ABSTRACT

Methods for Teaching Introductory Spanish Phonology

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This study examines research-based methods of teaching pronunciation in an introductory Spanish course. It endeavors to create a lesson-plan structure from which instructors can build lessons to teach pronunciation. Five structured lesson plans were implemented over a five-week period, and a pre- and post-test were administered. Data from the pre- and post-tests were inconclusive in determining whether the method implemented in this study was effective. Despite the inconclusive data, results suggest that more pronunciation instruction should be included in the introductory classroom, as various studies have demonstrated its effectiveness. Additionally, results from student surveys demonstrate that students found pronunciation instruction to be helpful. Consequently, it is important for faculty at universities to consider including more explicit pronunciation instruction in introductory Spanish curricula.

Methods for Teaching Introductory Spanish Phonology

by

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A Thesis

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DEDICATION

To Grace

CHAPTER ONE

Introduction

1.1 Introduction to the Current Study

Research shows that there is a lack of pronunciation instruction in second language (L2) classrooms (Botero 2011; Elliott 1994; Martin 2020). There is also research showing that pronunciation instruction is not only effective but can help students feel more confident in their speech (Elliot 1997; Oyoma 1976). Despite various research-based methods, there is limited inclusion of such methods in the introductory classroom (Delicado Cantero et al. 2019). This project endeavors to propose a lesson structure applicable to various allophones of the Spanish language. This lesson structure provides a framework from which other lessons can be created. Using this structure, five lesson plans were created and implemented in an introductory Spanish classroom. The effectiveness of these lessons was tested using a pre-test and a post-test.

1.2 Introduction to Spanish Phonology

1.2.1 The Sounds of Spanish

For the purpose of this study, three different notations are used to describe the different sounds of Spanish. First, graphemes, which are the actual written letters, are indicated as so: <r>. Next, phonemes, which are categories of sounds, are noted as /r/. Finally, allophones, which are individual realizations of phonemes, are indicated as [r] (Morgan 2010).

1.2.2 Vowels

In Spanish, vowels are characterized by two main features: they are voiced and serve as the nuclei of syllables (Martínez Celdrán & Elvira-García 2019). The current study focuses on the ways in which Spanish vowels are voiced. Different vowel sounds are made by the shape of the mouth and the placement of the tongue (Dalbor 1997). There are three features that describe how vowels are pronounced: tongue height, tongue position, and rounding of the lips (Olarrea & Escobar 2001). All vowels in Spanish are tense, meaning the muscles of the tongue are tensed, the tongue tends to be a bit higher, and the duration is longer than in the relaxed vowels of other languages (Martínez Celdrán and Elvira-García 2019; Encylopaedia Britannica 2013). The tongue can be positioned as high, middle, or low in terms of height, and can be positioned in the front center or back of the mouth horizontally. Consequently, the placement of the tongue can be described with vertical and horizontal axes and therefore can be graphed as below.

	Front	Central	Back
High	i		u
Mid	e		o
Low		a	

Figure 1.1. Spanish Vowel Phonemes: The Grid (Dalbor 1997).

1.2.2.1 <a>. The letter <a> is represented by one phoneme: /a/.

The phoneme /a/ has only one allophone: [a].

In other words, it is pronounced the same in every situation in which it occurs. It is a low central vowel, meaning the tongue is low in the mouth and sits at the center (Dalbor 1997). There is no rounding of the lips (Olarrea & Escobar 2001).

1.2.2.2 <e>. The letter <e> is represented by one phoneme: /e/.

The phoneme /e/ has only one allophone: [e].

It is pronounced the same in every situation in which it occurs. It is a mid-front vowel, meaning the tongue is positioned in the middle of the mouth and sits at the front (Dalbor 1997). There is no rounding of the lips (Olarrea & Escobar 2001).

1.2.2.3 <o>. The letter <o> is represented by one phoneme: /o/.

The phoneme /o/ has only one allophone: [o]. It is pronounced the same in every situation in which it occurs. It is a mid-back vowel, meaning the tongue is positioned in the middle of the mouth and sits at the back (Dalbor 1997). The lips are rounded (Olarrea & Escobar 2001).

1.2.2.4 <i>. The letter <i> is represented by one phoneme: /i/.

Though Dalbor argues that three allophones exist for the phoneme /i/, this work focuses on one: [i].

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It should be noted that including the allophone [i̯] in the current study was considered; however, it was decided to not include diphthongization and syllabification in this study, which made the inclusion of this allophone unnecessary.

The allophone [i] is a high front vowel, meaning the tongue is high in the mouth and is pushed towards the front. There is no rounding of the lips (Olarrea & Escobar 2001).

1.2.2.5 <u>. The letter <u> is represented by one phoneme: /u/.

Dalbor also argues that three allophones exist for the phoneme /u/, but this work focuses on one: [u].

The allophone [u̯] was considered to be included in this study, however, again, diphthongization and syllabification were not included in this study, which made it unnecessary to include this allophone.

The allophone [u] is a high back vowel, meaning the tongue is high in the mouth and pushed towards the back. The lips are rounded (Olarrea & Escobar 2001).

1.2.3 <b> and <v>

The letters <b> and <v> are represented by one phoneme: /b/ (Dalbor 1997).

The phoneme /b/ has two principal allophones: a voiced bilabial stop [b], and a voiced bilabial approximant [β] (Hualde et al. 2001).

The allophone [b] is pronounced by pressing the two lips together to stop the airstream, which is then released abruptly without aspiration. It is slightly pre-voiced,

meaning the vocal bands start to vibrate a split second before the release of the airstream, and can be spelled using <b> or <v> (Dalbor 1997).

The allophone [β] is pronounced with the lips touching very slightly while still allowing the airstream to flow through. The vocal bands vibrate throughout but without obvious friction (Hualde et al. 2001; Dalbor 1997).

1.2.4 <d>

The letter <d> is represented by the phoneme: /d/.

The phoneme /d/ has two principal allophones: a voiced dental stop [d], and a voiced dental approximant [ð] (Dalbor 1997; Hualde et al. 2001).

The allophone [d] is pronounced with the tip of the tongue pressed against the back of the upper front teeth to stop the airstream. The airstream is then released abruptly without aspiration. The vocal bands begin to vibrate a split second before the release of the airstream (Dalbor 1997).

The allophone [ð] is pronounced with the tip of the tongue placed very slightly between the teeth. The airstream is not stopped, but rather continues through the horizontal slit formed (González-Bueno 2019).

1.2.5 <g>

The letter <g> can be represented by two phonemes: /g/ and /h/.

This study focuses on the phoneme /g/.

The phoneme /g/ has two principal allophones: a voiced velar stop [g], and a voiced velar approximant [ɣ] (Dalbor 1997; Hualde et al. 2001).

The allophone [g] is pronounced with the back of the tongue pressed against the velum to stop the airstream, which is then abruptly released without aspiration. The vocal bands start vibrating a split second before the release of the airstream (Dalbor 1997).

The allophone [ɣ] is pronounced with the back of the tongue placed lightly against or very close to the velum. Rather than being stopped, the airstream continues steadily through the horizontal slit formed by the tongue dorsum and the velum without friction (Dalbor 1997; Hualde et al. 2001).

1.2.6 <r> and <rr>

The letter <r> can be represented by two phonemes: /r/ and /ɾ/.

The letter <rr> can only be represented by one phoneme: /r/.

The phoneme /r/ has one allophone in Spanish: a voiced alveolar trill [r].

The phoneme /ɾ/ has one allophone in Spanish: a voiced alveolar tap [ɾ].

The allophone [r] is pronounced when the tongue tip, under great tension, strikes the alveolar ridge several times in rapid succession. It should be noted that [r] can also be written as <rr>.

The allophone [ɾ] is pronounced by the tongue tip quickly striking the alveolar ridge once as the airstream passes through, creating a tap (Dalbor 1997).

1.2.7 A Brief Introduction to Prosody

Prosody consists of suprasegmentals such as syllables. In discussing syllabification, the way syllables are formed in a language, it is important to understand the way stress relates to syllables. Spanish is different from English as it is a syllable-

timed language. Some syllables are stressed while others are not, but all syllables are pronounced with roughly the same duration. English is a stress-timed language; there are regular intervals between stressed syllables. This means the "duration of an utterance is dependent on its number of syllables" (de-la-Mota 2019). For example, the following sentence has ten syllables: "Jim's going on a picnic with his friends." Because English is stress-timed, it is possible to add many more syllables without adding a corresponding increase in the amount of time it takes to say it. An example of this is the following: "My brother Jim's going on a picnic with his friends tomorrow." Though this sentence has 60% more syllables, is possible to say this sentence out loud without taking 60% more time to say it since the number of stressed syllables has not increased 60%. On the other hand, Spanish is a syllable-timed language, meaning each syllable is pronounced for the same amount of time. For example, the same sentences above in Spanish would be: *Jaime va a hacer un picnic con sus amigos* (Jaime is going to do a picnic with his friends) and *Mi hermano Jaime va a hacer un picnic con sus amigos mañana* (My brother Jaime is going to do a picnic with his friends tomorrow). A Spanish speaker would take significantly longer to pronounce the second sentence than the first one since each syllable is given the same amount of time. Understanding this element of a second language (L2) is beneficial to the learner as it will help them in their fluency. Prosody is an important piece of pronunciation; however, the current study instead focuses specifically on phonemes.

1.3 Review of the Literature

1.3.1 The Importance of Pronunciation Instruction in the Introductory Classroom

There is extensive research exploring whether explicit instruction improves introductory L2 pronunciation (Thompson & Derwing 2015). Thompson and Derwing found mixed results in their review of the literature due to various factors, such as lack of control group, individual learner differences, and type and duration of instruction. Despite these inconsistencies, they acknowledge reports of improvement, which are supported by other research indicating that pronunciation instruction is effective (Thompson & Derwing 2015; Elliot 1997; Oyoma 1975). Though the literature supports including explicit pronunciation instruction, there is a lack of such instruction in the introductory Spanish classroom (Huensch 2019). Arteaga (2000) calls for an increase in explicit pronunciation instruction, showing the shifting attitudes towards including more instruction on pronunciation when teaching introductory Spanish . The following paragraphs explore these topics: (1) the effectiveness of explicit pronunciation instruction, (2) the importance of pronunciation instruction, (3) the current lack of pronunciation in the classroom, (4) previous studies and proposed methods of teaching pronunciation, and (5) the current study's approach to pronunciation instruction based on three main phases of acquisition.

1.3.2 Effects of Pronunciation Instruction in the Introductory Classroom

Formal instruction in pronunciation is effective. In his 1995 study exploring factors affecting acquisition of L2 pronunciation, Elliot concluded that explicit instruction was effective and therefore necessary in the intermediate Spanish classroom.

Though he examined various factors which can affect acquisition of L2 pronunciation, he found that explicit instruction was a consistent indicator of improvement while the other factors were not (Elliot 1995). Although the current study deals with the introductory level, Elliot's study supports the claim that L2 pronunciation instruction is generally effective. Hurtado and Estrada's (2010) work further supports this effectiveness. Hurtado and Estrada (2010) examined multiple factors in a comparative study between a study abroad experience and a pronunciation course and found that formal instruction improved students' pronunciation of the tap and trill <r> regardless of other factors. Another study examining the difference in the pronunciation between English and Spanish of initial stops /p t k/ indicates that formal instruction can result in improvement of pronunciation of said phones (González-Bueno 1994).

In addition to formal instruction, research has examined other factors that affect the acquisition of pronunciation by L2 learners. Elliot (1994) found that degree of field independence, which is related to more analytical skills and attention to detail, as well as right cerebral dominance, which is dominance of the right sde of the brain which is more skilled in "spacial tasks, recognizing faces, and music" (Oxford 1989) were effective predictors of pronunciation accuracy by students (Brown 1987; Chapelle & Roberts 1983, 1984; Hansen & Stansfield 1981). The same study also concluded, "that teaching proved to have a positive effect regardless of these innate differences" (Elliot 1994). Elliot further found that students' attitudes towards the subject of pronunciation was an indicator of performance, with students who were more concerned with pronunciation having better mastery. This finding has been supported by other research as well (Elliot 1994; González-Bueno 1994; Gardner & Lambert 1972). However, Arteaga (2000)

found conflicting evidence in the research about whether attitude positively or negatively affects successful pronunciation acquisition and concluded that "attitude alone is no guarantee of success." Additional research has examined the effects of study abroad on pronunciation acquisition (Hurtado & Estrada 2010, Schmidt 2018). However, the current study does not consider this factor as it is focused on introductory level Spanish, which assumes no study abroad experience. This factor could be important and is certainly a topic for further exploration; however, its scope is beyond the boundaries of this study. Further research explores the critical age for learning pronunciation and would suggest that beyond a certain age, learning correct pronunciation is impossible or nearly impossible. This theory, however, has been refuted by various studies (González -Bueno 1994; Walsh & Diller 1979). More recent research supports this, with Singleton and Lesniewska (2021) stating that the theory, known as the Critical Period Hypothesis is in a state of being "'not proven' and unfalsified" (Birdsong 2018). One study found that there is no significant argument against the critical age theory, but also determined that significant progress is possible, and therefore pronunciation should not go untaught when working with adults (Oyoma 1976). Given these factors, it is evident that regardless of other potential factors, explicit pronunciation instruction can be effective, and therefore should be taught.

The role of first language (L1) transfer, which occurs when students apply concepts from their L1 to an L2, has also factored into L2 pronunciation acquisition (Schmeiser 2019; Zampini 2019). There is the possibility for both positive and negative L1 transfer. In the case of positive transfer, Zampini (2019) argues that for the tap [ɾ], students with English as their L1 can transfer the tap found in words such as *butter* and

ladder to the Spanish tap [ɾ] in words such as *cara*. This method is supported by other

researchers, such as Schmeiser (2019), who suggests a similar activity using English

words such as *cuter* and *cedar* to help students acquire the tap [ɾ]. Extensive research

suggests that negative transfer can impact pronunciation. One article exploring the role of

transfer in the acquisition of Spanish spirantization concluded that negative transfer does

affect such acquisition especially as it pertains to Spanish voiced aspirants. In Spanish,

there are some cases in which /d/ is pronounced as [d] and some cases where /d/ is

pronounced as [ð]. There is no such distinction in English, which causes many students

whose L1 is English to pronounce all instances of /d/ as [d] (Zampini 1994). It was also

found that the transfer of English retroflex <r> as in *rough* to Spanish was one of the

clearest indicators of a foreign accent (Hurtado & Estrada 2010; Hualde 2005; Schwegler

et al. 2007; Martínez Celdrán & Elvira García 2019). L1 transfer plays an important role

in L2 pronunciation acquisition. It is helpful in the acquisition of certain allophones such

as [ɾ] and but is detrimental for allophones such as [d] and [ð].

Regardless of field independence, attitude, study abroad, critical age, and transfer,

it has been shown consistently that formal instruction can help improve pronunciation

(Arteaga 2000; Botero 2011; Counselman 2015; Elliot 1995; 1997; González-Bueno

1994; Hurtado & Estrada 2010; Kissling 2014; Thompson & Derwing 2015).

1.3.3 The Importance of Explicit Pronunciation Instruction

The teaching of pronunciation is important because good pronunciation benefits

the L2 learner in multiple ways. One way that improved pronunciation benefits the

learner is that it reduces the social stigma faced by those with inferior pronunciation

(Arteaga 2010; González-Bueno 1994; Levi-Ari & Keysar 2010; Oyoma 1976). In fact, an accent can make the L2 speaker seem less credible (Levi-Ari 2010). L2 learners may also be self-conscious of their pronunciation which could lead them to avoid certain situations (Oyoma 1976, Elliot 1997). Teaching pronunciation early on could help students to be more confident in their speech (Elliot 1997). Improved pronunciation can also help L2 learners to communicate more comprehensibly (McBride 2015). This argument is supported by Thompson and Derwing's (2015) claim that "pronunciation research and instruction should be primarily concerned with *helping learners become more understandable.*" This claim raises a question about the goals of pronunciation instruction. There are differing beliefs in the literature about whether or not the goal of pronunciation instruction should be native or native-like pronunciation. One study claims that the goal is a pronunciation that is "acceptable by native speakers" (González-Bueno 1994). This goal begs the question of what is "acceptable." Elliot describes a foreign accent as "any oral linguistic output that a native Spanish speaker would deem as *sounding* unnatural or nonnative" (Elliot 1997). González-Bueno (2019) asserts that mispronunciations that do not compromise the intelligibility of the utterance can still be perceived as a foreign accent by native speakers. Therefore, it could be asserted that an L2 learner could have an accent which does not compromise intelligibility, yet still "sounds" unnatural. Zárate-Sández (2019) points out that achieving native-like pronunciation may be unrealistic for students and that they should strive for "comprehensible and intelligible pronunciation, which can be achieved even if learners retain traces of a foreign accent" (Munro & Derwing 1999; Levis 2005; Zárate-Sández 2005). Some argue that a "learner's dialect" should be emphasized in the introductory

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class to make acquisition easier for the L2 learner (Arteaga 2000; Bergen 1974; Zárate-Sández 2019). In a learner's dialect, the student focuses on the most important allophones for L2 learners to acquire. This learner's dialect could help students whose pronunciation is unintelligible to attain a pronunciation which, though still "sounding" foreign, is more intelligible.

The current study endeavors to implement methods of teaching pronunciation which would facilitate the acquisition of pronunciation that is as close to native sounding as possible, with the understanding that native or native-like pronunciation may be an unrealistic expectation of introductory Spanish students.

1.3.4 Demonstrations of the Current Lack of Pronunciation in the Introductory Classroom

Pronunciation instruction has been neglected in the introductory classroom due to various factors (Elliot 1997; Huensch 2019). First, pronunciation is not included in many textbooks. If it is included, there is often minimal information. Second, teachers often do not feel pronunciation instruction is important, or they do not feel prepared to teach pronunciation. There also seems to be little emphasis on the importance of pronunciation according to the ACTFL guidelines, which have been found to be vague (Arteaga 2000). Arteaga explains that students are not expected to be understood by the general public until they have reached the Advanced-Low level (Arteaga 2000). She also mentions that the guidelines state that students at the Superior level should speak with fluency but fail to include a clear definition of fluency (Arteaga 2000). This lack of clarity in the guidelines is reflected in both the lack of pronunciation instruction itself, and the lack of understanding by instructors as to how to implement such instruction.

Multiple researchers have found that L2 instruction lacks pronunciation teaching. Some of the most relevant research to the current study was conducted by Huensch (2019) titled, "The Pronunciation Teaching Practices of University-level Graduate Teaching Assistants of French and Spanish Introductory Language Courses," which found evidence that pronunciation did not play a central role in teaching. Part of the reason that pronunciation instruction is often omitted is the shift towards more communicative teaching methods emphasizing use over perfection of form (Gonzalez-Bueno 1994; Huensch 2019). Martínez Celdrán and Elvira-Garcia (2019), further explain that a lack of instruction may indicate that pronunciation is seen as a long-term rather than short-term goal. They argue that it is imperative to start pronunciation instruction in the introductory classroom. For these reasons pronunciation should be taught in the introductory classroom.

Many introductory textbooks address pronunciation in some form (Elliot 1997; Arteaga 2000); however, coverage of the topic is minimal and therefore insufficient (Arteaga 2000). Delicado Cantero et al. (2019) examined Spanish teaching curriculum around the globe and consistently found pronunciation instruction to be insufficient. This lack of pronunciation instruction in textbooks has been explored in various studies (Delicado Cantero et al. 2019; Martínez Celdrán & Elvira-García 2019; Lord 2005; Stevens 2011). Martínez Celdrán and Elvira-Garcia (2019) found that course textbooks rarely include pronunciation because it is understood to be a straightforward skill (Stevens 2011). Textbooks that do include pronunciation often give non-technical descriptions of how to pronounce certain sounds which do not include specific instructions as to where in the mouth sounds are pronounced (Lord 2005). The current

study examines the textbook *Vistas* (Blanco & Donley 2020). Notably, just one page per chapter addresses pronunciation. Further discussion can be found in chapter 1.4 of the current study. There seems to be a disconnect between current research trends and introductory Spanish curriculum. Many current studies employ explicit phonological explanations as part of the pronunciation instruction being tested. However, this research is not necessarily reflected in textbooks. As Delicado Cantero et al. state "years of studies pinpoint the importance of explicit pronunciation teaching, yet research is not consistently reaching the classroom" (2019 p. 308). This lack of research-based methods in the classroom demonstrates that there is a need for more classroom materials. The current study endeavors to create materials to be used in the introductory Spanish classroom.

Another factor in the lack of pronunciation instruction in first year classrooms is a lack of instructor knowledge and preparedness, as well as instructors' attitudes towards pronunciation instruction (Martin 2020; Delicado Cantero et al. 2019). One study that surveyed instructors found that much of the pronunciation instruction consisted of feedback to students by modeling correct pronunciation (Olson 2014). The same survey also found that 53% of instructors included pronunciation lessons (Olson 2014). Nevertheless, there was much uncertainty on the part of instructors as to how to implement pronunciation instruction (see figure 1.2 below) (Olson 2014). This lack of confidence demonstrated by the instructors in Olson's study resonates with the current study's own researcher and was a primary motivation for the current study. Delicado Cantero et al. (2019) further explore teacher attitudes in their article exploring the challenges of teaching Spanish pronunciation from an instructor training perspective.

The article compiled a summary of some popularly held beliefs towards pronunciation

instruction, found below (Delicado Cantero et al. 2019).

1. Spanish pronunciation is easy.
2. Pronunciation is spelling and reading; given the clear correspondence between letters and sounds in Spanish, teaching pronunciation is not necessary.
3. Due to time limitations, other aspects, perceived as more important, or core, must be given preference in the class (e.g., grammar, vocabulary, and culture).
4. Students will learn pronunciation naturally through contact with native speakers or overseas.
5. There are too many dialects, making teaching pronunciation impossible.
6. Students get frustrated too easily with pronunciation errors.
7. Including pronunciation in the classroom requires a phonetician.
8. Pronunciation is sidelined in many popular Spanish/L2 textbooks; therefore, it is not taught or integrated in the curriculum.
9. There are no materials available for easy adaptation to class.

Figure 1.2. Teacher's beliefs that potentially challenge effective pronunciation teaching (Delicado Cantero et al. 2019).

Instructor 5: I don't have specific lessons on this topic.
Instructor 6: A pronunciation section would be a great idea, but the logistics of it I just don't know [how].
Instructor 9: I don't spend much time on pronunciation because I don't know how and there is no material provided [for pronunciation instruction].
Instructor 17: I don't really have an organized way of doing it.

Figure 1.3. Summary of instructor attitudes toward pronunciation instruction (Olson 2014).

The uncertainty about how to include pronunciation instruction could stem from a

lack of knowledge of the phonological systems needed to implement such instruction

(González-Bueno 2000; de-la-Mota 2019). It is ultimately up to the instructor to ensure

pronunciation instruction is included in class periods (González-Bueno 2019). Due to

this, it is necessary for teachers to have access to materials that clearly present

pronunciation instruction in a way that is accessible for both the teacher and the student.

1.3.5 Previous Studies on Methods of Teaching Pronunciation

Given the effectiveness of pronunciation instruction, and the gap in teacher training on pronunciation, there have been many studies on methods of teaching Spanish pronunciation. These studies range from methods in the classroom for specific phonemes, to ways to include technology in the classroom, to studies on providing pronunciation instruction outside the classroom.

The following provides a summary of a variety of articles included in the book *Key Issues in the Teaching of Spanish Pronunciation*, a compilation of fifteen articles giving both explanations of specific difficulties in teaching pronunciation, as well as suggestions for methods of teaching pronunciation (Rao 2019). This book became central to the current study by providing ideas for pedagogy to be implemented in the lesson plans.

The first article included is "Description of Spanish Vowels and Guidelines for Teaching Them" by Martínez Celdrán and Elvira-Garcia. They first describe how each vowel is articulated and then describe individual phonetic features. Facial diagrams are included for each vowel, as well as diagrams demonstrating how vowels are pronounced in terms of tongue placement. Such diagrams can be seen below in Figures 1.4 and 1.5. Phonetic variation is also addressed. The authors go on to explain the prosodic properties of vowels in Spanish such as syllabification, and then give suggestions on how to teach them. They provide suggestions for exercises to awaken vowel awareness, followed by exercises for *perception*, including working with minimal pairs and spontaneous speech. Finally, *production* exercises are suggested as well as exercises for repetition and

imitation. They also mention that games might be used as further practice. This article informed the lesson plan on vowels for the current study.
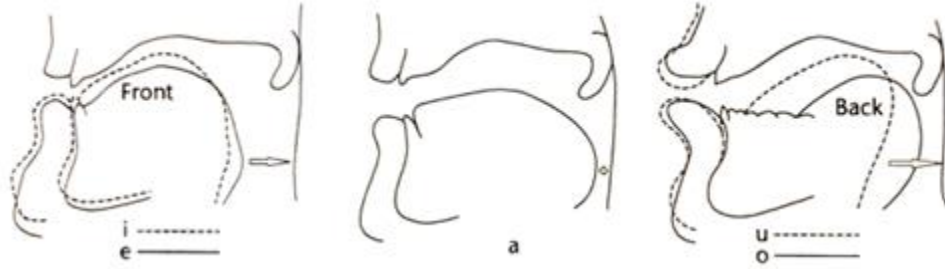
Figure 1.4. Articulatory diagrams of Spanish vowels showing tongue position, lip rounding, and pharyngeal width (Martínez Celdrán & Elvira-García 2019).
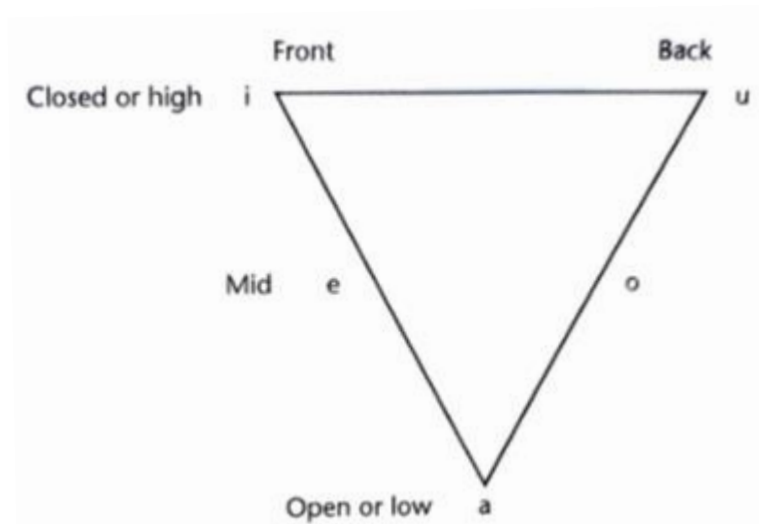

Figure 1.5. Schematic representation of the Spanish vowel system (Martínez Celdrán & Elvira-García 2019).

The third article in the book is titled "Suggestions for Teaching Spanish Voiced Stops /b, d, g/ and their lenited allophones [β , ð , ɣ]" (González-Bueno 2019). The article begins with an introduction to the study, then a description of the phonetic characteristics of the allophones, followed by a description of the articulatory characteristics and acoustic characteristics. Facial diagrams are also included to demonstrate more clearly

where the stops are pronounced. A summary of studies on the acquisition of [β, ð, ɣ] is given before moving on to instructional suggestions. Gonzalez-Bueno (2019) outlines the PACE model proposed by Adair-Huack and Donato (2002) that has been used in teaching grammar. The PACE model is a top-down approach that first presents a text to contextualize the lesson (presentation). Students' attention is then called to the form to be learned, and then they are asked to come up with the rule for the form (co-construction). Next, students complete practice activities using the new form (extension). This model can be adapted for pronunciation. Using the PACE model as a basis, González-Bueno (2019) proposes her S-PACE model outlined below in Figure 1.8. The S-PACE model adds two steps to the original PACE model: structured input exercises and structured output exercises to bridge the gap between the Co-Construction and Extension phases. These extra steps are based on research finding Van Patten's (1996) Processing Instruction (PI) to be helpful for students learning pronunciation. PI makes students aware of the difficulties they have in acquiring some aspect of a language, then exposes them to controlled practice activities designed to focus on the area of difficulty (González-Bueno 2019). Therefore, in the S-PACE model, structured input and output activities were included. Finally, the article provides a sample lesson that helped to serve as a basis for all the lesson plans in the current study.

Figure 1.6. Articulation of [b] and [β] (González-Bueno 2019).
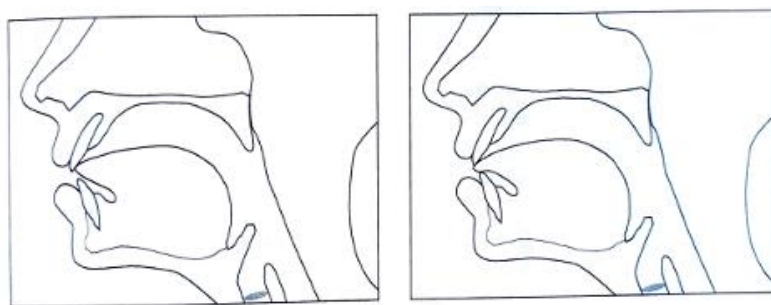
Figure 1.7. Articulation of [d̪] and [ð] (González-Bueno 2019).
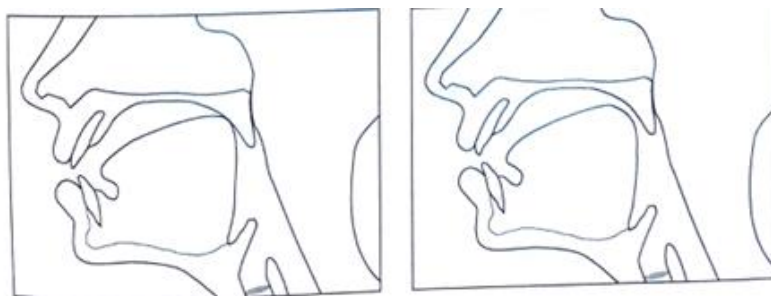
Figure 1.8. Articulation of [g] and [ɣ].
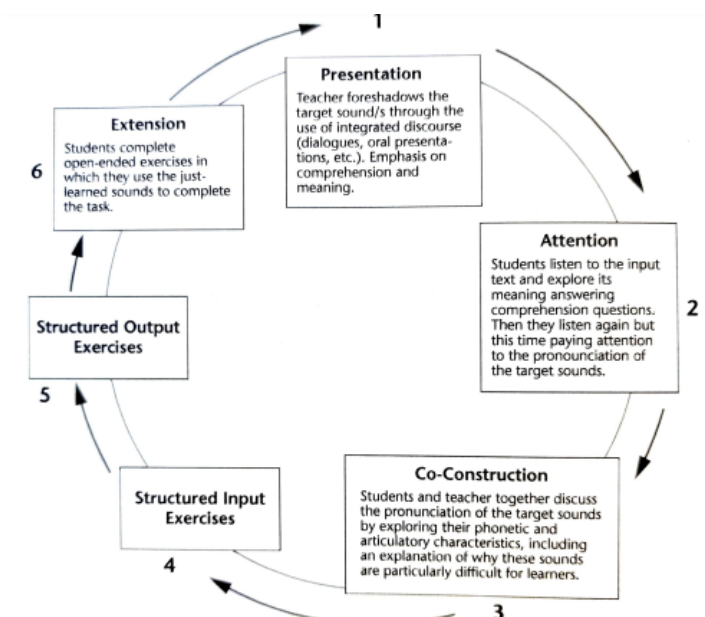
Figure 1.9. The S-PACE model (González-Bueno 2019).

The fifth article in the book, titled "Issues in the Teaching of Spanish Liquid Consonants" by Benjamin Schmeiser, also proved useful in creating lesson plans for the current study. Schmeiser (2019) first explains that "sonorants are produced with periodic airflow that is neither interrupted nor turbulent." He then explains the different types of sonorants, including lateral approximants and rhotics, which together are known as liquids. Lateral approximants are voiced, with the tongue tip striking the alveolar ridge. Rhotics are also produced with the tongue striking the alveolar ridge, however the tap /ɾ/ consists of a singular rapid strike while the trill /r/ is pronounced with the tongue rapidly striking the alveolar ridge continuously. Facial diagrams and spectrogram waveforms are included for both lateral approximants and rhotics to help with the visualization of these phonemes. Schmeiser (2019) also includes a discussion of Spanish liquid production by L2 learners in which he summarizes the struggles of L2 learners. He focuses specifically on velar articulation, which is when English speakers pronounce the /l/ as the "dark l"

found in *wall*. Schmeiser also discusses difficulties English-speaking students have with the retroflex <r>, which is the <r> found most commonly in English in words such as *round*. After summarizing previous research on the acquisition of Spanish liquids, Schmeiser (2019) offers practical applications for the classroom. Schmeiser (2019) provides exercises for production of the lateral approximant /l/ with the phoneme in different positions within words. To produce the rhotic tap, the author suggests first having students pronounce words in English that produce the rhotic tap, then pronouncing words in Spanish with the same phoneme in order to take advantage of positive transfer. For the rhotic trill, an exercise is suggested in which students first pronounce the rhotic tap and then attempt to pronounce the trill, using the tap as a starting point. These exercises were used in creating lesson plans for the current study.
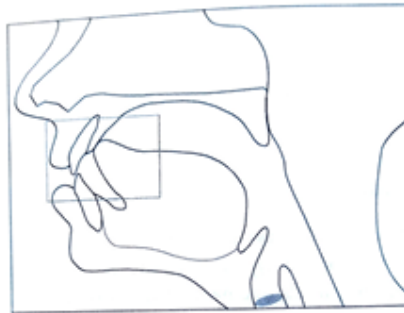
Figure 1.10. Articulatory production of a Spanish lateral approximant [l] (Schmeiser 2019).
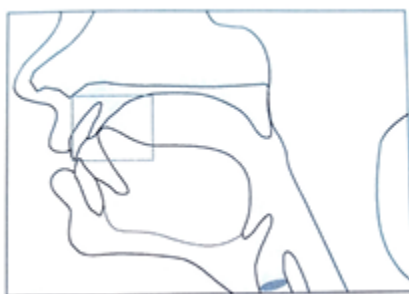
Figure 1.11. Articulatory production of a Spanish tap [ɾ] (Schmeiser 2019).

The tenth article in the book, titled "Incorporating Technology into the Teaching of Spanish Pronunciation" by Gillian Lord, offers an overview of the state of technology use, or computer-assisted pronunciation teaching (CAPT), in relation to teaching pronunciation. Lord (2005) first explains how Automatic Speech Recognition (ASR) can determine whether a recording by a student presents accurate pronunciation. She then explains the use of visualization tools such as spectrograms and how they can be helpful for comparing L2 learners' pronunciation with native speakers. There is also a discussion of "social" tools such as chat and messaging systems as well as podcasts that allow students to interact with native speakers. Lord also provides further suggestions for applications of such technologies.

In addition to Lord's (2005) explanation of different technologies that could be used in the L2 classroom for pronunciation acquisition, other studies have also applied the use of such technology. In Botero's (2011) review of two studies at Pennsylvania State University, he describes how students received metalinguistic explanation as well as audible input through online programs outside of class. These methodologies were successful, which indicates that technologies used to teach pronunciation outside the

classroom can be effective. Olson's discussion of technology in the classroom further explains the potential benefits of using technology for phonological instruction. In his study, speech analysis software was used to facilitate self-analysis among students. This software was beneficial and highly functional in the introductory classroom (Olson 2014). The use of technology in pronunciation instruction could enable students to acquire pronunciation outside the classroom. Martin (2020) examines this topic in his article exploring the use of computers as a delivery method for pronunciation instruction to facilitate homework-based pronunciation acquisition. The results of the study suggest that this technology and homework-based method of teaching pronunciation is as effective as in-class instruction (Martin 2020). The results of these three studies indicate that technology is an effective tool in teaching pronunciation. It is important to continue researching the use of technology in pronunciation instruction, especially given the recent increase in online instruction in general due to the COVID-19 pandemic. However, this study is focused on classroom instruction.

1.3.6. The Current Study

When exploring teaching pronunciation, three main steps emerge in the literature: *attention*, *perception*, and *production*. *Attention* is a vital step because it brings about an awareness of the differences in pronunciation in Spanish versus in English. Activities to encourage *attention* include having students record themselves then compare their recordings to those of native Spanish speakers and playing recordings of minimal pairs and asking students to identify the differences in sound. (Martínez Celdrán & Elvira-Garcia 2019; González-Bueno 2019). The next step, *perception*, is important because "if

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a learner does not accurately perceive new sounds in their second language, they may not be able to distinguish between certain word pairs" and because "target-like perception is a precursor to target-like production" (Flege 1995; Goodin-Mayeda 2019; Colantoni & Steele 2008; Kissling 2014,2015). Once the first two steps have been completed, students can move on to *production*, arguably the most important step in acquiring better pronunciation. The following paragraphs provide a more in-depth explanation of these three steps.

1.3.6.1 The Role of Attention. Attention plays an important role in the acquisition of L2 phonology because when students are more aware of the differences in languages, they will be more likely to create new categories within their second language competencies for sounds that are different (Goodin-Mayeda 2019; Colantoni 2019; Schmidt 2018). One study indicates that it is "possible to direct students' attention to differences in L1 and L2 sounds in a way that leads to pronunciation improvement" (Counselman 2015). This idea is supported by Lee et al. (2020) who state that "learners' attention must be explicitly drawn to the differences in the L2 and the L1 via form-focused instruction (FFI), and that errors in the learners' L2 *production* would benefit from explicit corrective feedback." This statement is further supported by Elliot's (1997) study in which he finds that "adult learners of Spanish will benefit from phonological instruction when they complete exercises that focus their attention on the target language sound system." Robinson et al. (2011), expand upon the role of *attention* in their article exploring *attention* in various areas of L2 acquisition. They relate *attention* in teaching pronunciation to the "input enhancement" methods of grammar instruction that include

bolding or italicizing the forms focused on in a particular lesson. They then go on to discuss Krashen's (1982) theory and how it would seem that all that is necessary for acquisition of an L2 is "comprehensible input." Robinson et al. (2011), however, cite Schmidt's (1995) argument that there is no learning without *attention*, thus underscoring the importance of *attention* in all L2 instruction.

In González-Bueno's (2019) explanation of the S-PACE model, the role of *attention* is presented, and example activities are given, such as playing a dialogue and asking students to pay attention to the specific phoneme that is the focus of the instruction for that day. Students are then asked about the characteristics of said phoneme and whether it is always pronounced the same or not (González-Bueno 2019). Another way of bringing students' attention to specific phonological properties is asking them to compare a recording of themselves to a recording of a native speaker (Martínez Celdrán & Elvira-García 2019; Schmeiser 2019). This method is effective because when students are made aware of the difference between their own pronunciation and that of a native speaker, they will become curious as to how to get their speech to sound more native-like (Schmeiser 2019). Games can also be used to help increase students' attention. For example, they could take turns pronouncing certain words or phrases in Spanish in front of the class in a "fishbowl" activity where students are seated in a circle with one student speaking at a time either from their seat, or in the middle of the circle (Rafat & Perry 2019).

Clearly, *attention* plays an important role in the acquisition of a second language, and specifically in terms of pronunciation. Consequently, it is important to include exercises to bring students' attention to specific sounds in pronunciation instruction.

1.3.6.2 The Role of Perception. *Perception* is integral to acquisition of L2

pronunciation (Goodin-Mayeda 2019; Colantoni et al. 2021; González-Bueno 1994;

Kissling 2014). This idea is expanded upon in Flege's (1995) Speech Learning Model

(SLM), that "claims that accurate speech perception precedes or is central to the

development of accurate production abilities" (Kissling 2014). The SLM also endeavors

to "explain how inaccuracies in perception of L2 sounds lead to a foreign accent in

speech production" (Schmidt 2018). Kissling's (2014) study examining the effects of

perception on pronunciation includes the testing of explicit instruction followed by

activities in which students identify Spanish and English sounds in isolation. This study

concluded that *perception* was a determinant of improved pronunciation, supporting the

claims of the SLM (Kissling 2014). Botero (2011) conducted further research, which

employed both perceptual training and metalinguistic explanation, and found this method

to be effective in improving pronunciation. Of note, perceptual input and metalinguistic

explanation were not isolated; therefore, it is not possible to tell which, if any variable,

had a greater impact. One method designed to improve student *perception* of /a e o/

proposes having students read lists of words along with the phonemes. Students are then

asked to transcribe what they hear (Colantoni et al. 2021). A common exercise for

students to learn and practice *perception* is by working with minimal pairs, which are

words having different meanings but whose pronunciation only differs by one sound

(Martínez Celdrán & Elvira-Garcia 2019; Goodin-Mayeda 2019; Zampini 2019).

Zampini (2019) suggests preparing audio files of native speakers pronouncing lists of

minimal pairs and playing them for students. Martínez Celdrán and Elvira-Garcia (2019)

also propose using minimal pairs to help train *perception*, but they also mention the

importance of "real world" scenarios. They suggest having students listen to radio or television interviews which would have such factors as background noise, reflecting speech in the "real world." Evidently, *perception* plays an integral role in the acquisition of L2 pronunciation, and there are a variety of perception-based activities which teachers can employ.

1.3.6.3 The Role of Production. The final step which emerges from the literature is *production*. Given that pronunciation is part of the production of an L2, it follows that *production* is necessary for pronunciation acquisition. Examples of potential *production* activities are as follows. Zampini's (2019) article on the pronunciation of voiceless stops emphasizes presenting pronunciation activities that include a variety of contexts and build in difficulty and length. Suggested activities start with minimal pairs such as *hipo* and *hito* and continue to full phrases such as *come el tomate* (Zampini 2019). Martínez Celdrán and Elvira-Garcia (2019) mention that the ideal *production* activities are ones in which students self-evaluate, such as recording themselves and then evaluating the recordings, and even visualizing their production using spectrograms (though they note that it is likely only possible at the university level in phonetics courses). In another study students were asked to submit a recording of themselves pronouncing all words practiced in a take home unit (Martin 2020). Yet another suggestion for *production* exercises, specifically in first year textbooks, is the inclusion of lists of words in the first few chapters, followed by more complex phrases in the later chapters, and finally exercises which elicit free conversation while encouraging the student to focus on specific aspects of pronunciation (Arteaga 2000). *Production* is integral to pronunciation instruction since

pronunciation is demonstrated through production of words in the target language. Hence, it is important to include *production* activities in L2 pronunciation instruction.

These three stages, *attention*, *perception*, and *production*, continuously appear in the literature, making it clear that the lessons for the current study should be structured to include all three. Chapter 2.2 explains how each stage is included in the lesson plans for the current study.

<center>*1.4 The Current Study*</center>

1.4.1 An Exploration of the Textbook Vistas

This section provides a review of pronunciation sections as presented in the *Vistas* textbook used in the current study's class. In each chapter, there is a one-page pronunciation section focusing on a different aspect of pronunciation. The idea for this study is to implement lesson plans that follow the order of the pronunciation lessons in *Vistas*; however, the researcher took some liberties regarding what to include and in which order to implement the lessons. Introductory Spanish at Baylor University (SPA 1301) covers the first seven chapters of *Vistas*. Chapter One presents the Spanish alphabet. It was elected not to create a lesson plan for this content since it does not deal with specific allophones. Chapter Two introduces vowels, which became the basis for the first lesson plan implemented in the current study. Chapter Three introduces diphthongs and linking. It was elected not to include a lesson plan on these topics, known as prosody, as they do not deal with individual allophones, the focus of the current study. Chapter Four introduces word stress and accent marks. It was also elected to not include lesson plans covering this topic since the focus of the current study is on individual allophones.

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Chapter Five introduces the Spanish <b> and <v>, which became the basis for the second

lesson plan implemented in the current study. Chapter Six introduces the Spanish <d>

and <t>. The current study includes a lesson plan on the Spanish /d/, but the lesson plan

focuses on the difference between /d/ and /ð/, rather than including the orthographic letter

<t>. Chapter Seven covers the letter <r>, which became the basis for the third lesson plan

on /ɾ/ and /r/. It should be noted that a lesson plan on the letter <g> was also implemented

in the current study though it does not appear in the first seven chapters, but rather in

chapter nine. The current study endeavors to follow the general structure of the *Vistas*

textbook, but some changes were made regarding which allophones were taught and

when (Blanco & Donley 2020). Images of the textbook pages can be found in Figures

A.1 – A.7.

1.5 Conclusion

This chapter serves as an introduction to the current study. First, an explanation of

the phonemes to be studied is given, along with other pertinent linguistic information.

Next, the relevant literature to the current study is summarized, which provides a

background for the structure and methods used. Finally, the textbook *Vistas* is reviewed

as it provided the general structure for instruction (Blanco & Donley 2020). In the

following chapter, an explanation of the methods used along with detailed descriptions of

each lesson plan are given.

CHAPTER TWO

Methods

2.1 Introduction

Using the lesson plan found in Figure 2.1, the methods for this study are as
follows. After receiving IRB approval, the researcher introduced the study to students in
a Spanish 1301 lab. Students were asked to complete a survey that explained the nature of
the research to them and either choose to give their consent or not to give their consent
for their recordings to be included in the current study. Students then recorded themselves
pronouncing the selected poem with no context for the activity. These recordings were
used both as a pre-test and as the recordings students then used to compare themselves to
native speakers during their lessons. Over the course of five weeks, five lessons were
taught using the above structure on vowels, <b> and <v>, <d>, <g>, and <r> and <rr>.
During the fifth week, students were recorded once more to track their progress. The pre-
test recordings and the post-test recordings were then be scored by a qualified individual
in the field of Spanish language education. Those scores were then analyzed to determine
significance. If significance was found, then it could be said that the structure laid out
above is an effective teaching method for pronunciation.

WEEK 1	Survey - Consent form - Pre-test
WEEK 2	Lesson on vowels
WEEK 3	Lesson on [b] and [β]
WEEK 4	Lesson on [ɾ] and [r]
WEEK 5	Lesson on [g] and [ɣ]
WEEK 6	Lesson on [d] and [ð] Survey - Consent form - Post-test

Figure 2.1. Experimental design

2.2 Participants

The participants consisted of students at Baylor University enrolled in Spanish 1301, an introductory level course that assumes no prior instruction in Spanish. There were thirteen total participants who completed both the pre-test and the post-test.

2.3 Lesson Plan Model

This study proposes an outline for a lesson plan which can be altered for the various phonemes in Spanish. The lesson plan can be found below and is based on the S-PACE model proposed by González-Bueno (2019).

1) Presentation
    a. Read poem aloud 1x (Colina 2019, de-la-Mota 2019)
    b. Read poem aloud after telling them which sound is the focus (González – Bueno 2019, de-la-Mota 2019, Colina 2019)
2) Attention/perception
    a. Have students record themselves reciting the poem and compare to native speaker (Martínez Celdrán & Elvira-Garcia 2019)
    b. Have them circle or underline the phoneme in focus that day (Gonzalez-Bueno 2019)
3) Co-construction
    a. Ask students what they noticed
    b. Diagrams (Dalbor 1997) > show them how to say it
    c. TRANSFER: for some sounds, explain how they exist in English (like the tap <r>) (Schmeiser 2019)
    d. Explain why difficult for English L1 (González-Bueno 2019)
4) Input
    a. Minimal pairs (listen and compare) (Martínez Celdrán & Elvira-Garcia 2019, Zampini 2019).
5) Output
    a. Minimal pairs (produce) (Martínez Celdrán & Elvira-Garcia 2019, Zampini 2019).
6) Extension
    a. Possible communicative activities (Martínez Celdrán & Elvira-Garcia 2019, Zampini 2019)
    b. Build up to phrases and even tongue twisters
        i. Use the poem

Figure 2.2. Sample lesson plan.

2.4 Methods

The current study consists of implementation of five lesson plans designed to provide effective pronunciation instruction to students at the introductory level of Spanish. The basis for the lesson plans is the S-PACE model proposed by González-Bueno (2019) in her article, "Suggestions for teaching Spanish voiced stops /b, d, g/ and their lenited allophones [β, ð, ɣ]." The S-PACE model was chosen because of its clear steps that provide a solid structure from which lessons can be based. A diagram of the S-

PACE model can be found below. It also employs each of the three main areas of focus

which appear in the literature: *attention*, *perception*, and *production*. Instead of using

Structured Input and Output activities based on Van Patten's (1996) research, the

researcher elected to use normal input and output activities. While Structured Input and

Output activities focus more on attaching meaning to form in order to create more

communicative activities, normal input and output activities forcus solely on providing

examples of forms and eliciting said from from students (González-Bueno 2019).

Therefore, the input and output stages are referred to as Input and Output in the current

study.
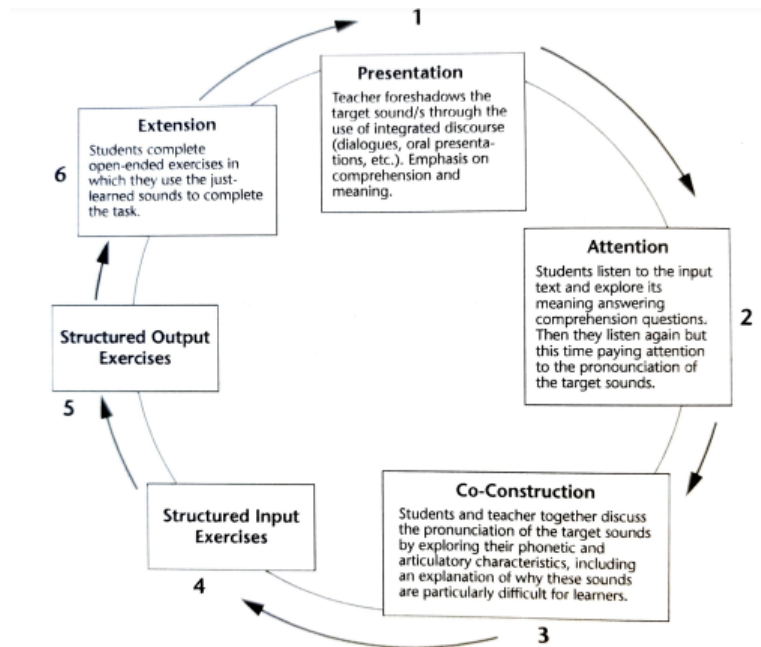
Figure 2.3. The S-PACE model (González-Bueno 2019).

Attention is covered by phases one and two of the S-PACE model: Presentation

and Attention. *Perception* is covered by both the Co-construction and Input exercises, as

students receive an explanation of the articulation of certain sounds, then the instructor

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uses minimal pairs to demonstrate differences in sounds. Finally, *production* is covered in

the Output and Extension phases. Throughout the lesson plans, the same poem is used as

an example for input and as a basis for output. By working with the same material week

to week, students should be able to acquire a new sound then apply it to the same poem,

thus creating a sense of progress as they monitor how the poem sounds different each

week.

The five lesson plans compiled here were implemented over five weeks in the lab

period of a Spanish 1301 section at Baylor University during the fall semester of 2021.

The lab was conducted over Zoom, which was not an intended piece of the study, but was

necessary as all labs were conducted over zoom for the semester due to the COVID-19

pandemic. Initially, the lessons were intended to be for a fifteen-minute pronunciation

section of the 75-minute lab period (60 minutes for instruction and 15 minutes for an

assessment). However, it quickly became clear that the lesson plans would take up most,

if not all the instruction time for the lab.

During the eighth week of class, the project was introduced, and students were

prompted to fill out a survey. The survey consisted of two questions. The first question

asked students to check a box indicating whether they consented to having their recording

used in the current research. Information providing more details of the current study was

provided in the same question, which students were asked to read before consenting. The

second question prompted students to upload a recording of themselves pronouncing a

poem as a speech sample. The poem used in the current study is "Cantares" by Pablo

Neruda. Images of both questions in the survey can be found below in figures 2.4 and 2.5.

The same survey was used as the post-test once all lesson plans had been delivered.

During the ninth week of the semester, the first lesson plan was implemented, which covered vowels. The topic of pronunciation was introduced but students were not yet told which sound would be the focus of the lesson. The instructor recited "Cantares" by Pablo Neruda once. It should be noted that the lesson plan states that students were to read the poem aloud. It was determined that since the class was conducted over Zoom, it would not be effective to have students read the poem out loud since it is difficult to understand when many people speak at once on a Zoom call. Instead, the instructor read the poem. Students were then told which sound, or in this case group of sounds, was the focus of the lesson. The instructor read the poem a second time while students were instructed to listen specifically to the vowels in the poem. Next, students were placed into breakout rooms on the Zoom call and asked to compare their own pronunciation of the poem to a recording of a native speaker pronouncing the poem which was accessed through Canvas. Initially the goal was to have students underline or highlight every instance of the phoneme of focus, however this piece was disregarded during instruction for two reasons. First, vowels are highly prevalent in the Spanish language, and it would have been excessive to have students complete this activity. Second, Zoom is not as conducive to this activity as in-person instruction would be. Instead, students were simply asked to compare their recordings to that of the native speaker and to come up with any observations they might have. Observations were then shared with the class. During the Co-construction phase, students were shown facial diagrams of how the mouth looks when pronouncing vowels. The features of tongue height, tongue position, and lip rounding were explained. The instructor then explained the pronunciation of each vowel in terms of these three features. It should be noted that tension was not included in

describing the vowels. This is because all vowels in Spanish are tense, so there is no variation within the Spanish phonetic system in terms of tension. The researcher determined that vowel tension would not be useful information for the students given the other technical information they received. Following the explanation of how vowels are pronounced, the instructor provided information on difficulties when pronouncing Spanish vowels for English speakers. The instructor explained how it is difficult for English speakers to keep consistent pronunciation of vowels, since English has many more vowel sounds than Spanish. Next, Input was provided in the form of minimal pairs. The instructor pronounced the minimal pairs found in the lesson plan and asked students to pay close attention to the differences in sound. Additional Input was provided in the form of a song. Students were shown a lyric video of the song "Hawái" by Maluma and then were asked which words they could distinguish that contained many vowels. For the Output phase, students were asked to work together in breakout rooms and find minimal pairs for the list of words found in Lesson Plan 1 in Appendix A. Students were instructed that a minimal pair has one sound difference; therefore, each minimal pair should only differ by one vowel. After a few minutes in breakout rooms, students were asked to share their answers. Most students were able to complete the activity, with only a few having some confusion about what constituted a minimal pair. For an additional Output activity, students were placed in breakout rooms and asked to pronounce a list of words with multiples of the same vowel and asked to try their best to make all the same vowels sound the same. The instructor visited each individual breakout room and had each student pronounce two of the words. Feedback on how to continue improving pronunciation was given. The last phase, Extension, was omitted because of time

constraints. It very quickly became clear to the instructor that time would be an issue as the activities and explanations planned took longer than expected. The lesson plans were originally intended to take up no more than fifteen minutes of instruction time, but this first lesson plan took up almost all the time in the lab and not all activities were completed.

Each activity in the lesson plan is based on methods suggested in the book *Key Issues in the Teaching of Spanish Pronunciation* (Rao 2019). As previously mentioned, the overall structure of each lesson is based on Gonzalez-Bueno's (2019) S-PACE model. For the Presentation phase, the idea of having students listen to a poem being read and pay attention to specific phonemes also comes from Gonzalez-Bueno's (2019) work. Next, in the Co-construction phase, the diagrams and information for explanation were reproduced from Martínez Celdrán and Elvira-Garcia's article (2019). In the Output phase, both activities were replicated from the same article (Martínez Celdrán & Elvira-Garcia 2019). Finally, in the Extension phase, the naming game activity was replicated from Martínez Celdrán and Elvira-Garcia's (2019) work while the idea for building up to more complicated phrases was informed by González-Bueno's (2019) S-PACE model. Specific phrases were taken from the poem "Cantares" by Pablo Neruda.

The second lesson plan implemented during the tenth week of the semester covered the phoneme /b/ and its allophones [b] and [β]. In this second week, the lesson plan was altered after some of the issues from the first week of instruction had been noted. During the Presentation phase the plan was not to have students recite the poem "Cantares" by Pablo Neruda. Instead, the instructor recited the poem once before telling students which phoneme was the focus of the lesson. The poem was then recited by the

instructor a second time. In the Attention and Perception phase, students were again

asked to listen to the recording of a native speaker reciting the poem and compare it to

their own pronunciation of the poem. This was done in breakout rooms. Again, students

were not asked to underline or circle the phonemes but had to look for them. A group

discussion was then facilitated by the instructor where students were asked to share their

observations. This led to the Co-construction phase as the instructor pointed out that there

are two different pronunciations of the letter <b>. The concept of the phoneme and the

allophone were introduced so that students could better understand the difference in

pronunciation (Dalbor 1997). A diagram was shown to students to demonstrate what the

mouth, and specifically the lips look like when the different allophones are pronounced.

It was explained that, for [b] the lips are fully closed, while for [β] the lips are very

slightly open so as to let some air through (Dalbor 1997). It was then explained that

English has the same sound [b], therefore this should be easy for students to pronounce,

but that [β] is likely a new sound for many of the students. It was also pointed out that the

phoneme /b/ has two spellings: <b> and <v>. This is confusing to the L2 learner since the

phoneme /b/ also has two allophones: [b] and [β]. Therefore, the letters <b> and <v> do

not represent different sounds but rather can both be used to represent either of two

sounds. Next, the rules for each allophone were provided. It is notable that in the lesson

plan this appears in the section Input. However, it might be more appropriate to place this

under the category of Co-construction since students are being given the framework, they

need to understand the allophones. Students were told that /b/ is pronounced as [b] in the

initial position, meaning at the beginning of a word when there is a pause before the

word, or after the nasal consonants /m/ and /n/. Students were then told that /b/ is

pronounced as [β] in other cases. Examples of each phoneme were given by the instructor

by pronouncing a short list of words. For the Output phase, students were again placed

into breakout rooms and asked to pronounce lists of words with each phoneme in them.

The instructor again visited each breakout room and asked students to individually

pronounce two to four of the given words. Feedback on how students could continue to

improve was given. The Extension phase was again omitted because of time constraints.

The structure for this lesson plan is based on the S-PACE model proposed by

González-Bueno, but individual activities and specific information were taken from

varying sources. The Presentation, Attention and Perception phases were informed by the

S-PACE model (González-Bueno 2019). The diagrams and phonemic information for the

Co-construction phase were replicated from the book *Spanish Pronunciation Theory and*

Practice (Dalbor 1997). The explanation of difficulties for English speakers was based on

research on transfer and the ability for learners to create new categories for new sounds

(Schmeiser 2019; Hurtado & Estrada 2010; Schmidt 2018; Elliot 1997). The discussion

of difficulties for English L1 speakers was informed by González-Bueno's (2019) work.

González-Bueno's (2019) work and Dalbor's (1997) work provided ideas for the Input

phase. The same is true for the minimal pairs found in the Output phase. The Extension

phase was informed by the S-PACE model, while specific phrases included came from

"Cantares", by Pablo Neruda (González-Bueno 2019).

During the eleventh week of the semester, a third lesson was executed covering

the rhotics /ɾ/ and /r/. In the Presentation phase, the instructor read the poem "Cantares"

by Pablo Neruda. The instructor then notified students of the phoneme to be focused on

during the lesson, then read the poem aloud a second time. Students then compared a

recording of themselves reading the poem to a recording of a native speaker reading the poem in breakout rooms during the Attention and Perception phase. Students looked for and discussed the various instances of the phonemes in the poem. The instructor then asked students to share what they observed with the class, which led to the Co-construction phase. During this phase, the instructor explained that there are two different pronunciations of the letter <r>. Diagrams were shown to help students understand where the articulation occurs (Dalbor 1997). Exercises utilizing positive transfer were implemented in the hopes that students would be able to successfully pronounce the /ɾ/, then use the /ɾ/ as a basis to pronounce the /r/ (Shmeiser 2019; Dalbor 1997). The exercises included pronouncing English words with the tap <r> phoneme /ɾ/, such as *butter*, then attempting to pronounce Spanish words with the same phoneme, such as *cara*. Results for this were mixed as some students were able to correctly transfer the English sounds, but some were not. The difference between the tap and trill was then explained, with the instructor stating that both sounds occur at the same point of articulation, but that the tap consisted of only one instance, while the trill consisted of many of the same taps. It is notable that the actual order of instruction was slightly different from that of the lesson plan as some spontaneous decisions were made by the instructor as to which items should be explained first. Most notably, the explanation of the English /d/ sound was included in the transfer exercise, and then reinforced in the explanation of difficulties for English speakers. The instructor explained that the English <r> is very different from the Spanish tap and trill <r>'s and this causes some difficulty for native speakers of English. Next, the rules for the pronunciation of the [ɾ] and [r] were given, along with another explanation of how exactly the [r] can be pronounced. The

instruction included pronouncing the single tap multiple times then trying to hold the

tongue in place while tensing stomach, chest, throat, and mouth muscles, and finally

exhaling a long current of air, then voicing it (Shmeiser 2019). Results were again mixed

as some students found this useful and some did not. This is likely because the

explanation was significantly complicated for introductory Spanish students. The fact that

instruction took place over Zoom also likely contributed since students could not practice

all together at once as they would have in person. It is notable that multiple different

approaches to teaching these allophones were implemented as these are some of the more

difficult sounds in the Spanish language for native English speakers. After the entire

explanation, the instructor implemented the Input phase, which consisted of pronouncing

lists of words while students listened. Work by Schmeiser (2019) and Dalbor (1997)

informed the specific words used. For the Output phase, students were placed in breakout

rooms and tasked with pronouncing words from a list for the allophone [ɾ]. They were

also asked to pronounce a popular tongue twister for the allophone [r]. The instructor

visited each breakout room and asked students to individually pronounce words from the

list as well as the tongue twister. Suggestions were given for continuing to improve

pronunciation. Notably, instead of a list of words, students were asked to pronounce a

tongue twister for [r]. Feedback from students suggested this was an enjoyable alternative

to pronouncing lists of words. The tongue twister was included as an effective way of

having students pronounce more than one word in the same utterance. The use of more

than one word in an utterance was a good way to include a bit more fluidity and

approached the activities that would have been implemented in the Extension phase. The

Extension phase was omitted due to time constraints, but all students did get a chance to pronounce the tongue twister.

The S-PACE model proposed by González-Bueno (2019) supplied the structure for this lesson plan. However, various sources informed the individual activities and specific explanations given. The S-PACE model provided an outline for the Presentation, Attention and Perception phases (González-Bueno 2019). *Spanish Pronunciation Theory and Practice* supplied the diagrams for the Co-construction phase (Dalbor 1997). The same source also provided information on the similarity of the Spanish <r> and the English <d> (Dalbor 1997). Information on transfer and various suggestions for pronouncing the allophones from Shmeiser's (2019) work were implemented, with one example being the instructor's own idea. Words for the Input and Output sections were informed by both Schmeiser (2019) and Dalbor (1997), while the tongue twister was included due to the instructor's own interest and is considered common knowledge. Phrases for the Extension phase came from the poem "Cantares" by Pablo Neruda.

The fourth lesson plan covers the phoneme /g/ and its allophones [g] and [ɣ] and was implemented during the twelfth week of the semester. First, the instructor read "Cantares" by Pablo Neruda during the Presentation phase. The phoneme of focus for the day was introduced, and the instructor read the poem a second time. Students were then placed in breakout rooms and asked to compare their own pronunciation of the poem to that of the native speaker as part of the Attention and Perception phases. They were asked to look for instances of the phoneme and to discuss but were not asked to underline or circle them. The instructor then led a group discussion on the observations of the students, which led to the Co-construction phase in which it was explained that there are

two different pronunciations of the letter <g>. The instructor used diagrams to show where the articulation of each phoneme occurs (Dalbor 1997). The instructor mentioned that the [g] is common in English, but the softer [ɣ] is less common, which may lead to more difficulty of acquisition for English speakers (Shmeiser 2019; Dalbor 1997). Sentences were then shown on a shared screen with the different instances of the /g/ labeled so that students could watch while the instructor pronounced said sentences. The image of what was shown can be found below in figure 2.1 (González-Bueno 2019). Rules for each of the allophones were then explained and the sentences were pronounced again (Dalbor 1997).

The Input phase for this phoneme was changed during instruction since the instructor felt that an explanation of the allophones was sufficient and that students would benefit more from having words from the Output section pronounced for them. The activity was one of discrimination, where students first listened to a pair of phrases with the same allophone, then to a pair of phrases with differing allophones. They were then encouraged to try to hear the difference in pronunciation between the phrases. Due to time constraints and instructor discretion, the activity was omitted. The Output phase consisted of a similar activity to the other lesson plans, where students were placed in breakout rooms and asked to pronounce words from lists which included both allophones. The instructor visited each breakout room and asked students to pronounce one to two words from each list. Constructive feedback was given. The Extension phase was again omitted because of time constraints.

The S-PACE model informed the structure of this lesson plan while other research informed specific activities and information. For example, the Presentation, Attention and

Perception were all based on the S-PACE model (González-Bueno 2019). The book *Spanish Pronunciation Theory and Practice* provided the diagrams for the Co-construction phase (Dalbor 1997). The same book informed the explanation of the different allophones (Dalbor 1997). Information on transfer was implemented from both Dalbor's (1997) work as well as Schmeiser's (2019). The activity with sentences demonstrating the different allophones in context was taken from González-Bueno's (2019) article outlining the S-PACE model. González-Bueno's (2019) work also provided the original activity to be used in Input and the lists of words used for both Input and Output. The word lists were also informed by Dalbor's work (1997). The planned Extension activity included phrases from "Cantares" by Pablo Neruda.

The fifth and final lesson plan was implemented during the thirteenth week of the semester and covered the phoneme /d/ and its allophones [d] and [ð]. In the first phase, Presentation, the poem "Cantares" by Pablo Neruda was read aloud. The phoneme of focus for the day was introduced and the poem was then read by the instructor a second time. In the Attention and Perception phase, students were separated into breakout rooms, and compared the recording of a native speaker reciting the poem to their own pronunciation of the poem. Students discussed instances of the phoneme rather than underlining or highlighting them. The instructor then facilitated a group discussion where students shared their observations. During the Co-construction phase, the instructor explained that there are two different pronunciations of the letter <d>. During this explanation, students were shown facial diagrams to help them visualize articulation (Dalbor 1997). The instructor then pointed out how the [d] is common in English, but the weakened sound [ð] is more like the voiced fricative "th" sound that exists in English in

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words such as *there*, so it may be a bit harder for students to learn, since it looks different orthographically in Spanish (Dalbor 1997). Rules for the pronunciation of both allophones were presented. For the Input phase, lists of words containing each allophone were pronounced by the instructor. For the Output phase, students were placed in breakout rooms and asked to practice pronouncing words from lists containing the allophones. They were asked to practice in their groups, then the instructor visited each breakout room and asked students to pronounce one to two words from each list. The instructor provided feedback on how they could continue to improve their pronunciation. The Extension phase was omitted due to time constraints.

Given that this was the last day of instruction, students were asked to complete a post-test once instruction had been completed. The post-test was identical to the pre-test in that it consisted of a survey with two questions. The first question asked students to read information about the current study and to give or refuse consent for their recordings to be used in the current study. The second question simply asked students to upload a recording of themselves. Screenshots of both questions can be found below.

While certain activities and information were provided by various sources, the overarching structure for this fifth lesson plan is based on the S-PACE model. This model provided information and exercises in the Presentation, Attention and Perception phases (González-Bueno 2019). Diagrams in the Co-construction phase were replicated from Dalbor's (1997) *Spanish Pronunciation Theory and Practice*, which also informed the explanation of the different allophones. Dalbor's (1997) and Schmeiser's (2019) work informed the ideas for relating the sounds to those in English. Lists of words used for both Input and Output were replicate from or informed by both González-Bueno's (2019)

work and Dalbor's (1997). Phrases from "Cantares" by Pablo Neruda were included in the Extension activity.

After instruction was completed, the recordings were compiled, encoded, and randomized so that the individual rating them would not know the identity of any student nor whether the recording was a pre-test or post-test. Recordings were then sent to the rater to be evaluated. The recordings were given a rating of one, two, or three, with a one representing no familiarity with or little familiarity with the target language phonological system, a two representing moderate familiarity with the target language phonological system, and a three representing high familiarity with the target language phonological system-indistinguishable from a native speaker. Once all recordings were rated, scores were compiled for investigation of trends in the data. Charts showing which students made improvements were created and can be found in the following chapter. For further investigation, the researcher also rated the recordings based on specific phonemes. This data was then also compiled into charts showing which students made improvements. An explanation of trends in the data as well as conclusions can be found in the following chapters.

- Olga, el domingo adopté un gato
  [ɣ]   [g]   [g]
- ¿Otro gato, Águeda? ¿Pues no tenías un gato ya?
       [ɣ]   [ɣ]   [g]

Figure 2.4. Example sentences for teaching of [g] versus [ɣ] (González-Bueno 2019).

Question 1   0 pts

This assignment is part of the ongoing research study titled "Methods for Teaching Introductory Spanish Phonology". You have the opportunity to participate this study by indicating your consent below.

All students must complete this assignment, however you will NOT be penalized for not consenting to have your recording included in the study.

Please read the attached consent form and indicate below whether you agree to participate in the current study.

Consent form ↓

☐ I have read the consent form and I DO agree to allow my recording to be included in the research study titled "Methods for Teaching Introductory Spanish Phonology"

☐ I have read the consent form and I DO NOT agree to allow my recording to be included in the research study titled "Methods for Teaching Introductory Spanish Phonology"

Figure 2.5. Pre-test and post-test question 1.

Using your device of choice (a smartphone is recommended) please record yourself saying the following excerpt.

When you have finished recording yourself please upload your file here.

Please do NOT use the Canvas recording system.

Cantares ⤢
La parracial rosa devora
y sube a la cima del santo:
con espesas garras sujeta
el tiempo al fatigado ser:
hincha y sopla en las venas duras,
ata el cordel, pulmonar, entonces
largamente escucha y respira.

Morir deseo, vivir quiero,
herramienta, perro infinito,
movimiento de océano espeso
con vieja y negra superficie.

Para quién y a quién en la sombra
mi gradual guitarra resuena
naciendo en la sal de mi ser
como el pez en la sal del mar?

Figure 2.6. Pre-test and post-test question 2.

CHAPTER THREE

Presentation of Data and Results

3.1 Presentation of the Data

This section contains a presentation of the data from the current study. The data consist of scores given by the rater to each recording completed by a student. Once the ratings were completed, the data were reorganized so that students' pre-tests and post-tests were adjacent to each other on the Excel spreadsheet. This allowed the researcher to determine which students' pronunciation improved from the time of the pre-test to the time of the post-test. To further investigate, the researcher became the evaluator and completed further ratings of individual sounds. Below figures 3.1, 3.2, 3.3, 3.4, and 3.5 demonstrate the results, and are followed by discussion.

	Item #	1-no familiarity with or little familiarity with the target language phonological system	2-moderate familiarity with the target language phonological system	3-high familiarity with the target language phonoligical system - indistinguishable from a native speaker
	Rec 05		X	
student 1	Rec 26		X	
	Rec 12		X	
student2	Rec 02		X	
	Rec 09	X		
student3	Rec 06		X	
	Rec 21		X	
student4	Rec 10		X	
	Rec 19			X
student5	Rec 14			X
	Rec 13		X	
student6	Rec 24		X	
	Rec 03	X		
student7	Rec 22		X	
	Rec 23			X
student8	Rec 01		X	
	Rec 17		X	
student9	Rec 20		X	
	Rec 15	X		
student10	Rec 18		X	
	Rec 07		X	
student11	Rec 16			X
	Rec 25		X	
student12	Rec 04		X	
	Rec 11		X	
student13	Rec 08			X

Figure 3.1. Results of Overall Improvement in Student Pronunciation.

The above graphic shows students next to their pre-test and post-test result. The pre-test rating appears first, followed by the post-test rating. Therefore, student 3 shows improvement since his or her pre-test rating is a one but the post-test rating is a 2. On the other hand, student 8 showed a decline as his or her pre-test was rated a 3 but the post-test was rated a 2. As can be observed above, five students improved in their overall pronunciation. Seven students did not improve. One student's pronunciation worsened.

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It is notable that, of the five students whose pronunciation improved, three started with no familiarity or limited familiarity with the target language phonological system, while two started with moderate familiarity with the target language phonological system. It should also be noted that one of the students whose pronunciation did not improve started with high familiarity with the target language phonological system. This implies that there was no improvement necessary, or at least that any potential improvement would have been minimal.

Perhaps the most interesting observation in this data is that all students whose pre-test pronunciation levels were determined to be in the limited category improved in the post-test to show moderate familiarity with the target language phonological system.

The following comprises a more specific discussion of acquisition of individual phonemes and allophones by students. Figure 3.2 demonstrates the acquisition of the phoneme /b/ and its allophones [b] and [β].

	Item #	1-no familiarity with or little familiarity with the target language phonological system	2-moderate familiarity with the target language phonological system	3-high familiarity with the target language phonoligical system - indistinguishable from a native speaker	
student 1	Rec 05	x			
	Rec 26	x			
student2	Rec 12	x			
	Rec 02		x		
student3	Rec 09	x			
	Rec 06		x		
student4	Rec 21	x			
	Rec 10	x			
student5	Rec 19		x		
	Rec 14	x			
student6	Rec 13	x			
	Rec 24		x		
student7	Rec 03	x			
	Rec 22	x			
student8	Rec 23	x			
	Rec 01	x			
student9	Rec 17	x			
	Rec 20	x			
student10	Rec 15	x			
	Rec 18	x			
student11	Rec 07		x		
	Rec 16	x			
student12	Rec 25	x			
	Rec 04	x			
student13	Rec 11	x			
	Rec 08		x		

Figure 3.2. Results of Student Improvement in pronouncing [b] and [β].

The most notable information from this graph is that almost all students started

and ended with little to no familiarity with the target language phonological system. The

main reason for this was the inability to pronounce the letter <v> as the phoneme /b/.

Though some students did show improvement, this result implies that more instruction is

needed with more emphasis on the fact that <v> and <b> are both pronounced as the

phoneme /b/ which can then be pronounced either as the allophone [b] or [β].

The next phoneme, examined more closely, was /g/ and its allophones [g] and [ɣ].

A graph of student improvements is found below.

Based on this data, students 2, 3, 7, and 13 all improved in their pronunciation of

the allophones [g] and [ɣ]. It is notable here that students 2, 3, and 13 showed

improvements in these allophones as well as in the [b] and [β] allophones. Students 3 and

13 were also shown to have overall improvement.

	Item #	1-no familiarity with or little familiarity with the target language phonological system	2-moderate familiarity with the target language phonological system	3-high familiarity with the target language phonoligical system - indistinguishable from a native speaker	
student 1	Rec 05		x		
	Rec 26	x			
student2	Rec 12	x			
	Rec 02		x		
student3	Rec 09	x			
	Rec 06			x	
student4	Rec 21	x			
	Rec 10	x			
student5	Rec 19		x		
	Rec 14		x		
student6	Rec 13		x		
	Rec 24		x		
student7	Rec 03	x			
	Rec 22		x		
student8	Rec 23		x		
	Rec 01	x			
student9	Rec 17		x		
	Rec 20		x		
student10	Rec 15	x			
	Rec 18	x			
student11	Rec 07		x		
	Rec 16		x		
student12	Rec 25	x			
	Rec 04	x			
student13	Rec 11	x			
	Rec 08		x		

Figure 3.3. Results of student improvement in [g] and [ɣ].

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The graph for acquisition of the allophones [d] and [ð] of phoneme /d/ can be found below.

	Item #	1-no familiarity with or little familiarity with the target language phonological system	2-moderate familiarity with the target language phonological system	3-high familiarity with the target language phonoligical system - indistinguishable from a native speaker
student 1	Rec 05	x		
	Rec 26	x		
student2	Rec 12	x		
	Rec 02		x	
student3	Rec 09	x		
	Rec 06		x	
student4	Rec 21	x		
	Rec 10	x		
student5	Rec 19		x	
	Rec 14		x	
student6	Rec 13		x	
	Rec 24		x	
student7	Rec 03	x		
	Rec 22		x	
student8	Rec 23		x	
	Rec 01		x	
student9	Rec 17		x	
	Rec 20		x	
student10	Rec 15	x		
	Rec 18	x		
student11	Rec 07		x	
	Rec 16		x	
student12	Rec 25	x		
	Rec 04	x		
student13	Rec 11	x		
	Rec 08		x	

Figure 3.4. Results of Student Improvement in [d] and [ð].

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According to this data, students 2, 3, 7, and 13 all improved in their pronunciation of allophones [d] and [ð]. Of note, these students all also improved in their pronunciation of allophones [g] and [ɣ]. Additionally, students 3, 7, and 13, demonstrated overall improvement in their pronunciation.

Finally, a composite graph comparing acquisition of all allophones can be found below.

As is seen in the above graphic, students 3, and 13 improved in each allophone as well as in their overall pronunciation. Student 7 did not improve in [b] and [β] but did show improvement in his or her pronunciation of the other allophones in addition to showing overall improvement. Even though they did not acquire all the sounds taught, their acquisition of the other allophones was strong enough to impact their overall pronunciation. Student 2 improved in each allophone but not in overall pronunciation. This lack of overall improvement could be because, even if pronunciation of each allophone improved, it may not have made enough difference to improve their overall

	Item #	[b] [β]	[d] [ð]	[g] [ɣ]	overall
student 1	Rec 05				
	Rec 26				
student2	Rec 12				
	Rec 02				
student3	Rec 09				
	Rec 06				
student4	Rec 21				
	Rec 10				
student5	Rec 19				
	Rec 14				
student6	Rec 13				
	Rec 24				
student7	Rec 03				
	Rec 22				
student8	Rec 23				
	Rec 01				
student9	Rec 17				
	Rec 20				
student10	Rec 15				
	Rec 18				
student11	Rec 07				
	Rec 16				
student12	Rec 25				
	Rec 04				
student13	Rec 11				
	Rec 08				

Figure 3.5. Results of Improvement in Individual allophones Compared with Overall Improvement.

pronunciation. Students 10 and 11 did not show improvement in any of the specific phonemes but did show improvement overall. This finding could imply that they improved in the other sounds which were not individually analyzed, or that they did improve slightly in multiple allophones, but not enough to show improvement in individual allophones. However, when combined, their overall pronunciation improved.

The following includes a discussion of the implications of these findings.

3.2 Implications and Discussion of Results

The results discussed above suggest that the methodology created for introductory students, assuming no prior instruction, may have been effective in improving the pronunciation of students who started with little to no familiarity with the target language phonological system. Though many students scored in the little to no familiarity column for individual phonemes, only three students scored into the little to no familiarity column for their overall pronunciation and those same three students all scored in the moderate familiarity category on the post-test.

A review of potential reasons for the lack of improvement in many students who initially tested in the moderate category follows. One initial reason may be that since the instruction was created for introductory students, those students who were already at a higher level would be less likely to improve.

Students starting in the moderate category likely had prior instruction in Spanish. In the Baylor Spanish program, it is common for students to take introductory Spanish even if they have had prior instruction in the language. Oftentimes the motivation for retaking beginning levels is that they believe the class will be easy. Consequently, it is unsurprising that many students enter the Spanish 1301 courses at Baylor with some sort

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of knowledge and understanding of Spanish. It then follows that many students in the course placed into the moderate category.

Students who initially scored in the moderate category and stayed in the moderate category likely did not show improvement for two reasons. First, since they likely had prior instruction in Spanish, they may not be as motivated in the class, and therefore did not have as much motivation to acquire pronunciation. This notion is supported by the idea that attitude can affect acquisition (Elliot 1994; González-Bueno 1994; Gardner & Lambert 1972). Students who did not improve possibly had less motivation to improve their pronunciation as those students who did improve their pronunciation (Elliot 1994). The second reason could be that the instruction was targeted towards beginners. The fact that the students were already at the moderate level means that there was potentially less improvement to be made. It is also possible that the lack of improvement shown in the post-test did not have to do with attitude or level of instruction. This study was completed over five weeks. The five-week period may not have given students sufficient time for the restructuring needed to acquire the pronunciation of the L2 (Schwartz & Sprouse 1996). Additionally, in their efforts to pronounce the new sounds correctly, students may have hypercorrected and thus produced an utterance further from the target phoneme than desired (Dubois 2019; Labov 1972; Baugh 1992). Due to these factors, it cannot be determined whether the students who did not show improvement truly did not increase in their ability, or if their improvement simply did not show yet in the post-test.

Students who started at the moderate level and increased their proficiency likely also had prior instruction. Their movement from the moderate familiarity category to the high familiarity category could also be explained by some of the factors which prevented

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the moderate students from showing improvement. Perhaps the students who did improve were more eager to learn (Elliot 1994; González-Bueno 1994; Gardner & Lambert 1972). Or perhaps they were able to restructure more quickly than those students who stayed in the moderate category (Schwartz & Sprouse 1996). Without knowing the actual reason these students showed improvement over their peers, nevertheless, some students who started in the moderate category improved. This improvement would imply that perhaps they had no prior formal phonological instruction. It is possible that they acquired their moderate level of pronunciation proficiency through attending prior Spanish classes and, when given formal instruction, they were able to acquire the new information quickly and apply it within the structures they already had.

All of this indicates, but does not conclude, that this method of instruction is effective for introductory students. However, more research is needed. It is possible that the beginning students' pronunciation improved simply from being in a Spanish classroom and being exposed to oral Spanish in the classroom. If students who came in with moderate familiarity acquired that level of familiarity from prior Spanish exposure with no phonological instruction, then it could be assumed that any student in an introductory Spanish class will improve in their pronunciation simply by attending class. More data is needed.

Further research which would be helpful in determining whether this instruction is effective is as follows. If this study were to be replicated, students who are participating should be surveyed to determine whether they have: (1) taken a Spanish course before and (2) if they have, whether there was any formal phonological or pronunciation instruction included. Additionally, a comparative study should be done between a control

group where no pronunciation instruction is given and a test group in which

pronunciation instruction is employed. If this were to occur, it would help answer the

question of whether students who simply attend Spanish class can improve their

pronunciation on their own.

CHAPTER FOUR

Conclusions

4.1 Implications of the Current Study

The results of this study are largely inconclusive. There was improvement in

some students, however it cannot be determined whether the specific methodology

implemented in the current study was the reason for the improvement. When examining

individual allophones, there was a similar trend. Some students improved in their

pronunciation of certain allophones, but many did not. Therefore, there is not enough data

to conclude whether the methodology implemented in this study is effective. However,

the results of this study do not undermine the importance of implementing pronunciation

instruction in the introductory classroom.

Various studies show the effectiveness of explicit pronunciation instruction.

Studies such as those by Elliot (1995) and Hurtado & Estrada (2010) have found explicit

instruction to be effective in improving students' pronunciation proficiency. González-

Bueno (1994) further researched nasal stops, finding that explicit instruction helped

students to improve their pronunciation. Given that explicit instruction is effective, it then

follows that such instruction should be included in the introductory classroom. However,

many of the studies examining the effectiveness of pronunciation instruction employ

explicit phonological explanations while many textbooks offer non-technical descriptions

of phonemes (Lord 2005; Blanco and Donley 2020; Delicado Cantero et al. 2019). This

disconnect demonstrates that the research is not reaching the classroom (Delicado

Cantero et al. 2019). This disconnect can be observed in the *Vistas* textbook used at Baylor University for introductory Spanish (Blanco & Donley 2020). Though pronunciation is included in the curriculum, it is limited to the lab period and there is only one page on pronunciation in the textbook per chapter (Blanco & Donley 2020).

Prior research demonstrates that is imperative to bring more research-based methods of teaching into the introductory classroom because they can benefit students in many ways. Improved pronunciation can help to reduce the social stigma that students face when they have inferior pronunciation (Arteaga 2010, González-Bueno 1994; Levi-Ari & Keysar 2010; Oyoma 1975). This negative attitude may lead to students feeling self-conscious about their pronunciation and thus avoiding certain situations (Oyoma 1975; Elliot 1997). This concern is not unfounded as it has been shown that an accent can reduce the credibility of an L2 speaker (Levi-Ari & Keysar 2010). Having explicit instruction in pronunciation could not only help students with their pronunciation, but also increase their confidence in their own abilities (Elliot 1997).

In sum, pronunciation instruction should be included in the introductory classroom. Though the current study was unable to gather definitive data proving that the instruction implemented helped students with their pronunciation, student surveys reveal that the students felt that the instruction was effective. The following section presents and some comments made by students about the instruction.

Figure 4.1 shows that students generally had a positive view of the pronunciation activities. Notably, two students stated that they "feel more comfortable" with their pronunciation after having the lessons. This example supports Elliot's (1997) suggestion that explicit instruction in pronunciation can boost students' confidence in their speech.

Many students mentioned enjoying the pronunciation activities and feeling that their pronunciation had improved because of such instruction. This finding demonstrates that, though the data do not necessarily show significant improvement, students felt that the instruction was helpful, thereby supporting the claim that pronunciation instruction is beneficial. Though the methods implemented in this study did not necessarily help improve student pronunciation, results from this survey show that pronunciation instruction is useful to students, meaning that it is worthwhile to continue researching this topic and improving materials to be used in the introductory classroom. One such improvement could be in the presentation of facial diagrams. One student stated that diagrams were not helpful. The diagrams could be changed or further expanded upon in the future to make instruction more effective. Overall, results from this survey show that students felt the instruction helped them, implying that such instruction would likely be helpful in a classroom.

Arteaga (2000) advocates for increasing the amount of explicit pronunciation instruction. Twenty-two years later there is still limited emphasis on pronunciation in the introductory classroom, and specifically in the introductory course (SPA 1301) taught at Baylor University. It is imperative to increase the focus on pronunciation and implement teaching methods that include explicit phonological instruction.

1) I really enjoyed the part where we practiced the words with different types of letters - for example the words with two types of rs. Because I thought it really helped a lot with pronunciation. The tongue chart thing was hard to read/understand so it didn't really help me, maybe that could be improved. I also enjoyed reciting the poem, maybe more focus on improving our recording of that would be helpful.

2) The pronunciation was fun for me, mostly because there were often fun words to say.

3) I wish there had been more of the pronunciation lessons, since I found that to be very helpful.

4) I enjoyed the pronunciation lessons because I learned many new things about the Spanish language and I feel more comfortable speaking it now.

5) I liked breaking out into groups and practicing pronunciation,

6) I enjoyed participating in the pronunciation study and learning how to pronounce certain words in Spanish.

7) The pronunciation lessons were helpful in strengthening this aspect of speaking Spanish for me

8) I feel a lot more comfortable with pronunciation now.

9) The pronunciation practice with the list of words was a great way to practice pronunciation and hear some more vocab

10) I enjoyed your research project in this lab because I felt that it really help me understand when to use certain pronunciations when speaking… I wish we would have had more pronunciation work because I could use more practice.

11) During my time in this lab class, I really enjoyed learning the pronunciation of different vowels or consonants. I found it to be really helpful and make me sound more fluent.

12) My overall takeaways from this lab were that it definately helped me to speak Spanish better. Specifically, it helped me sound more clearer and pronunciate better. I enjoyed the times learning specific letter sounds and how to speak them. I wished there was more time to practice speaking sentences.

Figure 4.1. Results of student surveys.

4.2 Future Directions

More research regarding this method of pronunciation instruction is necessary. If the current study were to be replicated, it should include both a control group and a test group. Additionally, there would ideally be more participants, more raters, and all raters would rate individual allophones in addition to the overall pronunciation of the participants. The rating scale would also be changed from 1 to 3 to a scale of 1 to 10. This expansion and rater consistency would provide more data from which clearer conclusions could be drawn. If the methods implemented in the current study were found to be effective, then more lesson plans could be created using the same structure.

Regardless of whether the methods implemented in the current study are effective, explicit phonological instruction must be more widely implemented in the introductory classroom. Given this, there are certain aspects of such instruction which would be especially important to implement. First, it is imperative to provide specific explanations to students regarding where in the mouth specific sounds are articulated. This can include facial diagrams to demonstrate more clearly how and where sounds are produced. Additionally, the use of a single text which students hear and pronounce from week to week can help them to see and hear how they acquire new sounds. Work with minimal pairs is also important to help students hear and see the differences in sounds. Minimal pairs provide a good level of input for students. However, input can be enhanced if these activities are changed to Structured Input activities which focus more on attaching meaning to form. An example of such an activity is as follows. Students would listen to the phrases shown in figure 4.2. In the first set of phrases the sound is the same while in the second set the sound is different. The goal is for students to hear this difference in

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sounds between the two sets of phrases. For Structured Output, students would be shown

pictures which encourage production of the target sounds. For example, a picture of a cat

could elicit the phrase "un gato" which includes the allophone [g], and a picture of a

woman with her cat could elicit the phrase "su gato" which includes the allophone [ɣ].

Inclusion of these types of activities could improve students' understanding of the

sounds, thus meriting consideration in potential future endeavors in phonological

instruction for introductory students (González-Bueno 2019).

They hear …	Same	Different
con gatos/sin gatos [koŋ.ˈga.t̮os]/[siŋ.ˈga.t̮os]	x	
son gatos/mis gatos [soŋ.ˈga.t̮os]/[miz.ˈɣa.t̮os]		x

Figure 4.2. Discrimination exercise for [g] / [ɣ] (González-Bueno 2019)

The initial goal of this study was to create a lesson plan template from which

instructors could create their own lesson plans. However, after completing this research,

it has become clear that it would require much research and time for an instructor with

little to no background in phonology to create such lesson plans. Instructors may not have

the time to dedicate to such efforts. An alternative to creating a structure would be to

simply create the lesson plans themselves for use by instructors. The lesson plans could

then be compiled and used as supplemental material in introductory Spanish courses.

This material could be published in print or held online for easy access to other

instructors. An important component of these proposed lesson plans would be that they

include explicit phonological explanation including technical descriptions of how specific sounds are articulated. The lesson plans would also need to be comprehensible not only for the student, but for the instructor as well.

4.3 Conclusions

Assuming that pronunciation instruction is effective, it is important to include it in the introductory classroom. One way to do this would be to create materials for instructors to be implemented in their classes. There are various research-based methods that could be included in such materials, possibly including the methods described in the current study, although more research is needed. For wider implementation of such methods, however, it is imperative that faculty at universities recognize the importance of phonology and take steps towards creating a curriculum which includes more explicit pronunciation instruction.

APPENDICES

Vowel Lesson Plan

Vowel lesson plan

1) Presentation
   a. Read poem aloud 1x
   b. Read poem aloud after telling them which sound is the focus
2) Attention/Perception
   a. Have students record themselves reciting the poem and compare to native speaker
      i. They could just compare their pre-test to a native speaker
   b. Have them circle or underline the phoneme in focus that day
3) Co-construction
      i. Ask what they noticed
      ii. Diagrams > show them HOW to say it
      iii. Explain three features:
         1. Height
         2. Position
         3. roundness

   b. Explain difficulties
      i. For vowels
         1. They are always pronounced the same
            a. Cara example – both <a>'s are pronounced the same
            b. Difficult for English speakers because we have so many variations
4) Structured Input
      i. Minimal pairs (listen and compare)
      ii. Rosa/risa
      iii. Mesa/massa
      iv. Muro/mero
      v. Pero/poro
      vi. Piso/peso
      vii. Puro/paro
      viii. Casa/cosa
      ix. Casa/caso
      x. Quiso/queso

        xi.   Cara/cura
       xii.   Pera/pira
      xiii.   Perra/porra
      xiv.   Burra/borra
       xv.   Burro/burra
      xvi.   Poco/Paco
     xvii.   Teja/teje

b. Additional input – "Hawái" by Maluma
        i.   Ask after what words they heard with vowels
c. Stress minimal pairs – explain how a lot of these show differences in tense
        i.   Lavo/lavó
       ii.   Canto/canto
      iii.   Peso/pesó
      iv.   Ceno/cenó
       v.   Grito/gritó
      vi.   Tiro/tiró
     vii.   Gozo/gozó
    viii.   Toco/tocó
      ix.   Lucho/luchó
       x.   Cruzo/cruzó

5) Structured Output
a. Find a minimal pair:
        i.   Cama
       ii.   Mesa
      iii.   Piso
      iv.   Poco
       v.   Pura
      vi.   Caso
     vii.   Ame
    viii.   Pena
      ix.   Cambio
       x.   Viva
b. Make vowels sound the same
        i.   Patata
       ii.   Petete
      iii.   Requetén
      iv.   Raspa
       v.   Caspa
      vi.   Parada
     vii.   Metete
    viii.   Pelele

6) Extension
    a. Have students pronounce phrases from the poem
    b. Use above phrases as a segue
        i. Naming game for words that have 1,2,3,4,5 vowels
    c. Have them read the poem out loud again
        i. First phrases
        ii. Then full stanzas
            1. "La parracial rosa Devora"
            2. "y sube a la cima del santo"
            3. "morir deseo, vivir quiero"
            4. "con vieja y negra superficie"

Lesson plan for <b> & <v>

Lesson plan for <b> & <v>

1) Presentation
   a. Read poem aloud 1x
   b. Read poem aloud after telling them which sound is the focus
      i. Letters <b> and <v>
2) Attention/Perception
   a. Have students compare their recordings to native speaker
   b. Have them circle or underline the phoneme in focus that day

3) Co-construction
   a. Ask what they noticed
   b. Diagrams (Dalbor 1997) > show them how to say it
   c. /b/ - phoneme
      i. [b] – allophone
      ii. [β] - allophone

   iii.
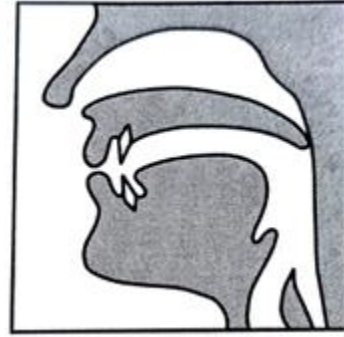
[b]   [β]

   d. Explain transfer: for some sounds, explain how they exist in English
      i. In English we have [b]
   e. Explain difficulties for English L1

      i. Because /b/ is sometimes spelled as <v> but they are pronounced the same
          1. Confusing – [β] is an allophone of /b/ but /v/ does not exist in Spanish

4) Input
    a. [b] is at the beginning of a word OR after a nasal (m/n)
    b. [β] is everywhere else
    c. [b]
        i. Baba
       ii. Beber
     iii. Un burro
     iv. **v**ivir
    d. [β]
        i. Baba
       ii. Beber
     iii. Mi burro
     iv. vi**v**ir

5) Output
    a. Have students practice the following in groups
        i. [b]
          1. Hombre
          2. Enviar
          3. Album **b**onito
          4. Un buen día
          5. Un vaso
       ii. [β]
          1. Objeto
          2. Subjuntivo
          3. Obstaculo
          4. Substituir
          5. Yo voy
          6. Lobo
          7. Lavar
          8. La vaca
          9. Ella baila
         10. Alba
         11. El baile
         12. Arbol
         13. Color verde
         14. Esbelto
         15. Nosotros vamos
         16. Los bailes
         17. obvio

6) Extension
   a. Build up to phrases

        i. "sube a la cima del santo"
       ii. "en las venas duras"
      iii. " vivir quiero"
       iv. "movimiento de océano espeso
              1. con vieja y negra superficie."

Lesson plan for <r> and <rr>

Lesson plan for <r> and <rr>

1) Presentation
   a. Read poem aloud 1x
   b. Read poem aloud after telling them which sound is the focus
      i. Today we are focusing on <r> and <rr>

2) Attention/Perception
   a. Have students listen to their pre-test
   b. Have them circle or underline all <r> or <rr>

3) Co-construction
   a. Diagrams > show them how to say it
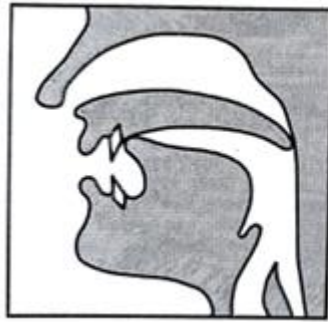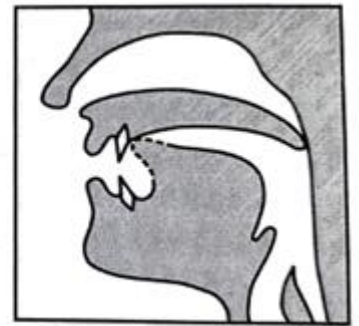
   i.
      1. [ɾ]   [r]

   b. TRANSFER: for some sounds, explain how they exist in English, then use
      those words to help them get a feel for the tap <r>
      i. *Pot of tea*
      ii. *Butter*
      iii. *Tadah = tara*
          1. MY OWN example
             a. Ka – do (said quickly)
             b. *caro*

       c. Explain why difficult for English L1
          i. Explain the difference between \<r\> and \<rr\>
          ii. Explain that the Spanish \<r\> can be pronounced like a d in SOME cases
              1. Not all \<d\>s in English are the same
              2. The \<d\> example is just to help them understand tongue placement
       d. [r]
          i. The [r] is spelled \<rr\> OR \<r\> at the beginning of a word
          ii. Schmeiser's technique
              1. Pronounce single tap multiple times
              2. Hold tongue in place and make muscles tense (including stomach chest and throat)
              3. Exhale strongly a long current of air > this should make your tongue vibrate
              4. Now voice it (make your vocal cords vibrate)

4) Structured Input
       a. Examples
          i. \<r\>
              1. Caro
              2. Pera
              3. Puro
              4. Dura
              5. Cordel
              6. quiero
          ii. \<rr\>
              1. Perro
              2. Roca
              3. Guitarra
              4. Rosa
              5. cerrado
5) Structured Output
          i. \<r\>
              1. Cara
              2. Para
              3. Cera
              4. Caracol
              5. Pero
          ii. \<rr\>
              1. Erre con erre cigarro, erre con erre carril, rápido ruedan los carros, rápido el ferrocarril

6) Extension
      a. "la parracial rosa Devora"
      b. "Morir deseo, vivir quiero"
                  1. "en el giro terrible"

Lesson plan on <g>

Lesson plan on <g>

1) Presentation
    a. Read poem aloud 1x
    b. Read poem aloud after telling them which sound is the focus
        i. Letter <g>

2) Attention/Perception
    a. Have students compare their recordings to native speaker
    b. Have them circle or underline the phoneme in focus that day
3) Co-construction
    a. Ask what they noticed
    b. Diagrams (Dalbor 1997) > show them how to say it

        i.
        ii. [g]   [ɣ]

    c. TRANSFER: for some sounds, explain how they exist in English
        i. The [g] exists in English, the [ɣ] might be a bit harder

        - Olga, el domingo adopté un gato

            [ɣ]   [g]   [g]

        - ¿Otro gato, Agueda? ¿Pues no tenías un gato ya?

                [ɣ] [ɣ]   [g]
    4)

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5) [g] – appears after nasal consonant (m or n) and after a pause (in the absolute initial position)
6) [ɣ] – appears between vowels (or at the beginning of a word when it is not after a stop)
7) Input
    a. Son gatos
    b. Mis gatos

    c. Con gatos
    d. Sin gatos
8) Output
    a. [g]
    b. Gato
    c. Ganó
    d. Tengo
    e. Un gato
    f. Guapo

    g. [ɣ]
    h. El guardia
    i. La guardia
    j. Lo ganó
    k. Fatigado
    l. Gradual
    m. guitarra
9) Extension
    a. Build up to phrases from the poem
        i. "Mi gradual guitarra suena"
        ii. "En la zona del fuego"
        iii. "Prosigue cosiendo me alma; su aterradora aguja trabaja"

Lesson plan on <d>

Lesson plan on <d>

1) Presentation
   a. Read poem aloud 1x
   b. Read poem aloud after telling them which sound is the focus
      i. Letter <d>

2) Attention/Perception
   a. Have students compare their recordings to native speaker
   b. Have them circle or underline the phoneme in focus that day
3) Co-construction
   a. Ask what they noticed
   b. Diagrams (Dalbor 1997) > show them how to say it

   i.

   a. [d]   [ð]
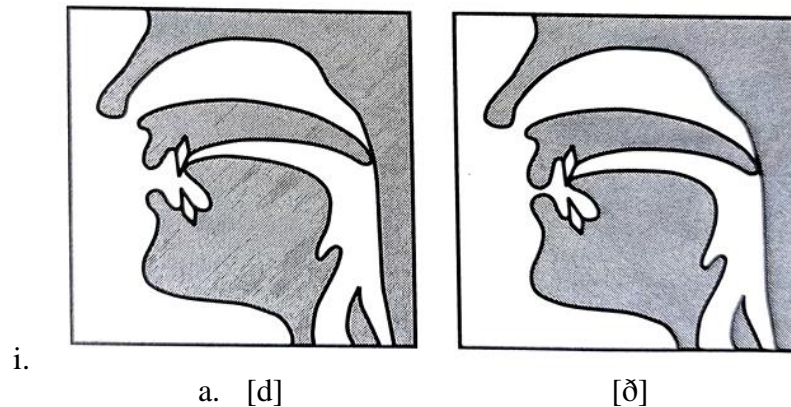
   c. TRANSFER explain how they exist in English
      i. [d] is like the d in English as in Daniel, dog, door
      ii. [ð] is similar to "th" in English as in the or there
4) [d] – appears after nasal consonant (m or n) and after a pause (in the absolute initial position) and after l
5) [ð] – appears everywhere else
6) Input
   a. Hablado vs hablando
   b. [d]
      i. Doy

<ol style="list-style-type: lower-roman" start="2">
Día
Dígame
Andar
Un día
Falda
el día

    c. [ð]

<ol style="list-style-type: lower-roman">
Amistad
Yo doy
Verde
Modo
No me diga

7) Output

    a. [d]

<ol style="list-style-type: lower-roman">
Doy
Día
Dígame
Andar
Un día
Falda
el día
dormir

    b. [ð]

<ol style="list-style-type: lower-roman">
Amistad
Verde
Modo
No me diga
pardo
usted

8) Extension

    a. Build up to phrases from the poem

<ol style="list-style-type: lower-roman">
"La parracial rosa devora
y sube a la cima del santo"
"el tiempo al fatigado ser"
"hincha y sopla en las venas duras"
"ata el cordel"
"Morir deseo"
"mi gradual guitarra resuena
naciendo en la sal de mi ser"

9) Administer post-test

Vistas Chapter One Pronunciation

Figure F.1. Vistas chapter 1 pronunciation (Blanco & Donley 2020).

APPENDIX G

Vistas Chapter Two Pronunciation

Figure G.1. Vistas chapter 2 pronunciation (Blanco & Donley 2020).

Figure H.1. Vistas chapter 3 pronunciation (Blanco & Donley 2020).

APPENDIX I

Vistas Chapter Four Pronunciation

Figure I.1. Vistas chapter 4 pronunciation (Blanco & Donley 2020).

APPENDIX J

Vistas Chapter Five Pronunciation

Figure J.1. Vistas chapter 5 pronunciation (Blanco & Donley 2020).

APPENDIX K

Vistas Chapter Six Pronunciation

Pronunciación 🔊 Ⓢ Tutorial
The consonants **d** and **t**

¿**D**ón**d**e?   ven**d**er   na**d**ar   ver**d**a**d**

Like **b** and **v**, the Spanish **d** can have a hard sound or a soft sound, depending on which letters appear next to it.

Don   **d**inero   tien**d**a   fal**d**a

At the beginning of a phrase and after **n** or **l**, the letter **d** is pronounced with a hard sound. This sound is similar to the English *d* in *dog*, but a little softer and duller. The tongue should touch the back of the upper teeth, not the roof of the mouth.

me**d**ias   ver**d**e   vesti**d**o   hués**p**e**d**

In all other positions, **d** has a soft sound. It is similar to the English *th* in *there*, but a little softer.

Don **D**iego no tiene el **d**iccionario

When **d** begins a word, its pronunciation depends on the previous word. At the beginning of a phrase or after a word that ends in **n** or **l**, it is pronounced as a hard **d**.

Doña **D**olores es **d**e la capital

Words that begin with **d** are pronounced with a soft **d** if they appear immediately after a word that ends in a vowel or any consonant other than **n** or **l**.

traje   pan**t**alones   **t**arje**t**a   **t**ien**d**a

When pronouncing the Spanish **t**, the tongue should touch the back of the upper teeth, not the roof of the mouth. Unlike the English *t*, no air is expelled from the mouth.

🔊 **Práctica**   Read these phrases aloud to practice the **d** and the **t**.

1. Hasta pronto.
2. De nada.
3. Mucho gusto.
4. Lo siento.
5. No hay de qué.
6. ¿De dónde es usted?
7. ¡Todos a bordo!
8. No puedo.
9. Es estupendo.
10. No tengo computadora.
11. ¿Cuándo vienen?
12. Son las tres y media.

🔊 **Oraciones**   Read these sentences aloud to practice the **d** and the **t**.

1. Don Teodoro tiene una tienda en un almacén en La Habana.
2. Don Teodoro vende muchos trajes, vestidos y zapatos todos los días.
3. Un día un turista, Federico Machado, entra en la tienda para comprar un par de botas.
4. Federico regatea con don Teodoro y compra las botas y también un par de sandalias.

En la variedad está el gusto.¹

🔊 **Refranes**   Read these sayings aloud to practice the **d** and the **t**.

Aunque la mona se vista de seda, mona se queda.²

¹ Variety is the spice of life. ² You can't make a silk purse out of a sow's ear.

More activities
Ⓢ vhlcentral   LM p. 32

TEACHING OPTIONS

Extra Practice Write some additional proverbs on the board and have the class practice saying each one. Ex: **De tal padre, tal hijo.** (*Like father, like son.*) **El que tiene tejado de cristal no tira piedras al vecino.** (*People who live in glass houses shouldn't throw stones.*) **Cuatro ojos ven más que dos.** (*Two heads are better than one.*) **Donde come uno, comen dos, y donde comen dos, comen todos.** (*There's always room for one more at the table.*)

Extra Practice Write on the board the names of these famous Cuban literary figures: **José Martí, Julián del Casal, Gertrudis Gómez de Avellaneda,** and **Dulce María Loynaz.** Say the names aloud and have the class repeat. Then ask volunteers to explain the pronunciation of each **d** and **t** in these names.

Section Goal

In **Pronunciación**, students will be introduced to the pronunciation of the letters **d** and **t**.

Instructional Resources
Supersite: Audio (Textbook and Lab MP3 Files); Resources (Scripts, Answer Keys)
WebSAM
Lab Manual

Teaching Tips
- Explain that **d** has a hard sound at the beginning of a phrase or after **n** or **l**. Write **don, dinero, tienda,** and **falda** on the board and have the class pronounce them.
- Explain that **d** has a soft sound in all other positions. Pronounce **medias, verde, vestido,** and **huésped** and have the class repeat.
- Point out that within phrases, **d** at the beginning of a word has a hard or soft sound depending on the last sound of the preceding word. Read the examples aloud and have the class repeat.
- Explain that **t** is pronounced with the tongue at the back of the upper teeth and that, unlike English, no air is expelled from the mouth. Pronounce **traje, pantalones, tarjeta,** and **tienda** and have the class repeat. Then pronounce pairs of similar-sounding Spanish and English words, having students focus on the difference between the **t** sounds: ti/*tea*; tal/*tall*; todo/*toad*; tema/*tame*; tela/*tell*.

Práctica/Oraciones/Refranes These exercises are recorded on the *Textbook MP3s*. You may want to play the audio so that students practice listening to Spanish spoken by speakers other than yourself.

Figure K.1. Vistas chapter 6 pronunciation (Blanco & Donley 2020).

APPENDIX L

Vistas Chapter Seven Pronunciation

Figure L.1. Vistas chapter 7 pronunciation (Blanco & Donley 2020).

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