Logos
ΛΌΓΟΣ Revista de Lingüística,
Filosofía y Literatura

Artículo de Investigación

# The Effectiveness of the Instruction of the Intonation of English Implications to L1 Spanish Trainee Teachers

## La efectividad de la enseñanza de la entonación de implicaturas en inglés a profesores en formación cuya lengua materna es el español

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**Abstract:** When it comes to Second and Foreign Language Teaching, the teaching of pronunciation has, for long, been neglected (Derwin & Munro, 2005) and it has not been given due attention in textbooks (Thompson, 1995). Additionally, studies tend to focus on only some intonation patterns such as wh- questions and yes-no questions, leaving other patterns which are as important unexplored. Thus, a research gap is generated. This study aims to narrow that gap by means of exploring the effectiveness of the teaching of intonation to Spanish-speaking trainee teachers at a Chilean university. The study focuses on a less familiar intonation pattern, that of utterances which express implied information, namely, implications. The study involved 9 participants (3 males, and 6 females) who were in the process of becoming English teachers and who were enrolled in an English phonetics course. All participants took a pre-test followed by a four-session intervention on the intonation of English implications and a post-test which involved the reading of 29 prompts. In order to compare pre- and post-test results, a Wilcoxon signed-ranked test was run. The results drawn from the non-parametric test revealed that the participants were able to perform English intonation for implications better after having received training (Mdn=22) than before the treatment (Mdn=11), Z=-2,668, p=0,008.

**Keywords:** English as a Foreign Language - implications - intonation - pronunciation - teaching

**Resumen:** Cuando hablamos de la enseñanza de una segunda lengua o una lengua extranjera, la enseñanza de la pronunciación se ha ignorado por mucho tiempo (Derwin & Munro) y no se ha abordado de forma debida en los textos de enseñanza (Thompson, 1995). Además, los estudios de investigación tienden a enfocarse en solo un patrón de entonación, tal como las preguntas de tipo wh- o las de respuesta sí-no, dejando sin explorar otros patrones que son igualmente importantes. De esta forma, se produce un nicho investigativo. El presente estudio intenta llenar ese nicho por medio de la exploración de la efectividad de la enseñanza de la entonación a profesores en formación de una universidad chilena quienes son hablantes de español como primera lengua. El estudio se enfoca en un patrón de entonación que es menos conocido que el resto, esto es, el de declaraciones que expresan información implícita conocidas como implicancias. El estudio incluyó a 9 participantes (3 hombres y 6 mujeres) quienes se encontraban en el proceso de formación como profesores de inglés y que se encontraban desarrollando un curso de fonética inglesa. Todos los participantes rindieron un pretest seguido de una intervención de cuatro sesiones centradas en la entonación de implicancias en inglés y de un posttest que incluyó la lectura de 29 estímulos. Con el fin de comparar los resultados de los pre y posttests se ejecutó una prueba de rangos con signos de Wilcoxon. Los resultados obtenidos de esta prueba no paramétrica revelaron que los participantes pudieron producir la entonación de implicancias en inglés mejor después de haber recibido instrucción (Mdn=22) que antes del tratamiento (Mdn=11), Z=-2,668, p=0,008.

**Palabras clave:** enseñanza - entonación - implicancias - Inglés como Lengua Extranjera - pronunciación

## 1. Introduction

In Chile, there are over forty tertiary education institutions that offer English Language Teacher Education Programs ("INDICES Educación Superior | Consejo Nacional de Educación", 2018). Their length ranges between 8 and 10 semesters and their study plans generally comprise two or three terms of instruction focused on the pronunciation of English where students receive training in the areas of English segmentals and suprasegmentals. Besides this, some institutions have implemented, as part of their curriculum, an introductory course to English phonetics and phonology in which students also examine some general aspects of their mother tongue, Spanish, and contrast them with their English counterpart.

As in the planning of any curriculum, decisions need to be made. Thus, the planning of pronunciation courses in English Teacher Education Programs must involve the adoption of a pronunciation model which will match the students' goal (McGregor & Reed, 2018) and which will serve as the referent to assess their performance and outcomes. Such outcomes are generally expected to be rather high in terms of pronunciation attainment (Veliz, 2018). In spite of these demanding proficiency standards posed to pre-service teachers, pronunciation instruction in teacher education still plays a secondary role (Burri, 2015).

This negligence in properly addressing pronunciation instruction leads us to wonder how effectively work is being done in terms of equipping prospective teachers with the necessary knowledge and competence to confidently teach foreign/second language pronunciation. Hence, it is crucial to pose the question: how effective is pronunciation teaching? This paper aims to tackle one particular target area within the plethora of possible subject matters in this field, namely the intonation of English implications.

## 2. Literature Review

It is an unquestionable fact that English has become the language of communication worldwide. Every day, millions of interactions are conducted in English in contexts where the participants' $L_1$ backgrounds are other than English (Seidlhofer, 2005). The rise of English as an international language has had a great impact in fields like second language acquisition, applied linguistics, and language teaching. Although it has received less attention than other areas related to second language acquisition such as the learning of syntax or lexis, the teaching of second language pronunciation has not remained alien to this phenomenon. Not for nothing has it been referred to as the "Cinderella" of foreign language teaching (Underhill, 2016). The teaching of pronunciation in foreign language courses is generally relegated to a secondary role if we compare it to other areas such as grammar and vocabulary (Al-Azzawi & Barany, 2015; Derwin & Munro, 2005; Foote, Trofimovich, Collins, & Urzúa, 2016; Koike, 2016; Pourhosein Gilakjani & Sabouri, 2016; Taylor, 1993; Véliz, 2011). Not to mention its limited coverage in course books and other teaching materials where generally, as stated by Thompson (1995), "A few old favorites tend to appear again and again". Such is the case of wh-questions and yes-no questions described in the same work. As an example of this, a study conducted by Foote et al. (2016) examined the teaching of pronunciation of 40 hours performed by three teachers in an ESL context in Canada. The results from this study revealed that only about 10% of the input given by the teachers targeted pronunciation as opposed to 20% and 70% dedicated to grammar and vocabulary respectively. Additionally, The whole number of episodes dedicated to pronunciation teaching targeted segments and no treatment of suprasegmentals was performed. Similar findings from a survey conducted by Burns (2006) revealed that teachers cover segmentals with a higher level of frequency than suprasegmentals. This adds to the fact that language teachers do not normally feel confident to teach pronunciation (Pourhosein Gilakjani & Sabouri, 2016) as research on the topic is often inaccessible to them (Derwing & Munro, 2005; Taylor, 1993). In this respect, Woolard (1993) claims that "The average teacher is uncomfortable with intonation, treating it as a difficult subject: difficult to isolate..." The same idea is shared by other authors who have conducted studies in the same area such as Burgess and Spencer (2000), and Burns (2006). Thus, the number of qualified pronunciation teaching professionals becomes scarce making access to programs with solid pronunciation instruction difficult (Derwing, 2003). For instance, in a survey conducted by Roads (1999) with a group of EFL practitioners, only 5% of them asserted they felt confident enough so as to teach intonation. As such, it tends to receive little explicit focus in the classroom. As a result, language learners do not receive proper instruction in terms of the $L_2$ prosody being at risk of not succeeding in communicating the desired message.

Learning what the intonation patterns of a language are is an important factor that facilitates the teaching and learning of the pronunciation of a foreign language (Cid, 1996) as being able to use intonation properly is crucial when communicating in an $L_2$ (Nagamine, 2002). Native speakers of English are aware that non-native speakers make mistakes at the segmental level. However, a different scenario takes place when mistakes occur at the suprasegmental level as the intonation pattern being used by the learner may not suit the right communicative purpose (Cid, 1996; Wells, 2006). Thus, the intended message may be misunderstood (Aydin & Akyüz, 2017; Taylor, 1993). For instance, a study conducted by Derwing and Rossiter (2002) revealed that 55% of the participants stated that communication with others had been affected due to issues with their pronunciation. Such misunderstandings are commonly the result of $L_1$ transfer. Additionally, the difficulties which $L_2$ learners face in attaining a high level of mastery in pronunciation can be attributed to the Critical Period Hypothesis (CPH), (Vanhove, 2013). This, in spite of evidence supporting the CPH (Oyama, 1976; Piske, MacKay, & Flege, 2001), does not imply that pronunciation cannot be taught and therefore learned with relative success. In spite of speaking with a degree of accentedness, the $L_2$ speaker can still benefit from formal instruction (Barrera Pardo, 2004). This is where the role of the foreign language teacher becomes crucial. For this, they are expected to have more than just fairly good mastery of the pronunciation of the $L_2$ (Demirezen & Kot, 2016), unlike other $L_2$ speakers.

In many countries around the globe, a growing practice to ensure this is setting standards for both trainee and in-service teachers (e.g. Ministry of Education, Ecuador, 2012; Ministry of Education, Israel, 2003). Chile is no exception to such a policy. In setting these standards, we should always ensure that our decisions are informed by research rather than by mere experience and intuition. Otherwise, the goal of our teaching might be placed at a major disadvantage (Derwin & Munro, 2005).

With regards to standards, there seems to be consensus that intelligibility is what should be aimed at (Derwing & Munro, 2005; Matsuura, 2007), for goals in terms of pronunciation attainment should be realistic as there is enough evidence to suggest that $L_2$ native-like pronunciation is unlikely to be achieved. Thus, intelligibility has become the focus of attention over the last years (Nagamine, 2002).

In 2013, the Chilean Ministry of Education launched the "Estándares Orientadores para Carreras de Pedagogía en Inglés[1]" (Ministerio de Educación, Chile, 2014), a document which contains the ten disciplinary standards and the ten pedagogical standards to be met by all newly-trained primary and secondary school teachers in the Chilean system by the time they have completed their undergraduate studies. In this set of standards, disciplinary standard N°1 refers to the teacher's mastery of English: "[The teacher] understands the constituent elements of the English language and how they work, and applies this knowledge in order to develop his/her students' communicative skills in English." A finer breakdown of this standard makes general reference to pronunciation: "[The teacher] makes use of phonetic and phonological elements which allow him/her to clearly articulate his/her oral discourse, which manifest themselves through the use of contrastive sounds of the English language, its intonation, and features of connected speech (assimilation, linking, and elision)." Additionally, standard N°6 indicates that teachers are required to achieve a level of command in the $L_2$ equivalent to C1 in the Common European Framework of Reference for Languages (Council of Europe, 2001). An examination of the CEFR reveals that, in terms of pronunciation, $L_2$ speakers at level C1 "...can vary intonation and place sentence stress correctly in order to express finer shades of meaning."

The research that has been done so far regarding EFL pronunciation has generally focused on the segmental level (Foote et al., 2016; Murphy, 1997). The effectiveness of $L_2$ phonemic instruction has been measured with speakers from various $L_1$ backgrounds (Derwing, Munro & Wiebe, 1997; Dufour, Nguyen & Frauenfelder, 2010; Gordon, Darcy & Ewert, 2013; Kissling, 2013; Levis & Cortés, 2008; Lin, Chang & Cheung, 2004; Tuan, 2010).

As regards research on suprasegmentals, a case study by Rodriguez (2016) explored the effectiveness of a pedagogical intervention of the intonation of wh- and yes-no questions. The study included the recording of six Chilean participants whose $L_1$ was Spanish and who were learning English as a foreign language mainly for personal or work reasons. Their ages ranged between 28 and 43. A pre- and a post-test were applied before and after the treatment which consisted of a series of lessons which focused on a prosodic feature of the above-mentioned structures. The tests used to collect data comprised two tasks each. Task one elicited data drawn from the reading of two passages. Task two collected samples obtained from spontaneous speech which the participants produced in a role play activity. The results drawn from this study indicate that the participants were, in general, successful in performing the pitch contour of yes-no questions across both tasks on both, the pre- and post-test. In contrast, the pre-test as well as the post-test employed showed that the participants had poor performance in using the appropriate intonation pattern for wh- questions. These conclusions are somehow expected as empirical evidence states that Spanish speakers normally use a rising intonation pattern in both types of questions (Cid, 1996; Ortiz, Fuentes, & Astruc, 2010). Thus, $L_1$ transfer can have a negative impact on the production of a particular intonation pattern in the $L_2$ (Hewings, 1995). However, $L_1$ transfer can sometimes be beneficial for the learner. This idea[2] is supported by a study conducted by Wennerstrom (1994) in which a group of Spanish speakers succeeded in the production of rising tones in yes-no questions in the reading of a passage.

In spite of the attempt made by Rodriguez (2016) to test the effectiveness of an intervention to teach the prosodic patterns of English questions, this does not account for two important elements, namely tonality and tonicity. Instead, such work focuses on the choice of tones only.

A more exhaustive account of the effectiveness of intonation teaching was given by Zhuang (2015), who conducted a comparison study across three groups: a native speaker (NS) group (8 participants), an ESL comparison group (16 participants), and an ESL treatment group (16 participants). Participants in the comparison group as well as those in the treatment group were all native speakers of Brazilian Portuguese who were studying at an American university in order to improve their English language skills. All three groups sat a pre-test and a post-test which focused on two main areas: intonation and communicative functions. These two tests aimed at collecting data on the participants' use of intonation in English from the reading of dialogs as well as sentences. The scoring for the items from each test was dichotomous; correct responses were rated with a score of 1, whereas incorrect responses were rated with a 0.

The objective of this paper is to discover whether the intonation instruction has an effect on the learning of an intonation pattern which has not been paid attention to so far, as mentioned above, that is the intonation pattern of English implications. An implication, according to the Longman Dictionary of Contemporary English ("implication." n.d.), is understood as "A suggestion that is not made directly but that people are expected to understand or accept." On the other hand, the Cambridge Dictionary describes the term as "An occasion when you seem to suggest something without saying it directly." Thus, an implication is an utterance in which the speaker makes a suggestion without stating it directly or explicitly. In speech, implications are performed by means of using a specific intonation pattern which is known as the implicational fall-rise (Archer, Aijmer & Wichmann, 2012; Wells, 2006). Thus, an example of an implication can be a speaker's reply "I can come on Tuesday" to the suggestion "I was thinking about a meeting on Tuesday or Thursday." In this example, the speaker's reply would be said with the nuclear accent and a fall-rise on the first syllable of the word ᵛTuesday implying that they have no other day available for such a meeting. Hence, this study aims to shed light on the following research question:

•Does the explicit teaching of the implicational fall-rise have an effect on the participants' learning of such an intonation pattern?

## 3. Methodology

### 3.1 Participants

The study comprised a group of 9 participants (3 females, and 6 males) who study English in the second year of an English teacher-training program at a Chilean university. All of them were enrolled in a phonetics and phonology course. By the end of the course, the participants certified their level of proficiency in English by means of a standardized test (FCE). They were expected to achieve a level of proficiency equivalent to B2 in the The Common European Framework of Reference for Languages . Table 1 summarizes the participants' results from this test.

| CEFRL Level | n |
|:-----------:|:-:|
| C1 | 1 |
| B2 | 7 |
| B1 | 1 |

**Table 1.** Participants' proficiency in English according to CEFRL

These participants were intentionally selected as they were, at the moment of the study, enrolled in the second of the two English phonetics and phonology courses of their study plan.

Therefore, all students in the group had already passed the first phonetics course which focused on segmental English phonetics. The second course, which the participants were doing at the time of the research, focused on suprasegmentals. All the participants were Chilean. Thus, all of them had Spanish as their mother tongue. Their ages ranged between 21 and 28 with a mean of 22,5 years.

*3.2 Instruments*

*3.2.1 Intonation Test*

The instrument for this study consisted of a set of 29 short dialogs. Each dialog contained one turn per speaker (speakers A and B correspondingly), a question or a remark (speaker A) and a reply (speaker B). From the 29 dialogs, initially, the instrument included 21 which had an implicational sentence and 8 dialogs which did not. The latter ones were included as distractors. However, due to missing data, only 19 of the 21 original implication sentences were included for analysis. The dialogs were designed in a way that each question or remark allowed for an implicational reply. Each reply consisted of two components, an implication and a further comment on that implication which made it explicit. Adding a comment to each implicational reply was not fortuitous. They were intentionally added in order to provide context so as to make it clear that the replies had an implicational communicative purpose rather than a different one e.g. an exclamation, a statement, etc. Therefore, all of them required a fall-rise tone.

In order to ensure that all of the reply sentences could clearly be interpreted as implications by the participants, a group of five ELT specialists were consulted. These specialists were members of the teaching staff at a Chilean university and were all informed of the purpose of the study and the instrument. All five ELT specialists agreed that all nineteen (originally 21) reply sentences had an implicational communicative purpose.

*3.2.2 Survey*

In order to collect further information about the participants' background, a survey was given to them. This survey consisted of two parts. Part one aimed to obtain information on background data such as age, years of residence in an English-speaking country, years of study of English, standardized tests taken, years of formal instruction, etc. Part two consisted of items on the participants' appreciation of their own pronunciation in English and English pronunciation in general. These were presented in the form of four Likert scales which ranged from 1 to 10, with 1 being the lowest score and 10 the highest. The Likert scales focused on collecting information on the following questions:

• How important do you think that pronouncing a foreign language well is?
• How good do you think your own pronunciation of English is?
• How important do you think a teacher's pronunciation is for a learner to succeed in attaining good pronunciation in a second or foreign language?
• How much do you think your teacher(s)'s pronunciation influenced your own pronunciation attainment?

*3.3 Procedure*

*3.3.1 Pronunciation Intervention*

The pronunciation intervention consisted of a series of four sessions in which the participants were specifically trained on the intonation patterns of implications. The four sessions were held over two weeks. Thus, there were two sessions per week. The first session in each week lasted 120 minutes, whereas the second session was only half as long (60 minutes). The materials used for each session consisted mainly of exercises from the textbook written by Wells (2006) "English Intonation: an Introduction." The first sets of exercises focus on listening to example

sentences and then repeating them in order to drill the intonation patterns. Such drills were first conducted as a whole group with the participants and then individually so as to make sure that all of them could perform the patterns with accuracy.

### 3.3.2 Recordings

The participants were recording individually. Each dialog was elicited from a computer screen which first displayed speaker A's turn (question or remark); then, after five seconds, speaker B's turn was displayed (implicational sentence). As the focus of this study is on the intonation of implications, the participants were instructed to record only speaker B's part. The time allowed between the appearance of each implicational sentence and the following short dialog was five seconds. This was done in order to prevent any rehearsal of the sentences, so as to ensure that spontaneous speech was being recorded.

All the sentences were recorded using the software Audacity (Audacity Team, 2019) and then edited on Praat (Boersma & Weenink, 2019) in order to isolate each elicited utterance on a separate file.

### 3.3.3 Scoring

In order to perform the scoring process, first, each of the implication utterance was isolated and syllabified using Praat. Then, the nucleus for each intonation phrase was identified. The scoring for the intonation test was performed by means of auditory analysis of the fundamental frequency using the same software. The scoring of all recordings was conducted by the researcher. The approach adopted for the scoring of the items was similar to that used by Zhuang (2015). The participants were given 1 point for each successfully placed nucleus in each intonation phrase and 0 points for an incorrectly place nucleus. The same procedure was followed for correctly produced tones in each intonation phrase. The analysis of tonality was not within the scope of this study as this feature of intonation can be performed in numerous ways depending on the speaker's choice (Wells, 2006). Therefore, tonality was controlled throughout the process. As this study focuses on implications, the participants were given 1 point for using the correct tone (fall-rise) in each of the implication sentences they were presented with. Thus, each item had a maximum possible score of 2 points, 1 one for tonicity and one for tone. The total score for the intonation test was 38 points. Picture 1 illustrates an example of the scoring of an implication utterance.
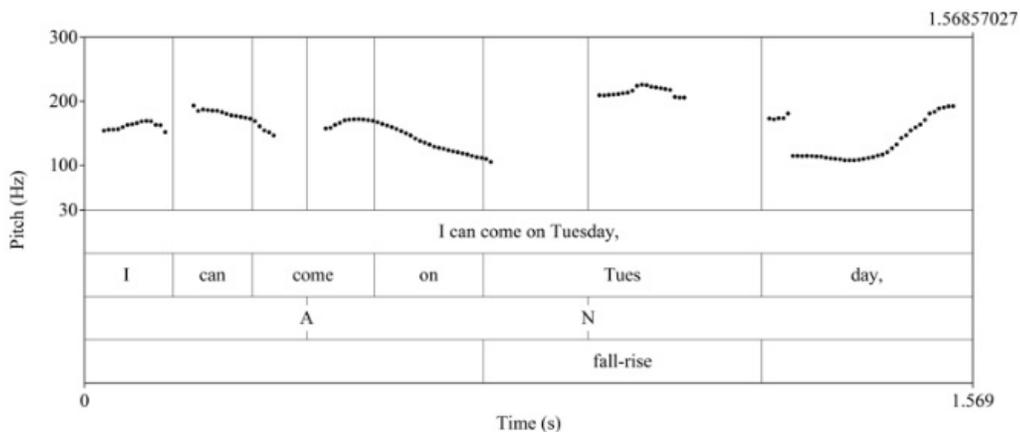


**Picture 1.**

## 4. Results

*4.1 Pre- and post-test results*

The aim of this study was to shed light on the effect of instruction on the development of the intonation of implications in learners of English as a foreign language. The participants were tested before and after the treatment (training sessions) and then their results were compared by means of running a Wilcoxon test on SPSS. The results from the Wilcoxon-signed Ranks Test revealed that the participants were able to use English intonation for implications better after having received training (Mdn = 22 ) than before the treatment (Mdn = 11), Z = -2.668, p = 0,008.

| Sentence | S1 | S2 | S4 | S5 | S6 | S7 | S9 | S11 | S12 | S13 | S16 | S17 | S19 | S21 | S23 | S25 | S26 | S28 | S29 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Pre-test** | 1,00 | 1,00 | 0,11 | 1,22 | 1,00 | 0,56 | 0,00 | 0,44 | 1,00 | 0,22 | 0,22 | 0,11 | 0,00 | 1,00 | 0,00 | 0,56 | 1,00 | 0,78 | 0,22 |
| **Post-test** | 1,56 | 1,22 | 0,89 | 1,78 | 1,33 | 1,22 | 0,56 | 1,33 | 1,44 | 0,78 | 1,22 | 1,00 | 0,33 | 1,44 | 0,89 | 1,11 | 1,00 | 1,33 | 0,67 |
| **Gain** | 0,56 | 0,22 | 0,78 | 0,56 | 0,33 | 0,67 | 0,56 | 0,89 | 0,44 | 0,56 | 1,00 | 0,89 | 0,33 | 0,44 | 0,89 | 0,56 | 0,00 | 0,56 | 0,44 |

**Table 2.** Mean score per sentence and gain score obtained in each of them after the treatment.

Table 2 shows the calculated mean for each sentence in the pre- and the post-test as well as the difference between these two values for each sentence. It is worth mentioning that table N°2 displays only those sentences which were considered for the study as sentences 3, 8, 10, 14, 15, 18, 20, 22, 24, and 27 were either distractors or were not used for analysis due to missing data. As can be seen, in all of the sentences, the participants obtained a gain in terms of score except for sentence N°26. The lowest gain found was 0,22 for sentence N°2, whereas the highest gain was found to be 1,00 point for sentence N°16. The mean gain for all items was 0,56.
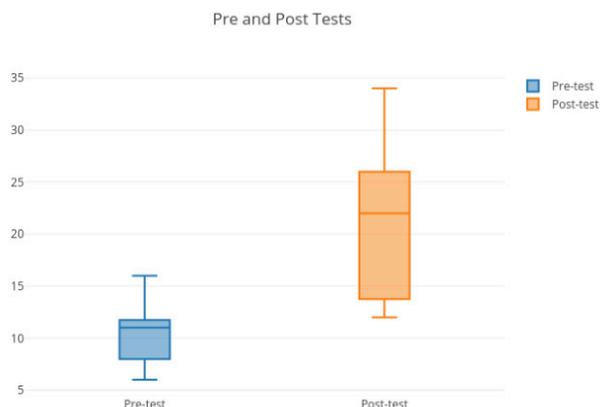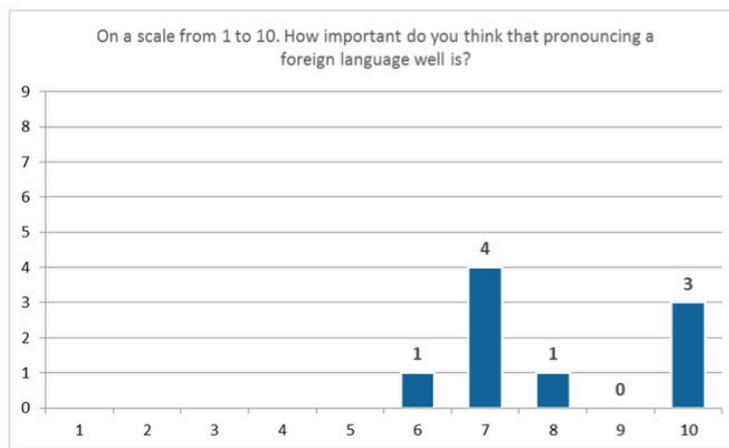


**Graph 1.**

A comparison of the box plots for the pre- and post-test results (graph N°1) shows that the median for the pretest was Md 11, whereas the median for the post-test scores was Md 22. In other words, the median for the students once they had gone through the intonation instruction on implications doubled. It is also interesting to mention that all participants, in the post-test, obtained a score higher than the median they obtained in the pre-test, which is a considerable gain. We can also observe that the dispersion of the data is much larger in the post-test (IQR 3,75) than in the pre-test (IQR 12,75). That is to say, the scores the participants obtained after the treatment were much more heterogeneous.

*4.2 Survey results*

The design of this study included a survey which aimed to gather other relevant data on the participants' background on L$_2$. This section describes the results obtained in the application of this survey.

The bar graph below (Graph 2) illustrates participants' responses to the question "How important do you think that pronouncing a foreign language well is?" They were asked to select a preference on a scale from 1 to 10 where 1 represents the lowest degree of importance and 10 represents the highest degree. The majority of the participants selected 7 (45%). The second most frequent answer was 10 (3 tokens) which represents 33% of their answers. In the third place, we can find options 6 and 8 with 11% of the preferences each (1 token each). Options 1, 2, 3, 4, 5, and 9 were not chosen at all. In conclusion, the participants from this study consider that the pronunciation of a foreign language is highly important.
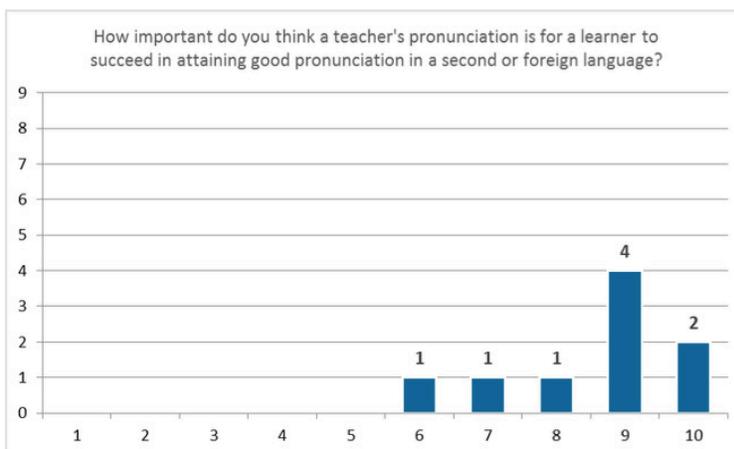


**Graph 2.**

Participants responses to the question "How good do you think your own pronunciation of English is?" are illustrated in Graph 3. Again, the participants were asked to select an option on a Likert scale from 1 to 10. In this respect, most participants, 45%, graded their own pronunciation with a 7 (4 tokens). Option 6 on the scale is represented by 33% (3 tokens) of the preferences of the participants, while options 3 and 5 represent 11% each (1 token each). No respondent selected options 1, 2, 4, 8, 9, or 10. We can conclude that most participants consider their pronunciation of English is fairly good or just above average. However, there is a very small percentage of the participants, namely one of them, who does not have a very favorable opinion of their own pronunciation of English.

Graph 4 depicts the participants' responses to the question "How important do you think a teacher's pronunciation is for a learner to succeed in attaining good pronunciation in a second or foreign language?". Answers for this question ranged between ratings 6 and 10. In other words, most of the answers concentrated on the upper half of the scale meaning that the participants demonstrated a tendency to attribute pronunciation attainment to the instructor's influence. One of the respondents rated this item with a 6 which represents 11% of the preferences (1 token). The same is true for ratings 7 and 8, with 11% for each of them (1 token each). Four respondents rated this item with a 9 (45%), and 2 with a 10 (22%). In conclusion, the majority of the participants think that the teacher's pronunciation is a key element in the pronunciation of a learner's foreign or second language.
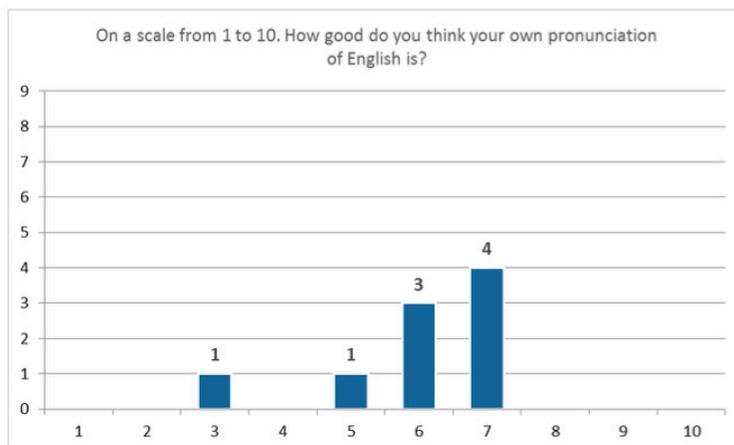
**Graph 3.**



**Graph 4.**
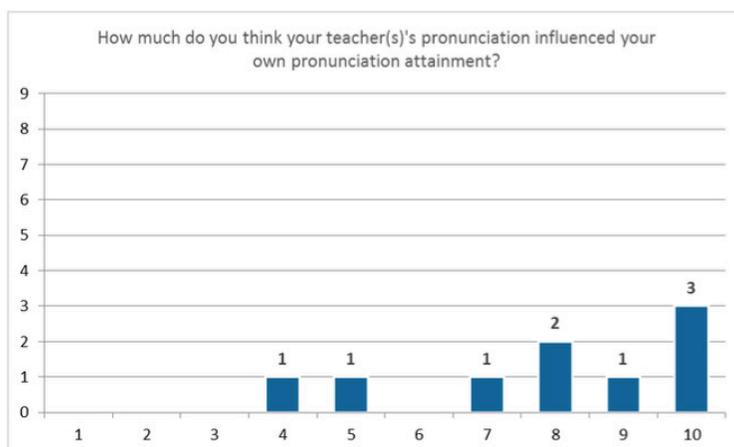


**Graph 5.**

Graph 5 displays the responses for the last Likert item from the survey which contained the question "How much do you think your teacher's pronunciation influenced your own pronunciation attainment?". In this case, the answers given by the respondents were slightly more varied and ranged between the values 4 and 10. One participant rated this item with a 4 representing 11% of the preferences. The same occurred with ratings 5, 7, and 9. Value 6 was not selected by any of the respondents, whereas two of the participants rated this item with 8 which stands for 22% of the preferences. Finally, 3 of the participants chose 10 (34%) as the value that represented their preference regarding this item.

## 5. Discussion

The aim of this study was to determine whether the instruction of the intonation of English implications had an effect on the learning of Spanish $L_1$ speakers of this pattern. The comparison of the scores obtained in the pre- and post-test revealed a significant difference between these. In other words, the participants were able to produce English tonicity and tone in implication-type utterances more effectively after the treatment than before it. Thus, the teaching of this intonation pattern proved to have an effect in the participants' development of English suprasegmentals. These findings are somehow more encouraging than those found by Rodriguez (2016) as in her work, the participants were able to successfully perform yes-no question intonation, which uses the same intonation pattern as in most, if not all, question-types in Spanish. However, the participants in that study were not successful in producing the correct intonation pattern of wh-questions, which differ from that used in Spanish for the same type of questions. Thus, in Rodriguez's case, the effectiveness of the instruction did not have a strong effect on the participants' acquisition of the intonation patterns explored, at least not to an acceptable level.

The results from this study seem to be more consistent with those found by Zhuang (2015) in that both studies suggest that intonation instruction is significantly helpful for English learners. However, this study focuses on one single pattern and not on a range of patterns as in Zhuang's (2015). One main difference between this study and Rodriguez's is in relation to the nature of the participants. In Rodriguez (2016), the participants' reasons to study English were related to personal goals or their work, whereas here the participants' main reason to study English was the fact that by the end of their studies they would become English teachers. Thus, the level of successfulness in learning the intonation of the target language suggests it may be strongly influenced by the participants' reason to learn the $L_2$ or by how important they think pronunciation is. These results are in line with those found in a study performed by Yousofi & Naderifarjad (2015) in which a pool of 40 upper-intermediate female students revealed a strong positive correlation between motivation and pronunciation. The same study measured the relationship between pronunciation achievement and instrumental as well as integrative motivation (Gardner & Lambert, 1972) with correlation coefficients 0.73 and 0.77 respectively. Additionally, the participants in this study are mostly in favor with the idea that pronouncing a foreign language well is important. This is congruent with the results found in a survey conducted by Derwing (2003) in which 97% of the respondents reported the same opinion about the pronunciation of English as a second language.

The participants in this study also revealed a slightly favorable opinion about their own pronunciation in the English language. However, they did not rate their pronunciation as being among the highest places on the Likert scale. This suggests that they feel they could make a much greater improvement in terms of refining their own pronunciation. In this respect, a survey conducted by Poblete, Gunn & Gonzalez (2017) in which 98,4% of the respondents, 65 in-service Chilean teachers, declared they wished to improve their pronunciation. Therefore, shedding light on the effectiveness of pronunciation instruction is a key factor as the results drawn from this type of studies as well as theory are necessary in decision-making policies regarding foreign language pronunciation curricula (McGregor & Reed, 2018) and pronunciation teaching materials, especially those that focus on intonation which "In most textbooks does not reflect current research" (Levis, 2016).

Finally, the survey answered by the participants of this study revealed that they think that when learning English pronunciation in an academic context, the instructor's own pronunciation plays a fundamental role in the students' success in achieving an acceptable level of pronunciation whether this be in an ESL or an EFL context. The respondents manifested a similar opinion when they were asked about the influence their own pronunciation instructor exerted on their own pronunciation attainment. This entails the necessity to emphasize the role of the pronunciation teacher as a model, since it is them who will serve as a pronunciation referent as learners usually imitate their teachers. Therefore, teachers' training should aim at a very high level of performance (Aydin & Akyüz, 2017).

## 6. Conclusions

The results of this study indicate that language learners can, in fact, benefit from the explicit teaching of a specific intonation pattern, that of English implications. Additionally, it sheds light on an intonation pattern which has mostly been unexplored in research related to the pronunciation of speakers of English as a second or foreign language, particularly those whose mother tongue is Spanish. Nevertheless, we must not be satisfied with this, for effective communication in an $L_2$ requires speakers to master the intonation of a much wider range of sentence types. Therefore, emphasis should be placed on exploring other patterns.

The participants also revealed that they believe pronouncing a foreign language is highly important. This can be attributed to the participants' reasons to study the language. Thus, we can infer that a learner who aims to learn a foreign language for professional reasons (e.g. becoming a language teacher) may benefit from pronunciation instruction. However, the opposite claim; that is to say, learners who learn a foreign language with a different type of motive; cannot be assured. Additionally, the participants reported a slightly favorable opinion about their own pronunciation and the view that the teacher's pronunciation attainment has a strong effect on the learner's own performance. This is a crucial issue, since this is in contrast with the lack of confidence reported by teachers in survey studies such as those mentioned above. Thus, posing the question is crucial: how can teachers take advantage of such influence on students' learning when they feel they do not count on the necessary tools to do so? It is imperative, then, to strengthen the training of English teachers at the initial stage. For this, there must be dialog between both research and teaching. On the one hand, research needs to focus on how effective different methodologies and strategies are. On the other, teaching practices need to feed on research findings. All of this must aim at an improvement in the training of prospective teachers so that they can face professional challenges with more confidence and with a stronger set of tools for successful pedagogical performance.

To conclude, it is necessary to highlight the role of the English teacher and his importance as a model of foreign language pronunciation.

## 7. Limitations and further research

Undoubtedly, the first limitation encountered in the implementation of this research project was related to the reduced number of participants. This was due to constraints which can be attributed to the availability of participants. The fact that this study had a small sample certainly disfavors the generalizability of the results (Mackey & Gass, 2005). Certainly, the results of this study could be strengthened with a larger number of participants together with the inclusion of a control group which would allow ruling out any alternative explanations for the results that have been drawn here. However, the small size of the group of participants might be one of the factors that allowed for an improvement in their use of the target intonation pattern (Aoumeur, 2017; Todd, 2012). This is especially true for pronunciation classes where oral practice both as a group and individually is highly frequent.

On the other hand, the strength of this study lies in the fact that it comes to fill a research gap as no previous studies on the intonation of implications could be found in a group of participants

whose $L_1$ was Spanish. This is, without doubt, an opportunity to embark upon researching other unexplored types of utterances or other areas of suprasegmentals in English across a range of $L_1$'s.

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