Acoustic Description of Colombian English Production in ELF upon the light of Explicit Phonetic Instruction Influence on Language Anxiety

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Dedication

It is with profound gratitude that I dedicate this work to my esteemed parents Esperanza and Carlos, and beloved grandmother, Nohelia. Your unwavering sacrifice and boundless love have sculpted the very essence of who I am today. Words falter in their attempt to quantify the depth of my affection towards you. Indeed, it is a language beyond measure, spoken in the silent echoes of every beat of my heart.

Acknowledgements

I'd like to extend my heartfelt thanks to my research director, Kelly. Who has been there for me every step of the way, encouraging me to delve into the world of acoustics.

And a special recognition to Diego, who has been my right-hand man, my confidant, offering ever present support and affection throughout this journey. To my friends and family.

Thank you.

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Abstract

Title: Acoustic Description of Colombian English Production in ELF upon the light of Explicit Phonetic Instruction Influence on Language Anxiety[1]

Author: Julián Andrés Diettes León[2]

Key Words: Explicit phonetic instruction, Language anxiety, English as an international language, Acoustic phonetics.

Description:

This project undertook a detailed investigation into the variability of English pronunciation among Colombian speakers through an acoustic analysis of their vowel and consonant production. The study specifically identified two significant phonetic phenomena within the participants' speech patterns: the occurrence of devoicing and the tendency towards excessive aspiration. In addition to these observations, the research explored the effects of explicit phonetic instruction on the speakers, with a particular focus on whether such targeted instruction could reduce language anxiety and enhance their overall language production capabilities.

The research aimed to understand how explicit phonetic instruction might influence Colombian learners' ability to achieve more accurate English pronunciation. By examining the interplay between attitudes towards phonetic instruction and speech output, the study determined that explicit phonetic instruction could effectively lead to intelligibility when the instruction is not imposed towards native-speakerism. The findings from this study provide significant insights into how explicit phonetic instruction can play a crucial role in improving language proficiency, particularly by drawing attention to language identity within communication in English as a second language.

This comprehensive analysis contributes to a more profound understanding of the specific challenges faced by Colombian English learners. It also highlights the potential benefits of integrating explicit phonetic instruction into language learning curricula. By addressing both cognitive and affective factors in second language acquisition, the research underscores the importance of such instructional methods in improving pronunciation accuracy and enhancing overall communicative competence.

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[1] Bachelor Thesis

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Resumen

Título: Descripción Acústica de la Producción del Inglés Colombiano en ELF a la Luz de la Influencia de la Instrucción Fonética Explícita en la Ansiedad Lingüística[3]

Autor: Julián Andrés Diettes León[4]

Palabras Clave: Instrucción fonética explícita, Ansiedad lingüística, Inglés como una lengua internacional, Fonética acústica.

Descripción:

Este proyecto llevó a cabo una investigación detallada sobre la variabilidad en la pronunciación del inglés entre hablantes colombianos mediante un análisis acústico de su producción de vocales y consonantes. El estudio identificó específicamente dos fenómenos fonéticos significativos en los patrones de habla de los participantes: la ocurrencia de la sonorización y la tendencia hacia una aspiración excesiva. Además de estas observaciones, la investigación exploró los efectos de la instrucción fonética explícita en los hablantes, con un enfoque particular en si este tipo de instrucción dirigida podría reducir la ansiedad lingüística y mejorar sus capacidades generales de producción del idioma.

La investigación buscó entender cómo la instrucción fonética explícita podría influir en la capacidad de los aprendices colombianos para lograr una pronunciación del inglés más precisa. Al examinar la interacción entre las actitudes hacia la instrucción fonética y la producción del habla, el estudio determinó que la instrucción fonética explícita podría conducir de manera efectiva a la inteligibilidad cuando la instrucción no se impone hacia un ideal de hablante nativo. Los hallazgos de este estudio proporcionan conocimientos significativos sobre cómo la instrucción fonética explícita puede desempeñar un papel crucial en la mejora de la competencia lingüística, especialmente al resaltar la identidad lingüística dentro de la comunicación en inglés como segundo idioma.

Este análisis exhaustivo contribuye a una comprensión más profunda de los desafíos específicos que enfrentan los aprendices de inglés colombianos. También destaca los beneficios potenciales de integrar la instrucción fonética explícita en los currículos de aprendizaje de idiomas. Al abordar tanto los factores cognitivos como afectivos en la adquisición de un segundo idioma, la investigación subraya la importancia de estos métodos de instrucción para mejorar la precisión de la pronunciación y potenciar la competencia comunicativa general.

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[3] Trabajo de Grado

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Introduction

The concept of English as an International Language (EIL) has been extensively addressed regarding the ongoing sociolinguistic standing point of English around the world. Thus, English is considered as a means of communication not only between native speakers (NS) and nonnative speakers (NNS), but also among NNS who have dissimilar native tongues and cultural backgrounds (Coskun, 2011). Consequently, the spread of English internationally leads to discussion about its linguistic sociopolitical implications in human relationships. Sharifian (2009) describes EIL as "a paradigm for thinking, research and practice" (p. 2), that reinforces the critical analysis of English and its nuances across Kachru's circles (1986). Conversely, Pennycook (2007) highlights that the mere concept of EIL has its foundations within a neoliberal ideology that contributes to maintaining Western interests. However, Pennycook also asserts beyond the interests of EIL to its ontological connotation in which the adaptation and reproduction of English resulted in "a plurality of languages" (p. 90) that derive from variation.

In other words, EIL recognizes language variation as a consequence of the important increase in the spread of English usage worldwide. Particularly, Crystal (2003) determined that the population of English NNS around the world is significantly larger than NS to a ratio of 1:3. This statistic implies that, since English experiences changes and adaptations from its users due to what Widdowson (1994) calls "the essential dynamism of the language" (p. 382), NNS are also shaping the evolution of English use and reproduction. Accordingly, the notion of English as a Lingua Franca (ELF) emerges from EIL and is acknowledged more specifically to the use of English for communication by speakers whose L1 is not the same (Seidlhofer, 2005). As a result, the use of ELF in regards to proficiency does not take on board the standardized norms of native-speakerism that are considered prescriptive (Hynninen, 2016) and associated to attitudes

towards language prestige that imply NS as superior (McKenzie, 2013) in language performance. In contrast, the goal of ELF highlights the value of linguistic identities of English users, as well as their ownership of the language rather than maintaining and reproducing native-speakerism (García, 2013; Hynninen, 2016; Jenkins, 2002).

Essentially, English users from different countries and communities represent their own language variation among World Englishes (WE), which is a concept that encircles the different variations of English around the world (Bolton, 2004, found in Jenkins, 2006). For instance: Colombian English variation in this paper would define the set of distinctive pronunciation and grammatical qualities of language usage that occur in communication by Colombian users of English. On the ground of pronunciation, acoustic studies have been widely applied for the sake of identifying language users' production properties through the analysis of waveforms obtained by measuring vocal folds' vibration patterns (Ashby & Maidment, 2005). Regarding Colombian Spanish communication, Gómez, Tennant and Rafat (2020) elaborated an acoustic distinction between Andean and Coastal production features of Colombian Spanish variations, which furthers the recognition of speaking patterns within the linguistic community. In accordance, the present study aims to carry out an acoustic identification of Colombian English pronunciation characteristics within a set of segments, in order to shed light on the Colombian English variation acknowledgment for ELF.

For that purpose, it is meaningful to illustrate how to conceive English variation as a concept. On that account, Widdowson (2015) indicates that English variations are understood as "separate systems with their own persistent and systematic differences" (p. 362). These differences are derived by common characteristics that are endemic from the language community and its individuals. In this regard, social factors such as age, ethnicity, sex and social

class are pivotal aspects that interfere in language variation and provide a wider scope of analysis concerning linguistic communities' internal communication (Labov, 2001). Moreover, language variation encounters geographic space as a significant influence in social contact that directly sets language differentiation among communities (Nerbonne 2014).

Nevertheless, due to the major contribution of learning differences to language performance, this paper will focus on affective factors as key aspects of SLA that have an effect on language production. Correspondingly, Stephen Krashen is a key author that displayed affective factors as crucial elements embedded in learning that either increase or decrease affective filter (1982). In consequence, differences in learning environment due to affective filter result in differences in language production. Regarding pronunciation, language anxiety is an affective factor that plays a significant role in language performance (Brown, 1994; Baran-Łucarz, 2011). Likewise, Derwing & Rossiter (2002) noticed that language learners recognize changes in pronunciation that derive from anxiety. Therefore, it becomes necessary to consider language anxiety as a prominent influence in language variation for an acoustic study on EFL. Thus, not only this investigation aims to study the acoustic features of Colombian language variation, but also it undertakes a qualitative analysis of anxiety apropos that variation.

To fulfill that purpose, it is highly relevant to adopt an approach that provides emphasis to pronunciation in relation to language anxiety. For that reason, explicit phonetic instruction is highlighted as an appropriate strategy that can be assessed in order to determine its influence upon language anxiety, as well as its effect on acoustic production patterns (Gordon, 2013; Jenkins, 2000; Kissling, 2012; Saito, 2011; Strum, 2018; Venkatagiri & Levis, 2007). In accordance, it represents a focus to identify language variation under an acoustic description that also considers language anxiety as an affective factor.

Research question

1. How do ELF Colombian users of English produce the segments /t/, /d/, /k/, /ɡ/, /θ/, /ð/, /u:/, /ʊ/, /ɜ:/ in the light of explicit phonetic instruction?

2. To what extent does explicit phonetic instruction influence language anxiety in EFL users from a Colombian linguistic community?

3. What are the attitudes of Colombian EFL speakers towards explicit phonetic instruction within their Colombian linguistic community?

Justification

Although there is substantial documentation in Colombian literature regarding acoustic phonetics of Spanish production, the use of English by Colombian speakers has not been widely considered from an EIL perspective (García, 2013). Therefore, providing an acoustic description of the production of this linguistic community enlightens Colombian English variation understanding among ELF. However, language production is a complex exercise that involves a series of influencing factors that might affect its result. Therefore, this study undertakes language anxiety as one of the prominent affective factors that has an effect on language performance (Brown, 1994; Baran-Łucarz, 2011). Thus, it will also contribute to the analysis of affective factors that have hitherto been explored through the Affective Filter hypothesis originally proposed by Dulay and Burt (1977) and later incorporated into Krashen's (1982) five hypothesis of SLA theory.

Nevertheless, even though numerous studies expose the relation between language anxiety and oral performance, the relation between language anxiety and aspects influencing pronunciation has not been thoroughly explored (Szyszka, 2017). Correspondingly, explicit

phonetics instruction is a language teaching strategy that has resulted in the improvement of language skills and articulatory recognition (Jenkins, 2000; Kissling, 2012; Saito, 2011; Strum, 2018). Moreover, its approach during implementation might create differences in language anxiety because focusing on achieving native-like pronunciation triggers anxiety results (Baran-Łucarz, 2013). While, ELF application focused on intelligibility might accomplish the understanding of language patterns generating effective communication (Derwing & Munro, 1995).

Report organization

This paper consists of four chapters organized as follows. The first chapter comprises the theoretical framework of the study, which provides a review of the existing literature regarding the acoustic variation of language in Colombian speakers, and highlights the need to determine the role of Colombian English within the WE scope. To this end, it presents research studies that frame specific acoustic features of standard Received Pronunciation English for later comparison with the results of this paper. Additionally, it explores documentation focused on the English pronunciation acquisition process and the aspects that influence its production, being language anxiety a determinant factor. Therefore, it describes a set of research papers that propose explicit phonetic instruction as a strategy that reduces this anxiety.

The second chapter covers the methodological design of the study. It specifies the type of research selected in order to comply with the aforementioned objectives that require the analysis of quantitative and qualitative data. Regarding the participants, it describes the sample chosen with their demographic characteristics and the sampling method applied. For the acoustic data, this chapter points out the phonetic segments selected and the acoustic values to be compared with. Also, it will explain the details of the map task applied for semi-spontaneous elicitation and

the PRAAT software as the acoustic data instruments. For the identification of the influence of explicit phonetic instruction upon language anxiety, a Likert questionnaire with measurable values for language anxiety and a structured interview for abstract concepts within language acquisition will be conducted and triangulated. Then, it will illustrate the process of each stage of the study: piloting, data collection, data analysis and results interpretation.

Subsequently, the third chapter portrays the results obtained from the data collection instruments according to the general and the specific objectives. For the general objective, all the information gathered from the map taks elicitation, along with its transcription and analysis of waveforms and spectrograms through PRAAT will be used to identify the acoustic variation in pronunciation of the participants. Then, for the specific objectives, PRAAT data triangulated with the interview data will provide an insight on the effect that explicit phonetic instruction may have on language variation. Also, the interview in relation to the questionnaire will be able to provide qualitative and quantitative information on the influence of explicit phonetic instruction upon language anxiety, and the interview itself will represent the attitudes of participants towards explicit phonetic instruction.

The fourth and final chapter involves the conclusions of the study presented through the interpretation of a detailed data analysis of the results. After that, it will correlate the findings obtained with data from previous investigations in order to adjoin the discussion on ELF with acoustic measurements for Colombian speakers' production on the specific tokens selected. Additionally, it undertakes the role of language anxiety as an affective factor that has an effect on language acquisition, and suggests explicit phonetic instruction in consideration to the acoustic performance of participants as a strategy to deal with this type of anxiety. Also, it will draw

attention to the limit of participants as well as the phonetic segments and sound positions that were not analyzed for further research.

1. Objectives

1.1 General Objective

To identify the acoustic variation in pronunciation of English by ELF Colombian users in the light of explicit phonetic instruction.

1.2 Specific Objectives

1. To explore whether explicit phonetic instruction has an effect on language variation upon Colombian ELF users.
2. To determine the extent to what explicit phonetics instruction influences anxiety for Colombian ELF users.
3. To recognize the attitudes of Colombian English speakers towards their learning process regarding Explicit phonetic instruction.

2. Body of the paper

2.1 Previous literature

Across linguistics literature, acoustic studies have played an essential role not only regarding language variation, but also in the social aspects of linguistics (Preston and Niedzielski, 2010). One major example settled in the Colombian context is the Atlas Lingüístico-Etnográfico de Colombia (*Colombian Linguistic-Ethnographic Atlas,* ALEC) presented by Instituto Caro y Cuervo (1982) which provided a geographical register of Spanish language usage within the different regions of Colombia. Besides, on its sixth volume it displays an identification of the phonetic Colombian native Spanish speakers' sounds production, along with its variances distributed geographically. This identification comprises examples of stressed and unstressed vowels, diphthongs, consonants, clusters, clicks and onomatopoeias.

Additionally, by exploring the characteristics of speakers' language production, it is important to draw attention that Colombian phonetic literature has delivered particular interest to the phoneme /s/. For instance, File-Muriel (2007) delivered an acoustic study that analyzed the production of /s/ in 33 Spanish speakers from Barranquilla, in order to recognize s-lenition as the main cause which resulted in lexical frequency. Another example is the acoustic study carried out by Gómez, Tennant and Rafat (2020) which examined the dialectical production of /s/ in 50 second dialect Spanish speakers in a community located in Bogotá. In this study /s/ production was identified, described and categorized into Coastal and Andean as regional varieties that were also divided into Pacific and Atlantic sub-varieties for Coastal, and Eastern and Western sub-varieties for Andean. From this, it is significant to highlight the quote to Lipski (1984) that addressed certain Andean aspirations and elisions in onset positions for /s/ as exclusive among world Spanish speakers. On this subject, Rincón (2018) exposed an acoustic study on vowels that

compared final /-s/ elision from Granada, Spain-Spanish speakers to Cartagena, Colombia-Spanish speakers due to both dialects acknowledgement of /-s/ elision distinctive features.

However, Colombian acoustic knowledge is not only limited to the phoneme /s/. As noticed previously, acoustic studies are commonly applied to determine and describe characteristics of speakers' production. That is the case of Díaz (2018), who applied an acoustic exploratory study in order to depict the phonetic and phonological features of nasalized vowels in Spanish speakers from Boyacá, Colombia. Likewise, acoustic studies also enable the identification of language variations that occur in established linguistic settings. For instance, Orduz (2013) carried out a dialectical acoustic study which recognized the change within the distinction of the phonemes /ʝ/ - /ʎ/ in the speech of Bogotá, that demonstrated the loss of the differentiation between both phonemes to an extent that goes back 60 years. Besides, for a wider perspective of the Colombian linguistic situation, Bernal and Díaz (2016) portrayed a detailed description of Colombian Spanish focused on phonology and grammar. That work used the taxonomy proposed by Mora et al (2004) to categorize Colombian dialects, with the purpose of providing better representation of Colombian language production within its phonological properties and grammatical traits.

Nevertheless, there is a lack of documentation regarding the identification of language production features in English by Colombian speakers. On that account, García (2013) draws attention towards the need of determining the role of Colombian English among WE within the EFL panorama. For that reason, it is natural to focus first on language learning, which might provide an insight on the variation in production of Colombian English. Concerning pronunciation, explicit phonetic instruction has been widely associated with a standardized

reproduction of native-like patterns due to its common display of prescriptive rules. Therefore, a shift in pronunciation instruction arises when adopting EIL as well as ELF as an epistemological approach to language interaction. Thus, explicit pronunciation instruction becomes a strategy to achieve intelligible and effective communication, although it still needs to consider learning differences that derive in language variation.

A case in point is Haslam and Zetterholm (2019), which implemented an acoustic study that examined how consonant clusters variation affect intelligibility from an ELF perspective based on Lingua Franca Core. Which is an explicit phonetic instruction model developed by Jenkins (2000) that provides an ELF corpus with phonetic and phonological items that are necessary for communication, and excludes the elements that are native-like remarks unimportant to intelligibility. The study showed partial correspondence to Jenkins (2000) model regarding intelligibility as a product of consonants deletion from clusters. In accordance, Jin and Liu (2014) delivered an acoustic account on the intelligibility of consonants and vowels in a group of 64 NNS of English college students living in the US which suggested three major factors influencing intelligibility: L1 background, L2 exposure and age of acquisition.

Moreover, Basurto and Tlazalo (2014) presented a qualitative case study that observed and assessed the production of 29 ELF learners, focusing on the influence of pronunciation instruction on confidence as an affective factor. Results reinforce participants' positive attitude to pronunciation instruction in language performance; however, the final production task did not align with proper pronunciation patterns, which also show lack of practice as an obstacle for effective communication. On the ground of language anxiety, Szyszka (2017) provides an analysis of 94 Polish trainee teachers of English instructed in explicit phonetics that determined the influence of pronunciation learning strategies upon language anxiety levels. And, although

there was no significant correlation between both variables, results indicated that language anxiety is related to affective constituents that might derive from the individual's environment and self-perception. Similarly, Baran-Łucarz (2013) conducted an empirical study on 32 university students of English, which identified that self-image and fear of negative evaluation are a trigger for high language anxiety in ELF learners due to their goal to achieve native-like pronunciation.

2.2 Theoretical foundations

According to Ashby (2008), speech is the result of the organization of vowels and consonant sounds, also known as segments, which can be described through acoustic phonetics by measuring the waveforms created by air disturbances when producing speech sounds. Vowels can be described upon the analysis of the frequency in the first formant (F1), which represents the extent of openness, and the second formant (F2) that indicates tongue position (RAE & ASALE, 2011). And by the correlation of both formants, it is possible to determine vowel quality. However, measuring vowel quality is conditioned to a series of physiological factors that are inherent to each speaker's vocal tract that influence the acoustic and articulatory production (Harrington, Palethorpe and Watson, 2000). In addition, the analysis of vowel quality requires the delimitation of a specific speech nature due to the variation of vowel quality subject to "prosodic structure, speaking style and tempo" (Harrington, Palethorpe and Watson, 2000. p.63). Therefore, this study aims to elicit specific vowel items in controlled and semi-spontaneous communication using English among Colombian NNS.

Concerning the measurement of consonant sounds, RAE & ASALE (2011) distinguished three describing aspects of articulatory phonetics for acoustic differentiation: manner of articulation, place of articulation and voicing. On a brief illustration, manner indicates whether

the consonant is obstruent or sonorant. Thus, RAE & ASALE (2011) portrays that on the one hand, obstruent sounds are plosives, fricatives and affricates, these find a block when the air flow escapes the vocal tract, so it produces either a friction or a stop. On the other hand, sonorant consonants allow the air flow to escape the vocal tract without any restriction, they are divided into nasals and approximants. Place of articulation refers to the location of the vocal tract where the sound is produced. Subsequently, voicing means vibration of vocal fold, so consonants are divided into voiced and voiceless sounds, in which voiced display complex and periodic waveforms while voiceless creates aperiodic waveforms (RAE & ASALE, 2011).

All the above described are features of English articulatory phonetics included in explicit phonetic instruction, which refers to "explicitly teaching segmental and suprasegmental elements of the target language" (Saito, 2011, p. 46). Consequently, explicit phonetic instruction enhances L2 learners to recognize and compare their own language performance with other speakers from the same target language (Derwing and Munro, 2005). However, that comparison leads to language anxiety when the purpose is to achieve native-like pronunciation (Baran-Łucarz, 2013). Language anxiety is a specific type of anxiety experienced by L2 speakers that is related to behaviors and feelings involved within L2 learning and practice (Horwitz et al, 1986). On that account, this type of anxiety hinders language learning and production (Al-Khasawneh, 2016; Krashen, 1985).

Therefore, the aim of explicit phonetic instruction should not be resembling native-like production, but achieving intelligibility, that means reasonable understanding of language among interlocutors by generating effective communication (Camus, 2016; Derwing & Munro, 1995). In this regard, Jenkins (2002) proposed a model that takes NNS pronunciation on board instead of NS only. This model is the Lingua Franca Core (LFC), and it presents explicit phonetic and

phonological items for EIL instruction. Indeed, LFC aims to make emphasis on EIL for intelligible communication among English speakers, rather than adopting linguistic features in order to resemble NS production. Therefore, LFC provides a beneficial model for explicit phonetic instruction that undertakes EIL attention towards NNS communication.

2.3 Methodological design

2.3.1 Type of research

The present research study has two prominent foundations. The first is centered on the exploration of Colombian acoustic features of English production from an ELF perspective, which results will provide a quantitative description on the measurement of speech sounds produced by Colombian speakers of English. The second aims to qualitatively determine the influence of explicit phonetic instruction upon the production of Colombian English ELF variation, considering language anxiety as a key affective factor that has an effect in language production. Therefore, this investigation adopts a mixed method research design that, according to Dörnyei (2007), enables the understanding of a broader and complementary approach towards the research problem. Certainly, an analysis of quantitative and qualitative data would provide a more precise characterization of English production by Colombian speakers within ELF.

The quantitative part of this research comprises an explorative study that seeks to identify the acoustic characteristics of Colombian English language variation. On that account, nine (9) phonetic segments were chosen according to their acoustic properties, including plosive, fricative and vowel sounds, following Johnson acoustic formants (2012) description of each speech sound. These are: /t/, /d/, /k/, /ɡ/, /θ/, /ð/, /uː/, /ʊ/ and /ɜː/. Selected segments will be elicited under a semi-spontaneous speech style, in order to provide a profound analysis of language

production. Concerning the qualitative section, this study undertakes explicit phonetic instruction as an influencing factor for language anxiety, which has a direct effect on language production. Therefore, a series of questions addressing experiences, behaviors and feelings in ELF language learning and performance were designed under explicit phonetic instruction in relation to language anxiety. Questions will be presented in both a questionnaire and an interview, with the purpose of determining the effect of explicit phonetic instruction over language anxiety and production.

Consequently, a correlation between both qualitative and quantitative results aims to provide a detailed description of Colombian English variation in the light of explicit phonetic instruction. Thus, the sequence and dominance that this investigation will implement is concurrent QUAN + qual (Dörnyei, 2007), whereas the acoustic exploration will be further described through the analysis of explicit pronunciation instruction data in relation to language anxiety for production.

2.3.2 Hypothesis, variables and indicators

Since this study is grounded under a mixed method in which qualitative and quantitative data converge, the main hypothesis is based upon the cross differentiation of sub-hypothesis derived from each type of data collected. Thus, the main hypothesis is: Colombian English teachers have positive or negative attitudes towards explicit phonetic instruction based on their experience with language anxiety while learning phonetics, which influenced their speech production. In order to break it down, the quantitative data will measure speech production with two sub-hypothesis. The first is: The production of English sounds by Colombian speakers have distinctive characteristics within WE. And the second is: Some L1 speech characteristics are reflected in L2 production by Colombian NNS.

Furthermore, the qualitative data will cover the experiences with language anxiety during learning, and the attitudes towards explicit phonetic instruction of Colombian English teachers with a set of five sub-hypothesis. The first is: Colombian English teachers experienced language anxiety learning explicit phonetics. The second is: Language anxiety in explicit phonetics was caused by the subject or by other factors related to it. The third is: Colombian English teachers consider explicit phonetic instruction as either important or irrelevant in language teaching. The fourth is: Colombian English teachers follow a native-like standard influence for pronunciation teaching. And, the final sub-hypothesis is: Colombian English teachers promote intelligibility rather than native-speakerism for speech production.

To successfully test each hypothesis, qualitative and quantitative data involve different variables. Concerning the qualitative analysis in this investigation, two variables will be observed. Primarily, explicit phonetic instruction corresponds to the independent variable due to its significant impact on language performance, that also reflects influential differences that rely on its approach towards either intelligibility or native-speakerism. Secondly, the dependent variable consists of language anxiety indicators triggered by language learning and performance experiences that have an effect on production. In accordance with quantitative data, speech production corresponds to a second dependent variable conditioned by the speaker's interest to produce the sound according to their personal approach to language. On that account, the relation between explicit phonetic instruction and language anxiety will provide an insight that enables the recognition of differences reflected on language variation for Colombian English teachers' speech production characteristics.

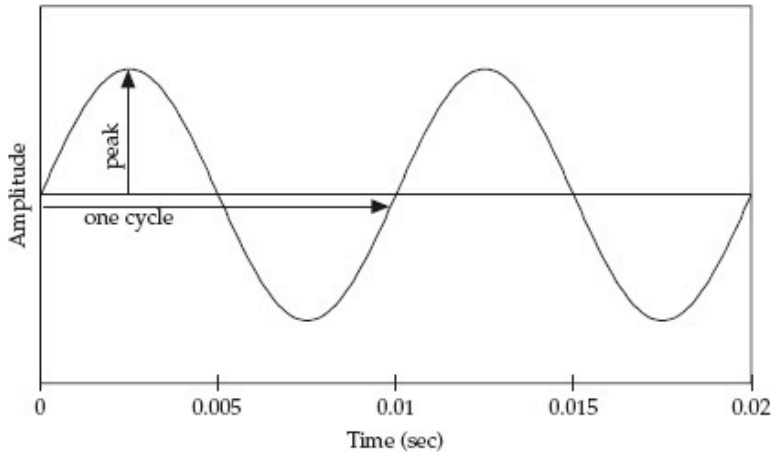
Indicators are also determined by the type of data. For qualitative data, information on explicit phonetic instruction will be reviewed considering two academic time periods for each

Colombian English teacher. First, their experience learning explicit phonetics will identify the presence or absence of language anxiety by the description of their feelings in the interview and their results in the questionnaire. On the one hand, words such as: fear, pressure, stress will be categorized with language anxiety. And, on the other hand, words such as: confidence, freedom, motivation will indicate absence of it. Then, their attitudes towards explicit phonetic instruction will arise from their descriptions of teaching strategies, approaches and standing points during the interview. Agreement either with intelligibility, or in contrast, with native-speakerism will categorize each participant standing point. Afterwards, a triangulation between their learning experience and their attitudes towards explicit phonetic instruction in teaching will illustrate how explicit phonetic instruction influenced their language teaching.

For quantitative data, indicators are specific depending on the type of sound. Regarding vowels, acoustic analysis determines two constituents in speech sounds production: periodic time (*T*) and frequency (F). One period represents the time that a cycle takes to be completed, thus it "contains one upwards-and-over excursion, and one downwards-and-up-again excursion, returning to the zero line" (Ashby & Maidment, 2005, p. 28).

Figure 1

A 100 Hz sine wave with the duration of one cycle (the period) and the peak amplitude labeled.



Note. The representation of a periodic waveform indicating a cycle and the time of its period. From *Acoustic and auditory phonetics* (3rd ed., p. 4) by K. Johnson, 2012, Wiley-Blackwell. Copyright 1988 by UK Copyright, Designs and Patents Act.

Subsequently, frequency describes the amount of times the same period repeats within a specific timeframe, so when a pattern repeats continuously the waveform is considered periodic (Ashby & Maidment, 2005; Johnson, 2012). Moreover, a common unit of measurement for frequency is hertz (Hz), which establishes the number of cycles per second. Then, by analyzing frequency and period it is possible to draw an accurate description of segments produced by Colombian users of English in order to identify their features in relation to the explicit phonetic instruction influence on language anxiety.

Accordingly, three vowel sounds were selected due to their acoustic characteristics and existence within the participant's mother tongue: Spanish. According to RAE & ASALE. (2011), vowel sounds present in Spanish are: /a/, /e/, /i/, /o/ and /u/ with no length differentiation. On that account, two long vowels: /u:/, /ɜ:/ and one short vowel /ʊ/ from English were chosen with the

purpose of exploring the quality of production for each, and identifying whether /u:/ and /ʊ/ resemble the Spanish sound /u/, that displays an F1 of 283 HZ and F2 of 865 HZ in average.

The main indicator for vowel sounds analysis is the F1 and F2 frequencies. For English, Ashby and Przedlacka (2019) portayed a comparison of the formant frequencies in vowels of Recieved Pronunciation (RP) between the corpuses of linguistics Daniel Jones and J.R Firth that existed in a repertoire from 1925 to 1932. Resulting in /u:/ F1: 295 - 314 HZ. F2: 997 - 1040 HZ, /ʊ/: 381 - 392 HZ. F2: 1111 - 1034 HZ. and /ɜ:/ F1: 566-592 HZ. F2: 1416- 1579 HZ. Besides, Deterding (1997) also provided formant characteristic of British English vowels using the MARSEC database from 1980, and he also stated the difference in results for males and females. These are his results: Males: /u:/ F1: 316 HZ. F2: 1191 HZ, /ʊ/: 379 HZ. F2: 1173 HZ. and /ɜ:/ F1: 478 HZ. F2: 1436 HZ. Females /u:/ F1: 328 HZ. F2: 1437 HZ, /ʊ/: 410 HZ. F2: 1340 HZ. and /ɜ:/ F1: 606 HZ. F2: 1695 HZ. Moreover, for a more recent set of information, Ferragne and Pellegrino (2010) provided a corpus of British isles vowel formants, being the Standard Southern English /u:/ F1: 291 HZ. F2: 1672 HZ, /ʊ/: 397 HZ. F2: 1550 HZ. and /ɜ:/ F1: 527 HZ. F2: 1528 HZ.

Concerning consonants, plosive sounds are recognized acoustically because of the Voice Onset Time (VOT) that depicts the phases and duration of air release in sound production. Also, by the lack or presence of vocal folds vibration known as voicing, that is a determinant factor for identification of voiced or voiceless sounds (Yao, 2007). Besides, English and Spanish plosives differ in a main aspect: aspiration, which is highlighted to influence effective communication in English. However, Spanish plosives do not produce aspiration in normal speech RAE & ASALE. (2011). Consequently, considering these three acoustic features, the voiceless and voiced velar

and alveolar plosives: /k/, /ɡ/, /t/, /d/ respectively, were selected to pinpoint VOT and voicing characteristics in production, and to assess aspiration in Colombian NNS.

In addition to consonants, Smith (2013) problematizes that the voiced /ð/ and voiceless /θ/ dental fricative sounds lack academic attention compared to other English phonetic segments. Taking into account that these sounds are not found within the set of consonants for Spanish, they have been selected to explore Colombian NNS production regarding duration and voicing. And, to review if there is any influence from Spanish sound /d/.

2.3.3 Sampling and population

The target population for this research involves Colombian English teachers or trainee teachers that received explicit phonetic instruction, and have experience teaching the language. Correspondingly, participants for this study were selected following a non-probability purposeful sampling (Merriam & Tisdell, 2016) that allows the study of specific characteristics of language variables such as explicit phonetic instruction. However, due to the needs for acoustic data recollection, the investigation was carried out in the laboratory of linguistics from Universidad Nacional de Colombia, Bogotá headquarters. Therefore, one important requirement to participate in the study was living or being in Bogotá during the days of the data recollection. As a result, the sample corresponds to a group of 10 Colombian English teachers from Universidad Nacional de Colombia that have been instructed with explicit phonetics, and are able to provide remarks towards their experience with the instruction, along with their considerations for teaching.

Table 1

Description of sample characteristics

PARTICIPANT	AGE	BIRTH	LIVING	GENDER	SEX	CURRENTLY	ENGLISH TEACHING	RECEIVE

		CITY	CITY			TEACHING	YEARS OF EXPERIENCE	D EPI
1	30	Bogotá	Bogotá	Man	M	Yes	Between five and ten years	Yes
2	37	Bogotá	Bogotá	Man	M	Yes	More than ten years	Yes
3	32	Bogotá	Bogotá	Man	M	Yes	Between five and ten years	Yes
4	46	Bogotá	Bogotá	Man	M	Yes	More than ten years	Yes
5	39	Bogotá	Bogotá	Woman	F	Yes	More than ten years	Yes
6	31	Bogotá	Bogotá	Woman	F	Yes	Between five and ten years	Yes
7	35	Ibagué	Bogotá	Man	M	Yes	More than ten years	Yes
8	26	Bogotá	Bogotá	Woman	F	Yes	Between five and ten years	Yes
9	38	Cucuta	Bogotá	Woman	F	Yes	More than ten years	Yes
10	38	Bogotá	Bogotá	Man	M	Yes	More than ten years	Yes

Note. Sampling for acoustic exploration of Colombian English speakers in relation to experience with explicit phonetic instruction and language anxiety remarks.

All participants currently work as English teachers, their ages vary from 26 to 46 years old. 8 of 10 participants were born in Bogotá, being the majority, while one was born in Ibagué and another was born in Cúcuta. For sex differentiation in vocal tract and acoustic characteristics, there are 6 males and 4 females. Regarding teaching experience, 6 participants have more than 10 years of experience, while 4 have between 5 and 10. No participant has less than five years of English teaching experience. Factors such as age, birth city, gender and years of teaching experience are described but do not constitute a boundary for the study (See Table 1).

2.3.4 Data collection instruments

Three main data collection instruments were implemented to comply with the objectives of the investigation. First, considering the general objective for acoustic variation identification, an adaptation from the HCRC map task corpus (Anderson et al., 1991) was used to elicit a

semi-spontaneous style of language production that was recorded to be studied under acoustic exploration. The map task is a tool for dialogue generation that enables its design to phonological interest, in which the participant is given the image of a map including landmarks with specific names, and is encouraged to describe aloud the route to follow in order to perform a task within the map. For example, going from point A to point C, passing through point B.

The adaptation for this research consists of two map tasks including words with the selected sounds as landmarks: /t/, /d/, /k/, /ɡ/, /θ/, /ð/, /uː/, /ʊ/, /ɜː/. The procedure was divided into three stages for each map. For the first stage, each participant was given a map with the images and written names of each landmark (see Figure 2), and requested to take a moment to look at it in order to briefly see the pictures and names on it. Also, the participant was given the indication on where the initial and final points were by using the words “here” or “there”, never saying the name of the landmark. Then, as a rehearsal, participants were instructed to complete the task for the first time. The task was to describe the route they would follow starting at the initial point, going to a landmark in the center of the map, and continuing to the final point. So, each participant was allowed to be creative and narrate how they would complete the task.

Figure 2

Map A and Map B

Note. Map task adaptation from the HCRC map task proposal (Anderson et al., 1991) for speech recognition. This instrument consists of two different maps with 23 landmarks in total designed for target sounds elicitation using a semi spontaneous speech. This image represents the visual tool for the first instruction to complete the task.

Afterwards, when participants were already familiarized with the map and not focused on the words, they were given the same map again, but now showing the "correct" route they should have followed marked with red lines (See Figure 3). And the instruction was to complete the task again but now describing the highlighted route. There were a total of 23 landmarks and 35 tokens, 11 vowel sounds and 24 consonant sounds. Landmarks were designed to have consonants in initial, mid and final position, and to have at least three productions of the same vowel sounds.

Map A

1. Toxic Volcano: /t/ /k/
2. Red Caves: /k/
3. Wild bird place: /ɜ:/
4. Can't-Breathe atmosphere: /ð/

Map B

5. Sugar garden: /ʊ/
6. Gray neighborhood:/g/ /ʊ/
7. Mythical land: /θ/
8. Youth fountain: /u:/ /θ/

9. That buried treasure: /ð/
10. Nocturn deer: /ɜ:/ /d/
11. igloo: /u:/
12. one-idea lake: /d/ /k/
1. Tropical City: /t/ /t/
2. Thunder Weather valley: /θ/ /ð/
3. Dangerous cliff: /d/ /k/
4. Hidden port: /d/
5. Golden egg: /ɡ/ /ɡ/
6. Evolution mountain: /u:/
7. Cookie house: /ʊ/
8. Good ear walls: /ʊ/
9. Urgent target: /ɜ:/ /ɡ/ /t/
10. Fire sky: /k/
11. high church: /ɜ:/

Figure 3

Map A and Map B with red lines

Note. Maps with red lines showing the correct steps to complete the task. This image represents the visual tool for the second instruction to complete the task.

The second instrument, was a semi-structured interview that involves the attitudes that Colombian English teachers have towards explicit phonetic instruction, consisting on three main elements: experience with explicit phonetic instruction and language anxiety during learning, considerations towards language anxiety for teaching, and agreement either with intelligibility or with native-speakerism approach for pronunciation teaching. Therefore, a set of ten (10)

questions was designed with the purpose of cohesively addressing each element of the interview. Besides, in order to avoid bias and misinterpretation, four main concepts were discussed previous to the interview to guarantee participants had all the information required to actively contribute to the conversation. The concepts are:

- Explicit phonetic instruction: "explicitly teaching segmental and suprasegmental elements of the target language" (Saito, 2011, p. 46). Segmentals being: production and perception of vowels and consonant sounds, use of articulators, etc. And suprasegmentals being: stress, intonation, pitch, etc.
- Intelligibility: Described as the reasonable understanding of language among interlocutors by generating effective communication. (Camus, 2016; Derwing & Munro, 1995).
- Native-speakerism: The ideology that the more the speakers resemble the native accent, the more proficient they are. (Hynninen, 2016; McKenzie, 2013).
- Language anxiety: An affective factor that is identified as any feeling of fear, worry, stress, nervousness, negative pressure within learning or using a second language. (Brown, 1994; Baran-Łucarz, 2011).

Consequently, for the sake of understanding participants' experience with explicit phonetic instructions, the first two questions of the interview requested participants to recall their years of learning in order to provide insights regarding their feelings and behaviors upon the instruction, and also considerations about its influence in their language production.Which in correlation with the map task, give light to the first and third specific objectives. Then, the following three questions draw their attention towards language anxiety and their exposure to it as teachers. These aimed to recognize their beliefs about causes of anxiety in students and

strategies to reduce it in pronunciation lessons. After that, the following 3 questions reviewed their standing point in regards to native-speakerism or intelligibility for pronunciation teaching. And the last two questions pinpoint their axiomatic ideals for pronunciation teaching embedded in the context to provide an overall picture of their statements. Hence, it is aligned to the third specific objective.

Finally, the third instrument was an adaptation from Horwitz, Horwitz, and Cope (1986) Foreign Language Classroom Anxiety Scale (FLCAS). That is a likert questionnaire that measures Language anxiety indicators within a specific setting, Also, the instrument is flexible to be used according to the focus of the study. For this investigation, the setting was the experience of participants with explicit phonetic instruction during their language learning process, and the focus was directed towards explicit phonetic lessons only. This questionnaire enables the identification of three main categories of language anxiety: communication apprehension, fear of feedback and fear of tests. Thus, it is possible to determine the specific areas of the instruction that caused anxiety to participants. So, it responds to the second specific objective of measuring the influence of explicit phonetic instruction in language anxiety.

2.3.5 Analysis resources and techniques

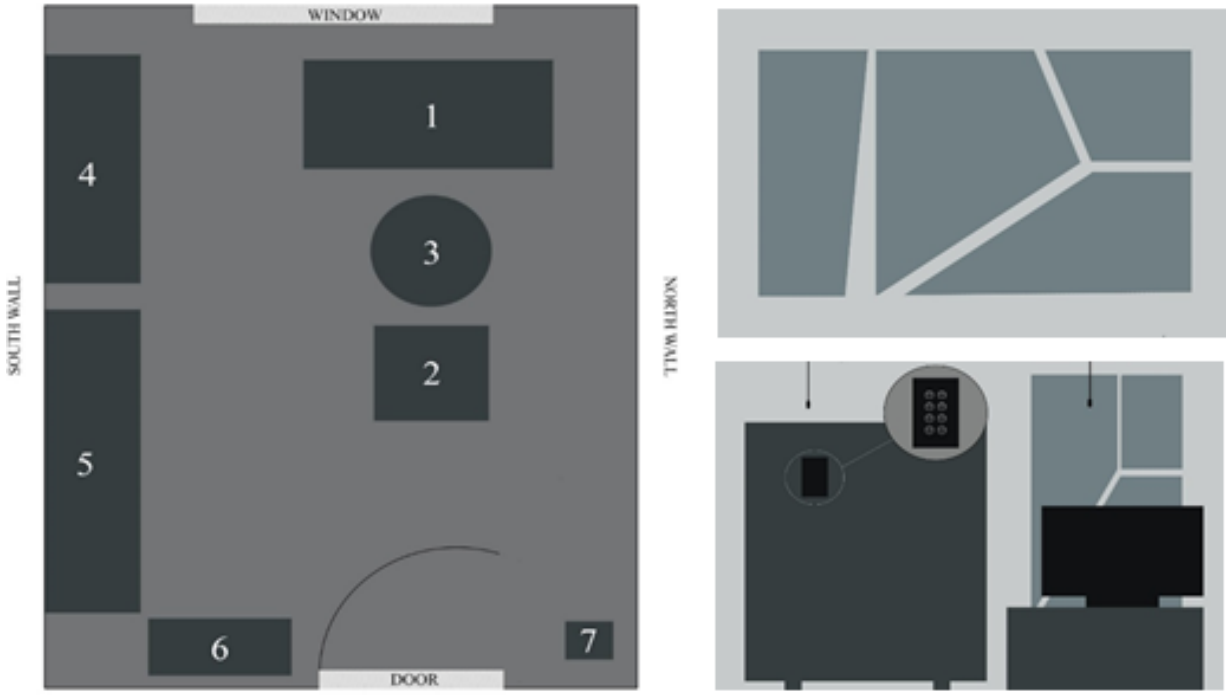
The resources used for the analysis were decided based on the type of data. For acoustic information, there were two principal resources. First, the Interactional Linguistics Unit at Universidad Nacional de Colombia, that is a special room in the linguistics laboratory created for the recollection of advanced quality video and audio recording. This Unit consists of a sound-treated space named The Suite, and a Control Room. Its priority is to facilitate natural interactions among speakers, countering the inherent self-awareness often elicited by recording processes, a phenomenon recognized in sociolinguistics as the Observer's Paradox (Labov,

1972). The Suite diverges from conventional laboratory aesthetics, resembling instead a cozy living room where participants can engage in dialogue comfortably, thus minimizing feelings of being observed.

Furthermore, the room has been effectively insulated against sound. Initially, Dense Fibre Matting slabs were applied to all walls and the ceiling for this purpose. Additionally, both the door and window have been soundproofed, with sound absorption panels installed on the walls and ceiling. These measures collectively prevent sound from entering the room, making it an optimal environment for recording high-quality speech materials (see Figure 4). Regarding the equipment setup, the Suite is linked to the adjacent Control Room via an audio patch panel. Within the Control Room, recordings are handled by a Lenovo IdeaPad 3 14IML05 laptop connected to a Zoom H6 Audio Interface. This interface achieves up to 24-bit /96kHz audio in BWF-compliant WAV. Subsequently, participants were equipped with wireless head-mounted Shure BLX14-P31-H9 microphones. Each participant was recorded on a separate channel using the version 3.4.2 of Audacity(R) recording and editing software.

Figure 4

The Suite at the Interactional Linguistic Unit at the Department of Linguistics in the Universidad Nacional de Colombia



Note. The Left image shows a top view of The Suite; which includes: 1. A sofa; 2. An armchair; 3. A coffee table; 4. A TV table and TV; 5. A library; 6. An auxiliary table; and 7. A coat rack. The top right image shows the North wall of the room, which is fitted with sound absorption panels; these acoustic panels were specially designed for the space and are in all walls and ceiling. The bottom right image displays the South wall in which the audio patch panel is located, hidden by the library; next to it there is the TV and TV table; also in this image, two air microphones are visible.

The secondary tool employed for acoustic analysis was the phonetic software PRAAT (Boersma, P. & Weenink, D., 2010), selected for its capacity to provide comprehensive acoustic data for each specific sound. This choice stems from its ability to enable phonological and phonetic transcription of speech production, utilizing spectrogram and waveform representations. Moreover, PRAAT offers various functionalities, including the identification of formants, pitch, intonation, and pulses, thereby allowing for a thorough characterization of sound quality.

Additionally, by employing a customized script within PRAAT, relevant data for the acoustic description of speech production was collected. This included obtaining vowel sound frequencies ranging from F0 to F4, as well as their respective durations and intensities. Additionally, for consonants, PRAAT enabled the precise measurement of Voice Onset Time (VOT) and the recognition of voicing and aspiration characteristics.

Data from the questionnaire was analyzed following Horwitz, Horwitz, and Cope (1986) measurements for language anxiety that are grounded based on three categories. Thus, each item of the questionnaire has a percentage derived from the categories, explained as it follows. Category 1: Communication apprehension, items 1, 4, 9, 14, 15, 18, 24, 27, 29, 30, 32; category 2, Fear of feedback items 2, 7, 13, 19, 23, 31, 33, and category 3: Fear of language tests items 3, 5, 6, 8, 10, 11, 12, 16, 17, 20, 21, 22, 25, 26, 28. All questions were directed towards the experience with explicit phonetic instruction during learning. Therefore, results show the causes and effects of language anxiety originated by explicit phonetic instruction for each of the speakers.

For the interview, a revision and categorization of statements corresponding to experience and behaviors in learning leading to considerations and approaches for teaching were highlighted. Different types of phenomena described by participants were grouped into 6 categories that have inversely proportional variables:

- Positive experience with explicit phonetic instruction vs Negative experience with explicit phonetic instruction.
- Undergoing language anxiety learning phonetics vs No exposure to language anxiety learning phonetics.

- Teaching approach towards intelligibility vs Teaching approach towards native-speakerism.

Techniques applied for acoustic data analysis consisted of auditory and visual examination of sounds, along with statistical testing. For vowels, vocal charts for each sound production of each speaker were designed with F1 and F2 values to assess characteristics of vowel quality. Then, for consonants, a detailed visual inspection of spectrograms enabled the categorization of plosives and fricatives with the measures for VOT along with the quality of voicing and aspiration. Afterwards, both consonants and vowel sound were tested through a T-Test for two-sample unequal variances to explore significance in variation in regards to English standard production values.

Subsequently, data concerning experience with explicit phonetic instruction and language anxiety traits will be analyzed through a correlation with the purpose of valuing the influence of specific aspects from explicit phonetic instruction upon language anxiety. And, the final technique was also a correlation evaluation between results from the T-Test and the qualitative data findings from the correlation. Thus, it was possible to acknowledge the effect that explicit phonetic instruction produces in a speaker´s speech production, considering also the remarks from the affective filter pointed out by addressing the influence of language anxiety in learning.

2.3.6 Stages and activities

The investigation was carried out following five stages. The first was the piloting, which consisted of the application of the instruments on a sample in order to test the accuracy of data collection instruments and analysis methods. The sampling for the piloting was also a non probability purposeful sampling (Merriam & Tisdell, 2016) that selected 7 recently graduated

English teachers. There were five (5) females and two (2) males, all of them from Bucaramanga who had less than 10 years of teaching experience (See Table 2). All participants from the sample were teachers from the Universidad Industrial de Santander. Participation in the piloting was voluntary. No direct benefit was retrieved by participants.

The piloting only had two data collection instruments: the map task and the questionnaire. Instead of the interview, the questionnaire had 10 more open questions at the end. However, a gap in responses was identified due to the time taken to answer the questions. Participants reported taking too long because they had to over think the concepts and write their ideas properly. Therefore, the interview was designed with adapted questions and follow up questions in order to avoid bias and comply with the objectives of the research regarding qualitative data. Moreover, the map task in the piloting was recorded in different locations depending on each participant's availability (offices, rooms, houses, gardens). Although the intention was always to care about external noise to be the minimum, after passing the audios through PRAAT, the recordings had a very high level of noise, which affected the reading of the data. Therefore, the use of the laboratory of linguistics at UNAL was reinforced.

The second stage was the sampling. Considering the location requirement for the study, an invitation to participate was extended via email or text messages to all English teachers from the Explora program of the Universidad Nacional. Thus, 10 teachers were able to volunteer for participation. There was no direct benefit in the participation of the research. However, due to schedule discrepancies, three participants were not able to find a moment to attend the laboratory to have a face-to-face implementation of the instruments, so they were rescheduled to participate in a remote modality. That means, they were inside the laboratory in Bogotá while the researcher was in Bucaramanga through a video call.

Table 2

Description of the pilot sample characteristics

PARTICIPANT	AGE	BIRTH CITY	LIVING CITY	GENDER	SEX	CURRENTLY TEACHING	ENGLISH TEACHING YEARS OF EXPERIENCE	RECEIVED EPI
1	27	Bucaramanga	Bucaramanga	Man	M	Yes	Between five and ten years	Yes
2	23	Bucaramanga	Floridablanca	Man	M	Yes	Less than five years	Yes
3	24	Bucaramanga	Bucaramanga	Woman	F	Yes	Less than five years	Yes
4	25	Bucaramanga	Bucaramanga	Queer	F	No	Less than five years	Yes
5	24	Bucaramanga	Bucaramanga	Woman	F	Yes	Between five and ten years	Yes
6	24	Bucaramanga	Bucaramanga	Woman	F	No	Less than two years	Yes
7	24	Bucaramanga	Bucaramanga	Woman	F	Yes	Less than five years	Yes

Note: Participants on the piloting were recently graduated teachers from Universidad Industrial de Santander.

The third stage was the data recollection. After selecting the participants, each participant was given a form to choose their preferred schedule within a period of two days. Then, meetings were scheduled accordingly. Once in the meeting, every participant was given a consent form to read and sign in order to guarantee they were aware of their rights and what to expect. The first instrument applied was the map task, each participant was wearing a microphone for better quality of the recording. This task took between 10 to 15 minutes. Then, the interview was conducted and recorded. But, due to the complexity of each concept, and finding that some participants had more experience with language anxiety than others. Every participant took different times for the interview. The shortest interview took 27 minutes, the longest took 1 hour and 3 minutes, and the average was 40 minutes. The final instrument was the questionnaire, and

due to its individual characteristics, it was designed in a digital form shared via email, and participants were allowed to complete it right after the interview or later when available.

The fourth stage was data analysis. Information collected from each instrument had a different type of individual analysis organization, and then a triangulation among them in response to the research questions. For acoustic data, only recordings from the second map task were selected to comply with the semi spontaneous characteristics of the speech. Every recording was split and uploaded to PRAAT individually. Then PRAAT annotations were input into two tiers, one for the phonological representation of the sounds. And another for the phonetic representation of the sounds of interest. Afterwards, for vowel sounds, a PRAAT script was run to gather formant frequencies and duration. For consonants, a visual inspection was applied to identify VOT, voicing and aspiration patterns. All acoustic data was grouped for each sound and speaker.

Subsequently, information from the interview was categorized considering experience with language anxiety during learning explicit phonetics. Thus, main causes within instruction were gathered along with expression of feelings and behaviors resulting from the experience in order to identify the influence it has on language anxiety. Also, the standing position towards explicit phonetic instruction in teaching was categorized based on background with language anxiety, application strategies, and point of view in context with the purpose of understanding the attitudes they have towards the instruction. For the questionnaire, information will be analyzed based on Horwitz, Horwitz, and Cope (1986) instructions for scores reading. And also reviewing each question score for each participant to understand the main causes of the anxiety. After that, a correlation between interview and questionnaire will be applied as a confirmation of data.

Finally, the fifth stage consisted on the interpretation of results by conducting statistical tests and comparing the acoustic results from the sample with standard pattern of English and Spanish phonetic segments production. Each type of data was discussed under the view of ELF in order to contribute to the profiling of Colombian English quality of speech production. Moreover, qualitative data was incorporated into the discussion through its relevance in order to establish the speaker´s consideration of pronunciation requirements based on explicit phonetic instruction in order to properly assess their own quality of speech. And, remarks on affective filter influence in language acquisition and its connotation for language performance was considered to provide an overall characterization of participants perspective about learning, teaching and producing language.

2.4 Results

2.4.1 Identification of acoustic variation

In correspondence to the general objective, acoustic variation data resulting from ELF Colombian users speech production was gathered and organized into vowels, fricatives and plosives. Results for vowel production provided different values for each speaker. Therefore, vocal charts were designed to visually perceive the differences in sound production. As a distinction to point out, speakers 1, 6, 8 and 9 are females, while 2, 3, 4, 5, 7 and 10 are males; which might represent an insight for sound variation.

Starting with the vowel /ɜ:/, the average F1 in production among all speakers was 470.25Hz, being the minimum 414 Hz, and the maximum 567Hz. For F2, its average was 1411.60Hz, with 1256.60Hz as the minimum value, and 1655.60Hz as the maximum F2 reached. Then, considering vowel /u:/, F1 has an average of 359.66Hz with 300Hz as the minimum value

and 491Hz as the maximum. Regarding its F2, /u:/ reached 1493.51Hz on average, with 1276.67Hz as minimum and 1765Hz as the maximum value. Finally, /ʊ/ reported an F1 average of 391.79Hz, being 297Hz its minimum and 505 its maximum value. And for F2, the average was 1501.22 with 1213.50Hz as minimum and 1714.75 as maximum. The average of each vowel production per participant is represented in Table 3.

In correspondence to vowel /ɜ:/, results demonstrate different realizations among the participants. This is noted considering the variation in vowel location for each vowel chart. A point to mention is that speakers 1, 2, 5, 6, 9 and 10, shared center vowel locations for /ɜ:/. In contrast, it can be noticed that speakers 3, 4, 7 and 8 produced the sound with different characteristics each time, having variation of backness or fronting. Yet, no speaker exceeded the 600Hz in F1, or was below 1200 Hz in F2 (See Figure 5). Besides, for vowels /u:/, speakers realize they have a tendency to have F1 between 300 and 400Hz, However, speakers 1, 6, 8 and 10 surpassed the 400 Hz in F1. In addition, only speakers 6 and 10 achieved higher F2 values than 2000 Hz (See Figure 6). In regards to vowel /ʊ/, only speakers 10 and 4 shared similarities in production. All speakers have at least one/ʊ/production between 1300 and 1800 Hz for F2. And only 6 and 8 overpass 500Hz in F1 (See Figure 7).

Table 3

F1 and F2 average values per speaker

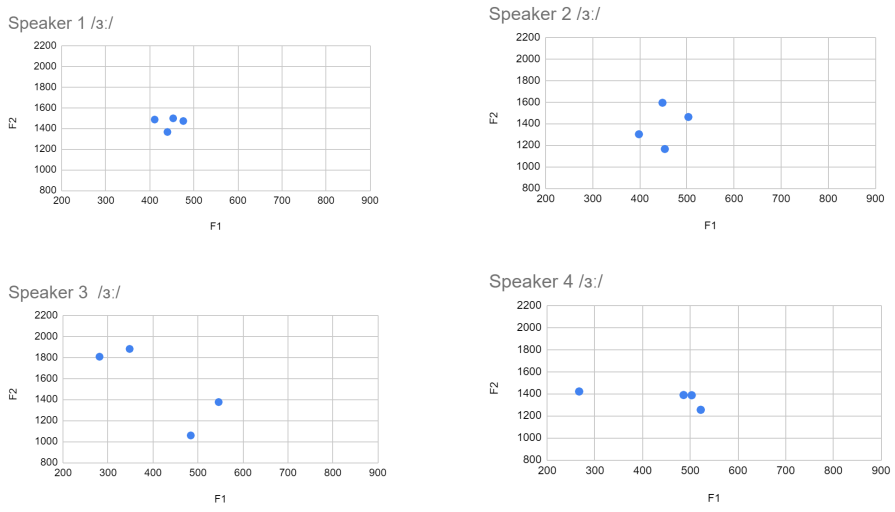
Speaker 1	F1 (Hz)	F2 (Hz)	Speaker 6	F1 (Hz)	F2 (Hz)
/ɜ:/	445	1454,5	/ɜ:/	497,0	1456,5
/u:/	385,67	1600,33	/u:/	407,3	1633,3
/ʊ/	371	1326,75	/ʊ/	442,8	1714,8
Speaker 2	F1 (Hz)	F2 (Hz)	Speaker 7	F1 (Hz)	F2 (Hz)
/ɜ:/	450,5	1379,8	/ɜ:/	420,5	1256,3

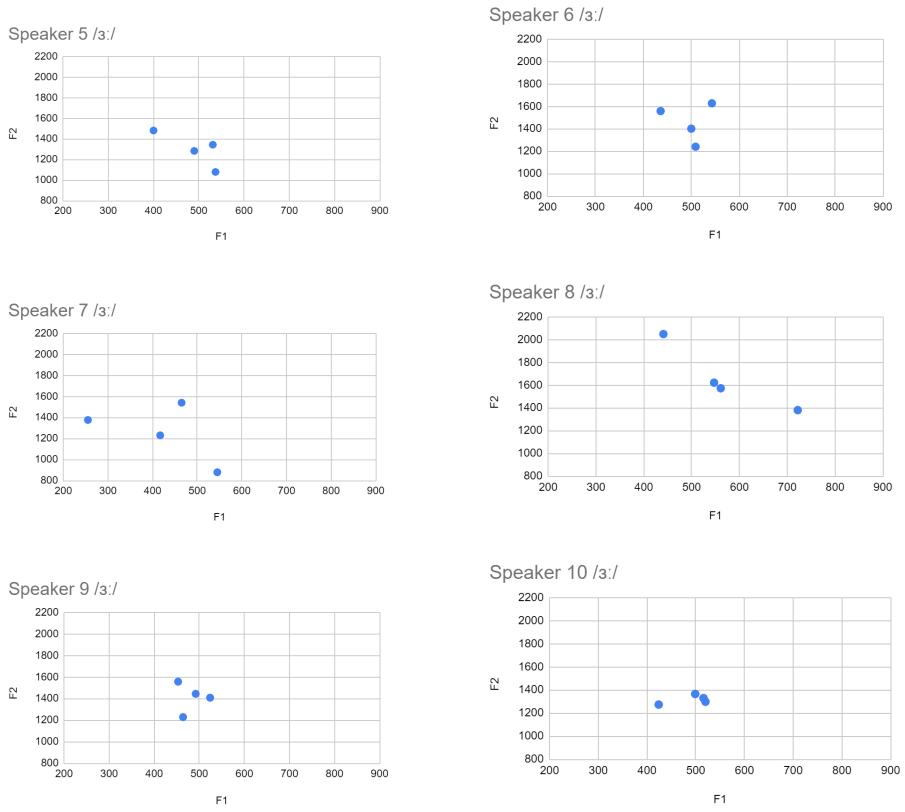
/u:/	300,0	1425,3	/u:/	330,3	1414,3
/ʊ/	426,5	1509,0	/ʊ/	297,0	1390,4
Speaker 3	F1 (Hz)	F2 (Hz)	Speaker 8	F1 (Hz)	F2 (Hz)
/ɜ:/	414,8	1529,8	/ɜ:/	567,8	1655,3
/u:/	305,3	1529,0	/u:/	491,0	1470,3
/ʊ/	343,3	1510,3	/ʊ/	505,0	1691,0
Speaker 4	F1 (Hz)	F2 (Hz)	Speaker 9	F1 (Hz)	F2 (Hz)
/ɜ:/	444,5	1362,0	/ɜ:/	483,3	1409,3
/u:/	319,7	1276,7	/u:/	345,3	1498,8
/ʊ/	340,3	1645,8	/ʊ/	465,7	1427,3
Speaker 5	F1 (Hz)	F2 (Hz)	Speaker 10	F1 (Hz)	F2 (Hz)
/ɜ:/	489,5	1296,5	/ɜ:/	489,8	1316,3
/u:/	354,3	1322,0	/u:/	357,7	1765,0
/ʊ/	360,0	1213,5	/ʊ/	366,5	1583,5

Note. This is a classification for each participant set of vowel production averages that illustrate the results obtained in F1 and F2 for the selected sounds.

Figure 5

F1 against F2 for /ɜ:/ vowel per speaker

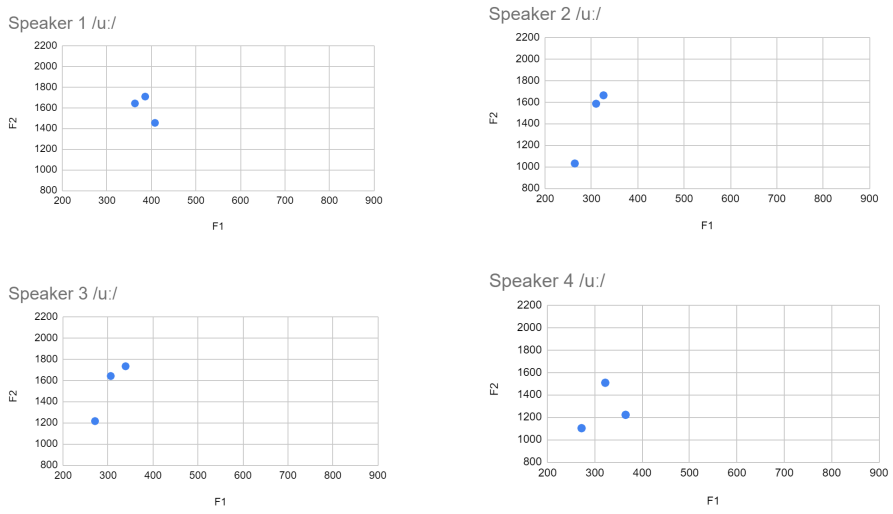


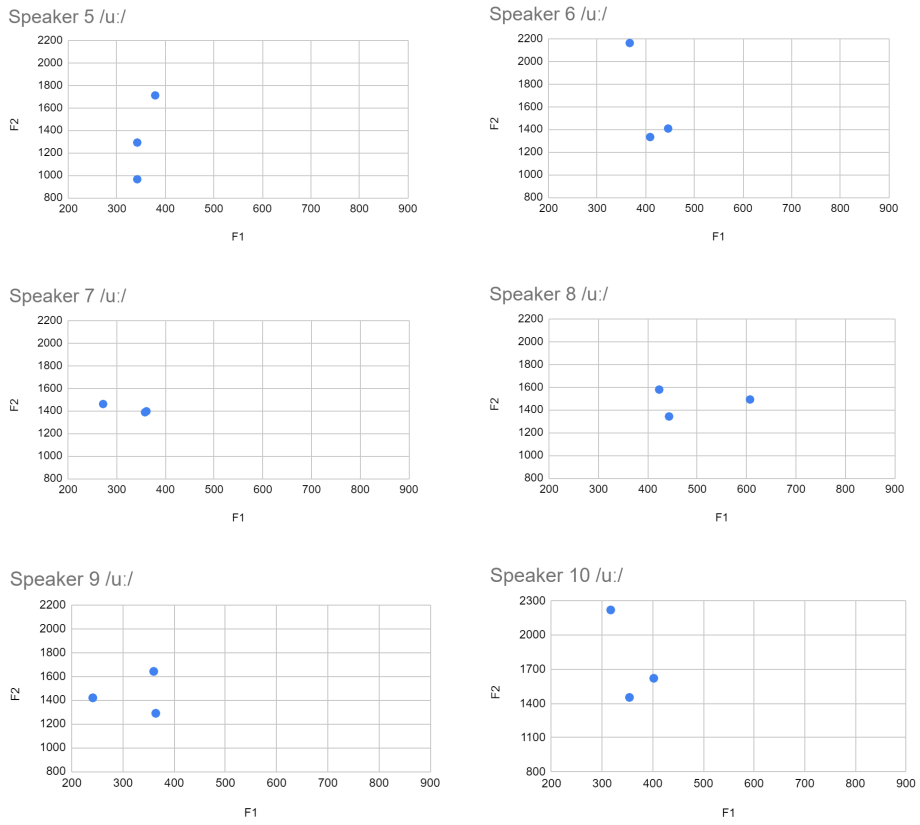


Note. This illustration presents the sound locations for each production of /ɜ:/ in a cross reference between F1 and F2.

Figure 6

F1 against F2 for /u:/ *vowel per speaker*

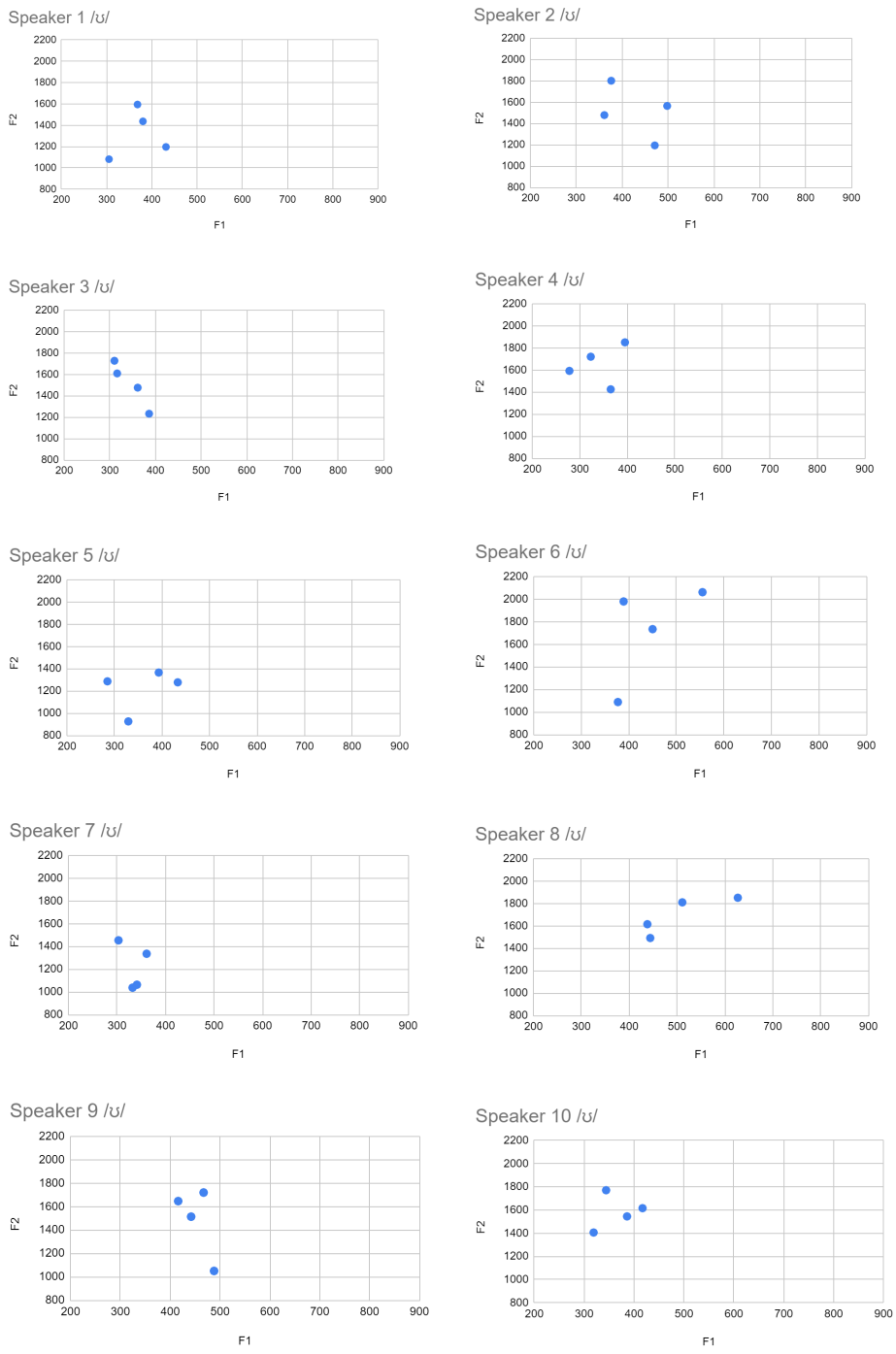




Note. This illustration presents the sound locations for each production of /u:/ in a cross reference between F1 and F2.

Figure 7

F1 against F2 for /ʊ/ vowel per speaker



Note. This illustration presents the sound locations for each production of /ʊ/ in a cross reference between F1 and F2.

Additionally for vowels, this study aims to understand the quantitative difference of acoustic language variation of Colombian ELF speakers. For that purpose, values for F1 and F2

by Ferragne and Pellegrino (2010) were taken as reference for standard English, and tested in comparison to the data obtained by this project. First, the averages from the raw data were marked, and then a T-Test was run to verify whether the Colombian ELF variation for acoustic production of target sound represents a significant difference or not. For /ɜ:/ and /u:/ P-value stated a highly significant difference in sound production. However, for /ʊ/, there is no statistical significance in sound production difference.

Table 4

*T-Test fo*r /ɜ:/ *between results obtained and standard*

F1 (Hz)			F2 (Hz)		
/ɜ:/	Results	*Standard*	/ɜ:/	Results	*Standard*
Mean	470,25	527	Mean	1411,6	1528
Variance	2043,069444	0	Variance	14126,05833	0
Observations	10	10	Observations	10	10
Hypothesized Mean Difference	0		Hypothesized Mean Difference	0	
df	9		df	9	
t Stat	-3,970308939		t Stat	-3,097009109	
P(T<=t) one-tail	0,001626560677		P(T<=t) one-tail	0,006392005568	
t Critical one-tail	1,833112923		t Critical one-tail	1,833112923	
P(T<=t) two-tail	0,003253121354		P(T<=t) two-tail	0,01278401114	
t Critical two-tail	2,262157158		t Critical two-tail	2,262157158	

Note. T-Test results indicate P-value <0.05

Table 5

*T-Test fo*r /u:/ *between results obtained and standard*

F1 (Hz)	F2 (Hz)

/u:/	Results	*Standard*	/u:/	Results	*Standard*
Mean	359,6583333	291	Mean	1493,508333	1672
Variance	3267,722917	0	Variance	21538,49761	0
Observations	10	10	Observations	10	10
Hypothesized Mean Difference	0		Hypothesized Mean Difference	0	
df	9		df	9	
t Stat	3,798137167		t Stat	-3,846008517	
P(T<=t) one-tail	0,002114723849		P(T<=t) one-tail	0,00196511622	
t Critical one-tail	1,833112923		t Critical one-tail	1,833112923	
P(T<=t) two-tail	0,004229447697		P(T<=t) two-tail	0,00393023244	
t Critical two-tail	2,262157158		t Critical two-tail	2,262157158	

Note. T-Test results indicate P-value < 0.05

Table 6

T-Test for /ʊ/ *between results obtained and standard*

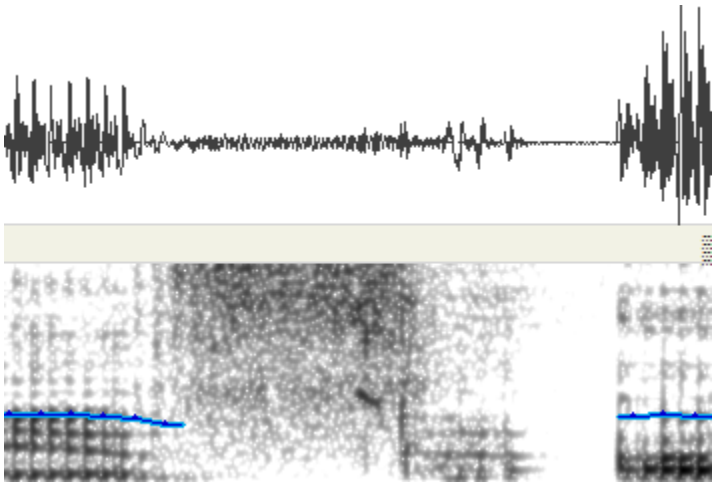
F1 (Hz)			F2 (Hz)		
/ʊ/	Results	*Standard*	/ʊ/	Results	*Standard*
Mean	391,7916667	397	Mean	1501,223333	1550
Variance	4239,559028	0	Variance	26708,37656	0
Observations	10	10	Observations	10	10
Hypothesized Mean Difference	0		Hypothesized Mean Difference	0	
df	9		df	9	
t Stat	-0,2529521809		t Stat	-0,9438182539	
P(T<=t) one-tail	0,4029940472		P(T<=t) one-tail	0,1849539433	
t Critical one-tail	1,833112923		t Critical one-tail	1,833112923	
P(T<=t) two-tail	0,8059880944		P(T<=t) two-tail	0,3699078866	
t Critical two-tail	2,262157158		t Critical two-tail	2,262157158	

Note. T-Test results indicate P-value > 0.05

In regards to consonant sounds, results show variations in production depending on position in the word. Therefore, for the presentation of consonant measurements, landmarks used for data collection are also used as reference with the sound position bolded in the word. Concerning fricatives, voicing and duration played the essential aspects for sound characterization. On that account, it is possible to witness certain production of sounds that contradicts the expectation for the voicing quality in English fricatives. For instance, eight speakers produced the initial position of consonant /ð/ as an unvoiced. Also, speaker 3 produced the mid position of the same fricative as unvoiced as well. One spectrogram example of this type of variation is represented in Figure 8. Besides, duration is also specified in the results for fricatives, and sound /θ/ in initial or final position is recognized to have the higher duration. (See table 7).

Figure 8

Production of voiced fricative /ð/ *with unvoiced quality of frivative* /θ/



Note. The image on the top shows the waveform of the sound with no periodicity. And below is the spectrogram, which does not indicate voicing characteristics such as vertical striations.

Table 7

Duration and Voicing characteristics of fricatives /ð/ and /θ/

Speaker 1	Duration (ms)	Voicing	Speaker 2	Duration (ms)	Voicing
Brea**th**e /ð/	54	voiced	Brea**th**e /ð/	116	unvoiced
That /ð/	74	voiced	**Th**at /ð/	21	voiced
Wea**th**er /ð/	70	voiced	Wea**th**er /ð/	43	voiced
My**th**ical /θ/	108	unvoiced	My**th**ical /θ/	91	unvoiced
You**th** /θ/	180	unvoiced	You**th** /θ/	100	unvoiced
Thunder /θ/	65	unvoiced	**Th**under /θ/	125	unvoiced
Speaker 3	Duration (ms)	Voicing	Speaker 4	Duration (ms)	Voicing
Brea**th**e /ð/	121	voiced	Brea**th**e /ð/	40	unvoiced
That /ð/	21	unvoiced	**Th**at /ð/	17	voiced
Wea**th**er /ð/	36	voiced	Wea**th**er /ð/	41	voiced
My**th**ical /θ/	86	unvoiced	My**th**ical /θ/	31	voiced
You**th** /θ/	71	unvoiced	You**th** /θ/	42	unvoiced
Thunder /θ/	64	unvoiced	**Th**under /θ/	110	unvoiced
Speaker 5	Duration (ms)	Voicing	Speaker 6	Duration (ms)	Voicing
Brea**th**e /ð/	199	unvoiced	Brea**th**e /ð/	130	unvoiced
That /ð/	98	voiced	**Th**at /ð/	-23	voiced
Wea**th**er /ð/	52	voiced	Wea**th**er /ð/	31	voiced
My**th**ical /θ/	83	unvoiced	My**th**ical /θ/	93	unvoiced
You**th** /θ/	165	unvoiced	You**th** /θ/	155	unvoiced
Thunder /θ/	136	unvoiced	**Th**under /θ/	56	unvoiced
Speaker 7	Duration (ms)	Voicing	Speaker 8	Duration (ms)	Voicing
Brea**th**e /ð/	174	unvoiced	Brea**th**e /ð/	153	unvoiced
That /ð/	-59	voiced	**Th**at /ð/	125	voiced
Wea**th**er /ð/	51	voiced	Wea**th**er /ð/	29	voiced
My**th**ical /θ/	68	unvoiced	My**th**ical /θ/	61	unvoiced
You**th** /θ/	94	unvoiced	You**th** /θ/	167	unvoiced
Thunder /θ/	38	unvoiced	**Th**under /θ/	129	unvoiced
Speaker 9	Duration (ms)	Voicing	Speaker 10	Duration (ms)	Voicing
Brea**th**e /ð/	124	unvoiced	Brea**th**e /ð/	41	unvoiced
That /ð/	20	voiced	**Th**at /ð/	68	voiced
Wea**th**er /ð/	15	voiced	Wea**th**er /ð/	40	voiced
My**th**ical /θ/	103	unvoiced	My**th**ical /θ/	62	unvoiced
You**th** /θ/	88	unvoiced	You**th** /θ/	77	unvoiced
Thunder /θ/	148	unvoiced	**Th**under /θ/	199	unvoiced

Note. Representation of duration measurements and voicing quality of /ð/ and /θ/ based on word position.

In attention to plosives, VOT values along with voicing and aspiration remarks constitute the quality measure for sound production. 160 tokens for plosives were evaluated, 40 realizations for each plosive sound of interest: /t/, /k/, /d/ and /g/. As mentioned above, sounds are described in regards to their position within the word. Therefore, it is important to mention that expectations for aspiration and voicing also depended on sound position. On that account, the first impressions on acoustic variation for plosives are identified due to aspiration. Unstressed syllables, voiced plosives and final position voiceless plosives are not expected to display aspiration. However, results indicate that most plosives were aspirated, even for phonological traits that did not require aspiration characteristics.

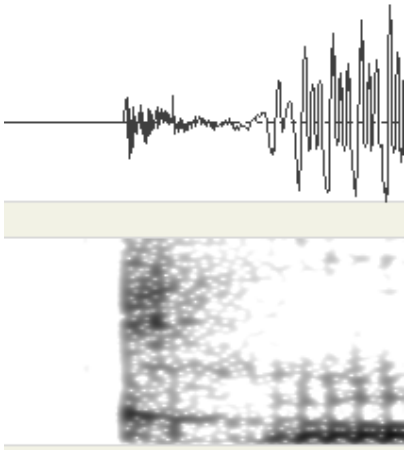
A case in point was the production of the initial voiced velar plosive /g/ in the landmark "Golden", which was produced as a voiceless aspirated sound by four of the speakers (see Figure 9). Moreover, overall acoustic findings from plosives draw attention to devoicing of voiced plosives and over aspiration as common patterns of phonetic variation within Colombian ELF. Aspiration patterns for voiceless plosives were recognized for voiceless plosives in final position, preceded by fricatives, in unstressed syllables, and in the place of voiced plosives.

In addition, VOT measures show that certain voiced sounds present pre-voicing signals. As a consequence, these sounds have negative VOT measures because the voicing of the sound starts prior to the release of the plosive (see Figure 10). However, not all speakers produced similar VOT values as a result of the variation in aspiration or devoicing that changed for every participant. Table 8 further illustrates all VOT values for plosives for the Speaker 1, and it also

portrays a color coded indication of sound productions that were identified having either devoicing or over aspiration. Please refer to the annexes for the complete set of data.

Figure 9

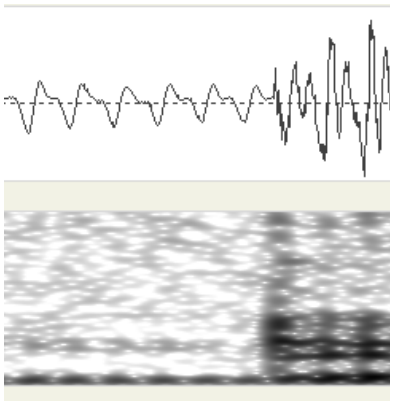
Example of devoicing in the landmark "Golden"



Note. The image on the top illustrates the waveform showing the burst of aspiration with no periodicity until the vowel starts. And the spectrogram below does not show noticeable voicing characteristics either.

Figure 10

Example of prevoicing



Note. This image represents existing voicing before the release of the plosive, recognized by the periodic waves and voicing shown in the spectrogram.

Table 8

Example of speaker 1 quality of plosive sounds.

Speaker 1	VOT (ms)	VOICING	ASPIRATION
Toxic /t/	139	unvoiced	aspirated
Tropical /t/	140	unvoiced	aspirated
Ci**t**y /t/	130	unvoiced	aspirated
targe**t** /t/	89	unvoiced	aspirated
Caves /k/	171	unvoiced	aspirated
la**k**e /k/	195	unvoiced	aspirated
cliff /k/	100	unvoiced	aspirated
s**k**y /k/	130	unvoiced	aspirated
i**d**ea /d/	-49	voiced	unaspirated
deer /d/	-18	voiced	unaspirated
Dangerous /d/	-44	voiced	unaspirated
Hi**dd**en /d/	-43	voiced	unaspirated
Gray /g/	49	unvoiced	aspirated
Golden /g/	29	unvoiced	aspirated
e**gg** /g/	-40	voiced	unaspirated
tar**g**et /g/	53	unvoiced	affricated

Note. Visual representation of the speaker 1 variation characteristics for plosive sounds.

2.4.2 Explicit phonetic instruction in language variation

English NNS who undergo the process of learning phonetics from an explicit instruction are able to ascertain important considerations in regards to its influence upon speech production.

On that account, data collected from the interviews will respond to the effect that explicit phonetic instruction has on language variation, specifically for Colombian ELF users. Correspondingly, when participants were questioned about their language production skills after receiving explicit phonetics, all of them agreed that the influence for production was positive. For instance, speaker 1 expressed:

> The way we learn how to pronounce a word in a second language, it's somehow feeling closer to understanding better and to communicating better as well. So, I think it's a positive influence and it's definitely something that makes us improve. (Participant 1, personal communication, February 2, 2024).

Yet, it is important to highlight that language production was influenced not only by explicit phonetics, but also by all the aspects embedded in the learning process, such as practice, input, and context.

Moreover, participants were able to point out the implicit influence that teachers and materials have as models for students when learning pronunciation. However, one of the most prominent perspectives is that, the result is a consequence of the teacher's approach rather than the subject itself. Therefore, when participants were asked for positive and negative aspects of explicit phonetic instruction, the most common were the following. Positive aspects: Increase of confidence by enhancing phonetic awareness, avoid misunderstanding, achieving higher proficiency and intelligibility, more understanding of L1 and improvement of articulation. Negative aspects: It may be confusing, boring and repetitive. Too much information may be overwhelming, leading to native-speakerism, struggling with memorization.

Additionally, considering the context of basic and middle public education in Colombia, participants were asked if they find it useful for explicit phonetic instruction following the purpose of achieving intelligibility to be included in language teaching. On this question there were different points of view. 8 of 10 participants agreed that the age facor plasyed an important role acquiring the second language, and explicit phonetic instruction enable students abilities to better understand language patters to achieve better results in communication. However, the other two participants indicated that the Colombian education system still has room for improvement before a strategy like this could be applied.

2.4.3 Language anxiety derived from explicit phonetic instruction

Results from the questionnaire aims to give an insight about the experience of participants regarding learning phonetics in relation to language anxiety. Answer codes are translated into a range from 1 to 5. Thus, getting a numerical measure of language anxiety depending on indications for each question. According to Horwitz, Horwitz, and Cope (1986), level of anxiety is low if the result of the speaker is below 75, medium if the result is between 76 and 119, and high if the result is above 120. On that account, only two participants of this study had a low level of language anxiety in their explicit phonetic classes. In addition, seven participants showed a medium level of language anxiety, and only one participant had a high level of language anxiety derived from explicit phonetic classes.

The questions that represented the highest language anxiety to speakers were: 2, 7, 13, 14, 15, 24, 25, 26, 27 and 32. Correspondingly, the category with the highest result for language anxiety was Communication apprehension, followed by fear of feedback and lastly fear of tests. Table 5 comprises the results for each participant along with color coded numeric measures for language anxiety in explicit phonetic instruction. Blue color represents speakers with a low level

of anxiety, yellow color indicates a medium level, and red color signs the speaker with a high language anxiety derived by explicit phonetic classes.

Table 9

Language Anxiety scale results

Question	A	B	C	D	E	F	G	H	I	J
1.	4	4	2	3	2	2	2	2	2	2
2.	2	2	3	2	3	1	3	3	2	3
3.	5	3	2	3	1	2	1	3	3	2
4.	4	2	3	2	2	4	2	2	2	3
5.	2	1	2	1	2	2	2	4	1	2
6.	2	3	2	5	3	2	3	2	2	1
7.	4	4	3	3	3	4	2	2	4	3
8.	4	3	3	2	2	3	2	2	3	2
9.	5	4	2	2	2	2	2	2	3	3
10.	5	4	2	2	2	4	2	2	1	2
11.	3	4	2	4	4	4	3	3	3	2
12.	5	3	2	3	2	4	3	2	2	2
13.	5	4	2	3	1	4	2	2	3	2
14.	4	2	4	4	2	4	4	3	5	5
15.	2	4	4	3	3	4	2	2	2	4
16.	5	3	3	3	2	4	3	3	3	2
17.	3	2	2	4	1	2	2	2	1	1
18.	4	3	2	3	2	4	2	2	3	2
19.	4	4	2	2	3	4	2	2	2	3
20.	5	3	3	3	1	4	2	2	4	2
21.	2	2	3	2	1	2	2	2	1	1
22.	5	2	3	3	2	4	3	3	4	2
23.	4	4	3	2	3	4	2	2	3	2
24.	4	2	4	4	2	4	3	4	1	2
25.	4	4	2	3	3	4	4	2	2	2
26.	5	3	2	3	1	3	2	2	1	1
27.	5	4	2	3	2	4	2	2	4	2
28.	4	2	3	3	2	4	2	2	3	2
29.	4	2	3	3	3	4	2	2	2	3
30.	4	3	3	2	2	2	2	3	2	2
31.	4	4	2	3	3	5	2	2	2	2

32.	4	2	3	4	2	4	4	3	3	2
33.	4	4	2	3	2	4	4	3	4	4
	130	100	85	95	71	112	80	79	83	75

Note. Participants are labeled as capital letters, questions with high anxiety responses are red on the left side.

Furthermore, interview results confirm that some speakers were affected by language anxiety during learnign, which became an obstacle for normal language performance. However, the main cause for the language anxiety does not come from the topics of phonetics, but from the teacher's approach. For instance, judging faces, negative feedback, critics and imposition of standard accents represent some of the main roots of language anxiety. As an illustration of language anxiety results in relation to speech production, this is an example of participant 1, who expressed negative feelings from the learning process due to constant critics and accent imposition.

-You mentioned that in your experience, when you learned, you were imposed?

-Yes, I was.

-How did that make you feel?

-So bad. That bad that I actually hate phonetics. And I am a big fan of linguistics.

I did my master in linguistics. Because I wanted to... I love semantics (...) But when it comes to sounds, it is so traumatic for me. Every time I have to deal with phonetics and phonology, I feel dumb. Because my professors back at the university made me feel that way. You can't do it. You are not able to do it. You are a failure. No matter how much I teach you, you are not going to learn. And there was a constant thought in my mind. I mean, I think it was somehow fostered by them. So, nowadays, when I have to face

> phonetics as a teacher, I feel like, oh my god, I have to get back to those memories, get back to those feelings. And I have to fight those so my students don't feel that way. Sometimes it is hard. (Participant 1, personal communication, February 2, 2024).

Considering this example of language anxiety, a relevant note to mention is that among all consonant variation for devoicing and over aspiration, participant 1 also misses the production of a plosive sound and make an affricate sound instead. This might be an insight about the influence of language anxiety withing language production.

3. Conclusion

English as an International language is a solid reality that is constantly evolving, as well as language variation. Which can derive from different factors such as learning experiences, geographical context and also emotions towards the language. Being able to contribute with certain acoustic information to recognize the standing point of language characteristics of Colombian English speakers among World Englishes is just the tip of the iceberg. Colombian linguistic communities of Eglish speakers have so many diversifications that one system for representation is not enough. Therefore, it is important to consider all identities rather than limiting them to a standard.

Consequently, a teaching approach towards intelligibility is necessary to reproduce positive attitudes towards the language and its varieties. Additionally, adopting explicit phonetic instruction with the purpose of building confidence in students and raising language awareness will result in decreasing affective filter, that directly has an effect on language production. (Gordon, 2013; Jenkins, 2000; Kissling, 2012; Saito, 2011; Strum, 2018; Venkatagiri & Levis, 2007). For further study, this project created a corpus for 10 Colombian speakers, that has all English vowel sounds with diphthongs along with a large repertoire of consonant sounds.

Acoustic information is essential to asses language in reality. Therefore, I hope this research serves as a window to increase curiosity towards phonetics and phonology and acoustic analysis within linguistics.

Primary sources

Interviews

Ten interviews were conducted, 7 were held via face to face modality in the linguistics laboratory of Universidad Nacional de Colombia, while the other three were remote through video call. Interviews lengths were between 30 and 60 minutes, and they were all transcribed with TurboScribe audio transcription service.

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Appendixes

Appendix 1. *Interview Protocol*

Interview Protocol

Acoustic Description of Colombian English Production in ELF upon the light of Explicit Phonetic Instruction Influence on Language Anxiety

Place: Laboratorio de Lingüística, Universidad Nacional de Colombia, Bogotá Campus.
Date:
Time:
Researcher: Julián Andrés Diettes León
Participant:

Good morning/afternoon, now we are going to continue with the next instrument, that is a interview focused on your attitudes and experiences with explicit phonetic instruction and language anxiety.
This interview will take approximately 20 - 40 minutes and is being to be recorded. Do you agree to be recorded? ____

Please remember, all information provided will be confidential, and no one different from me and my director will have access to it. Participation is voluntary; you have the right to withdraw at any time or refuse to participate entirely. We highly appreciate your participation and we expect that the outcomes of this investigation contribute to enlighten the role of explicit phonetic instruction in language anxiety during learning.

First of all, I would like to discuss about some specific concepts we are going to address during the interview in order to avoid misinterpretation. The idea of this conversation is that we can address the concepts so that we are both aware of how these have been used for this particular research.

- EPI: this section refers to EPI as "explicitly teaching segmental and suprasegmental elements of the target language" (Saito, 2011, p. 46). Segmentals being: production and perception of vowels and consontant sounds, use of articulators, etc. And suprasegementals being: stress, intonation, pitch, etc.
- Intelligibility: For this study, Intelligibility is described as the reasonable understanding of language among interlocutors by generating effective communication.
- Native-speakerism: This study undertakes native-speakerism as the idea that the more the speakers resemble the native accent, the more proficient they are.
- Language anxiety: Is an affective factor that is identified as any feeling of fear, worry, stress, nervousness, negative pressure within learning or using a second language.

Questions

1. From your experience, do you consider that explicit phonetic instruction influenced your language production skills? Positively or negatively and how?

2. In your language learning lessons, were you either explicitly or implicitly influenced to follow the purpose of resembling a native-like accent? If so, please elaborate on how. and how did you feel about being (or nor being) imposed to resemble a native-like accent?

3. Regarding language skills (speaking, listening, reading, writing), which one do you think that causes more language anxiety to students?

4. As a Colombian English teacher, do you use strategies to deal with language anxiety within pronunciation teaching? If so, please describe your strategies.

5. Do you think that attempting to resemble a native-like pronunciation causes language anxiety to students? Please elaborate on why

6. Do you consider that pronunciation instruction can be taught without influencing to resemble a native-like accent?

- Would it be beneficial or detrimental?

7. What do you think is the main goal of teaching explicit phonetics instruction?
For example, resembling a native/like accent or acquiring intelligibility

- Please point out positive aspects of EPI
- Please point out negative aspects of EPI

8. Are you for, against or neutral regarding the idea that EPI must follow a native-like emphasis to achieve intelligibility? Please elaborate on why?

9. For you, what are the main aspects to take into account regarding pronunciation instruction?

10. This question is contextualized on the basic and middle public education in Colombia:

Following the purpose of acquiring intelligibility, do you think EPI should be included within language teaching?

Appendix 2. *Language Anxiety in Explicit Phonetic Instruction questionnaire*

Language Anxiety in Explicit Phonetic Instruction

The present questionnaire is part of a three-section mixed study that aims to shed light on the outcomes derived by Explicit Phonetic Instruction and its influence on English speakers from Colombia that have Spanish as L1.
The study responds to partial fulfillment of the requirements for the degree in the Foreign Languages Teaching Program from the Universidad Industrial de Santader (UIS). Therefore, your honesty and willingness to participate is fully appreciated.

This questionnaire is an adaptation of Horwitz, Horwitz & Cope (1986) Foreign Language Classroom Anxiety survey that provides an insight on the level of Language Anxiety generated within the language learning process. However, questions were directed towards Explicit phonetic instruction previous experience.

All information provided will remain confidential and will only be reported as group data with no identifying details. All collected data will be kept in a secure location and only the researcher and its director will have access to it. Participation is voluntary; you have the right to withdraw at any time or refuse to participate entirely.

Contact information

Researcher: Julián Andrés Diettes León - juliandiettes@gmail.com
Research director: Kelly Johana Vera Diettes - kjverad@unal.edu.co

* Indica que la pregunta es obligatoria

1. Correo *

Demographic information

2. Full name: *

3. Age: *

4. Where are you from? (city) *

_____

5. Where do you live? (city) *

_____

6. What gender do you identify with? *

Marca solo un óvalo.

- ◯ Man
- ◯ Woman
- ◯ Non binary
- ◯ Other
- ◯ Prefer not to say

7. Are you currently working as an English teacher? *

Marca solo un óvalo.

- ◯ Yes
- ◯ No

8. How long have you been teaching/have you taught English? *

Marca solo un óvalo.

- ◯ Less than two years
- ◯ Less than five years
- ◯ Between five and ten years
- ◯ More than ten years

9. Have you received explicit phonetic instruction? (you were formally taught about phonemes, articulators, etc.) *

Marca solo un óvalo.

- Yes
- No

Explicit Phonetic Instruction experience

The following 33 statements will refer to your experience during explicit phonetics lessons.
Please try to remember your feelings and behaviors during learning phonetics in order to provide your answers.

10. 1. I never felt quite sure of myself when I was speaking in my phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
1					

11. 2. I never worried about making mistakes in phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
2					

12. 3. I trembled when I knew that I was going to be called on in phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
3	◯	◯	◯	◯	◯

13. 4. It frightened me when I didn't understand what the teacher was saying in the foreign language. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
4	◯	◯	◯	◯	◯

14. 5. It didn't bother me at all to take more foreign language classes. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
5	◯	◯	◯	◯	◯

15. 6. During phonetics class, I found myself thinking about things that did not have anything to do with the course. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
6	◯	◯	◯	◯	◯

16. 7. I kept thinking that the other students were better at languages than me. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
7	◯	◯	◯	◯	◯

17. 8. I was usually at ease during tests in my phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
8	◯	◯	◯	◯	◯

18. 9. I used to panic when I had to speak without preparation in phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
9	◯	◯	◯	◯	◯

19. 10. I worried about the consequences of failing my phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
10	◯	◯	◯	◯	◯

20. 11. I didn't understand why some people got so upset over phonetics classes. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
11	◯	◯	◯	◯	◯

21. 12. In Explicit Phonetics class, I could get so nervous I forgot things I knew. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
12	◯	◯	◯	◯	◯

22. 13. It used to embarrass me to volunteer answers in my Phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
13	◯	◯	◯	◯	◯

23. 14. I was NOT nervous speaking the foreign language with native speakers. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
14	◯	◯	◯	◯	◯

24. 15. I got upset when I didn't understand what the teacher was correcting. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
15	◯	◯	◯	◯	◯

25. 16. Even if I was well prepared for language class, I felt anxious about it. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
16	◯	◯	◯	◯	◯

26. 17. I often felt like not going to my Phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
17	◯	◯	◯	◯	◯

27. 18. I used to feel confident speaking in a Phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
18	◯	◯	◯	◯	◯

28. 19. I was afraid that my language teacher was ready to correct every mistake I made. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
19	◯	◯	◯	◯	◯

29. 20. I could feel my heart pounding when I was going to be called on in Phonetcis class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
20	◯	◯	◯	◯	◯

30. 21. The more I studied for a language test, the more confused I got. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
21	◯	◯	◯	◯	◯

31. 22. I didn't feel pressure to prepare very well for Phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
22	◯	◯	◯	◯	◯

32. 23. I always felt that the other students spoke the foreign language better than I did. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
23	◯	◯	◯	◯	◯

33. 24. I felt very self-conscious about speaking the foreign language in front of other students. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
24	◯	◯	◯	◯	◯

34. 25. Phonetics class moved so quickly I worried about getting left behind. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
25	◯	◯	◯	◯	◯

35. 26. I felt more tense and nervous in my Phonetics class than in my other classes. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
26	◯	◯	◯	◯	◯

36. 27. I got nervous and confused when I was speaking in my Phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
27	◯	◯	◯	◯	◯

37. 28. When I was on my way to Phonetics class, I felt very sure and relaxed. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
28	◯	◯	◯	◯	◯

38. 29. I got nervous when I didn't understand every word the language teacher said. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
29	◯	◯	◯	◯	◯

39. 30. I felt overwhelmed by the number of rules you have to learn to speak a foreign language. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
30	◯	◯	◯	◯	◯

40. 31. I was afraid that the other students will laugh at me when I spoke the foreign language. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
31	◯	◯	◯	◯	◯

41. 32. I thought I would probably feel comfortable around native speakers of the foreign language. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
32	◯	◯	◯	◯	◯

42. 33. I got nervous when the language teacher asked questions which I had not prepared in advance. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
33	◯	◯	◯	◯	◯

Appendix 3. *Maps*


Fire Sky
Evolution Mountain
Dangerous Cliff
Cookie House
Thunder Weather Valley
Golden Egg
Urgent Target
High Church
Good Ear Walls
Tropical City
Hidden Port


Mythical Land
Igloo
Nocturn Deer
Can't-Breath atmosphere
Sugar Garden
Wild Bird place
Toxic Volcano
Youth Fountain
Red Caves
One-idea lake
That burried Treasure
Gray Neighbourhood


Fire Sky
Evolution Mountain
Dangerous Cliff
Cookie House
Thunder Weather Valley
Golden Egg
Urgent Target
High Church
Good Ear Walls
Tropical City
Hidden Port

Appendix 4. *Consent to be a Research Subject*

Consent to be a Research Subject

Acoustic Description of Colombian English Production in ELF upon the light of Explicit Phonetic Instruction Influence on Language Anxiety

This investigation is being conducted by the undergaduate foreign languages teaching program student Julián Diettes; under the direction of Professor Kelly Vera Diettes from Universidad Nacional de Colombia. The study aims to recognize the acoustic features of 11 phonetic segments of English produced by Colombian users following the scope of ELF. By doing so, it will also examine the influence of explicit phonetic instruction on language anxiety, and will aim at identifying the attitudes towards this type of instruction within the curriculum.

The objectives of the investigation are described as it follows:

General Objective: To identify the acoustic variation in pronunciation of English by ELF Colombian users in the light of explicit phonetic instruction.

Specific Objective 1: To explore whether explicit phonetic instruction has an effect on language variation upon Colombian ELF users.

Specific Objective 2: To determine the extent to what explicit phonetics instruction influences anxiety for Colombian ELF users.

Specific Objective 3: To recognize the attitudes of Colombian English speakers towards their learning process regarding Explicit phonetic instruction.

Three instruments will be applied to fulfil the aforementioned objectives. From the first instrument, The map task, elements of your speech will be collected through an elicitation task in order to analyze the spectral features of vowel and consonant production of a number of English segments . From the second instrument, an adaptation of the Foreign Language Clasroom Anxiety Scale (FLCAS), concrete details from your experience with explicit phonetic instruction will be requested through a questionnaire. And for the third instrument, the interview, you will take part in a recorded conversation about your own attitudes towards explicit phonetic instruction in language teaching.

The implementation of these instruments will take no longer than 1 hour, and will be held at the linguistics laboratory at the UNAL between February 02 and 03, 2024.

As a participant, you must comply with the following characteristics:

Have been born in Colombia
Having Spanish as first language
Having English as a second language
Having a degree on language teaching
Being an English teacher (currently or in the past)
Have received English explicit phonetic instruction

Participation conditions:

- There are no risks for participation in this study.
- There are no direct benefits to subjects.
- Participation is voluntary; you have the right to withdraw at any time or refuse to participate entirely.
- All information provided will remain confidential and will only be reported with no identifying information.
- All collected data will be kept in a secure location and onlythe researcher and the director will have access to it.
- Results obtained from this study will be used for further academic projects and research and presented in conferences and/or academic publications.

If you have questions regarding this study, you may contact:

Julián Diettes: juliandiettes@gmail.com

Kelly Vera: kjverad@unal.edu.co

I have read, understood, and received a copy of the above consent and desire of my own free will and volition to participate in this study.

Full name: _____

Signature: _____

Date: _____

Appendix 5. *Pilot*

Language Anxiety in Explicit Phonetic Instruction

The present questionnaire is part of a three-section mixed study that aims to shed light on the outcomes derived by Explicit Phonetic Instruction and its influence on English speakers from Colombia that have Spanish as L1.
The study responds to partial fulfillment of the requirements for the degree in the Foreign Languages Teaching Program from the Universidad Industrial de Santader (UIS).
Therefore, your honesty and willingness to participate is fully appreciated.

This questionnaire is an adaptation of Horwitz, Horwitz & Cope (1986) Foreign Language Classroom Anxiety survey that provides an insight on the level of Language Anxiety generated within the language learning process. However, questions were directed towards Explicit phonetic instruction previous experience.

All information provided will remain confidential and will only be reported as group data with no identifying details. All collected data will be kept in a secure location and only the researcher and its director will have access to it. Participation is voluntary; you have the right to withdraw at any time or refuse to participate entirely.

Contact information

Researcher: Julián Andrés Diettes León - juliandiettes@gmail.com
Research director: Kelly Johana Vera Diettes - kjverad@unal.edu.co

* Indica que la pregunta es obligatoria

1. Correo *

Demographic information

2. Name *

3. Age *

4. Where are you from? (city) *

_____

5. Where do you live? (city) *

_____

6. What gender do you identify with? *

Marca solo un óvalo.

- ◯ Male
- ◯ Female
- ◯ Queer
- ◯ Other
- ◯ Prefer not to say

7. Are you currently working as an English teacher? *

Marca solo un óvalo.

- ◯ Yes
- ◯ No

8. How long have you been teaching/have you taught English? *

Marca solo un óvalo.

- ◯ Less than two years
- ◯ Less than five years
- ◯ Between five and ten years
- ◯ More than ten years

9. Have you received explicit phonetic instruction? (you were formally taught about phonemes, articulators, etc.) *

Marca solo un óvalo.

- Yes
- No

Explicit Phonetic Instruction experience

The following 33 statements will refer to your experience during explicit phonetics lessons. Please try to remember your feelings and behaviors in order to provide your answers.

10. I never felt quite sure of myself when I was speaking in my phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
I never worried about making mistakes in phonetics class.					
I never worried about mes in phonetics class.					
I never worried about cs class.					

11. I never worried about making mistakes in phonetics class. *

Marca solo un óvalo por fila.

	Strongly Agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
2	◯	◯	◯	◯	◯

12. I trembled when I knew that I was going to be called on in phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
3	◯	◯	◯	◯	◯

13. It frightened me when I didn't understand what the teacher was saying in the foreign language. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
4	◯	◯	◯	◯	◯

14. It didn't bother me at all to take more foreign language classes. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
5	◯	◯	◯	◯	◯

15. During phonetics class, I found myself thinking about things that did not have anything to do with the course. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
6	◯	◯	◯	◯	◯

16. I kept thinking that the other students were better at languages than me. *

Marca solo un óvalo por fila.

	Strongly Agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
7	◯	◯	◯	◯	◯

17. I was usually at ease during tests in my phonetics class. *

Marca solo un óvalo por fila.

	Strongly Agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
8	◯	◯	◯	◯	◯

18. I used to panic when I had to speak without preparation in phonetics class. *

Marca solo un óvalo por fila.

	Strongly Agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
9	◯	◯	◯	◯	◯

19. I worried about the consequences of failing my phonetics class. *

Marca solo un óvalo por fila.

	Strongly Agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
10	◯	◯	◯	◯	◯

20. I didn't understand why some people got so upset over phonetics classes. *

Marca solo un óvalo por fila.

	Strongly Agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
11	◯	◯	◯	◯	◯

21. In Explicit Phonetics class, I could get so nervous I forgot things I knew. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
12	◯	◯	◯	◯	◯

22. It used to embarrass me to volunteer answers in my Phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
13	◯	◯	◯	◯	◯

23. I was NOT nervous speaking the foreign language with native speakers. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
14	◯	◯	◯	◯	◯

24. I got upset when I didn't understand what the teacher was correcting. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
15	◯	◯	◯	◯	◯

25. Even if I was well prepared for language class, I felt anxious about it. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
16	◯	◯	◯	◯	◯

26. I often felt like not going to my Phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
17	◯	◯	◯	◯	◯

27. I used to feel confident speaking in a Phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
18	◯	◯	◯	◯	◯

28. I was afraid that my language teacher was ready to correct every mistake I made. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
19	◯	◯	◯	◯	◯

29. I could feel my heart pounding when I was going to be called on in Phonetcis class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
20	◯	◯	◯	◯	◯

30. The more I studied for a language test, the more confused I got. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
21	◯	◯	◯	◯	◯

31. I didn't feel pressure to prepare very well for Phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
22	◯	◯	◯	◯	◯

32. I always felt that the other students spoke the foreign language better than I did. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
23	◯	◯	◯	◯	◯

33. I felt very self-conscious about speaking the foreign language in front of other students. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
24	◯	◯	◯	◯	◯

34. Phonetics class moved so quickly I worried about getting left behind. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
25	◯	◯	◯	◯	◯

35. I felt more tense and nervous in my Phonetics class than in my other classes. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
26	◯	◯	◯	◯	◯

36. I got nervous and confused when I was speaking in my Phonetics class. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
27	◯	◯	◯	◯	◯

37. When I was on my way to Phonetics class, I felt very sure and relaxed. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
28	◯	◯	◯	◯	◯

38. I got nervous when I didn't understand every word the language teacher said. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
29	◯	◯	◯	◯	◯

39. I felt overwhelmed by the number of rules you have to learn to speak a foreign language. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
30	◯	◯	◯	◯	◯

40. I was afraid that the other students will laugh at me when I spoke the foreign language. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
31	◯	◯	◯	◯	◯

41. I thought I would probably feel comfortable around native speakers of the foreign language. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
32	◯	◯	◯	◯	◯

42. I got nervous when the language teacher asked questions which I had not prepared in advance. *

Marca solo un óvalo por fila.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
33	◯	◯	◯	◯	◯

Considerations about Explicit Phonetic instruction

The following is a set of ten open questions that have the purpose of understanding your point of view towards Explicit Phonetic Instructions (EPI) as a Colombian English speaking teacher. Therefore, this section refers to EPI as "explicitly teaching segmental and suprasegmental elements of the target language" (Saito, 2011, p. 46). Segmentals being: production and discrimination of vowels and consontant sounds, use of articulators, etc. And suprasegementals being: stress, intonation, pitch, etc. Moreover, this study highlights intellegibility as the purpose of pronunciation instruction. On that account Intelligibility is described as the reasonable understanding of language among interlocutors by generating effective communication.

this study aims to analyze the role of native-speakerism within pronunciation teaching in regards of language anxiety.

43. 1. Do you recognize a significant difference in your language production skills before and after you received EPI? How? *

44. 3. Do you think EPI should be included within language teaching in order to achieve intelligibility? Please elaborate on why. *

45. 4. Regarding segmentals and suprasegmentals, do you think both have the same importance in achieving intelligibility? Why? *

46. 2. In your language learning lessons, were you either explicitly or implicitly imposed to follow the purpose of resembling a native-like accent? If so, please elaborate on how. *

47. 5. Do you think that EPI must follow a native-like emphasis to achieve intellegibility? Please elaborate on why? *

48. 6. As a Colombian English teacher, do you use strategies to deal with language anxiety within pronunciation teaching? If so, please describe your strategies. *

49. 7. Regarding language skills (speaking, listening, reading, writing), which one do you think that causes more language anxiety to students? *

50. 8. Do you think that trying to copy a native-like pronunciation causes language anxiety to students? Please elaborate on why *

51. 9. Do you consider that pronunciation instruction following a model that does not intend to resemble a native-like accent would benefit students to achieve intelligibility? Why? *

52. 10. For you, what are the main aspects to take into account regarding pronunciation instruction? *