from <https://doi.org/10.1080/14790718.2021.2003369>
45. Shimabuku, R., & Chávez, M. (2018). Level of knowledge of indigenous language, quechua, in the students at the Faculty of Medicine of the National University of San

- Marcos. *Anales de la Facultad de Medicina*, 79(3), 72-96. Retrieved from http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1025-55832018000300013
46. Veraksa, N. (2018). Lev vygotsky's cultural-historical theory of development and the problem of mental tools. *Papeles del Psicólogo*, 39(2), 150-154. Retrieved from <https://www.redalyc.org/journal/778/77855949010/html/>
47. Verenikina, I. (2018). Scaffolding and learning: its role in nurturing new learners. *University of Wollongong*, 45(16), 161-170. Retrieved from <https://www.semanticscholar.org/paper/Scaffolding-and-learning%3A-its-role-in-nurturing-new-Verenikina/52a044bf>
48. Villegas, P. (2018). The Role of Language in the Identity Formation of Transnational EFL Teachers. *REvista Liguistic*, 25(18), 321-398. Retrieved from http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0120-592011
49. Vygotsky. (1934). *Vygotskian principles on the ZPD and scaffolding*. Madrid: OPEN.
50. Wang, J. (2021). Biography driven instruction for English language learners from China. *College of Education*, 36(4), 120-260. Retrieved from https://www.scielo.sa.cr/scielo.php?script=sci_arttext&pid=S1409-470300033
51. Znanstveni, I. (2021). The role of typology and formal similarity in third language acquisition (german and spanish). *Sociolinguistics*, 50(1), 259-283. Retrieved from <https://doi.org/10.22210/strjez/50-1/1>
52. Zwisler, J. (2018). The Effects of English as a Foreign Language Learning on the Perception and Value of Regional and National Identity in Colombia: A Cross-Sectional Study. *Íkala, Revista de Lenguaje y Cultura*, 23(2), 256-287. Retrieved from http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0123-34322015

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