Applied Language Learning

Research

Spanish Pronunciation Modeling by Presenters of Various Language Learning Backgrounds

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The purpose of this study is to determine if heritage speakers can effectively instruct pronunciation to their non-native speaker peers to support faculty. The researcher of this study assessed non-native speaker participants' pronunciation of Spanish using pronunciation instruction and instructor background as variables (N=111: 91 underwent instruction, 20 in control group). Participants underwent a pretest. The experimental group then received pronunciation instruction addressing phonemes that do not exist in American English or that manifest differently in the target language, such as the trilled "r" and consonant combinations such as "br," focusing especially on those with a relatively higher functional load. The control group did not receive concentrated pronunciation instruction. Posttest results showed improvements in accuracy of phoneme pronunciation. Results from the delayed posttest showed a slight decline in accuracy among students of native speaker teachers and non-native speaker teachers, however, a slight rise among those of heritage speaker student peer presenters and the control group. This quasi-experimental research has implications for teachers of all languages in that they could potentially be able to leverage heritage- and native-speaker students as resources in the classroom while providing them with instructional leadership opportunities without a sacrifice in instructional quality.

Keywords: *Pronunciation, Spanish, Peer Teaching, Heritage Speakers, Native vs. Non-Native Speaker Teachers*

INTRODUCTION

There is debate in the world language instruction community regarding the pronunciation instruction effectiveness of native speaker teachers (NSTs) and non-native speaker teachers (NNSTs); traditionally-held views suggest that NSTs are superior to NNSTs in this area; however, given the occasional absence of NSTs, heritage speaker students may be able to help close this perceived gap. Conventional wisdom may suggest that NSTs are preferable because their accent may be more authentic, and they might have had their foundational education in the target language. Curiously, results from other studies suggest that instructor background may not influence the pronunciation results of their students (Levis, 2016). It seems, then, that NNSTs may inspire less confidence among their students than their NST colleagues, regardless of results. Therefore, NNSTs may find themselves with a need to influence their students' perceptions to build language learners' confidence in their instructional abilities.

Heritage speakers are those who have grown up speaking the target language in the home with their families but did not receive a formal education in that language – many times, heritage speakers are less strong in reading, writing, grammar and spelling, but thrive in listening, speaking, and pronunciation (Correa, 2011). Heritage speaker students in the classroom could serve as a valuable resource for NNSTs to impart pronunciation contents to the rest of the class in a way that increases the confidence of students, allowing NNSTs to overcome doubts that their students may have in their teacher's abilities. Surveys from the physics field suggest that students perceive peer instructors to be acceptable instructors (Braun & Kirkup, 2016). The question therefore arises as to whether heritage speaking peers can serve as presenters for their classmates, particularly in the area of pronunciation. The central idea of this study is to incorporate heritage speaking students into the lesson by allowing them to present contents, while at the same time, supplementing pronunciation instruction to generate confidence among students in refining their own pronunciation. The focus of the pronunciation for this project was on phonemes (the individual sounds that a language is composed of), namely because of the relative simplicity for heritage speakers to instruct others with specific sounds and also the ability of the researchers to clearly isolate the students' accurate or inaccurate production on the tests.

LITERATURE REVIEW

Determining the effect of having heritage speaker peers present pronunciation topics on the actual pronunciation of language learners embodies many layers of complexity. First, it is necessary to define a heritage speaker or heritage language learner (HLL). A general definition indicates that HLLs have been exposed to a language (e.g., Spanish) outside the regular educational system, be it at home, through contact with relatives, friends, neighbors, or others. These students are in classrooms where English is the language of instruction. They are therefore bilingual to some degree or another (Correa, 2011). Here, then, is the first distinction to be noted when working with this population of students. HLLs comprise a wide variety of linguistic abilities and knowledge of their heritage language (Martin-Beltran et al., 2020).

A second area needing attention is the perception that HLLs have of their first language. By default, English has the hegemonic position in U.S. schools as the main language of instruction. Whether explicitly stated or tangentially implied, this depreciation or disparaging of HLLs' mother tongue often has a negative sociolinguistic effect; HLLs often prefer to use English to the detriment and disregard of their heritage language. This subtractive bilingualism can have negative consequences for the learner in terms of self-esteem, relationships within the family, and a deficit in learning the complexities of either language (Babino & Stewart, 2017; Lightbown & Spada, 2021). Employing HLLs to aid in the language classroom shows their language abilities in a positive and even esteemed light, instilling pride in their prowess in that language and contributing to their sense of belonging and who they are (Babino & Stewart, 2017; Correa, 2011; Martin-Beltran et al., 2020; Reznicek-Parrado, 2024). This new role for HLLs can also engender language comparisons between dialects. These discussions provide a fitting example of the 5 Cs (communication, cultures, connections, comparisons, and communities) of ACTFL's Comparisons Standard of the World-Readiness Standards for Learning Languages (González-Bueno, 2021; The National Standards Collaborative Board, 2015), which "stress the application of learning a language beyond the instructional setting" (ACTFL, 2022).

Another issue at play in this study is the concept of NSTs and NNSTs. While this duality has become the standard paradigm for studies investigating language teacher identify, it is anything but precise. How native is native? Native from where? Native in language production but not in cultural knowledge? Such queries indicate the complexity of this comparison (Aneja, 2016). Indeed, the NST idea frequently disadvantages NNSTs, even though they may have attained a high level of L2 ability and demonstrated themselves as perfectly proficient multilinguals (Calafato, 2019). This in no way denies there are hurdles that NNSTs must surmount when teaching language. There is a general lack of training in language teacher training programs on how to teach pronunciation, no matter the language. In addition, many NNSTs have a certain amount of insecurity vis-à-vis their own pronunciation due to not being native speakers of the language. Oftentimes students indicate a preference for NSTs but are hard-pressed to define why. Interestingly, research has shown that despite these hurdles, the teacher's language background does not significantly affect students' learning overall (Levis at al., 2016; Olson, 2014).

Acknowledging the above caveats, the present study seeks to expand the research database by adding the heretofore uninvestigated variable of HLLs as peer teachers of pronunciation. There is some evidence that peer teachers do obtain positive results (Braun & Kirkup, 2016), but this was in an undergraduate science lab course. With attention paid to the complexities of the topic, results of this study will establish a research-based foundation to the use of HLLs in the Spanish classroom. The understood premise is, of course, that target language pronunciation instruction is effective (Thomson & Derwing, 2015). Thus, the research question is: *Is there a difference in production gains between three groups of instructors: native speaking teachers, non-native speaking teachers, and heritage-speaking peer presenters?*

METHODS

Participants

The personnel included in the study, to include both experimental groups and control groups, consisted of participants (*N*=111; 91 underwent instruction: 27 with NNSTs, 27 with NSTs, 37 with heritage speaker student presenters; 20 in control group), course instructors, and peer presenters. Participants ranged between 18 and 23 years of age with the majority (60%) self-reporting to be 19 years old at the time of the study. Almost all (97%) of the participants reported their first language to be English, with 2% reporting having Spanish as a heritage language and 1% reporting having Tagalog as a heritage language.

With respect to the seven Spanish instructors, three were native speakers from Mexico, Spain, and Peru. The remaining three were non-native speakers of Spanish who had spent considerable time living in Spanish-speaking countries.

The process to select peers to instruct pronunciation lessons included a request for recommendations from Spanish instructors from the previous semester. A subsequent call for volunteers was then made among that identified group. Then, the researcher evaluated the pronunciation of the potential heritage speaker student presenters (HSSPs) using the study's pretest to evaluate their ability to produce the targeted phonemes: standard manifestations from a majority of Spanish-speaking regions (/a/, /e/, /i/, /o/, /u/, /r/, and /r/). The researcher also determined their instructional ability (interpersonal skills, ability to explain targeted concepts) through a character interview. Thirteen students were initially recommended and five were finally selected.

The five peer instructors had very similar backgrounds. All were attending the same university-level military service academy, all reported that Spanish was spoken at the home during their childhood, but that their primary language was English, all reported their ethnicity to be Latino or Hispanic, and all reported their age to be between eighteen and twenty-three. The did differ in gender however, with four reporting male and one reporting female.

Conceptual Framework

In her 2021 article, Manuela González-Bueno combines VanPatten's Processing Instruction (1996) and Adair-Hauck and Donato's PACE Model (Presentation, Attention, Co-construct, and Extension) (2002) to produce S-PACE: an instructional model used to usher students through a logical learning process that facilitates pronunciation instruction. The S-PACE method serves as the conceptual framework for the instruction in this study (see Table 1).

Table 1
S-PACE Instruction Model

Phase	Description
Presentation	Students are given an example of discourse containing the targeted sound.
Attention	Students' focus is drawn to the targeted sound within the discourse.
Co-construction	Instructor guides students to develop an explanation as to how the targeted sound is pronounced and why it is difficult for learners.
Structured Input	Students perform exercises in which they answer questions depending on the accurate perception of controlled input.
Structured Output	Students respond to prompts using words containing the targeted sound.
Extension	Students are asked to generate spontaneous speech and accurately produce the targeted sound.

This framework is utilized in this study during the instructional stage in which phonemes are introduced with the experimental group. The framework provided the structure and methodology for those specific lessons. See the Appendix for an example of a specific lesson.

Procedure

Following IRB approval for human subjects testing, the study took place during the spring semester of the 2023-2024 academic year at the United States Air Force Academy (USAFA) and followed a progression that allowed participating instructors and students to incorporate evaluations and instructional contents into the normal pace of the course of study. To begin, the researcher chose the first year of the Spanish sequence because of novice-level ability of the students, the idea being that these may be students whose pronunciation ability would be limited enough that any improvements realized during the study would be readily apparent and easily measurable. Then, within the group of first-year classes, class sections were chosen based on the following criteria: presence of heritage speaker students with adequate pronunciation in class, NSTs with adequate pronunciation, and NNSTs.

The researcher began by identifying phonemes to be targeted according to their uniqueness in Spanish versus English (such as the trilled /r/) or their differing manifestation in Spanish versus English (such as the flap /ɾ/), focusing especially on phonemes with relatively higher functional load, meaning those phonemes whose variation could drastically change the meaning of the word in question (e.g., *carro* "car" versus *caro* "expensive"). These phonemes are frequently manifested with non-nativelike production among speakers of American English (see Table 2).

Table 2
Targeted Phonemes

Word	Elicited Phoneme	Frequent American English Speaker Manifestation	Position
Asturias	/ɑ/	/ə/	Initial Unstressed
N**a**varra	/ɑ/	/ə/	Unstressed
Zamor**a**	/ɑ/	/ə/	Final Unstressed
Alicant**e**	/e/	/ei/	Final unstressed
Al**i**cante	/i/	/ɪ/	Unstressed
Madr**i**d	/i/	/ɪ/	Stressed
Toled**o**	/o/	/ou/	Final Unstressed
Universidad	/u/	/juː/	Initial Unstressed
Za**r**agoza	Flap /ɾ/	/ɹ/	Intervocalic
G**r**anada	Flap /ɾ/	/ɹ/	Consonant Combination
Cantab**r**ia	Flap /ɾ/	/ɹ/	Consonant Combination
Pontevedr**a**	Flap /ɾ/	/ɹ/	Consonant Combination
Rioja	Trilled /r/	/ɹ/	Initial
Nava**rr**a	Trilled /r/	/ɹ/	Intervocalic

Best practices from previous pronunciation studies were included in the current study, such as understanding student demographics, documenting procedures to allow for replication, recruitment for statistically significant sample sizes, the inclusion of a control group, and the implementation of a delayed posttest (Thomson & Derwing, 2015).

The study began at the beginning of the spring semester with participants (*N*=111) receiving instructions by email to use *Audacity* (Mazzoni & Dannenberg, 2000) audio recording software on their school-issued laptop computers. They were instructed to record themselves using headphones while pronouncing 15 Spanish words (names of locations in Spain) leaving a three-second pause between each. The pretest took place in the language lab at the USAFA Department of Languages and Cultures. The participants were asked to record themselves saying these 15 utterances with phonemes at varying positions within words in stressed or unstressed syllables.

The instruction phase of the study consisted of 11 five-minute modules that HSSPs, NSTs and NNSTs presented to the experimental groups during the first segment of class over a three-week period. The first module provided the participants with an introduction to the study (e.g., the purposes, structure). The subsequent 10 modules each focused on a different targeted phoneme. The structure of these modules adhered to the S-PACE model with the intention of providing the participants with the purpose of the lesson, calling their attention to the differences between nativelike and non-nativelike pronunciation, and leading them through practice in pronouncing the targeted phonemes (Gonzalez-Bueno, 2019).

The researcher provided training to all presenters (NST, NNST, and HSSP) on the contents of each module prior to instruction. Within the S-PACE construct, all instructors and presenters executed each lesson as they deemed fit, which gave each of them the ability to leverage their individual strengths as necessary to achieve the study's overall goal of facilitating the participants' progress in pronunciation. Following the instructional phase, a posttest was administered with the identical phonemes and format as the pretest to be able to compare results between these two tests. Results from the posttest provided immediate results that gauged participants' learning following the three-week instructional period.

Afterward, participants underwent a two-month period in which pronunciation instruction was limited to isolated points during vocabulary lessons, periodic corrections and emphasis on the part of individual instructors. This period was intended to serve as a continuation of the extension phase of S-PACE in which participants were able to apply their pronunciation learning to scripted and non-scripted production activities (Gonzalez Bueno, 2019). Moreover, this period was designed to allow participants to further strengthen muscles required to produce more muscle-intensive sounds such as the trilled /r/.

Finally, the study concluded with a delayed posttest that instructors administered at the end of the semester. Once again, this delayed posttest had the identical contents and format as the pretest and posttest to be able to compare results. Results from the delayed posttest showed the participants' retention of the contents of the three weeks of S-PACE pronunciation instruction and strengthening of muscles in the mouth associated with non-American English sounds following two months of extension phase.

For data analysis purposes, the researcher compiled all audio recordings of all participants in order of pretest, posttest, and delayed posttest. He annotated their accurate or inaccurate execution of each targeted phoneme in an Excel spreadsheet – pronunciation was rated for accuracy in comparison to pronunciation of phonemes specifically selected for their standardized manifestations across the majority of Spanish-speaking regions (/a/, /e/, /i/, /o/, /u/, /r/, and /r/). This manual assessment proceeded one participant at a time from pretest to posttest to delayed posttest to most accurately assess individual progress throughout the course of instruction. Four additional raters screened recordings, yielding an interrater reliability of 81%, or "good" (Koo, 2016). Additional raters were instructors of the same Spanish course.

Finally, participants were administered a questionnaire on *Google Forms* to gather participant demographics (see Table 3).

Table 3
Participants' Self-Reported Demographics

Participant Demographic Responses	Percentage
Male	69%
Female	31%
White	76%
Latino or Hispanic	7%
Multiracial	6%
Asian	5%
African American	4%
Native Hawaiian / Pacific Islander	2%

RESULTS

Given that the purpose of this study is to determine if there is a difference in production gains between three groups of instructors (NSTs, NNSTs, and HSSPs), the researcher compiled the audio recordings and analyzed the execution of the phonemes for accuracy one participant at a time and in chronological order of recording (pretest, the posttest, then delayed posttest) and categorized them by presenter background. Change is shown using posttest score minus pretest score in one column and delayed posttest score minus pretest score in the other (see Table 4).

Table 4
Results by Presenter Background, Comparing Posttest and Delayed Posttest Improvement Over Pretest

Presenter Background	Number of Participants	Participant Posttest Improvement	Participant Delayed Posttest Improvement
Experimental—Received Instruction			
Heritage Speaker Student Presenter (HSSP)	37	14.33%	15.91%
Native Speaker Instructor (NST)	27	11.38%	10.13%
Non-Native Speaker Instructor (NNST)	27	11.53%	09.23%
Control—No Pronunciation Instruction	20	00.40%	02.18%

With respect to the research questions, if there is a difference in production gains between three groups of instructors (NSTs, NNSTs, and HSSPs), findings indicate that participants in the classes of each instructor or presenter backgrounds have a similar percent improvement at the posttest and a slightly differing percent improvement at the delayed posttest. The researcher compiled pretest results from each group as a baseline, measured the percentage of improvement to the posttest and then likewise to the delayed posttest. Improvement from pretest to posttest was similar for experimental groups. After three weeks of instruction, participants of experimental groups demonstrated an improvement of between 11% and 15%. Improvement from pretest to delayed posttest was slightly more varied, with students of HSSPs retaining and improvement of more than 15%, those of NSTs around 10%, and those of NNSTs around 9%.

Regarding the apparent relative rankings of the participants of the various instructor backgrounds at the time of posttest, there is a significant difference that separates the control group from the experimental groups, but less so between each experimental group. The difference between the control group and the HSSP group, for example, was more than 10%, suggesting existence of learning given the population size (*N*=111; 91 underwent instruction, 20 in control group) and the instructional period of three weeks. However, the difference of improvement between the participants of HSSPs and NNSTs, for example is less than 3%, which is far smaller than the difference between the experimental and control groups.

Citing the phonemes that experienced the most improvement (see Table 5), improvement could have been driven by gains in a combination of the following: the final /o/ (as in “Toled**o**”, with 18% improvement), the intervocalic trilled /r/ (as in “Nava**rr**a”, with 25% improvement), the initial trilled /r/ (as in “**R**ioja”, with 16% improvement), or the initial unstressed /ɑ/ (as in “**A**sturias”, with 13% improvement).

Table 5

Results by Phoneme, Comparing Posttest and Delayed Posttest Improvement Over Pretest

Word	Elicited Phoneme	Position	Phoneme Posttest Improvement	Phoneme Delayed Posttest Improvement
Asturias	/ɑ/	Initial Unstressed	13%	18%
N**a**varra	/ɑ/	Unstressed	11%	22%
Zamor**a**	/ɑ/	Final Unstressed	13%	14%
Alicant**e**	/e/	Final Unstressed	7%	3%
Al**i**cante	/i/	Unstressed	6%	9%
Madr**i**d	/i/	Stressed	12%	13%
Toled**o**	/o/	Final Unstressed	18%	20%
Universidad	/u/	Initial Unstressed	7%	11%
Za**r**agoza	/ɾ/	Intervocalic	13%	14%
G**r**anada	/ɾ/	Consonant Combination	9%	8%
Cantab**r**ia	/ɾ/	Consonant Combination	2%	5%
Rioja	/r/	Initial	16%	15%
Nava**rr**a	/r/	Intervocalic	25%	25%

In the examination of delayed posttest results, it appears that students of HSSPs retained more (15.91%) as opposed to those of NSTs (10.13%) and NNSTs (9.23%). Since the instruction between the posttest and the delayed posttest did not vary between these groups, the reason for this difference is not immediately clear. More analysis regarding demographics, motivation, and perception would be needed to determine this variation.

DISCUSSION

The results of this study produced findings pertinent to the central research question regarding the efficacy of heritage speaker students as presenters, findings that suggest that the data is coherent, and may contribute to the progress of related areas of interest.

Regarding the participants' results by instructor background, there are several salient points. First, there is a notable difference between the experimental groups and the control group. The control group did experience an improvement in pronunciation which may be attributed to receiving aural input, speaking, receiving periodic instruction about the pronunciation of vocabulary, and occasionally being corrected by the instructor. The experimental groups, on the other hand, experienced improvements of between 11% and 13% more than the control group, which likely confirms previous findings that formal pronunciation instruction such as that of the S-PACE construct yields superior results over informal pronunciation instruction, as posited by Gonzalez-Bueno (1997).

Also notable is the proximity in results of participants in the classes of each instructor background: HSSPs with 14.33% of improvement, NSTs with 11.38%, and NNSTs with 11.53%. This may align with previous findings that instructor background may not have an influence on student pronunciation learning, as posited by Levis in 2016.

Furthermore, and most poignant to this present study in particular is that within those groups of instructor backgrounds are not just NSTs and NNSTs, but also HSSPs. Therefore, if results of HSSPs are similar to those of NSTs and NNSTs, then this background of presenter may prove to be an acceptable resource for pronunciation instruction.

There were also findings to be derived from the study that were not centrally focused on the research question, but rather that could have application in related areas. Regarding improvement from the perspective of individual phonemes, several observations become readily apparent. The intervocalic trilled /r/ (as in "Nava**rr**a") began with an average pretest accuracy score of 16% and rose to a posttest accuracy score of 41%, which represents a 25% improvement. This is the highest improvement for any phoneme measured in the study, and it is also possibly the most difficult Spanish phoneme to pronounce for native speakers of American English due to its lack of presence in their native language and the relatively high amount of dexterity required to execute it. This high level of improvement could be due to the relatively low initial score, leaving a high potential for gains during the study. Also experiencing high improvements was the initial trilled /r/ (as in "**R**ioja"), and vowels such as the initial unstressed /ɑ/ (as in "**A**sturias"), and the final /o/ (as in "Toled**o**"). The initial trilled /r/ began with an average pretest score of 39% and rose to 55% on the posttest for a gain of 16% - the initial unstressed /ɑ/ began with an average pretest score of 81% and rose to a posttest score of 94% for a gain of 13%, and the final /o/ began with an average pretest score of 69% and rose to a posttest score of 87% for a gain of 18% (the highest gain of any vowel measured in the study). It is possible that the improvements measured were due to the ease of correction: most of American English's homologous manifestations in Spanish already exist in English and could be simply a matter of calling the learner's attention to the application, as postulated with the Noticing Hypothesis (Schmidt, 2010).

Limitations

Although the general atmosphere of the institution among colleagues and students alike was positive, thoughtful and supportive of the research, the study was not without its limitations. Fortunately, none of these limitations seem to have affected the scholarly value of the findings.

First, it seemed that the participants may have been very supportive of the research effort, but they may have rushed through the pretest, posttest, or delayed posttest due to the pressure of other assignments being due the same day. At this military service academy, students' time is precious: their mornings are filled with physical training and briefings, their lunches are also frequently occupied by briefings, and their afternoons are filled with sports practices, homework, and study. It is possible that participants felt the need to rush through these recordings – some

that sounded more relaxed lasted around 50 seconds, and others that sounded more hurried only lasted around 20 seconds. In spite of this, the value of scholarly findings do not seem to have been affected in that the tests were carried out on days with similar schedules and therefore with similar time pressures – the tests were all affected approximately in an equal measure.

Also, technology doesn't seem to have advanced enough yet so that segmentals can be rated in an efficient, automated fashion by autonomous software. At this point, manual, human scoring (raters listening to audio recordings and annotating accuracy) is still required to determine the accuracy of each phoneme: eighteen phonemes times 111 participants times three tests equals 5,994 phonemes that had to be evaluated individually by human ears and rated by the human brain. Although this limitation may have affected the findings, the data did show an interrater reliability of 81%.

Finally, the three-week length of the intervention can also be seen as a limitation (Thomson & Derwing, 2015). Many other studies have longer periods of intervention with fewer targeted phonemes. The effect that this may have is that students may have not had sufficient time to effectively absorb the volume of content presented, as demonstrated by some of the decreases in scores at the time of the delayed posttest. Replications of this study may benefit from a reduction in the number of targeted phonemes, a longer intervention period, or both.

With that, the observation of these limitations could potentially be beneficial for follow-up studies and for practical application of findings at this institution or others.

Avenues for Future Research

Although the findings of the research do point to immediate solutions for language teachers to leverage heritage speaker students in the classroom to improve confidence among learners, there is also potential for much follow-up development. The results and conclusions from this study could help to identify avenues for future research.

Most importantly, further research is needed to discover if participants are more confident in contents presented by HSSPs as opposed to NNSTs, and the reason for that. Studies from the physics field suggest that participants may be more confident in instruction carried out by their peers as opposed to faculty instructors due to similarities in age, career choice, or background (Braun & Kirkup, 2016). Similar efforts do not exist for language instruction and efforts to uncover this information could serve to advance instruction methodology.

Also, a study in which the roles between HSSPs and non-native speaker students are switched could give interesting results regarding grammar instruction rather than pronunciation instruction. In the present study, peer presenters are leveraging their native-like pronunciation capabilities to help their non-native classmates improve theirs. A mirror image study would involve a similar screening of non-native students to discover the ones that possess relatively higher grammar capabilities to instruct heritage speaker students in grammar. One limitation to conducting this study at this institution in particular is that the scope of this study would be much

smaller, relatively: the researcher was only able to identify thirteen heritage speakers out of a pool of 173 students.

CONCLUSION

In summary, the central problem of this study lies in the premise that participants may prefer NSTs over NNSTs (Hertel & Sunderman, 2009). This preference could be based on the perception that NNSTs possess an imperfect or incomplete set of skills in the target language and therefore the contents they present may also have the same attributes. The result of this preference could make participants less confident in the contents that their NNSTs impart or less comfortable in imitating their NNST's pronunciation versus imitating that of a NST. What is curious about this circumstance is that other studies suggest that teacher background, be it NST or NNST, may not have an influence on participants' pronunciation results (Levis et al., 2016).

With that in mind, one resource that NNSTs have at their disposal that could inspire confidence among their students with the contents and emphasize accurate pronunciation in to produce advanced-level speakers is heritage speaker students. Studies from the physics field suggest that participants may view their peers as acceptable instructors in comparison to faculty instructors (Braun & Kirkup, 2016). The question then becomes whether the same could be true for the language classroom: initially, one must determine the efficacy of heritage speaker students. The present study suggests that heritage speaker students can in fact achieve similar results in pronunciation presentation as NSTs and NNSTs. Furthermore, one must consider the level of speaker that his or her language program seeks to produce. If the goal is to produce an intermediate mid speaker, then an emphasis on communicative objectives at the expense of form allows for the program to make efficient use of time. However, if the program's goal is to produce speakers at the intermediate high level or above, accurate pronunciation is a requirement for concise communication without the necessity of circumlocution (ACTFL, 2024), and it could be useful for the students to be confident in the nativelike nature of the contents being presented. Studies have suggested that the average language instructor spends eight minutes per week on pronunciation, and that instruction tends to be ad-hoc and impromptu in nature (Olson, 2014). This lack of attention to pronunciation instruction could be due to what studies suggest is a lack of confidence in the ability to effectively provide pronunciation instruction and a skepticism of its usefulness due to recent emphasis on communicative methodologies versus a focus on form (Nagle et al., 2018). However, a body of studies suggests the effectiveness of including deliberate pronunciation instruction into curriculum (Lord, 2010). Many language programs do seek to develop students to the intermediate high level or above, and therefore, intelligible pronunciation could be a valuable asset for students to strive to attain – heritage speaking students can help NNSTs get their students to that level.

Assigning heritage speaker students to present pronunciation contents is important for middle schools that want to start their students out with good speaking habits, high schools that want to get heritage speakers on board with the lesson, and universities that want to produce advanced-level speakers. More research is required in this area to determine how NNSTs can

inspire more confidence in their students in the contents they present and how to create individualized plans for heritage and native speaker students so that their foundations are also solidified.

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APPENDIX

Example Lesson: "Mis amigos excéntricos"

Objective: Students will accurately produce /o/ sound in Spanish

Procedure:

1) Presentation: Students listen to a recording of two friends talking about current fashion: clothes, piercings, tattoos, etc. This recording includes unit vocabulary: avergonzado, conozco, sombrero.
2) Attention: Presenter calls students' attention to the /o/ - how the /o/ never changes from one position to another and how it is a monothong, not a diphthong /ou/, and how it is always the /o/ and not the schwa /ə/ regardless of position, using example vocabulary from the unit: Avergonzado, conozco, sombrero. Note: presenter does not explain these rules, but rather gives these examples and asks students to repeat, correcting pronunciation of individuals and of the group.
3) Co-construction: Presenter asks students to describe the rules of what they have learned, annotating them on the board as they generate them: /o/ never changes according to position: monothong and not diphthong, /o/ and not schwa.
4) Structured Input: Students perform an activity in which they listen to the same recording as in the presentation phase and answer content question regarding that recording.
5) Structured Output: Students perform an exercise in which the presenter asks them to guess a unit vocabulary word containing the /o/. Presenter corrects pronunciation as required.
6) Extension: Students must record a 2-minute conversation in which they describe their own eccentric friends using the unit vocabulary.