

UNIVERSIDAD DE CHILE

Facultad de Filosofía y Humanidades

Departamento de Lingüística

**A CONTRASTIVE ANALYSIS
OF THE PRONUNCIATION OF STUDENTS OF ENGLISH ACCORDING
TO THE INPUT THEY RECEIVE**

Tesis para optar al grado académico de
Licenciado en Lengua y Literatura Inglesas.

AUTORES:

Carolina Bravo Castillo

Valeria Bravo Inostroza

Rosa Cerda Aguilera

César Elgueta Campos

Sebastián Espinoza Astudillo

Martín Flores Quiroz

Fernanda Sepúlveda Astengo

Andy Zepeda Valdés

PROFESOR GUÍA:

Hiram Vivanco Torres

Santiago, Chile

2009

Acknowledgements

We are grateful to our supervisor, Hiram Vivanco Torres, for helping us during the creation and elaboration process of our dissertation as well as for providing us the tools to carry out this work, not only during the development of the paper, but also during our academic life. The knowledge he gave us will help us beyond this research. This knowledge will remain also throughout all of our professional lives. We thank him because of his willingness and support.

We would like to express our thanks to our phonetics and phonology teachers Clotilde Vivanco and Sonia Montero, who also provided us with knowledge of great importance which was the greatest key to our research. We also appreciate their influence on our academic interests, since it was their dedication to the academic life, together with Mr Vivanco's, what encouraged us to decide to do our dissertation on this subject.

Similarly, we would like to thank each and every teacher who had a great willingness to help us solving our doubts and answering our questions. We are grateful to Ms Rosa Rodriguez, Mr Roberto Pichihueche, Ms Pascuala Infante, and Ms Claudia Soria for allowing us testing their students and encouraging them to participate as subjects of study in our research at the expense of their time in class.

Finally, we thank Universidad de Chile, and especially Facultad de Filosofía y Humanidades not only for supplying us the place to get this work done properly, but also for contributing to our personal development and becoming our home during these four years spent in our studies.

Agradecimientos

Agradecemos a nuestros respectivos seres queridos, especialmente a nuestras familias, por el apoyo que nos han dado a lo largo de nuestros estudios académicos y de nuestras vidas en general. Gracias a su constante apoyo hemos logrado llegar a este punto en donde nuevos desafíos y oportunidades se nos presentan.

Abstract

This dissertation aims to identify, classify and analyse Chilean speakers' pronunciation mistakes in English. Its approach is mainly educational for it intends to be useful for the teaching of pronunciation of English, improving the activities to be applied in the classrooms, where sometimes listening tasks are left aside. In this sense, it is an attempt to contribute to the enhancement of the programmes and courses of English that are taught in Universidad de Chile.

This research consists of a contrastive analysis in which the pronunciation of learners of English for Special Purposes (ESP) is compared to that of first-year students from the degree in English Language and Literature. The informants were exposed to two different types of inputs, namely oral and written. These two inputs are also compared in order to reveal which type of input facilitates the articulation of English sounds. For these purposes we classified the mistakes according to the type of error they produced, and its corresponding strategy.

The investigation demonstrated that learners belonging to the English Language and Literature degree made fewer mistakes than the group belonging to the ESP course. Regarding to the stimuli employed, our results revealed that the pronunciation of speakers that read aloud was more accurate in comparison to those exposed to the oral stimulus.

This study also examines aspects as to which strategy was involved the most and which type of error was the most and least recurrent. These figures, the exact data and a detailed explanation of the process are fully explained throughout the paper.

Index

1.	Introduction	5
2.	Objectives of our investigation	5
3.	Hypotheses	6
4.	Theoretical Framework	6
5.	Procedure	9
5.1	Subjects of study	9
5.2	Research tests	11
5.2.1	Evaluation instrument	12
6.	Analysis	16
7.	Results	18
7.1	Types of error	18
	a) Listening/Reading aloud Input Differentiation	18
	b) English Language and Literature/ESP distinction	20
	c) English Language and Literature/ESP listening distinction and English/ESP reading aloud distinction	22
7.2	Type of strategy	26
	a) Listening/Reading aloud Input Differentiation	26
	b) English Language and Literature/ESP distinction	29
	c) English Language and Literature/ESP listening distinction and English/ESP reading aloud distinction	32
7.3	Totals	37
8.	Conclusions	40
9.	Projections	41
10.	References	42
11.	Appendix	CD

1. Introduction

During these four years learning and studying the English language, we have come across many obstacles in our way. Some of these have been related to grammar, others to vocabulary and spelling, while others have been connected to pronunciation.

As stated by Robert Lado (Lado, 1961) there are some problems in learning foreign language structures that are due to the fact that students tend to transfer the structures from their *native language* to the *foreign language*. This idea can be widened not only to comprise grammatical structures but also phonological structures. In this respect, Lado states: "...every structure has distribution, that is, it occurs in certain situations or environments and does not occur in others." (Gass, Susan & Selinker, Larry, *Language transfer in language learning* 1983:25) This clearly reminds us of the many times we have made mistakes because Chilean Spanish *phonological distribution* is not coincident with the English one. Our teachers, keeping this in mind, have made us aware of these instances to avoid them, i.e. to avoid making a mistake, in order to produce the *target sounds*.

With this knowledge, predictions can be made so as to statistically know when a student will be more prone to make a mistake when listening and pronouncing an utterance in English. In our experience, not only distribution of sounds has been a major problem when dealing with pronunciation, but also the spelling of words, for Spanish pronunciation is closer to orthography than English - being both significantly different in this respect.

2. Objectives of our investigation

Being listening and repeating, and reading aloud two of the manners in which students' pronunciation is practised and/or evaluated, our question arose as follows: which of them causes the greatest degree of *interference*? In other words: does an oral stimulus generate more errors than a written one? Consequently, the main objective of our investigation is to determine which of the two stimuli, written or oral, originates the larger number of *deviant forms*. We intend to find out the answer to this question by presenting these stimuli to groups of people who learn English for different purposes, and then find out which of the groups would have the best results by comparing them.

The decision for having chosen these groups was made because initially we felt the need to contribute to our programme, i.e. English Language and Literature. Later on, we thought that this potential enhancement could reach other programmes or courses. Therefore, after some discussion, our supervisor suggested that we should expand our study in order to include students belonging to the English for Special Purpose (ESP) course whose main objective is text comprehension. Consequently, we decided to apply the same test to learners who have different

goals for learning the English language, expecting to demonstrate to what extent the lack of *ear training* could lead to a non-satisfactory *oral performance*; this is our secondary objective.

3. Hypotheses

Considering what we have mentioned above, our first hypothesis is that the group exposed to the oral stimulus would have a better performance because of the accurate oral model they listened to; while the other group, who were provided with the written stimulus, would perform less accurately, lacking a model to follow and being subjected to the influence of *graphemic interference*.

At the same time, we raised our second hypothesis claiming that the informants belonging to the English Language and Literature degree at Universidad de Chile would make fewer mistakes than the ESP group. This would be attributable to the fact that pronunciation in the English for Specific Purposes course is not one of its objectives, because, as it was stated previously, its main goal is text comprehension.

After merging our two hypotheses, we presumed that the group that would perform better would be the English Language and Literature students who reacted to the oral stimulus.

Regarding the type of error that would be the most recurrent, we did not develop any hypotheses. Nevertheless, in the case of strategies we did think that the one that would be the most frequent would be *negative transfer*, a term that will be explained later on.

As this investigation contrasts a target pronunciation¹ with the actual pronunciation of the students, it may be considered to fall into the field of contrastive analysis.

In order to carry out this research we have to start by providing an adequate theoretical framework.

4. Theoretical Framework

As it is pointed out by Richards and Sampson in his paper *The Study of Learner English*, the appearance of “the notion of language as a system” led linguists to focus mainly on learners of a second or foreign language “as generators of the grammar of their sentences in the new language” (Richards, 1974:5) which in this research we will refer to as *Interlanguage* (IL). This notion is that learners create a language system in order to internalise the grammar they learn. This is composed of a number of elements comprised by the *Native Language* (NL) as well as the *Target Language* (TL). However, there are some elements in the IL that do not have their

¹ Henceforth, every time that we use the term *target pronunciation* we will refer to the data contained in the pronouncing dictionaries by Jones 2006 and Wells 2008.

origin in either the NL or the TL (Selinker, 1972). Apparently, their origin may be found in the fact that Interlanguage is not seen as a language filled with random mistakes, but as a system on its own with its own structure. However, even though they may be originated in the IL and classified as one type of error, the strategies that students produce may be difficult to classify.

Thus, IL structure, as a sort of mixture between the NL and the TL rules, is the result of four types of processes, which when considering the target language as the goal are seen as errors for the purpose of the analysis of learning a language. These four processes are the following, according to Corder's taxonomy (*Error Analysis and Interlanguage* 1981:36):

1. "...errors of omission, where some element is omitted which should be present". This process would correspond to elision, as it is traditionally known, and as we will use it for our purpose.
2. "...errors of addition, where some element is present which should not be there". This process is called addition.
3. "...errors of selection, where the wrong item has been chosen in place of the right one". This process is known as substitution.
4. "...errors of ordering, where the elements presented are correct but wrongly sequenced". This last process is known as metathesis.

Referring to Interlanguage, some linguists have developed theories and models with the purpose of describing and defining certain strategies that students apply when learning a second language. Specifically, Selinker (*Interlanguage*, 1972:35) assumes that "we can establish as relevant to interlingual identifications" when the learner produces "utterances in the learner's native language," on the one hand, and utterances produced aiming at a native-like production of TL, on the other. Later in his paper, he mentions five processes "central to second language learning." For the purpose of our research, however, we had to classify them differently according to our main goal. In what follows, we will expose the definitions we worked on, and served our research.

Negative Transfer

Larry Selinker widens Lado's concept of transfer, trying to provide a definition that can work at any linguistic level. He takes into consideration the fact that the speaker has to make, at an unconscious level, a decision between two linguistic structures:

Either (1) syntactic arrangement a-b or (2) syntactic arrangement b-a; either (1) phonetic voicing or (2) devoicing; either (1) insertion of a support vowel between a two-member cluster or (2) voicing both members of the cluster, etc. (Selinker in Gass & Selinker, 1983:50)

From this 'two-choice schema', language transfer can be defined as a "process occurring from the native to the foreign language" (Selinker in Gass & Selinker, 1983:50), where a significant trend of the speaker's native language appears in the speaker's interlanguage. He distinguishes three types of transfer: *positive*, *negative*, and *neutral*. In this investigation we will concentrate only on negative transfer, this being defined as an instance in which a predominant linguistic structure of the native language is 'chosen' to be produced in the target language, being a mistake because it deviates from the norm of the target language.

We considered cases of negative transfer errors caused by any of the following factors: graphemic interference, i.e. when the pronunciation is affected by the spelling of a word; differences between the *phonemic distribution* of English and Spanish; instances in which a sound is a *phoneme* in one language but an *allophone* in the other one; and instances in which Chilean Spanish speakers tend to simplify English *clusters* or *consonant sequences*, because Spanish clusters or consonant sequences are composed of two or three consonants at the most including a *liquid consonant*, i.e. much simpler than the English ones.

Learning Strategy

The second strategy to be present in our work refers to generalisations based on partial exposure to the target language, that is to say, speakers tend to develop hypotheses about the structure of the target language, which sometimes do not correspond either to the *mother tongue* or to the target language. In this sense we will mention the strategies of *overgeneralisation* of the rules of the target language, as well as those cases of *hypercorrection*. The former is defined as occasions in which the speaker applies a certain rule to cases that go beyond its scope without a conscious effort (Richards, 1974:39), while the latter is defined as those occasions in which the speaker applies a certain rule to cases beyond their scope but with a conscious effort in order to sound more similar to the target language.

Communication Strategy

As we know very well, communication can be simply defined as a process in which a message is sent from senders to receivers, and that communication problems occur when an encoded message differs from the decoded one. In this sense, and according to Selinker (1972:37), communication strategies "are a result of an identifiable approach by the learner to communication with native speakers." Nevertheless, our work differs in that its approach took for granted the learner's previous exposure to the target language so that this strategy would correspond only to those cases in which the learners tried to realise the dissimilar decoded message carried out differently in their oral realisation.

Specifically, within this framework we may find cases in which one target word is substituted by either another word in the target language, a nonsense word, or by unintelligible sounds. Other frequent cases that may be considered as communication strategy are the misunderstandings that lead to the repetition of similar sounds, or to the omission of a word.

Nonce mistake

This is equivalent to a non-systematic error.

No explanation

None of the previous classifications are applicable.

5. Procedure

5.1 The Subjects of study

Since in the first stages of our research we decided to work with two groups from different courses, we selected students with some homogeneous characteristics so as to make possible future projections of our work in the field of teaching English as a second language. For this same purpose, a suitable corpus to our research required students with an elementary level of English as subjects of study. We used the following enquiry to select them:

Figure 1

Responde lo siguiente:

1. Nombre: _____ 2. Edad: _____

3. Anota el email que revisas con mayor frecuencia:

4. Carrera:

5. ¿Estuviste en un colegio bilingüe inglés?
 SI
 NO

6. ¿Has viajado a algún país de habla inglesa?
 SI
 NO

7. Si tu respuesta fue SI.
a) ¿Cuál fue el motivo de tu viaje?
 Placer
 Estudios
 Familia
 Otro, indique cuál:

b) ¿Por cuánto tiempo?

8. ¿Has tenido cursos extracurriculares de inglés en algún instituto o academia?
 SI
 NO

9. Si tu respuesta fue afirmativa, indica el lugar de estudios y la duración del curso.

10. ¿Cuál de las siguientes consideras que es tu nivel de inglés?
 Básico
 Intermedio
 Avanzado

11. Observaciones Generales (proporciona cualquier tipo de información relevante respecto a tu formación en inglés)

¡GRACIAS POR TU TIEMPO!

Initially, for our research we considered two groups of twelve individuals each, whose ages fluctuated from 18 to 21 years old in order to have a homogenous sample:

- Group 1 consisted of first year students from the English Language and Literature programme at Universidad de Chile. So far, these students have received basic training in: phonetics, grammar, vocabulary and listening; by these means the students are able to learn the English language in a comprehensive way. In consequence, they receive what will become the basis of their learning aimed at obtaining a fairly good level of performance.

- Group 2 consisted of students belonging to the ESP course for programmes other than the English Language and Literature programme at Universidad de Chile. The focus of the ESP course is on vocabulary and grammar so that they can achieve a better comprehension of texts they have to study in their respective programmes. This group is taught how to read and write in the English language.

Each group was divided into two sub-groups. In the first of them the stimulus was oral, and it was formed by six members from the ESP course and six from the English Language and Literature one; while in the other group the stimulus was written, and it was intended to be formed by six members from the ESP course and six from the English Language and Literature one. Our aim was that both sub-groups would reproduce the stimulus no matter if they did not know how to pronounce a word or did not understand what they had just heard or read.

However, even though we attempted to have two groups of twelve people each, we had to reduce the samples of the English for Special Purposes group, because some of the subjects were not able to attend the recording sessions when scheduled. Thus, the second sub-group, which was exposed to a written stimulus, was left with only three subjects of the ESP course, instead of the six we had planned initially. This did not only reduce our corpus but also delayed our research significantly.

5.2 Research tests

According to Lado (1961), there are three points of view regarding the importance of pronunciation: the first denies its importance and puts pronunciation apart from other components of language teaching such as grammar, vocabulary or writing. The second one is the stark opposite, as it places English pronunciation at the top of language teaching, establishing that nothing but native pronunciation is adequate. This is a very unrealistic approach, because it is known that only young children can be expected to acquire a native-like level of proficiency. The third point of view adopts a principle of intelligibility as the standard for pronunciation. Intelligibility for this purpose is, however, hard to define, because what is intelligible for native speakers could not be the same for the foreign ones.²

Lado also states that none of these points of view was satisfactory, therefore phonemics - that is the aspect of linguistics concerned with the classification, analysis, interrelation, and environmental changes of the phonemes of a language- represented a real solution when testing pronunciation. Hence, "when a student hears and speaks the foreign language using all the phonemic units of the language, that is, maintaining all the phonemic features, that person *knows* the pronunciation of the language." (1961: 39)

Sub-phonemic sounds used by foreign learners of that language due to their native language influence are designated as "foreign accent", which is not an impediment when the

2 It is important to add that maybe native speakers who are used to listening to non-native speakers of their language may make an effort or some concessions towards their pronunciation, understanding them in a better way.

learner is studying a language for communicative purposes, as in the case of ESP classes. Nevertheless, this does represent a problem for people who wish to teach that foreign language or engage in other academic activities related to the study of that language, as in the case of English Language and Literature students, who have allophonic accuracy as their goal.

However, in our analysis we did not take into account such difference of aims, since, as we have stated previously, we made sure of finding informants with an elementary level of English. Therefore, our criterion to evaluate the data is that in which we take into account the phonemic/sub-phonemic criterion, evaluating mainly errors that involve great communication interference, or errors that may involve severe learning deficiencies. Hence, cases of allophonic misuse as in the substitution of [t̥] by [t̄] were not considered as errors.

Although we are aware that vowel sounds are semantically distinctive and that they may be affected by negative transfer, we do not consider them in our research. These could have been included in our work, but we decided to narrow down the scope of our project because it could have required more time than available.

In order to test pronunciation, teachers may choose one of these perspectives according to the objectives of the students of the course and link them, so that they evaluate pronunciation in accordance to them.

5.2.1 Evaluation instrument

Robert Lado established the following:

Although the sound system of a language is the same for the speaker and the listener, the techniques used to test recognition of the sound contrast in listening will differ from those used to measure production of the sounds of foreign language. Likewise, the description of the problems to be tested will not always be the same. (Lado, 1961:41)

Having this as a foundation, and since we are specifically dealing with informants whose native language is Spanish (in this case, Chilean Spanish), a set of words that would be likely to generate pronunciation problems to these informants was looked for in order to narrow our scope of evaluation. Among this set, there were both words that had phonemes difficult to pronounce correctly –due either to their absence in the mother tongue, or to their existence as allophones in the mother tongue while being phonemes in the target language- and words with a different distribution from the student's L1. As we mentioned before, the mispronunciation of vowel sounds was not to be considered in our analysis.

We decided to develop an inventory of words (see figure 2) that we could use in order to identify accurately the phonemic distribution of consonant sounds that would allow us to elicit the

4. They saw a violin concert on television.
[ðei so: ə ,vaɪə'li:n 'kɒnsət ɒn 'tɪləvɪʒn]
5. "Split up!" yelled John.
[splɪt ʌp jeld dʒɒn]
6. Robert made an interesting arrangement.
['rɒbət meɪd ən 'ɪntɪrɪstɪŋ ə'reɪndʒmənt]
7. Jeremy couldn't read the inscription.
['dʒerəmi 'kʊdnt ri:d ði: ɪn'skɪrɪpʃn]
8. Lady Svenson went to the shop.
['leɪdɪ 'svensn went tə ðə ʃɒp]
9. The patient screams in the street.
[ðə 'pʰeɪʃənt skɪi:mz ɪn ðə stɪi:t]
10. The wrestler was angry with the decision.
[ðə 'wɛslə wəz 'æŋɡrɪ wɪð ðə dɪ'sɪʒ(ə)n]
11. Spirit is the name of my horse.
['spɪrɪt ɪz ðə neɪm əv maɪ hɔ:s]
12. Attitudes to sexuality have changed.
['ætɪtju:dʒ tə ,sekʃu'ælɪtɪ həv tʃeɪŋdʒd]
13. An extreme and atrocious crime.
[ən ɪk'stɪi:m ənd ə'tɪhɪəs kɪm]
14. Nobody believed the scientist.
[nəʊbədɪ brɪ'li:vɪd ðə 'saɪəntɪst]

The sentences were the same for the two types of stimuli of the test, but the difference relied on the fact that one group had to listen to the sentences and repeat them, while the other had to read them aloud. Students whose stimulus was oral could listen to the input three times before trying to repeat it⁵, while in the other group students could read the sentences in silence in order to get acquainted with them before reading them aloud. Both groups were recorded when pronouncing the sentences.

⁵ The oral stimulus can be listened to in File 3 in the Appendix section.

6. The Analysis

After we applied the tests to the informants, the corpus was finally collected. We registered a total number of 294 samples of sentences⁶. These were distributed among the eight researchers, so that each one of the samples was analysed by two of them, in order to reduce personal perceptions as a factor in the analysis as much as possible. To facilitate this process we devised a record card in which the sentences were transcribed including the target pronunciations and the one performed by the informants to make the comparison easier (see figure 4).

Let us remember that for our purposes, we only took into account the pronunciation of consonant sounds for the analysis, and that target vowel sounds were not considered. Additionally, in the analysis of both the oral and written stimuli, RP was considered as the goal (the model provided by the recordings), but we accepted GA pronunciation as well.

Figure 4

Subject code: 1	Gender: M / F	Class: Eng / ESP	Input: Listening / Reading
S. 1	An instrument for measuring temperature.		
	[en ɪnstɹəmənt fə meʒə:ɪŋ t̩ˈempj:rt̩ə]		
	[]		
Target	[]		
Error Analysis			
Phonetic Error	Strategy		

The corpus was analysed phoneme by phoneme. However this criterion was not completely useful for our purposes, since sometimes errors did not consist only of phoneme by phoneme errors, because there were instances in which complete sequences were the ones affected.

⁶ The recordings of the samples are available in File 4 in the Appendix section.

Subsequently, the mistake was classified either under the labels of addition, elision, substitution, or metathesis. Once the type of mistake was clear, an attempt to explain its cause was made, so phonemic errors were labelled according to our classification of strategy, i.e. negative transfer, communication strategy, learning strategy, nonce mistake, or no explanation. Some examples of how we analysed the data can be seen in figures 5.1 and 5.2, while the rest of the analysis cards can be found in File 5 in the Appendix section.

Figure 5.1

Subject code: 12		Gender: F	Class: ESP	Input: Listening
S. 2		Three nurses arrived at the hospital.		
Target		['θri :nɜ:sɪz ə'laɪvd ət 'ðə 'hɒspɪtəl]		
		[]		
		[]		
Actual pronunciation		[θri nɜ:sɪz əwaɪv əf t̪ə hɒspɪtəl]		
Error Analysis				
Phonetic Error		Strategy		
z → s	substitution	Negative transfer		
ɹ → w	substitution	Nonce		
d → e	elision	Negative transfer		
ə → x	addition*	No explanation		
t̪ → f	substitution*	No explanation		
ð → t	substitution	Negative transfer / learning strategy		
*Observation: if the person interpreted the target as <have> instead of <a> it would be a substitution, with a communication strategy				

Figure 5.2

Subject code: 1		Gender: M	Class: Eng	Input: Listening
S. 12		Attitudes to sexuality have changed.		
Target		['ætɪtjʊdɪz tə ,sekʃu'ælɪti hev 'tʃeɪndʒd]		
		['ætɪtjʊdɪz tə ,sekʃu'ælɪrɪ v 'tʃeɪndʒd]		
		[]		
Actual Pronunciation		[ætɪtʃʊdɪz əv sekʃu'ælɪti hæz tʃeɪntʃɪz]		
Error Analysis				
Phonetic Error		Strategy		
z → s	substitution	Negative transfer		
te → ə	elision	Communication strategy		
h → x	substitution	Negative transfer		
v → s	substitution	Learning strategy		
dʒ → tʃ	substitution	Negative transfer		
d → ə	elision	Negative transfer		

7. Results

Apart from the answer to our main question of which input produces the greatest difficulty when attempting to pronounce English accurately, the results of our analysis will also embrace differences between the English Language and Literature informants and the ESP class in terms of performance. What we did here was to analyse this problem so that others may use our results for pedagogical ends. Thus, in order to make it easier to understand, these results will be presented first according to the type of phonetic error the informants produced (i.e. substitution, elision, addition, and metathesis) and then according to the type of strategy that was used. At the same time, each section below will be presented in terms of: firstly, input differentiation. This means distinguishing between written and oral stimuli without taking into account the type of course the informants belonged to; secondly, English Language and Literature/ESP class differentiation, without distinguishing between the type of input the informants received; and thirdly, we will make the distinction between the four sub-groups regarding the type activity they participated in, i.e. English Language and Literature Listening, ESP Listening, English Language and Literature Reading, and ESP Reading. Here, we refer to *Listening* as the type of activity that consisted of the oral stimulus and its corresponding reproduction, and to *Reading* as the activity consisting of the written stimulus read aloud. At the same time, the group of students who received the oral stimulus that had to be repeated will be referred to as *Listening*, and the group of students who were given a written stimulus that had to be read aloud will be identified as *Reading*. Finally, we will analyse the total number of errors and strategies, so that we can give a general perspective of the results.

7.1 Types of error

a) Input Differentiation: written or oral

To start with, we will present the results for the distinction between the oral stimulus and the written one, without considering which study programme the informants belonged to. In figure 6.1 the table shows the figures according to type of error and detailed by sentence. As the number of informants for the oral stimulus and for the written one was not the same, the calculation cannot be done only by watching the numbers in the table. Therefore, we needed to get the average of each input separately in order to compare them later. The calculations were done by dividing the total number of errors by the number of participants of each group. This will be shown in figure 6.1.1. The calculations in all the following sections were performed in the same way.

Figure 6.1

Sentence N°	LISTENING				READING			
	Substitution	Elision	Addition	Metathesis	Substitution	Elision	Addition	Metathesis
1	20	14	1	1	22	2	4	0
2	44	19	2	3	17	5	2	1
3	43	11	1	0	28	1	1	0
4	38	4	4	0	20	1	2	0
5	27	5	4	0	12	1	5	0
6	27	15	3	0	10	4	3	1
7	25	10	5	1	12	7	1	0
8	31	11	12	0	8	3	0	0
9	38	18	3	0	28	5	2	0
10	53	9	12	0	30	0	18	0
11	35	8	8	1	25	1	3	0
12	50	28	8	2	31	14	5	0
13	23	17	7	1	8	7	0	0
14	23	12	7	1	15	8	1	0
TOTALS	486	180	77	7	262	58	54	2

Figure 6.1.1

Listening	Average	Reading	Average
Substitution	40.5	Substitution	29.1
Elision	15.83	Elision	6.5
Addition	6.41	Addition	6
Metathesis	0.58	Metathesis	0.22

Here we can observe that, in fact, the average of each type of error is greater in the case of the oral stimulus rather than in the case of the written stimulus. We can also notice that in both cases substitution is the most common type of error, followed by elision, then by addition, and finally metathesis. This can also be seen in figures 6.2 and 6.3, where the corresponding percentages appear, showing a slight difference between the two inputs. The percentage of substitution and addition in the written stimulus are greater than in the case of the oral stimulus, showing 69% and 14% respectively for the reading aloud test, while a 64% and a 10% respectively for the listening test. In the case of elision, listening has a greater percentage, showing a 25% in contrast to the 16% belonging to reading. The percentage of metathesis is 1% in both cases.

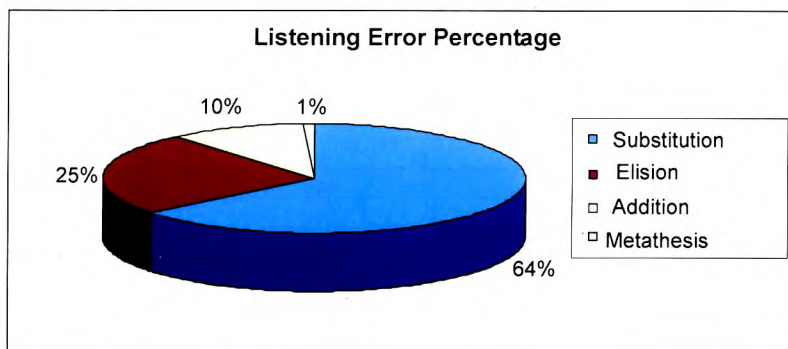
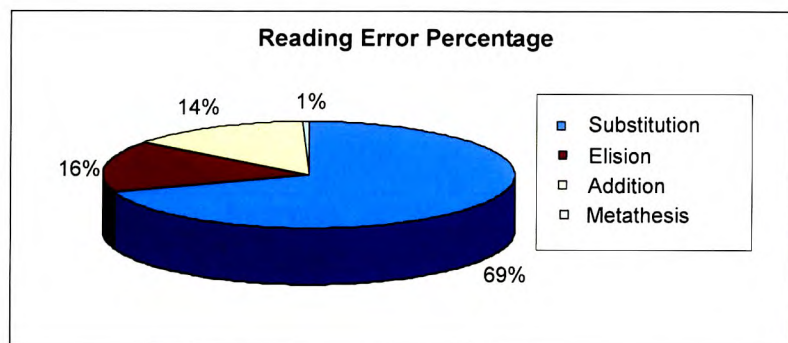


Figure 6.3



According to our analysis and to what we have seen when testing the informants, we think that we may have some explanations for these results. The fact that the percentage of elision is greater in repeating than in reading may be due to some inability of the informants to hear each sound segment of the sequences correctly, without having the chance to recall it because of the evanescent nature of the input. In the case of the reading aloud group, as the nature of the input is steady, it was less probable to elide segments; in fact, it is even more likely the addition of sounds due to graphemic influence. At the same time, we think that substitution is the most recurrent error because of the dissimilar phonological systems of English and Spanish languages, leading the informants to choose the wrong features amongst the two possibilities.

b) Course distinction: English Language and Literature vs. ESP

In this section, we are presenting the results according to the type of errors made by the informants, only considering the study course they belonged to, i.e. English Language and Literature or ESP class. In figure 6.4, the description of the results is shown in the table specifying numbers according to sentence number, and type of error. In 6.4.1 we can see the average per type of error in order to compare the level of English of the two classes.

Figure 6.4

Figure 6.4

Sentence N°	Eng				ESP			
	Substitution	Elision	Addition	Metathesis	Substitution	Elision	Addition	Metathesis
1	25	12	3	1	22	4	2	0
2	25	9	0	1	33	15	4	0
3	35	7	1	0	35	5	1	0
4	25	1	5	0	32	4	1	0
5	19	4	5	0	20	2	4	0
6	19	11	2	0	21	8	4	1
7	22	10	1	1	15	18	5	0
8	18	8	12	0	21	9	9	0
9	27	13	0	0	35	10	5	0
10	41	3	22	0	42	5	8	0
11	32	8	8	0	31	3	5	1
12	45	19	4	2	38	24	9	0
13	14	11	1	1	15	13	6	0
14	20	9	5	1	19	11	3	0
TOTALS	372	121	67	7	376	128	64	2

Figure 6.4.1

Eng. Ling.	Average	ESP	Average
Substitution	17.7	Substitution	41.8
Elision	5.8	Elision	14.2
Addition	3.1	Addition	7.1
Metathesis	0.3	Metathesis	0.2

According to the table above, we can clearly notice that the ESP averages of each type of error reach numbers beyond those of the English Language and Literature ones. At the same time, we can observe that in both cases, substitution is the most recurrent type of error, followed by elision, then by addition, and finally metathesis, similar to the results given in the previous section. This is also shown in figures 6.5 and 6.6. Even though we see how great a difference there is between the quantity of errors made, the graphics show us that the percentages have an almost insignificant difference between the two courses, which means that in both cases the most recurrent error is substitution reaching 66% and 67% respectively, followed by elision that adds up to 22% and 21% respectively, then by addition with 12% and 11% respectively, leaving metathesis at the bottom with 1% and 0.3% respectively.

Figure 6.5

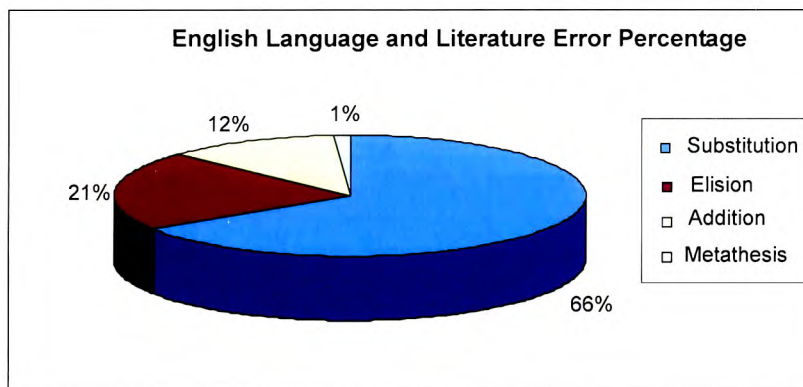
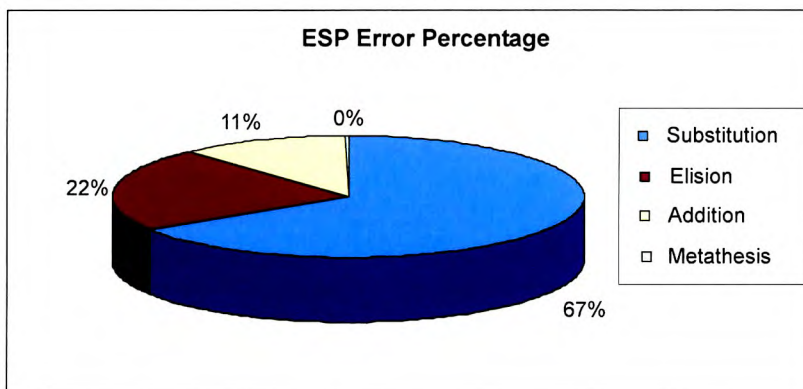


Figure 6.6



According to these figures, we can state that the fact that the ESP class informants have produced a larger number of errors than the English Language and Literature class informants is due to the differences they have in their courses when dealing, or not dealing, with pronunciation. As the English Language and Literature students have classes especially devoted to the learning of pronunciation, it is clear that they have better tools when facing tests like ours than those of the ESP students.

c) Listening distinction: English Language and Literature vs. ESP. Reading distinction: English Language and Literature vs. ESP

In this section, we will be discussing the differences of results according to the input given and the class the informants belong to at the same time. We will differentiate the following groups: Listening English Language and Literature, Listening ESP, Reading English Language and Literature, and Reading ESP. Now in figure 6.7.1 we can observe the detailed description of the results referring to listening, while in figure 6.7.2 we can see the same in relation to Reading.

In figure 6.7.3 we find the averages for this section.

Figure 6.7.1

Sanciana Nº	LISTENING							
	Eng				ESP.			
	Substitution	Elision	Addition	Metathesis	Substitution	Elision	Addition	Metathesis
1	14	10	1	1	14	4	0	0
2	18	8	0	0	28	11	2	0
3	20	8	0	0	23	5	1	0
4	18	0	3	0	22	4	1	0
5	12	3	3	0	15	2	1	0
6	13	9	1	0	14	7	2	0
7	15	8	0	1	10	13	5	0
8	14	4	9	0	17	7	4	0
9	14	9	0	0	22	9	3	0
10	23	3	7	0	30	5	5	0
11	18	5	3	0	22	3	5	1
12	24	12	3	2	28	17	5	0
13	11	7	1	1	12	10	6	0
14	15	5	4	1	8	7	3	0
TOTALS	228	88	34	6	261	104	43	1

Figure 6.7.2

Sanciana Nº	READING							
	Eng				ESP.			
	Substitution	Elision	Addition	Metathesis	Substitution	Elision	Addition	Metathesis
1	14	2	2	0	5	0	2	0
2	10	1	0	1	7	4	2	0
3	16	1	1	0	12	0	3	0
4	10	1	2	0	10	0	0	0
5	7	1	2	0	5	0	3	0
6	3	3	1	0	7	1	2	1
7	7	4	1	0	5	3	0	0
8	4	2	4	0	4	1	5	0
9	13	4	0	0	13	1	2	0
10	19	0	15	0	12	0	1	0
11	18	1	3	0	9	0	0	0
12	21	7	1	0	10	7	4	0
13	9	4	0	0	3	3	0	0
14	5	4	1	0	10	4	0	0
TOTALS	147	35	33	1	115	24	21	1

Figure 6.7.3

Eng. Ling. Listening	Average	ESP Listening	Average	Eng. Ling. Reading	Average	ESP Reading	Average
Substitution	37.5	Substitution	43.5	Substitution	24.5	Substitution	38.3
Elision	14.3	Elision	17.3	Elision	5.8	Elision	8
Addition	5.6	Addition	7.1	Addition	5.5	Addition	7
Metathesis	1	Metathesis	0.16	Metathesis	0.16	Metathesis	0.33
General average	58.4	General average	68.06	General average	35.96	General average	53.63

We can notice here that the highest general average corresponds to the group of ESP Listening group, followed by the English Language and Literature Listening group, then by the ESP Reading group, and last the English Language and Literature Reading group. As we have stated before, the most recurrent error is substitution, followed by elision, then by addition and finally metathesis. Now we are distinguishing which group concentrates the greatest number of occurrences per each error.

In the case of substitution, ESP Listening group concentrates the greatest number of occurrences, with an average of 43.5 occurrences, with 64% of the total number of errors of this group. Next, we find ESP Reading group with an average 38.3 occurrences, with 71% of the total number of errors of this group. Then, we find the English Language and Literature Listening group presenting a number of occurrences that reaches an average of 37.5 occurrences, with 63% of the total number of errors of this group. Finally, we have the English Language and Literature Reading group presenting the lowest number of occurrences of substitution, with an average of 24.5 occurrences, which corresponds to 69% of the total number of errors of this group.

In the case of elision, ESP Listening group concentrates the greatest number of occurrences, with an average of 17.3 occurrences, with 25% of the total number of errors of this group. Next, we find the English Language and Literature Listening group presenting a number of occurrences that reaches an average of 14.3 occurrences, with 25% of the total number of errors of this group. Then, we find ESP Reading group with an average of 8 occurrences, with 15% of the total number of errors of this group. Finally, we have the English Language and Literature Reading group presenting the lowest number of occurrences of elision, with an average of 5.8 occurrences, which corresponds to 16% of the total number of errors of this group.

In the case of addition, ESP Listening group concentrates the greatest number of occurrences, with an average of 7.1 occurrences, with 11% of the total number of errors of this group. Next, we find ESP Reading group with an average 7 occurrences, with 13% of the total number of errors of this group. Then we find the English Language and Literature Listening group presenting a number of occurrences that reaches an average of 5.6 occurrences, with 10% of the total number of errors of this group. Finally, we have the English Language and Literature Reading group presenting the lowest number of occurrences of addition, with an average of 5.5 occurrences, which corresponds to 15% of the total number of errors of this group.

In the case of metathesis, English Language and Literature Listening group concentrates the greatest number of occurrences, with an average of 1 occurrence, with 2% of the total

number of errors of this group. Next, we find ESP Reading group with an average 0.33 occurrences, with 1% of the total number of errors of this group. Finally, we find the ESP Listening group and the English Language and Literature Reading group, both presenting a number of occurrences that reaches an average of 0.16 occurrences, none of them reaching 1% of the total number of errors of this group. The graphics below show these percentages in a better way.

Figure 6.8

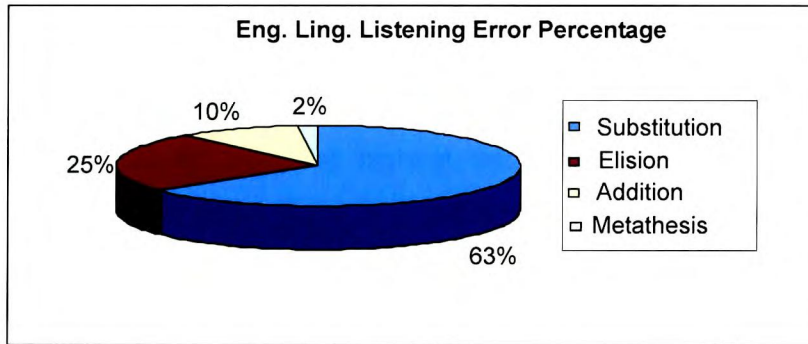


Figure 6.9

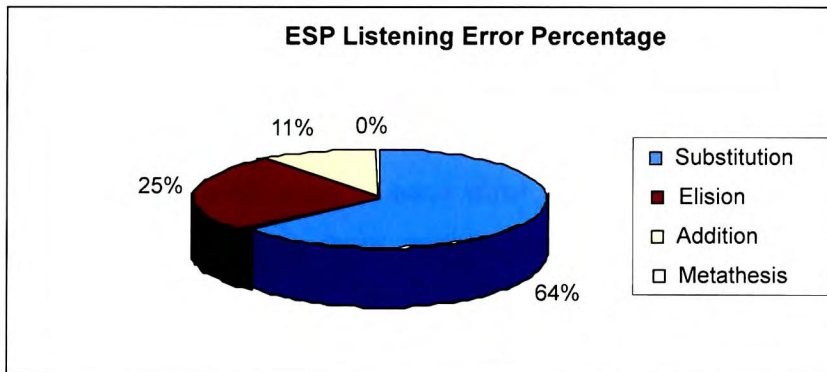


Figure 6.10

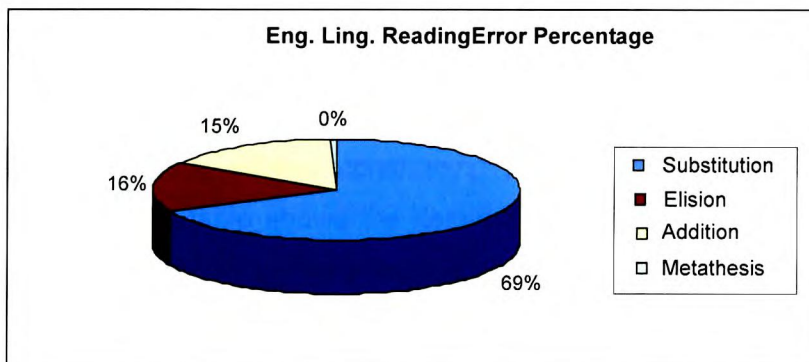
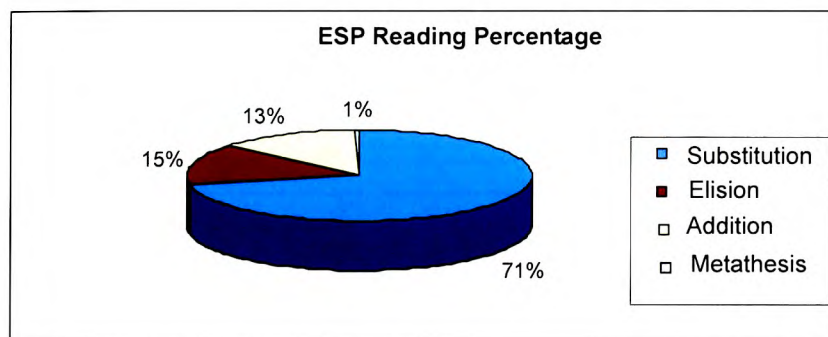


Figure 6.11



A common ground among the groups was that substitution turned out to be the strategy which occurred with the highest frequency, followed by elision, then addition and finally metathesis. In spite of the fact that the percentages vary, they do not do it significantly which allows us to say that despite the type of input and/or the students' academic background, the strategies frequency remained similar in all the groups.

7.2 Type of strategy

Now that we have discussed the errors that the informants made when trying to pronounce English, we will try to explain all these errors by means of the description of the strategies carried out when making them. When we analysed the results, as seen in figures 5.1 and 5.2, we identified each error with the strategy used when made. However, our results will not focus on the identification of each error and linking it to which strategy was most used when making it, but with the more general results. We will see what was the most used strategy according to the same classification we made for the previous sections, that is input differentiation, this means to differentiate between Listening and Reading; English Language and Literature/ESP class differentiation; Eng. Ling. Listening, ESP Listening, Eng. Ling. Reading, and ESP Reading.

a) Input differentiation: Written vs. Oral

In this section, we will present the results for the distinction between the oral stimulus and the written one, without considering which study programme the informants belonged to. In figure 7.1 the table shows the detailed figures of each input according to type of strategy and detailed by sentence. The averages per strategies used will be shown in figure 7.1.1.

Figure 7.1

Sentence N°	LISTENING					READING				
	Negative transfer	Communication	Learning	No Explanation	Nonce mistake	Negative transfer	Communication	Learning	No Explanation	Nonce Mistake
1	29	10	15	1	1	26	0	2	0	0
2	43	10	15	2	1	15	2	11	1	0
3	38	1	15	0	1	28	2	1	0	1
4	27	5	9	1	1	21	0	0	0	2
5	18	13	9	1	0	15	1	0	1	0
6	30	12	3	0	0	14	0	0	0	0
7	34	5	5	2	0	16	1	3	0	0
8	33	7	7	5	0	15	1	3	1	0
9	40	10	5	2	0	30	2	1	0	0
10	51	20	3	1	0	44	1	1	0	0
11	40	6	7	2	0	28	0	2	1	0
12	81	15	15	0	1	44	3	2	1	0
13	7	22	14	4	0	9	4	0	0	0
14	27	5	11	1	0	17	2	5	0	0
TOTALS	474	147	139	22	5	318	18	31	5	3

Figure 7.1.1

Listening	Average	Reading	Average
Negative transfer	39.5	Negative transfer	35.3
Communication strategy	12.25	Communication strategy	2.1
Learning strategy	11.58	Learning strategy	3.4
No explanation	1.83	No explanation	0.5
Nonce mistake	0.41	Nonce mistake	0.3

Here we can observe that according to the fact that the average of each type of strategy in the case of the oral input is greater than in the case of the written input, the number of strategies used is far greater in the case of the oral input than in the written one. We can also notice that in both cases, negative transfer was the most common type of strategy with very little difference between the two inputs, with an average of 39.5 occurrences in listening against an average of 35.3 occurrences in reading. Following negative transfer, we find communication strategy and learning strategy with almost the same rate of occurrence. In this respect, it is very important to notice that both strategies have a considerably higher recurrence in Listening than in Reading. Thus, the difference relies on the fact that we find a far greater average of occurrence in Listening than in Reading, showing an average of 12.25 and 11.58 occurrences, respectively in listening, and of 2.1 and 3.4 occurrences, respectively in reading.

The other difference in this respect is that in listening the average of communication strategy is a little higher than learning strategy, while in reading, the average of learning strategy

is higher than communication strategy. Then, no explanation is the following strategy, yet in this case we have to keep in mind that this is not a strategy, but it is a label used when there was not other label applicable to the case. Finally, nonce mistakes are left last, due to the fact that it is difficult to recognise a non-systematic error in this type of research, since we are not making a longitudinal research to know the students development of learning; however, in this research some cases of nonce mistakes were observed, and this will be discussed further in the conclusions section.

Finally, in figures 7.2 and 7.3, the corresponding percentages are shown, for each strategy. In listening, negative transfer corresponds to 59%, communication strategy corresponds to 19%, learning strategy to 18%, no explanation to 3%, and nonce mistake corresponds to 1%. In Reading, negative transfer corresponds to 85%, communication strategy to 5%, learning strategy to 8%, no explanation to 1%, and nonce mistake corresponds to 1%.

Figure 7.2

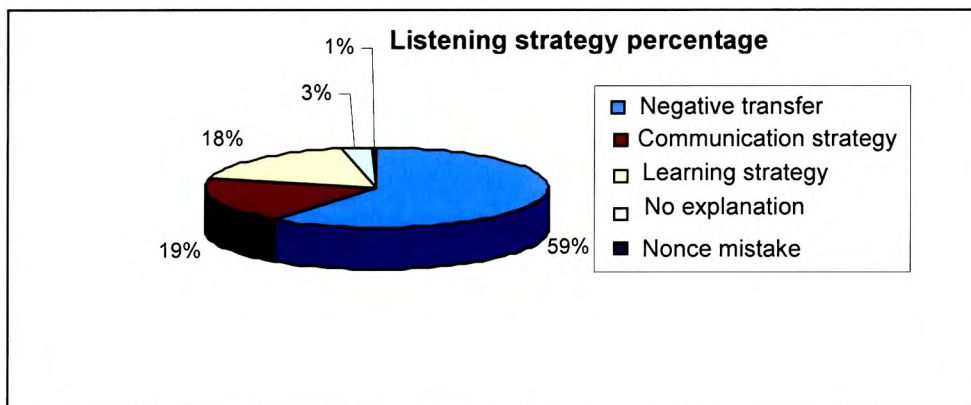
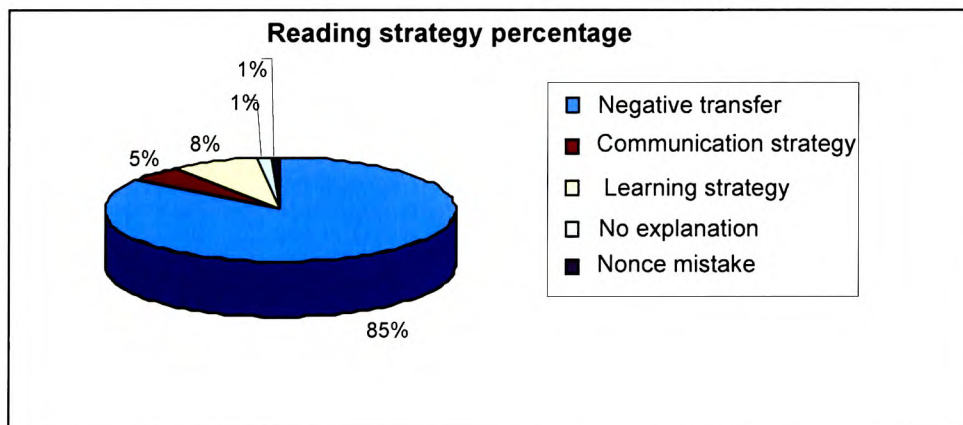


Figure 7.3



According to what we have seen in our analysis, we may say that the explanation to the fact that negative transfer is the most used strategy in both groups is the pervasive influence that the NL has on the Spanish learners of English. This would be present with no exception in the production of every informant in every sentence.

In the case of the considerable high percentage of communication strategy in Listening in contrast to its percentage in Reading, we may infer that this is due to the evanescent nature of the oral input. In this case, the fading characteristic of the stimulus would make even more difficult the repetition of the target, making the informants to fill the blanks of information with as much as they can recall. In the case of Reading, as the written input is constant and steady, is not very likely to misunderstand or decode the message differently from what it really says.

In Listening, the percentage of learning strategy is also higher than that in Reading. This may have its cause in that hypercorrection or overgeneralisation leads them to produce deviant forms, because in the listening activity the model is given and it is more likely that the informants are not completely aware of how to apply the rules of pronunciation appropriately.

Moving forward, the fact that we are able to observe that nonce mistake and no explanation labels sum up to 4% and 2% respectively to listening and reading, demonstrates that errors made by learners of English are not always as predictable as one would expect them to be.

b) Course distinction: English Language and Literature vs. ESP

In this section, we are presenting the results according to the type of strategies used by the informants, only considering the study course they belonged to, i.e. English Language and Literature or ESP class. In figure 7.4, the description of the results is shown in the table specifying numbers according to sentence number, and type of strategy. In 7.4.1 we can see the average per type of strategy in order to compare the level of English of the two classes.

Figure 7.4

Sentence Nº	Eng					ESP				
	Negative transfer	Communication	Learning	No Explanation	Nonce Mistake	Negative transfer	Communication	Learning	No Explanation	Nonce Mistake
1	33	2	13	1	1	22	8	4	0	0
2	27	4	11	0	0	31	8	15	3	1
3	32	2	10	0	1	30	1	9	0	1
4	23	1	8	0	2	25	7	3	1	1
5	17	7	4	1	0	14	7	5	1	0
6	25	2	2	0	0	19	10	1	0	0
7	26	2	5	0	0	24	7	3	2	0
8	27	2	8	0	0	21	6	4	8	0
9	35	4	0	1	0	35	8	8	1	0
10	59	8	3	0	0	38	15	1	1	0
11	37	0	4	2	0	29	8	5	1	0
12	59	5	7	0	0	48	13	13	1	1
13	9	8	8	1	0	7	18	8	3	0
14	23	2	10	1	0	21	5	6	0	0
TOTALS	432	47	89	7	4	380	119	81	28	4

Figure 7.4.1

Eng Lang	Average	ESP	Average
Negative transfer	20.6	Negative transfer	40
Communication strategy	2.2	Communication strategy	13.2
Learning strategy	4.2	Learning strategy	9
No explanation	0.3	No explanation	2.2
Nonce mistake	0.2	Nonce mistake	0.4

According to the table above, we can clearly notice that the ESP averages of each type of strategy reach numbers beyond those of the English Language and Literature ones. At the same time, we can observe that in both cases negative transfer is the most used type of strategy with an average of 40 occurrences and a 62% of the total number of use of strategies in ESP, and 20 in English Language and Literature, with its 75% of the total number of use of strategies. Then it is followed by communication strategy with an average of 13.2 and 20% of the total number of use of strategies in ESP, and 2.2 occurrences with 8% of the total number of use of strategies in English Language and Literature. Then it is followed by learning strategy with an average of 9 occurrences and 14% of the total number of use of strategies in ESP, and 4.2 with 15% of the total number of use of strategies in English Language and Literature. Nonce mistake is the one with least occurrences with an average of 0.4 occurrences and 1% of the total number of use of strategies in ESP; and 0.2 with 1% of the total number of use of strategies in English Language and Literature; preceded by no explanation label with an average of 2.2 occurrences and 3% of the total number of use of strategies in ESP; and 0.3 of occurrences with 1% of the

total number of use of strategies in English Language and Literature. This is also shown in figures 7.5 and 7.6.

Figure 7.5

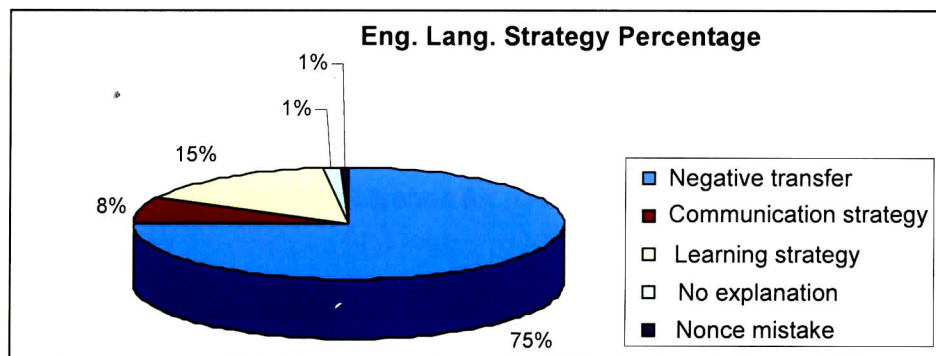
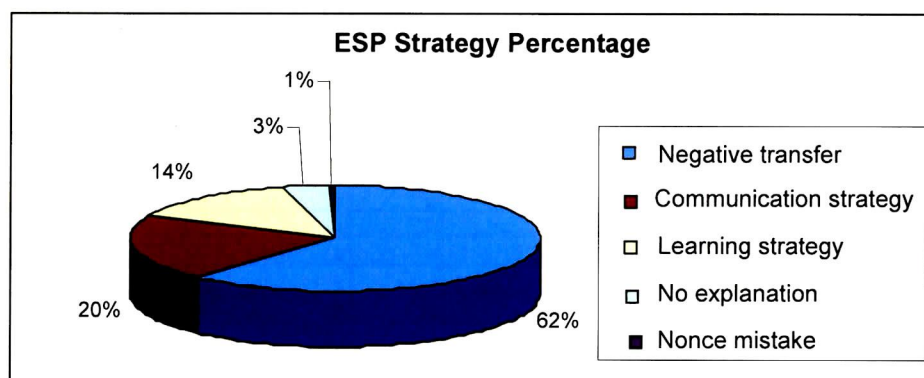


Figure 7.6



When we try to explain these results, we can refer back to what we have said in section 7.1 point b. Even though the percentage graphics may mislead our attention, what is really important is what we can see in figure 7.4.1. Here we can clearly observe that English Language and Literature informants make fewer errors, and use fewer learning strategies and communication strategies than the ESP informants, because their training on English pronunciation is better. Their courses are designed for making them learn the rules of grammar and pronunciation of English and also how to apply them well, thus avoiding learning strategies in many cases; and this same fact makes them to be better trained in listening and producing English, which reduces the possibilities of using communication strategies wrongly in many instances. This does not happen with ESP informants. Further discussion will be presented in the conclusions section.

c) English Language and Literature/ESP Listening distinction and English Language and Literature/ESP Reading distinction

In this section, we will be discussing the differences of results according to the input given and the class the informants belong to at the same time. We will differentiate the following groups: Listening English Language and Literature, Listening ESP, Reading English Language and Literature, and Reading ESP. Now in figure 7.7.1 we can observe the detailed description of the results referring to listening, while in figure 7.7.2 we can observe the same but for Reading. In figure 7.7.3 we find the averages for this section.

Figure 7.7.1

Sentence N°	LISTENING									
	Eng					ESP.				
	Negative transfer	Communication	Learning	No Explanation	Nonce Mistake	Negative transfer	Communication	Learning	No Explanation	Nonce Mistake
1	17	2	11	1	1	12	8	4	0	0
2	21	2	8	0	0	22	8	0	2	1
3	18	0	0	0	0	18	1	9	0	1
4	12	1	8	0	0	15	7	3	1	1
5	8	7	4	0	0	7	6	5	1	0
6	18	2	2	0	0	12	10	1	0	0
7	17	2	2	0	0	17	6	3	2	0
8	21	1	3	0	0	12	8	4	5	0
9	19	0	0	1	0	21	7	5	1	0
10	27	8	2	0	0	24	14	1	1	0
11	20	0	2	1	0	20	8	5	1	0
12	31	4	7	0	0	30	11	11	0	1
13	4	6	8	1	0	3	18	6	3	0
14	18	1	8	1	0	11	4	3	0	0
TOTALS	250	37	70	5	1	224	110	89	17	4

Figure 7.7.2

Sentence N°	READING									
	Eng					ESP.				
	Negative transfer	Communication	Learning	No Explanation	Nonce Mistake	Negative transfer	Communication	Learning	No Explanation	Nonce Mistake
1	16	0	2	0	0	10	0	0	0	0
2	8	2	5	0	0	9	0	6	1	0
3	14	2	1	0	0	12	0	0	0	0
4	11	0	0	0	2	10	0	0	0	0
5	8	0	0	1	0	7	1	0	0	0
6	7	0	0	0	0	7	0	0	0	0
7	9	0	3	0	0	7	1	0	0	0
8	6	1	3	0	0	9	0	0	1	0
9	16	1	0	0	0	14	1	1	0	0
10	32	0	1	0	0	12	1	0	0	0
11	17	0	2	1	0	9	0	0	0	0
12	28	1	0	0	0	16	2	2	1	0
13	5	2	0	0	0	4	2	0	0	0
14	7	1	2	0	0	10	1	3	0	0
TOTALS	182	10	19	2	3	138	9	12	3	0

Figure 7.7.3

Eng. Ling Listening	Average	ESP Listening	Average	Eng. Ling. Reading	Average	ESP Reading	Average
Negative transfer	41.6	Negative transfer	37.3	Negative transfer	30.33	Negative transfer	45.3
Communication strategy	6.16	Communication strategy	18.33	Communication strategy	1.66	Communication strategy	3
Learning strategy	11.6	Learning strategy	11.5	Learning strategy	3.16	Learning strategy	4
No explanation	0.83	No explanation	2.83	No explanation	0.3	No explanation	1
Nonce mistake	0.16	Nonce mistake	0.66	Nonce mistake	0.5	Nonce mistake	0

As we have stated before, in general, the most frequently used strategy is negative transfer, followed by learning strategy, and very closely followed by communication strategy. Finally, the average of cases with no explanation is higher than that of nonce mistakes. Now we are distinguishing which group concentrates the greatest frequency of use per each strategy.

In the case of negative transfer, ESP Reading group concentrates the greatest number of occurrences, with an average of 45.3 occurrences, and with 84% of the total number of strategies of this group. Next, we find English Language and Literature Listening group with an average of 41.6 occurrences, with 70% of the total number of strategies of this group. Then we find the ESP Listening group presenting a number of occurrences that reaches an average of 37.3 occurrences, with 53% of the total number of strategies of this group. Finally, we have the English Language and Literature Reading group presenting the lowest number of occurrences of substitution, with an average of 30.33 occurrences, which corresponds to 84% of the total number of errors of this group. Percentages, however, show us that negative transfer is most frequently used when reading aloud rather than when repeating an audible input. This can be seen in that both reading groups show 84% for negative transfer, while listening present only 70% and 53% in English Language and Literature and ESP respectively.

In the case of communication strategy, ESP Listening group concentrates the greatest number of occurrences, with an average of 18.33 occurrences, with 26% of the total number of strategies of this group. Next, we find the English Language and Literature Listening group presenting a number of occurrences that reaches an average of 6.16 occurrences, with 10% of the total number of strategies of this group. Then, we find ESP Reading group with an average 3 occurrences, with 6% of the total number of strategies of this group. Finally, we have the English Language and Literature Reading group presenting the lowest number of occurrences, with an average of 1.66 occurrences, which corresponds to 5% of the total number of errors of this group.

In the case of learning strategy, English Language and Literature Listening group

concentrates the greatest number of occurrences, with an average of 11.6 occurrences, with 19% of the total number of strategies of this group. Next, we find ESP Listening group with an average 11.5 occurrences, with 16% of the total number of strategies of this group. Then, we find the ESP Reading group presenting a number of occurrences that reaches an average of 4 occurrences, with 8% of the total number of strategies of this group. Finally, we have the English Language and Literature Reading group presenting the lowest number of occurrences, with an average of 3.16 occurrences, which corresponds to 15% of the total number of strategies of this group.

In the case of nonce mistake, ESP listening group concentrates the greatest number of occurrences, with an average of 0.66 occurrences, with 1% of the total number of strategies of this group. Next, we find English Language and Literature Reading group with an average 0.5 occurrences, with 1% of the total number of strategies of this group. Then, we find the English Language and Literature Listening group with an average of 0.16 occurrences, not even reaching 1% of the total number of strategies of this group. Finally, we have the ESP Reading group which does not present any occurrences of nonce mistake. This last observation may be due to the small number of informants of this group. The graphics below show these percentages in a better way.

The no explanation label, that was mostly used for those informants belonging to the ESP Listening group, concentrates the greatest number of occurrences, with an average of 2.83 occurrences, with 4% of the total number of strategies of this group. Next, we find ESP Reading group with an average of 1 occurrence, with 2% of the total number of strategies of this group. Finally, we find the English Language and Literature Listening with an average of 0.83 occurrences, showing only 1%, and the English Language and Literature Reading group, presenting a number of occurrences of only 0.3 occurrences with 1% of the total number of strategies of this group. The graphics below show these percentages in a better way.

Figure 7.8

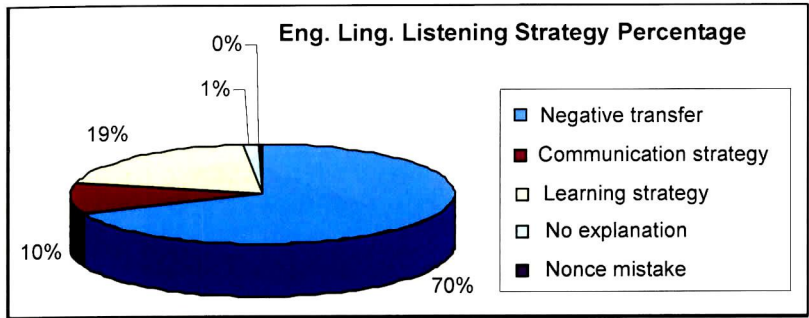


Figure 7.9

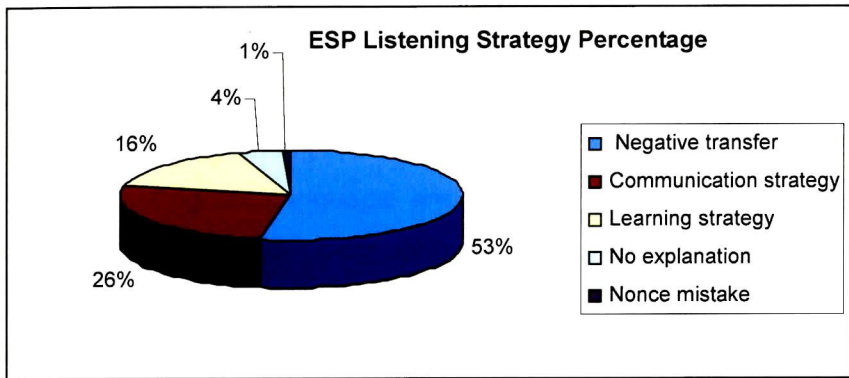


Figure 7.10

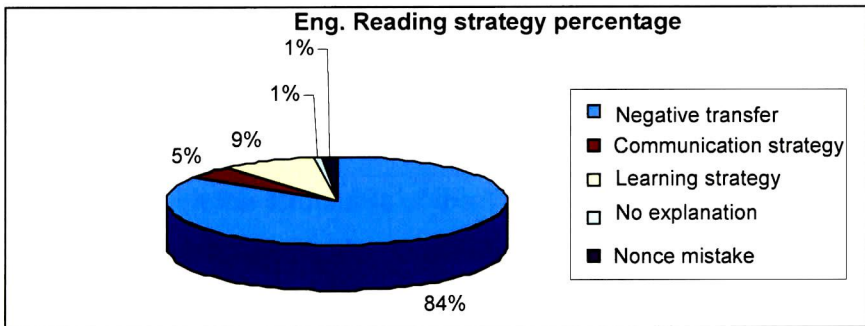
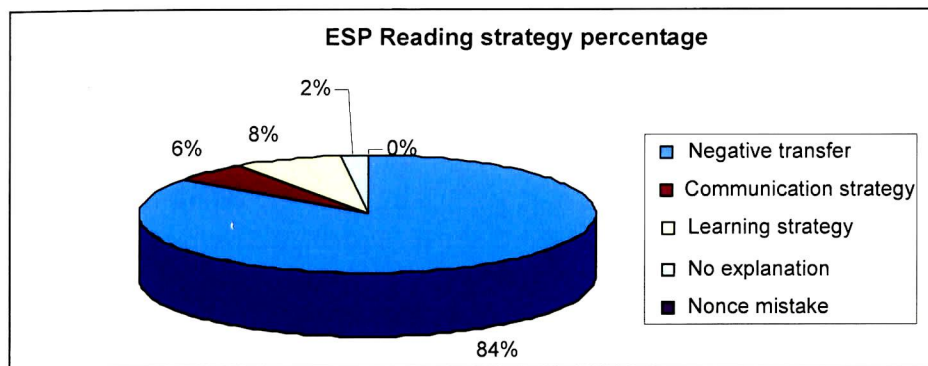


Figure 7.11



In these results we can notice that negative transfer is the most used strategy in all four subgroups. Taking into consideration that both English Language and Literature and ESP informants were in the first stages of learning a L2, the influence of their mother tongues continues playing an important role interfering with the TL. Referring to what was said in section 7.2 b, the English Language and Literature groups used less communication and learning strategies than the ESP informants due to the training they have received. Nonetheless, a trend can be found when seeing the results of the strategies used by English Language and Literature and ESP informants that had the oral input. In this case, an extensive use of communication strategies was observed, especially for the ESP group. We can explain this trend by keeping in mind that the ESP informants were oriented to text comprehension and not to speech comprehension, forcing them, at least in this type of test, to fill the voids left by an incomplete decodification of the input. The use of learning strategies by the subgroups exposed to the oral input is low because the informants are in the first stages of learning a L2, thus, the development of hypotheses about the L2 is not fully carried out because the informants are not fully acquainted with the structures of the TL.

As stated above, the four subgroups had a high use of negative transfer, but this was more predominant in the subgroups exposed to the written stimulus. In both the English Language and Literature and ESP Reading aloud groups results were very alike concerning the strategies used. As both groups have training in reading and writing, a similar tendency for this group was to be expected. To explain the high use of negative transfer, we can say that the use of cognates in our instrument of evaluation might have influenced the interference of the subjects' NL.

7.3 Totals

In this section, our aim consists of giving a general account on which sentence was more or less difficult for our informants when giving our test, no matter the type of neither input nor the study programme they belonged to. At the same time, we will give an account of which error and which strategies were used the most in each sentence. From figures 8.1 to 8.4 we can observe the results in detail.

Figure 8.1

Sentence N°	TOTAL			
	Substitution	Elision	Addition	Metathesis
1	50	16	5	1
2	61	24	4	1
3	71	12	2	0
4	58	5	6	0
5	39	6	9	0
6	37	19	6	1
7	37	26	6	1
8	39	14	21	0
9	62	23	5	0
10	83	8	28	0
11	63	9	11	1
12	81	43	13	2
13	29	24	7	1
14	38	20	8	1
TOTALS	748	249	131	9

Figure 8.2

Sentence N°	total				
	Negative transfer	Communication	Learning	No Explanation	Nonce Mistake
1	55	10	17	1	1
2	58	12	26	3	1
3	62	3	19	0	2
4	48	8	9	1	3
5	31	14	9	2	0
6	44	12	3	0	0
7	50	9	8	2	0
8	48	6	10	6	0
9	70	12	6	2	0
10	95	21	4	1	0
11	66	6	9	3	0
12	105	18	20	1	1
13	16	26	14	4	0
14	44	7	16	1	0
TOTALS	792	166	170	27	8

In general, and as we have seen in the previous sections, the most recurrent error made by our informants is substitution, followed then by elision, then by addition, and finally by metathesis, the latter having a far minor occurrence than the rest of them. Continuing with this general view of the results, this time referring to the type of strategy used, we can observe that negative transfer is by far the most common strategy used when making an error, followed, then,

by learning strategy, and finally by communication strategy. In this case, non systematic errors, nonce mistake, were the least observed, because of the reasons we have mentioned before. Finally, those errors for which we could not find an explanation, thus labelled as no explanation, were not as considerable in number as the rest of the strategies (except for nonce mistakes), but only because of their presence, we consider them of the greatest importance in our research, since we now know that not all of the mistakes made by learners of English are predictable or prone to a clear explanation.

Figure 8.3

Type of Error

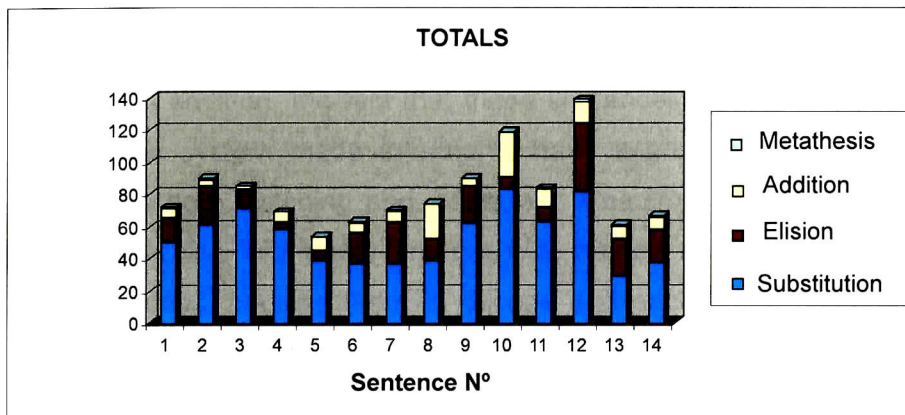
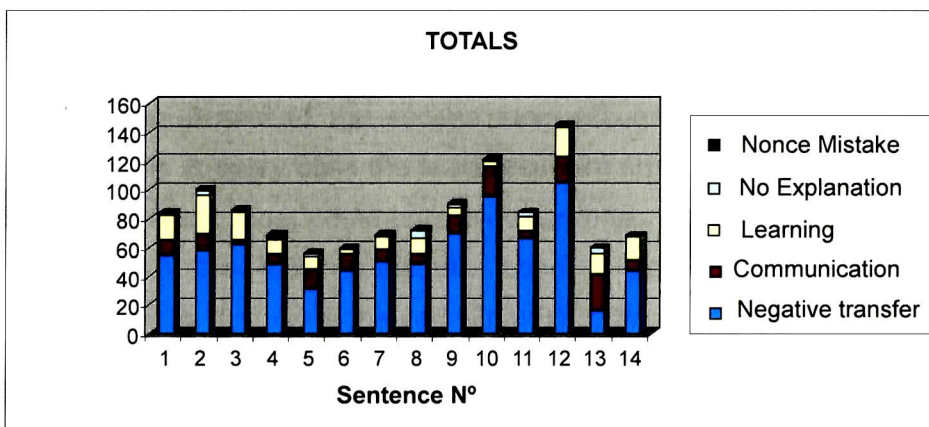


Figure 8.4

Type of Strategy



According to what we can observe in figure 8.1, the three sentences that caused the greatest difficulties for our informants causing them to produce many mistakes were the following, from top to bottom:

1. Sentence number 12: Attitudes to sexuality have changed.

2. Sentence number 10: The wrestler was angry with the decision.
3. Sentences number 2 and 9: Three nurses arrived at the hospital. The patient screams in the street.

In these four sentences, according to figure 8.3, the most recurrent error is substitution, adding to 80 occurrences in sentences 12 and 10, and 60 occurrences in 2 and 9. In sentences 12, 2 and 9 the second most recurrent error is elision, while in 10 is addition. Metathesis is in every case the least recurrent error. Referring to strategies, according to figure 8.4, the strategy most commonly used corresponds to negative transfer for the four sentences. Then, learning strategy is most commonly used in 12 and 2, while communication strategy is most commonly used in 9 and 10. Nonce mistake is the least observed.

This might be mainly due to the great graphemic interference these sentences are likely to cause. In addition, the fact that these sentences display many differences with our Spanish phonological system made informants have a greater difficulty to pronounce them. This is observed in both Listening and, especially, Reading. When dealing with listening, we can add the fact that the informants are not well trained to listen to sequences of sounds like the presented ones, causing them to decode and encode the messages wrongly. This would be communication strategy.

Now, the three sentences that caused the least difficulties to our informants are the following:

1. Sentence number 5: "Split up," yelled John.
2. Sentence number 13: An extreme and atrocious crime.
3. Sentence number 6: Robert made an interesting arrangement.

In these three sentences, according to figure 8.3, the most recurrent error is substitution. In sentences 6 and 13 the second most recurrent error is elision, while in 5 it is addition. Metathesis is in every case the least recurrent error. Referring to strategies, according to figure 8.4, the strategy most commonly used corresponds to negative transfer in 5 and 6, while in sentence 13 the most commonly used is communication strategy. Then, in 5 and 6 communication strategy is the second most common strategy; while in 13, negative transfer and learning strategy have practically the same number of occurrences. Nonce mistake and no explanation are the least observed.

As substitution prevails in almost every sentence and in every group, we are not discussing it in this case any further.

The fact that sentence number 5 is the least problematic to pronounce, might be explained in that it is the shortest sentence, having less problematic sounds or sequences of sounds. This is especially noticeable in repeating the oral stimulus, since this is the shortest

sentence, communication strategy is less needed to support deficient or wrong message decoding. At the same time, we can understand that in this sentence the second most recurrent error is addition by means of the simple observation that most of the difficulties this sentence presents correspond to unfamiliar distribution for consonant clusters or sequences. When referring to the other two sentences, 13 and 6, they might have been easier to our informants in that these perhaps have more familiar words or sounds than the rest of the sentences.

Finally, after all the work done and the issues discussed in the results section, we can make several conclusions about our investigation. At the same time, some applications and projections can be drawn from our research. All of this is going to be discussed in detail in the next section.

8. Conclusions

At the very beginning of our investigation -at the moment in which we raised our hypotheses- we expected the group exposed to the oral stimulus to perform better, due to the fact that they would have an oral model to follow. However, in the middle of the process of our research, we discovered that this preconceived idea was mistaken. During the application of our test, we realised that it was much easier for the student to read aloud the sentences than to imitate the oral model. We confirmed this after the analysis of the recordings because students of the reading aloud group made fewer mistakes in comparison to those who imitated the oral model. These differences were due to the fact that written sentences were the least stressing type of stimulus. Accordingly, subjects who read felt more confident when trying to pronounce better.

The fact that a deviant decodification of the stimuli, i.e. the application of a communication strategy, usually led to a wrong pronunciation made us become aware about the importance of the presence or absence of listening exercises to which students might have been exposed to. We do not mean to question the effectiveness of such exercises here; rather we want to state that even though they are useful, a low frequency of application of these activities is not enough, causing an unsatisfactory performance when it comes to oral production in general, especially when imitating the oral stimulus. Regarding production accuracy in the two different courses, the results demonstrated what we expected; the English Language and Literature one proved to have a higher level in the production of English sounds in both types of tests. Accordingly, students belonging to the ESP group had more difficulties to pronounce correctly.

Consequently, we strongly suggest that exercises in listening should be used more frequently in both programmes. At the same time, pronunciation teaching in the ESP class

should include encouragement for students to aim at the use of appropriate pronunciation, even if their main goal is text comprehension.

The fact that we were able to observe nonce mistakes, and that some errors had no explanation when talking about strategies shows us that not all of the mistakes are likely to be predicted, as we would have thought. In this respect, we think that further research should be done.

9. Projections

At the end of this research, we would like to state some projections that can be inferred from it:

- The type of test that we developed could be included as a routine of exercises in the teaching of foreign languages, not only restricted to English, in order to improve listening and pronunciation of the target language.
- As we have shown, students who read aloud pronounced better than those who listened to the oral model. Therefore we suggest that listening activities should be complemented by reading aloud activities. Even though one may think that this could cause a greater degree of graphemic interference, by both, oral and written stimuli, the students may receive a comprehensive input that might allow for their improvement. It would be expected that the students would learn the differences between graphemes and phonemes without so much difficulty.
- We hope that our investigation might help to give a better understanding of the setbacks and strengths that the students have when pronouncing. This could be considered as a suggestion for the enhancement of teaching methods and techniques, and give a more comprehensive view of the process of acquisition of English as a second language, since as we have seen in our research, the oral stimuli are essential for the comprehensive learning of languages in general.
- If, eventually, a larger or more complex test were applied to first and third year students of the English Language and Literature programme –being third year the last in which they have an English Phonology course- we could obtain a clear view of what these students learn during their years at the University, and what can be improved to make them better specialists.
- Further research could include the contrastive analysis of vowel sounds.
- If, eventually, a test similar to the one applied in this research were applied to a larger group of people, more categorical conclusions could be drawn up.

10. References

- Corder, S.P. 1981. *Error Analysis and Interlanguage*. London: Oxford University Press.
- Gass, Susan & Selinker, Larry. 1983. *Language transfer in language learning*. Rowley, Mass.: Newbury House Publishers,
- Jones, Daniel. 2006 *Cambridge English Pronouncing Dictionary*. Cambridge: Cambridge University Press
- Lado, Robert. 1961. *Language Testing*. London: Longman Group Limited.
- Mason, Timothy. Lecture taught between 1993 to 2002. Didactics 7: Critique of Krashen III Natural Order Hypothesis (2): *Interlanguage*. On line
http://www.timothyjpmason.com/WebPages/LangTeach/Licence/CM/OldLectures/L7_Interlanguage.htm
- Richards, Jack C. et al. 1977. *Applied Linguistics and Language Study. Error analysis, perspectives on second language acquisition*. London: Longman Group Limited.
- Wells J.C. 2008. *Longman Pronunciation Dictionary*. London. Pearson Education Limited.