Quitándonos los tapones: El Entrenamiento Fonológico L2 y sus Efectos en la Percepción

Taking Earplugs Off: L2 Phonological Training and its Effects on Learners' Perception

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Fecha de recepción: 27 de febrero de 2012
Fecha de aceptación: 3 de octubre de 2012

Resumen
En este estudio se prueba el efecto del entrenamiento fonológico en las habilidades auditivas del estudiante de inglés como Lengua Extranjera (ILE). Los datos se analizaron en un marco experimental cuantitativamente. Se consideraron 48 aprendices de ILE: 18 como grupo control, 30 como grupo experimental. Los participantes cursaban una clase de nivel intermedio en el Centro de Lenguas en la Universidad Autónoma de Ciudad Juárez. Los estudiantes en el grupo experimental recibieron 72 horas de entrenamiento fonológico. El entrenamiento incluyó pares mínimos, ejercicios de articulación, y de patrones de entonación. Los participantes hicieron un pre y un post examen de comprensión auditiva al periodo de entrenamiento. Los resultados indican que el grupo experimental mostró una mejora del pre al post-examen en comparación al grupo control. Esto sirve como evidencia para incluir este entrenamiento en las clases de ILE y medir sus resultados con un mayor número de estudiantes.
Palabras claves: Fonología L2, Habilidades auditivas L2

Abstract
This study tests the effect that Second Language (L2) phonological training has on learners' listening skills. Data was analyzed within an experimental framework quantitatively. 48 participants were considered: 18 as a control group, 30 as an experimental group. Participants were taking an intermediate English class at Centro de Lenguas at The Universidad Autónoma de Ciudad Juarez. Participants in the experimental group received a 72-hour period of L2 phonological training. Training included minimal pairs, articulation and intonation exercises. Participants took a pre and post listening comprehension test to training period. Results indicate that participants in the experimental group scored higher from pre to post listening test contrasting those in the control group. This serves as a base to include this training to L2 classes and measure its results on a larger sample of learners.
Key words: L2 phonology, EFL listening skills.

Should phonology and phonetics be taught in the L2 classroom? Why? How? It seems that there is no clear-cut definite answer but rather theories, hypothesis and different ways of approaching L2 phonological and phonetic acquisition. It is important to clarify why the terms phonology and phonetics are used as one. As Major (1998) comments, there is a lot of controversy on this issue. The questions that arise are: Should these two be treated separately? Should they be approached as one? Following Major, in this study they will be treated as co-dependent aspects of language and language acquisition. Thus, they will be referred as L2 phonology (acquisition).

When talking about L2 phonology is necessary to be familiar with the different perspectives and research that has been conducted on this aspect. L2 phonology has been approached from different perspectives: linguistic universals, neurology, experimental-training processes and pedagogy. The linguistic universal view offers a linguistic theoretical framework to how L2 phonology is acquired. Archibald, (2007) gives an insight on mental representations of interlanguage grammar. The author reviews a number of studies on phonological competence focusing on the importance of stress, moraic and syllabic structure. Archibald analyzes L2 phonology within the framework of feature geometry which might provide an insight into L2 learners' mental processes. This author finds that transfer is not always simple: complexity and other principles do transfer as well. In this vein, Archibald (2005) discusses that L2 accent can be explained by the postulates of phonological theory. According to him, there is little evidence for supposing that the L2 speaker acquires phonology deficiently. On the contrary, his studies support more the idea that knowing the phonological system of the L1 assists learners in acquiring L2.

On another study, Archibald (1998) provides a framework based on Universal Grammar principles, His main concern is to analyze if these principles apply to SLA of phonology (is there full-access/full-transfer access to L2 phonology?). He concludes that research suggests that 1)UG principles are not violated and L2 phonology can be acquired regardless of L1 systems; 2) L2 learners can acquire native-like linguistic competence and 3) explicit instruction can help in ac-

quiring L2 phonology but not at all cases. Theory and research within linguistic universal principles are helpful in setting the scene for L2 phonology studies and analysis. This perspective establishes that there is sistematicity involved in L2 phonological acquisition and it takes us closer to mental processes involved. One important aspect for this paper is that linguistic universals support the idea of phonological training as an important component of L2 acquisition. However, it does not touch on the effects that might have on the learner, such as improving perceptive skills which is central for this topic.

In neurolinguistics, some studies have studied what brain regions are involved in L2 phonological acquisition. Golestani, et. al. (2006). analyzes systematic relations between brain anatomy and individual differences by measuring speech sound "learning". The authors trained 65 native French. The results suggest that left auditory white matter anatomy which is related to auditory processing efficiency contributes to the prediction of individual differences in an aspect of language learning that is based more on rapid temporal processing. Studies like these are of crucial importance in knowing that there are differences in perception skills in learners and also in having more insights on the brain effort involved in perception of L2 sounds. Related to this study, Callan, et. al. (2004) conducted an experiment to measure neural processes underlying perceptual identification of the same phonemes in natives and nonnative speakers of English. They based on the common occurrence that Japanese speakers find it difficult to distinguish between /r/ and /l/ sounds while native speakers do not. They tested 22 right handed native Japanese speakers and 22 right handed native English speakers.

The results support the hypothesis that L2 speakers use articulatory-auditory and articulatory-orosensitory-based internal models instantiated in the cerebellum and in recurrent connections between cortical regions involved with speech production. The authors find that contrary to what has been thought, native speakers have more brain areas activated involved with auditory phonetic processing than L2 speakers. Concerning age and L2 acquisition, Iverson, et. al. (2003) present a study on how early language experience can impede

the acquisition of nonnative phonemes in adulthood. This study is based on the hypothesis that early language experience alters the level of perception. To prove this, 24 native speakers of Japanese, 12 native speakers of German and 19 speakers of English were tested. The results show that indeed Japanese speakers have "a distorted perceptual" space for /r/ and /l/ but are not completely insensitive to perceive them. The perceptual space for German participants, on the other hand, resembles that of American English speakers. The authors conclude that their results are not additional proof for perceptual changes resulting from language experience occurring at an early-phonetic or auditory level but might demonstrate that this is possible. Finally, Francis&Nusbaum, (2002) pay attention to learners' attention to certain sounds. The authors investigate how voice onset time in Korean is attended by non native speakers before and after training. The results show that consonant identification improved from 53% correct prior training to 86% after training.

They conclude that by learning phonetic contrasts learners may restructure their perceptual space. This study proves that learners may benefit by having them recognize sounds. Neurolinguitic studies on L2 acquisition are important to consider given the strong evidence they provide in brain region activation and processes related to L2 sound acquisition and distinction. By being familiar with these studies, we can be certain that learners respond to L2 sound systems and more importantly we become aware of the series of aspects involved in this acquisition process.

In terms of experimental research, some training methods have been especially explored. Hayes-Harb (2007) compares two types of evidence used in learning L2 phonemes: minimal pairs or the lexicon and statistical information. He conducts two experiments with 132 native English speakers who received "training". The results show that participants who were exposed to minimal pairs discriminated sound contrasts more accurately than those who received statistical training. The results show that both lexical and statistical evidence can contribute to learning novel second language phoneme contrasts but training was not a significant aspect for developing perception

abilities. The authors showed that while being exposed to minimal pairs learners distinguished contrasts more accurately, they also gained perceptive skills by being exposed to statistical information alone. This study serves as evidence to see that learners might be able to distinguish sounds by presented to input based on single sound presentation. On a similar aspect, Trofimovich, *et. al.* (2007) try to determine if L2 phonological learning can be a gradual and systematic process of replacement of nonnative segments by native segments in learners' oral production in a two-stage implicational scale.

For this study 40 adult francophones participants of different levels of proficiency were involved in a reading task that included an adaptation of a specially designed text to elicit English /ð/ sounds. The results of this study support the dynamic paradigm framework for phonological learning. The authors conclude that L2 learning progresses in a gradual and systematic way and that at least two psychological factors play a role: cross language perceptual similarity and lexical frequency. Escudero, (2006) focuses on the findings of an experimental study that analyzed the perception of Standard Scottish English (SSE) /i/-/I/ by Spanish speakers. For this study, 50 participants were involved: 20 native speakers of SSE and 30 Spanish speakers from various countries of Latin America and from Spain. Escudero finds that Spanish listeners can learn L2 contrast perception. Escudero's findings also suggest that learners do not follow just a contrast non contrast process but get involved in more stages to gain this perception knowledge. Experimental research on L2 learners is to the highest degree important for this study. It tells us that certain training methods have been used to increase learners' attention to L2 phonology and the effects that training has had on them. We have to pay attention though, to the fact that these training methods have not been carried on or applied in real L2 language classroom scenarios. And exactly this is what distinguishes this study from others and sets its relevance.

Finally, in the classroom, L2 phonology has been approached as a necessary component to improve learners's speech and fluency. Woore (2007) analyzes some techniques used in the L2 classroom for L2 sound recognition using poems. For the author, learners should be

familiar with grapheme-phoneme correspondences (GPC) because this might help them improve L2 production abilities which might help them succeed in speaking sections of examinations. The author used a group of 18 German speakers and a control group of nonnative English teachers as a control group. Participants were involved in a pre-test that measured their pronunciation accuracy by reading aloud a list of thirty-four unknown German words and then were engaged in a training session consisting of explicit GPC for about 18 sessions (ten weeks) during their 7th year.

The results show that explicit GPC instruction helps improving pronunciation when reading aloud from a list of isolated words in the L2 and that learners reacted positively to the "poem approach" for GPC instruction. Trofimovich&Gatbonton (2006) give us an insight on a communicative framework for L2 pronunciation instruction that combines repetition and explicit attention to input in a communicative context. The results show that learners do benefit from repeated L2 phonological information and that this benefit may not take place under instructions to the meaning of spoken input, especially for low-accuracy learners.

The authors conclude that it is necessary to establish a context to teach pronunciation rather than teaching it isolatedly and meaninglessly. Thus it can be combined with mindful repetition in an "engaging" environment. Mora-Fonseca (2000) proposed a "melodic approach" to language teaching which offers the learners the chance to have better recognition in the form of modified auditory input in the EFL classroom. She bases her approach on the Multiple Intelligencies Theory and in the similarity of features shared by language and music. The author suggests different ways by which music can be used to reinforce sound acquisition in the L2 classrooms for different levels and with probably more implications than just reinforcing L2 sounds. The author concludes that "music and musicality of speech in language teaching provide a rich-sounding environment". Pedagogical research, or action research, thus has tested and analyzed the effects of pronunciation training on learners in the classroom. These studies in spite of emphasizing the importance of L2 phonology in

the classroom differ from this study in that they have not touched on the effects it has on learners' perception.

What research suggests from these different perspectives is that L2 phonology is indeed an important component that should be analyzed in the SLA field. Of crucial importance for this study is what research has found in terms of L2 phonology training. Hence, the aim of this study is to shed more light on the effects that proper training pronunciation integrated to regular EFL classes can have on learners' perception. Thus, this project was conducted in a quantitative manner and data was managed within an experimental method framework. The study was developed to answer the following question: Can pronunciation training improve learners' perception in English as an L2? It is my prediction that those learners who are exposed to proper pronunciation training (based on what some studies have used as pronunciation training strategies) as part of their English classes will improve their perceptive skills by being able to detect more specific information on the TL input they are exposed to. Also, it is predicted that those learners who are not exposed to this kind of training will not show any improvement on detecting specific information.

I.- Methodology

2.1 Participants

For this study 48 Spanish speaking learners of English were considered. Of this total, 18 were used as a control group and 30 as an experimental group. All the participants were taking the 6th level of English (intermediate) at the Language Center (CELE) in the University of Juarez (UACJ) at the time of the study. They had English classes 4 days a week, 2 hours per day. It was difficult to determine the time that these learners had been studying English given the variety of ages, levels of education and backgrounds. The ages of the participants in this group ranged from 18 to 39. By talking to their former and current teachers, the type of instruction they were receiving was based on improving the four language skills and no special emphasis was given to any of them. Participants in the experimental groups received L2

phonological training during the 9-week period their class level lasted. Participants in the control groups did not receive any kind of L2.

2.2 Tasks

The tasks designed to measure data were intended to obtain results in a quantitative manner. Therefore, participants were involved in solving tests within an experimental basis so that results could be measured in terms of percentages. Therefore, all participants took a pre-test and a post-test. Both of these were listening comprehension tests. Participants were given five minutes before each test to read the questions and the researcher made sure that they understood each of the statements in the test. Some participants were unfamiliar with a few words but the researcher immediately explained in English what the words referred to and they reported that each statement was understood after clarification. After this, participants were asked to listen to a conversation between a man and a woman. They were allowed to take notes if they considered it necessary. They listened to the conversation twice for both the pre-test and the post-test.

2.3 Design

The conversation was extracted from an online data base of "real conversations". The conversation was about "multi-level marketing companies". The reason to choose this conversation was that the kinds of company being talked about in the conversation might be a well-known kind of company by many Spanish speakers given the popularity of these companies and the format in which they operate. The familiarity of the students with the topic was an important aspect to control for given the variety of backgrounds and ages in the groups. If participants were at least familiar with the topic being discussed in the conversation they could bring their schema to it. Therefore participants could create a context to the conversation. Hence, the input used for testing would not be unfamiliar. The dialogue might poten-

tially represent a conversation which these learners could be exposed to as listeners and/or participants. The dialogue for this conversation was read and discussed by two graduate students, native speakers of English who voluntarily accepted to lend their voices for this study. They were asked to make changes if they considered it necessary in order to make the conversation flow as naturally as a real conversation in American English. They made the changes they considered necessary and were recorded in a computer lab. The result was a 2 minute conversation. The dialogue is available in Appendix A.

The test contained 18 multiple-choice statements with three possible answers each. Among these 18 questions, 6 were of a general nature and 12 of a more specific nature. This is an important aspect because the data can be measured according to the participants' listening comprehension of main and more in-detail ideas in the conversation. Each statement could be completed with only one of the following three choices after it. Of these three choices, one was completely different from the correct answer, one was somehow similar to the correct answer and one was the correct answer. This test was applied to 3 native speakers of English before hand to make sure that none of the statements were ambiguous or erroneous. The questions can be seen in Appendix C.

For the pre-test, the statements were organized according to the order of ideas in the conversation. Also the statements went from general to more specific statements. For the post-test, the statements were the same as in the pre-test. The only difference was that the order of statements was randomly reorganized. This together with the length of time between the pre-test and the post-test served as distractive factors for the students. This was a measure taken to assure that students would not complete the post-test by (possibly) relying on the memorized answers they gave on the first test.

2.4 Training

After the pre-test, those participants in the experimental groups were trained in pronunciation as part of their regular classes for a duration period of 9 weeks (4 days a week, 2 hours per day). The main researcher was also the instructor of both experimental groups and conducted the L2 phonological training in each class session. In order to achieve this, several exercises on pronunciation were included as part of the lessons. The researcher based the exercises on emphasizing specific aspects that Spanish speakers might confront when learning English phonology. These aspects included intonation patterns, vowel distinction, regular past tense and certain consonant pronunciation elicitation exercises. Some exercises included minimal pairs, repetition of "focused words/phrases" in full sentences and pointing out places and manner of articulation. To achieve this, videos, songs, repetition/ minimal pairs/ articulation exercises were included in each lesson. The researcher also made sure that each exercise that was included corresponded to the content of the lesson being instructed. Examples of exercises can be seen in Appendix B.

The participants in the control groups were observed after they took the pre-test for the same duration period of their course level as those in the experimental groups. Special interest was paid in how their classes were instructed. After observation, it could be seen that pronunciation was not emphasized to any extent during this time. Students were more exposed to reading discussions, listening activities and preparing group oral presentations that were part of their evaluation. After 9 weeks, after the course level 6th came to an end, participants in both groups took the post-test. As in the pre-test, learners could take notes and listened to the conversation twice. They were also given 5 minutes before the test to read the questions.

II.- Data analysis

The tests were carefully compiled according to the group they belonged to and were separated between pre-test and post-test. For

each test, it was important to measure the participants' performance in: the overall test, the general statement section and the specific statement section. For each of these sections the number of correct answers divided into the total of statements. The results were equaled into percentages that accounted for the learners' performance in each section. Each test was coded according to the participants' initials. The resulting percentages were reported individually for each participant. The results are presented first by comparing the scores obtained in both tests between the two groups. Secondly, the scores obtained by each group in each section were compared between the pre-test and the post-test. Finally, the results and the comparisons of each section between the pre-test and the post-test are discussed according to the research question of this paper and the predictions.

III.- Results and Discussion

3.1 Results

The data of the first and second group of participants was analyzed in terms of the results obtained in the specific statement section and the general statement section. Results were classified according to the lowest and highest results obtained on the post-test and the resulting percentage difference between the results from the pre-test to the post-test. In the first group that was considered for data collection, it was observed that the participants in the control group (9 participants) scored below 55% in the specific section on the post-test. Only one participant scored a 77% on the post-test. Two participants decreased their scores by 11% from the pre-test to the post-test. Only three improved their scores from pre-test to post-test by 33%. There was no difference in score percentage on two of the participants' post-test compared to the pre-test. On the other hand, 12 participants on this same first group but pertaining to the experimental group (of 16 participants) scored above 77% in the specific statement section. It was noticed that 3 of these participants obtained a perfect 100% score,

asserting on all questions. When comparing the percentages on the post-test from the pre-test, it can be observed that 13 participants increased their score by at least 11%. In fact, some of these participants increased their results by as much as 33%. Only 3 participants did not show any improvement on score on their post-test results.

Table 1. Scores obtained by each participant in Control Group 1 in the specific-statement section of both: pre-test and post-test. Diff.: indicates the difference in score from pre-test to post-test. Only participants' initials appear on the table.

	CAPN	PAAA	APR	DC	MR	LVV	KAG	BQ_	NC
Pre-test									
Post-test	22%	55%	11%	11%	22%	11%	44%	55%	77%
Diff.	11%	44%	11%	44%	55%	11%	77%	66%	77%
	-11%	11%	0%	33%	33%	0%	33%	11%	0%

Table 2. Scores obtained by each participant in Experimental Group 1 in the specific-statement section of both: pre-test and post-test. Diff.: indicates the difference in score from pre-test to post-test. Only participants' initials appear on the table.

	JOVIM	MM	JF	IMEP	MIGE	RAD	NEMT
Pre-test							
Post-test	55%	55%	66%	44%	55%	88%	44%
Diff.	77%	66%	88%	77%	77%	100%	77%
	22%	11%	22%	33%	22%	12%	33%

	HA	GS	JAFR	OME	FCSM	JOC	AR
Pre-test							
Post-test	66%	77%	77%	77%	44%	66%	66%
Diff.	66%	88%	100%	88%	77%	66%	66%
	0%	11%	23%	11%	33%	0%	0%

In terms of the scores obtained in the general statement section, 6 out of 9 participants in the first group pertaining to the control group scored between 22% and 44% on the post-test. Only 3 participants scored 66% and above on this same test section. The rest scored below 55%. 5 out of these 9 participants scored between 11% and 22% higher than the pre-test in this general statement section. And 4 did not show any difference between pre-test and post-test. The majority of the participants in this same group but on the experimental side of this study obtained scores of 77% and above on this post-test section, including one participant who had a 100% (9 out of 16). 10 of these participants improved their score between 11% and 33% and only 6 did not show any difference in score from their pre-test to their post-test. These results can be more explicit on tables 3 and 4.

Table 3. Scores obtained by each participant in Control Group 1 in the general-statement section of both: pre-test and post-test. Diff.: indicates the difference in score from pre-test to post-test. Only participants' initials appear on the table.

	CAPN	PAAA	APR	DC	MR	LVV	KAG	BQ_	NC
Pre-test									
Post-test	44%	33%	44%	22%	33%	77%	77%	88%	
Diff.	44%	55%	33%	22%	55%	66%	77%	88%	
	0%	22%	11%	0%	11%	11%	0%	0%	

Table 4. Scores obtained by each participant in Experimental Group 1 in the general-statement section of both: pre-test and post-test. Diff.: indicates the difference in score from pre-test to post-test. Only participants' initials appear on the table.

	JOVIM	MM	JF	IMEP	MIGE	RAD	NEMT
Pre-test							
Post-test	44%	44%	55%	33%	66%	88%	44%
Diff.	44%	77%	77%	55%	66%	88%	77%
	0%	33%	22%	22%	0%	0%	33%

	HA	GS	JAFR	OME	FCSM	JOC	AR
Pre-test							
Post-test	33%	88%	88%	77%	66%	66%	44%
Diff.	44%	88%	100%	88%	77%	77%	44%
	11%	0%	12%	11%	11%	11%	0%

There was a total of 9 participants in the control group of the second data collection group. these 9 participants show somehow inconsistent results in the specific statement section. We can observe some similarity to those scores obtained in the first control group. Only one participant scored 88% of correct answers, one obtained a 66% and one 55%. The rest of the participants scored below 44%. From the pre-test to the post-test, 3 participants improved their score between 11% and 22%. However, 2 participants decreased their percentage by 22% and 33% lower than those obtained on the pre-test. On a different manner, the participants (14 participants) on the experimental group of this second data collection group had consistent results. Their scores were not higher than 77% on the post-test, only 6 of them scored 66% and one 77%. The rest of these participants scored between 55% and 11%. Nevertheless, 10 out of these 14 participants increased their percentages by at least 11% from their pre-test to their post-test. It is important to mention that one participant had an im-

provement of 33% from pre-test to post-test. Only four participants did not show any difference in result from one test to the other on this specific statement section. These results can be better explained with tables 5 and 6.

Table 5. Scores obtained by each participant in Control Group 2 in the specific-statement section of both: pre-test and post-test. Diff.: indicates the difference in score from pre-test to post-test. Only participants' initials appear on the table.

	AVS	LBE	CECM	OGQ	LSA	PER	ACR	PACV	LCQ
Pre-test									
Post-test	44%	22%	44%	22%	66%	88%	22%	0%	77%
Diff.	44%	22%	11%	33%	66%	88%	44%	22%	55%
	0%	0%	0%	11%	0%	0%	22%	22%	-22%

Table 6. Scores obtained by each participant in Experimental Group 2 in the specific-statement section of both: pre-test and post-test. Diff.: indicates the difference in score from pre-test to post-test. Only participants' initials appear on the table.

	EMC	RISB	AJCB	JV	AMC	VE	SC
Pre-test							
Post-test	55%	0%	55%	44%	44%	55%	55%
Diff.	66%	11%	66%	44%	44%	66%	66%
	11%	11%	11%	0%	0%	11%	11%

	MRN	CAMS	BB	NPCL	AOA	CGC	MCB
Pre-test							
Post-test	0%	44%	77%	23%	55%	55%	22%
Diff.	33%	44%	77%	33%	77%	66%	33%
	11%	0%	0%	11%	11%	11%	11%

From this group of the second data collection, but in terms of the general statement section, the participants in the control group obtained scores below 44% on the post-test. Only one participant scored

88% of correct answers on this section. Here again we can see some inconsistency in the results obtained from the pre-test to the post-test. 5 out of these 9 participants decreased their scores by at least 11% from the pre-test to the post-test. Only two participants improved their score by 11% and one participant did not show any improvement from pre to post-test. On this second section of data collection, the majority of the participants in the experimental group scored 55% and above on the post-test. The rest of the participants scored between 33% and 44% on this section of the post-test. Half of the participants showed improvement from the pre-test to the post-test by increasing their percentage between 11% and 33%. The other half did not show any difference in percentage from one test to the other on this general statement section. These results can be observed on tables 7 and 8.

Table 7. Scores obtained by each participant in Control Group 2 in the general-statement section of both: pre-test and post-test. Diff.: indicates the difference in score from pre-test to post-test. Only participants' initials appear on the table.

	AVS	LBE	CECM	OGQ	LSA	PER	ACR	PACV	LCQ
Pre-test									
Post-test	88%	22%	66%	55%	22%	77%	44%	44%	55%
Diff.	44%	22%	44%	44%	33%	88%	44%	22%	33%
	-44%	0%	-22%	-11%	11%	-11%	0%	-22%	-22%

Table 8. Scores obtained by each participant in Experimental Group 2 in the general-statement section of both: pre-test and post-test. Diff.: indicates the difference in score from pre-test to post-test. Only participants' initials appear on the table.

	EMC	RISB	AJCB	JV	AMC	VE	SC
Pre-test							
Post-test	33%	44%	22%	55%	44%	66%	66%
Diff.	33%	66%	55%	55%	44%	66%	66%
	0%	22%	33%	0%	0%	11%	0%

	MRN	CAMS	BB	NPCL	AOA	CGC	MCB
Pre-test							
Post-test	33%	55%	55%	22%	22%	44%	44%
Diff.	44%	77%	55%	33%	33%	66%	44%
	11%	22%	0%	11%	11%	22%	0%

3.2 Discussion of the results

It was the purpose of this study to shed light on this question: Can pronunciation training have a positive effect on ELL's perception of the TL? For this study the predictions were that after intensive appropriate pronunciation training, learners might increase the number of correct answers, especially on the specific section of the listening test. The reason for this was that even when they could get the main ideas on what the conversation was about, they might increase accuracy on perceiving more specific details of an English conversation such as specific phrases, words, ideas, details, etc. The other prediction was that those participants in the group that had not received training might increase the number of correct answers in the general section but not on the specific statement section.

As an answer to the research question and after observing the results, it can be said that learners in the group that received training did

show improvement after training on their listening comprehension post-test. Especial attention was paid to their improvement on the specific statement section and as predicted most of them increased the number of correct answers after the pronunciation training period. Thus, it can be concluded that learners do improve their perception after being exposed to pronunciation training. There is a positive difference from the pre-test to the post-test scores.

"Misleading" results came out from weighing the difference in percentages in the group that was not exposed to training. Surprisingly, some learners in this group decreased their scores on the post-test on the overall test and in both the general and specific statement sections. This came as a shock as the prediction for this group was that their scores might increase on the general statement section but might not increase on the specific statement section. It can be interpreted that their number of correct answers decreased given their lack of interest on a listening comprehension test in comparison to the other group. However, the misleading results found in group 2 do not affect the predictions made in the beginning of this project and the conclusion that was previously stated. Results can also be observed in graphs on Appendix D in which the difference in scores from pre-test to post-test on the specific-statement section is better represented.

IV.- Conclusion

The aim of this study was to test the impact that pronunciation training integrated to regular EFL classes could have on ELL's perception skills. The predictions were that after training the participants that had been exposed to training were going to show improvement, especially in being able to target more specific information on a given English conversation. In order to test this 48 Spanish learners of English were tested. Thirty of these participants were exposed to intensive pronunciation training as part of their regular English classes. The other group did not receive any training on pronunciation or were exposed to any sort of activities that emphasized this aspect in their regular English classes. Participants in both groups were tested on their listening comprehension skills prior and after the 9 week period

in which this study was developed. The test they took had both general and specific statements. If participants in the training group had actually improved their comprehension skills the prediction was made that they were going to score better on the specific statement section of the post-test. After analyzing the resulting data from both tests, there is evidence (based on the scores of each participant from the pre-test to the post-test) that confirms that those participants exposed to pronunciation training improved their perceptive skills. On the other hand, some participants on the group that was not exposed to pronunciation training decreased their scores after this period. Nevertheless, this does not obscure the results obtained from the training group.

It is important to test the effects of L2 phonology on EFL learners. It has been seen that most studies emphasize the importance of L2 phonology training in terms of improving learners' clear speech production. However, this might come as a drawback for ELL learners because it might give them the idea that the purpose of including pronunciation exercises is to make them match native speaker speech production. What this study shows is that beyond drilling their L2 oral production skills by exposing them to L2 phonology exercises, this aspect might help them to sharpen their listening perception skills.

The results and conclusions reached need to be reinforced by reproducing the methods with other ESL/EFL learners in different contexts. Also, it would be interesting to see if the participants in the control groups would have the same reaction after the same pronunciation training. In addition, this study could be strengthened by having participants perform not only one listening comprehension test but various listening comprehension tests and compare the results obtained in each. Therefore, further research is suggested. However, this study is a good starting point to become aware of the scope that L2 phonological acquisition has on the learner.

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Appendix A

Conversation retrieved from the following source: http://english-conversations.org/2009/11/07/network_marketing/ and recorded by two native speakers of English students attending the EL/L master program at the University of Arizona in 2008.

Transcript of the conversation dialogue used for the listening comprehension tests.

Woman: So multi-level marketing…

Man: That's right.

Woman: So what exactly is that?

Man: Oh just. You can go to the website. There are just thousands. It's like I introduce two people. Two people introduce two people. And so there are tiers to this marketing.

Woman: Like Amway?

Man: Network marketing or multi-level marketing. Yeah.

Woman: Tupperware and Amway. Are they examples?

Man: They're good examples. Yeah. They're in the same category.

Woman: How did you get involved in it?

Man: A very good friend of ours introduced us to it when my wife and I came to the Gold Coast.

Woman: M-hm.

Man: We were approached by this couple who became friends and we were introduced by friends, which is the deceptive element in multi-level marketing because very often they recruit friends and because they are your friends you naturally assume…

Woman: That they are ok.

Man: Yeah… they have your interests at heart. Unbeknowns to us our friends although they are good business people they themselves were quite inexperienced in this particular business so they actually without meaning to misled us.

Woman: Right. Ok. And what product initially..?

Man: Well this company is called Omega trend and it is a sort of a replica of Amway.

Woman: Right.

Man: And so they started with cleaning products and…

Woman: They broke away from Amway?

Man: Yeah. They actually are a breakaway from Amway though they didn't like people to know that because of Amway's rep.

Man: Amway has a bad rep?

Woman: Incredibly bad rep so that Amway had to change its name that many times to disguise its…

Woman: Past.

Man: Yeah past or…

Woman: I thought Amway like…I've that heard it's expensive but the products are quite good.

Man: Actually that's what most people say and I think there's something to be said for quality. I think it's quite good quality but the fact is there's a high profit margin so I think it's inherently unethical and they pump up the price and they have to because the different tiers of people have to make their profit along the way, to me, for me, I think it's unethical.

Woman: And you felt you got burned? You felt like deceived. You weren't happy with your experience?

Man: Right….

Appendix B

Designed by M.A. Deida Perea Irigoyen (author of this study) based on the data provided on the linked specified at the bottom of this document.

Example of an exercise used for pronunciation training.

Exercise for sentence repetition (used after a video listening activity on a unit about Pop culture).

A) Read the following sentences aloud. Then listen to the video and listen for intonation and repetition of some words.
B) Underline the sounds that have been reviewed in class in the sentence.
C) Listen to your teacher and repeat.

D) After that, put your hands on your ears and read the sentences trying to articulate the sounds that have been reviewed before as you read the sentence as naturally as the speaker on the video.

1. But right now it's selling Obama items with QVC
2. Frankly. If we were not at the inauguration, we would feel like we weren't doing our job.
3. He's more than just a president.
4. Never in living memory has a presidency been preceded by such a proliferation of mass produced political paraphernalia.
5. One of the most iconic images of this presidential election was created not by Barack's Obama's campaign.
6. This is the rare case that a mainstream politician isn't like a used car salesman, this is someone I believe has integrity.
7. The internet allows these things to travel far and wide very quickly.

Link to the video used for this activity:
http://www.youtube.com/watch?v=1q_tFP0j9C4

Appendix C

Designed by M.A. Deida Perea Irigoyen (author of this study)

General statements:	Specific statements:
The conversation is about: a) A man and a woman interested in telemarketing. b) A man and a woman who work for a multi-level marketing company. c) A man who was introduced to a multi-level marketing company	Companies like the one in the conversation a) Are not very common b) Have existed for some time now and there are many companies that work similarly c) Are unique and it is difficult to work for them
From what you heard in the conversation, the man is: a) Satisfied with the company he was introduced to. b) Doubtful about the way people are introduced to the company c) Convinced that the way people are introduced to the company is the best.	According to the man, what kind of people can join the company? a) People with experience in business b) People somewhat trained in business c) Anyone who is introduced by a friend
Generally in the conversation you can infer that the woman: a) Also wants to join the company. b) Is very knowledgeable about those kinds of companies c) Is not very familiar with the kind of company that the man is talking about	In the conversation, speakers agree that because people are introduced by friends to the company… a) A person can assume that there is no problem or risk b) A person has to be careful and doubtful about the company c) A person will be offered a great deal
You can conclude that the company which the man is describing is: a) A company that cares about its reputation and product quality b) A company that is very careful with the employees that can participate in its business, c) A company that is formed by people introducing more people to the company	The man tells the woman that he and he and his wife were introduced to the company… a) By looking for information on the web b) By asking a couple to introduce them c) By a couple who approached them
(Continúa...)	

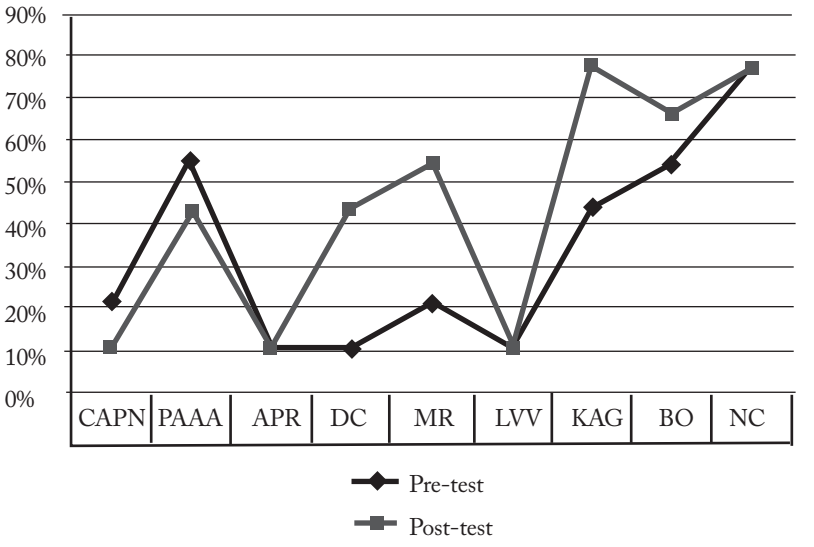
General statements:	Specific statements:
In conclusion the man: a) Feels that the company offers great job opportunities b) Feels that he was introduced to the company in a deceitful way and does not feel glad with his experience c) Joined the company free of any of commitment	The company which they are talking about is called Omega Trend and is: a) Totally different from Amway b) The same as Amway c) A branch of Amway
From what you heard in the conversation, you can that companies like the one described in the conversation: a) Have an excellent reputation b) Offer fair prices for their products c) Offer good quality products but inflate prices so that all tiers of people involved can make a profit	Amway started selling: a) Beauty products b) Health products c) Cleaning products
	According to the man Omega Trend… a) Broke away from Amway b) Joined Amway c) Broke a contract with Amway
	According to the man, Amway a) Has a bad reputation b) Has an excellent reputation c) Has a bad representation
	According to the man, Amway had to change its name because… a) They wanted to disguise its past b) They wanted to create a new improved image. c) They needed a more attractive name.
(Continúa...)	

General statements:	Specific statements:
	The woman has heard that Amway's products are: a) Quite expensive but of high quality b) Quite inexpensive but of low quality c) Quite good and of fair quality
	The man expresses that the pri- ces of the products: a) Are overpriced so that everyone in the company can make a profit b) Are reasonable so that everyone in the company gets to sell the products c) Are inexpensive so that ever- yone can buy them
	The woman asks the man if he feels: a) Burned and deceived? b) Happy and satisfied? c) Satisfied but deceived?

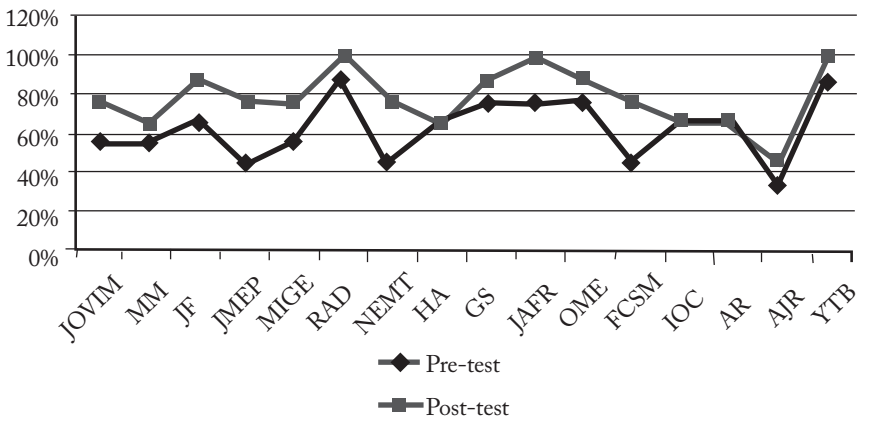
Appendix D

Group 1 Differences in Score from Pre-test to Post-test in Specific Statement Section

Control Group 1

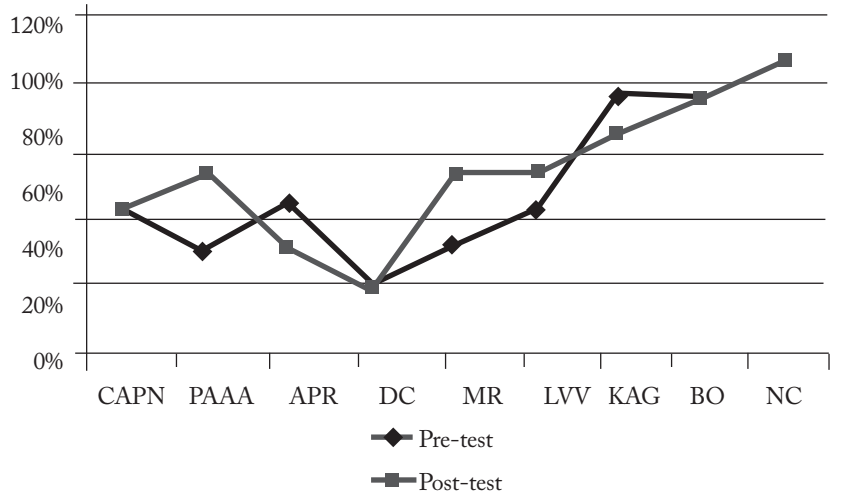


Experimental Group 1

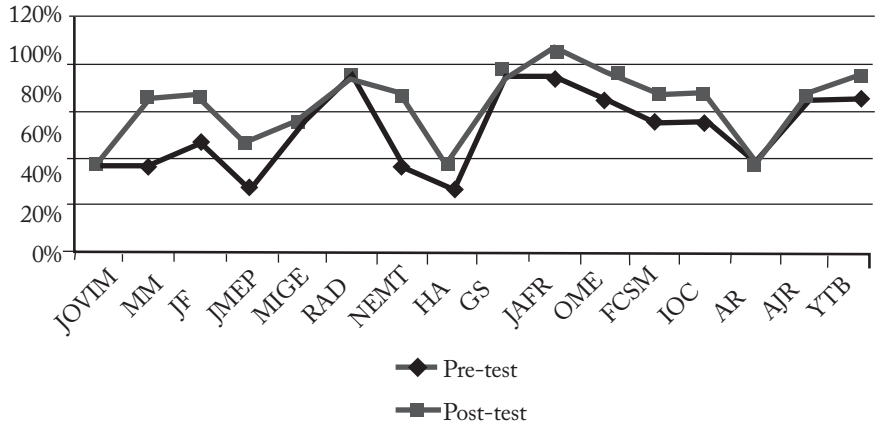


Group 1 Differences in Score from Pre-test to Post-test in General Statement Section

Control Group 1

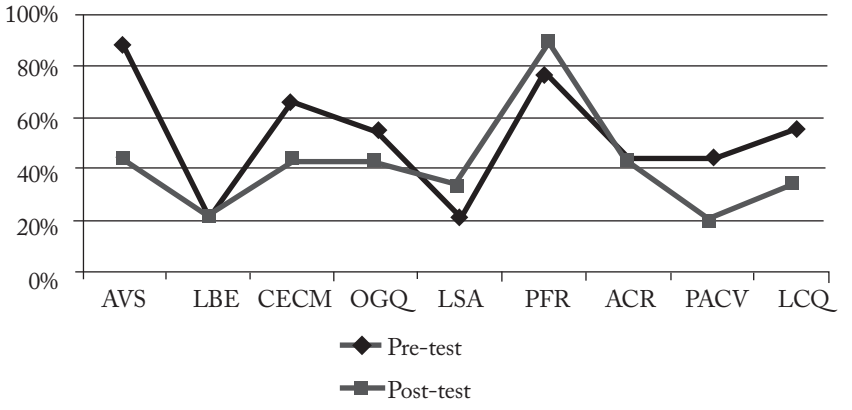


Experimental Group 1

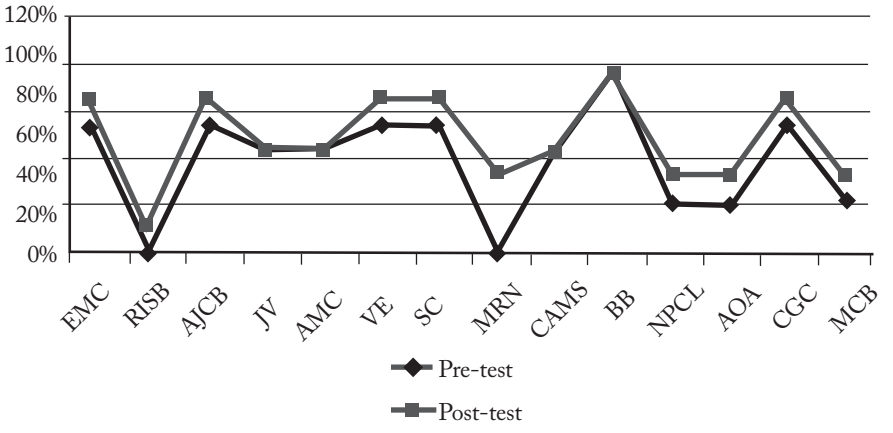


Group 2 Differences in Score from Pre-test to Post-test in Specific Statement Section

Control Group 1

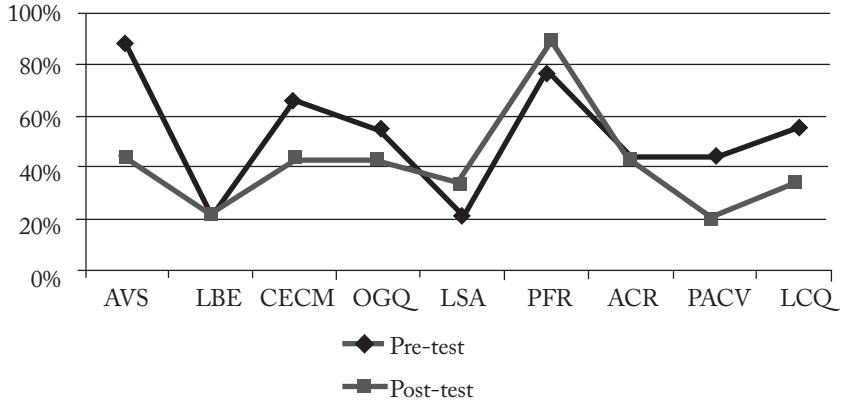


Experimental Group 1



Group 2 Differences in Score from Pre-test to Post-test in General Statement Section

Control Group 1



Experimental Group 1