

Treball de recerca de programa de doctorat

***8-month non-use of a language. A case study.
A longitudinal study of the effects of non use of one of the
languages (Spanish) of a German L1 multilingual]***

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Abstract: Under the Dynamic Model of Multilingualism multilinguals are especially vulnerable to language attrition. It was the aim of the present study to verify if this was the case and to observe whether the different linguistic skills (receptive vs. descriptive) and the different linguistic levels (syntactic, lexical, morphological, etc.) would be affected equally.

Data were gathered longitudinally by means of a language test for the subject's reading, writing, listening and speaking skills as well as her knowledge of grammar and vocabulary.

Although the overall accuracy remained intact and no proof for attrition in the receptive skills was found, the productive skills - mainly fluency - were shown to have suffered from language attrition. This was demonstrated by an increase in the number of pauses, hesitations, repetitions and self-corrections among others and decrease in the percentage of error-free clauses and decrease in the clause length, in oral and written fluency respectively.

Keywords: fluency, language attrition, multilingualism

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by

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Introduction

The present study investigates the effects of an eight-month non-use of one of the languages of a multilingual. In particular, the study is interested whether this period of non-use would lead to language attrition in the language.

The study also explores whether the different language skills (receptive vs. descriptive) and the different linguistic levels (syntactic, lexical, morphological, etc.) will be affected equally or rather they will be affected to a different extent and at a different rate.

Data is gathered longitudinally by means of a language test for the subject's reading, writing, listening and speaking skills, as well as for her knowledge of grammar and vocabulary. The data covers a period of 8 months after the onset of non-use of the language. It consists of two sets of data collected at 4-month periods plus a baseline data set against which all consecutive data is evaluated.

The research proposal consists of six chapters. Chapter 1 outlines the general background within which the study falls. Some basic issues in bilingualism and multilingualism, as well as arguments for the increasing importance of multilingualism not only across Europe but around the world are examined. The problems and consequences of multilingual acquisition are also discussed here. This is followed by a review of the definitions and typologies used in research on multilingualism. Two novel models on multilingualism, i.e. multi-competence and Dynamic Model of Multilingualism are presented, followed by an analysis of the connection that exists between bilingualism and/or multilingualism and language attrition.

Chapter 2 takes a closer view on the theoretical issues in the study of language attrition. Typology for research in language attrition and the basic terminology used in the field and in the present study are discussed. This is followed by a presentation of some of the basic findings of research on language attrition so far. The factors which are considered to be influencing the process of language attrition are also presented. Three

psychological theories on forgetting and their application to research on language attrition are discussed next. Then the Dynamic Model of Multilingualism is examined with view on its implication for language attrition. Finally the hypothesis and the research questions that the present study aims at answering are given.

Chapter 3 presents the study itself. The methodology chosen and the reasons for doing so are given. This is followed by a detailed description of the linguistic background of the subject. This description encompasses two periods: the period prior to the beginning of the study and after it until the last data collection. The different questionnaires used to gather additional information such as a language profile questionnaire and attitude and motivation questionnaire are presented. The chapter finishes with a detailed description of the language test developed for the data collection. The different sections of the test are presented, i.e. the materials used to create them, tasks, duration, etc. are all discussed. Reliability statistics for the test are also given.

Chapter 4 describes the process of analysis of the data. First the coding and analysis of the data from the receptive skills section is discussed. The results from the analysis are presented and discussed on relation to language attrition. Then the transcription process and coding of the data from the productive skills section are explained. The measures that were chosen to evaluate language attrition in the productive skills are reviewed. This is followed by the coding procedures that had to be done for each measure respectively. The results yielded by the analysis are presented section by section for the different measures used, first for the oral data and then for the written data. Basic statistics (difference test) where available are given within each corresponding section.

The last two chapters, Chapter 5 and Chapter 6 discuss the findings obtained by the study. In Chapter 5 the findings are discussed in relation to the research questions made earlier in Chapter two and the light of other studies which obtained similar or contradictory results. Finally, in the last 6th chapter, the whole study is reviewed: aims, methodology and results. Some possible explanations for the results yielded are given. The limitations and shortcomings of the study are also outlined here with some suggestion for further research.

1 Background to the Study

In order to place the study in context, it is useful to review some basic issues in research in bilingualism, such as definitions and typologies used by different researchers. The chapter also examines how and why these eventually gave rise to the study of multilingualism. Special attention is paid to the growing importance of multilingualism around the world and across Europe. This is followed by a typology of multilingualism and two models of multilingualism. The relation between bilingualism, multilingualism and language attrition is also discussed. Finally, the chapter ends with some empirical studies investigating language attrition in bilinguals and multilinguals.

1.1 Bilingualism

Defining what exactly makes a person bilingual is not an easy task. As Hugo Baetens Beardsmore points out, “Bilingualism as a concept has open-ended semantics.” (1982, p.1) and it is difficult to come up with one clear and simple definition. One possible reason for that might be the complex nature of bilingualism where disciplines as different as linguistics, psychology, and sociology mingle.

Thus, in order to limit the scope of their research and avoid generalizations researchers apply different criteria to refer to bilinguals. These criteria may be very diverse, which is demonstrated in Wei’s (2001) introduction to the book “Bilingualism Reader”. He presents more than thirty items, each one based on a different criterion, which can be used to refer to bilinguals. For the purposes of the present study, however, only a few of these will be discussed.

One distinction that should be made before discussing any typologies of bilingualism is the distinction between *societal* and *individual* bilingualism. As the name suggests, the focus of *societal* bilingualism is on societies and groups of people where bilingualism is present. *Individual* bilingualism focuses on the individual and studies the effect it has on

a person. It should be noted that no attention to societal bilingualism is paid in the present work and that whenever bilingualism is mentioned it refers to bilingualism at an individual, personal level.

1.1.1 Ambilingual, equilingual and balanced bilinguals

One of the most debated issues in the discussion of who is bilingual is the degree of proficiency that is needed in each language for a person to be considered bilingual. Existing definitions vary widely and may refer to very differing situations including people who can only produce a few utterances in a language other than their native one to people who are equally fluent in both languages regardless of context and purpose.

At the maximalist end of the scale are definitions like Bloomfield's (1933)¹ "native-like control of two or more languages" or Ostereicher's (1974)² "complete mastery of two different languages without interference". These perfect or true bilinguals are also sometimes referred to as *ambilingual*, which is a term used by Halliday, McIntosh and Stevens (1970) as referred to in Beardsmore (1986, p. 7).

Other definitions, like Haugen's (1953) 'the point where a speaker can first produce complete meaningful utterances in the other language' and Hall's (1952) "at least some knowledge and control of the grammar structure of the second language" are more in the middle of the proficiency scale.

On the other hand, Macnamara's claim (1967) that a minimal degree of competence in any one of the four language skills (listening, speaking, reading and writing) in a language different from the native one is sufficient for a person to be considered bilingual is at the minimalist end of the scale.

The term *ambilingual* should not be mistaken with the term *equilingual* or *balanced* bilinguals. The former is used to refer to an idealized type of bilingual whose competence in both languages is equal to that of monolingual speakers of each of the languages. Such bilinguals, however, are "rare if not non-existent species" (Beardsmore 1986, p.7) since most bilinguals tend to use their two languages for different purposes and functions, like for example one language at work and the other at home or with

¹ Cited in Beardsmore, 1986, p. 1.

² Cited in Hoffmann, 1991, p. 21

friends. The latter refers to people whose competence in both languages is roughly equivalent.

The idea that the performance of bilinguals should not necessarily be judged against that of monolingual speakers of either language was first expressed by Grosjean (1982, 1985) in his *wholistic view* on bilingualism. He claims that bilinguals are not a set of two monolingual speakers and that they differ quantitatively and qualitatively from monolingual speakers as a result of being bilingual. This view was further developed by researchers interested in multilingualism, such as Cook (1991, 1992, 1995), Jessner (1997) and Herdina and Jessner (2002), whose work will be discussed later in the chapter.

1.1.2 Early/Late bilinguals

Another factor that has been used by researchers to distinguish between bilinguals is the **age** at the time of acquisition of the languages. Bilinguals may be classified as **early** and **late** (Beardmore, 1986). Early bilingualism is the acquisition of more than one language in the “pre-adolescent phase”. Late bilingualism refers to a situation where the first language is acquired before the age of 11 and the subsequent language(s) later.

1.1.3 Simultaneous/Sequential Bilinguals

McLaughlin (1984) in turn proposed a typology for bilingualism based on the **order of acquisition** of languages. Bilinguals, according to him, can be **simultaneous**, when the two languages are acquired simultaneously, and **sequential**, when one language is acquired first and then is followed by a second one.

1.1.4 Natural/School Bilinguals

Skutnabb-Kangas (1981) describes bilinguals as being either *natural* – the two languages are acquired without formal education and relatively early in the child’s development, or *school* or *cultural* bilinguals, where the second language is learned at school or in adult language courses with few opportunities to use it naturally.

1.2 From Bilingualism to Multilingualism

Originally, the term “bilingual” was used as a cover term for situations where more languages than just the native one are involved, be it one or several. This can be seen in a number of definitions of bilingualism like for example Mackey’s (1970)³ “alternate use of two or more languages by the same individual”, Oksaar’s (1983)⁴ “the ability of a person to use here and now two or more languages as a means of communication” and Skutnabb-Kangass’s (1981) definition of a bilingual as a person who is able to function in two (or more) languages.

Indeed, bilingualism and bilingual acquisition have a lot in common with multilingualism and multilingual acquisition. However, there are some differences which have to be taken into account when it comes to diversity and complexity and which call for research in multilingualism on its own.

First, as noted in the introductory chapter to the “Multilingual Lexicon” (Cenoz, Hufeisen and Jessner, 2003) even the word *bilingualism* is not suitable due to its semantics. The Latin prefix “*bi*” (two) limits the meaning to only two languages. Multilingualism however, can be used to refer to both bilingualism and situations where three, four and more languages are involved.

Second, research on trilingualism, as young as it might be, has shown that even though there are substantial similarities with bilingualism, trilingualism has some specific characteristics of its own (See Hoffmann, 2001). If differences can be observed when just one more language is added, then it would be very interesting to see what will happen when there are multiple languages involved.

Third, as Cenoz and Genesee (1998, p. 6) point out “Multilingual acquisition and multilingualism are complex phenomena.” On the one hand they are influenced by the processes influencing second language acquisition and bilingualism. On the other hand, they might also be influenced by more complex factors and effects which arise from the interactions among the multiple languages being learned and the processes of learning them.

³ Cited in Beatens Beardsmore, 1986, p. 1.

⁴ Cited in Hoffmann, 2001, p. 2.

1.3 Multilingualism

Approximately 5000 languages are estimated to exist around the world. Even though these are not distributed evenly and that only less than half of the 200 sovereign states recognize more than one official language, the majority of the world's population is exposed to more than one language.

The highest concentration of languages can be observed in Central Africa, the Pacific, Central America and the South-East regions of Asia. In countries like India, for example, the list of languages can rise up to 428, of which 415 are living languages and “only” 22 are official.

Although the linguistic picture of the world is not as complicated as that, many of the people in the world need to master bilingual and even multilingual language skills in order to communicate. The reasons for this might be various: commerce, politics and the globalization are among the most widespread and trivial ones. Migration also plays an important part in the change in the linguistic landscape of the world, especially in Europe and North America.

1.3.1 The International Perspective

According to Crystal (1997) two-thirds of the children around the world grow up in a bilingual environment and the ongoing processes of globalization would most probably increase the number of bi-/multilingual people and would make it the rule rather than the exception.

Other factors that contribute to the change in the linguistic landscape of the world are the technological progress, the development of and easy access to Internet, the accessibility of travel – which is no longer privilege of the rich, the role of English as *lingua franca* and last but not least, migration, which has been playing an important role in the linguistic map of the world for centuries.

Internet and traveling allow people to get easily into contact with other cultures and different linguistic communities and the ability to communicate with speakers of different languages becomes of primary importance. Even though many internet pages

and computer software have been translated into numerous languages, it is sometimes the case that people have to learn a foreign language (usually English) in order to be able to work with computers, to access the Internet and browse for information.

English, on its part, has gradually established itself as the language of global communication. English is the language of technology, scientific literature, international conferences and meetings, politics and last but not least, the language of the tourist industry all over the world. As a result, it has been introduced into the school curriculum of many countries as an obligatory subject from the earliest school years.

Migration, as already mentioned, has been shaping the map of the world for centuries, not only politically but also linguistically. In many cases, the immigrants keep maintaining their native language(s) and traditions in the new country and their children grow up with the language(s) of the community where they live but also with the language(s) of their ancestors, thus adding to the language diversity of a given region.

1.3.2 Multilingualism in Europe

The technological development, migration, globalization and the spread of English play just as an important role in Europe as they do around the world. However, there is one particular factor which played and still plays a most decisive role in the changing of the linguistic repertoire of Europe and its citizens: the creation of the European Union (EU).

Traditionally consisting of monolingual societies, it was not until the creation of the EU and the implementation of its policy of “freedom of movement” and “free circulation of workers” that Europe and its citizens in particular started interacting on an everyday basis and speaking foreign languages became a main issue on their agenda.

In the plan for development of the EU, there are two points of utmost importance to languages. The first is the aim to preserve the linguistic diversity of Europe. The second, as stipulated in the Action Plan for Language Learning and Language Diversity 04-06 (<http://ec.europa.eu>), is the long-term objective for all its citizens to speak two foreign languages in addition to their native one. These two factors, in addition to the introduction of English in the educational systems of practically all EU member states,

have contributed to a great extent to the spread of bilingualism and multilingualism across Europe.

On the one hand, the aim of preserving the linguistic diversity has led to a kind of a linguistic renaissance in Europe. Local languages like Catalanian, Gaelic and Basque in Spain, Welsh in Great Britain and Frisian in Holland have been rehabilitated and have been recognized by the corresponding states as co-official languages. Irish, on its part, became one of the officially recognized languages of the EU on January 1st 2007. Accordingly, some of these languages have been introduced in the school curriculum thus making regions like Catalonia and the Basque region in Spain bilingual communities.

On the other hand, in order to achieve the second aim, the EU actively promotes language learning. English, as already mentioned, is present in the education of all EU member states, though at different levels of success. Some countries like Sweden and Denmark, among others, have already managed to adapt a well-developed and well-functioning English curriculum, while others are still struggling to find the formula that would work for their country. Yet, everybody is aware of the importance of English and educators are determined to make it part of their educational systems.

Besides English, efforts are devoted to popularizing other languages too. This is done through language courses, different programs that stimulate the students' mobility, a special language teaching approach (CLIL) and some reference documents, such as the Language Portfolio and the Common European Framework of Reference for Languages, which are common for all member states.

The participants in the "Erasmus" student exchange program have the possibility to study in another country for three to nine months. Besides this, they also have the opportunity to attend free language courses during their stay abroad, where they can learn the language of the host country (with the exception of English and French, which are required in order to participate in the program).

Besides this, the EU has created the "LINGUA" program, whose aim is to promote language education and lifelong training. It aims at stimulating the learning of foreign languages *throughout* one's lifetime, providing access to language learning resources and improving the teaching and learning of languages.

The Content and Language Integrated Learning (CLIL), has been proposed as an innovative method for teaching languages (see Pérez-Vidal, 2005). CLIL is used to teach subjects such as history, geography, etc. through an additional language. Thus, the language is used as a medium for learning content and the content is then used to practice the language. This method has two big advantages: it saves times and is very motivating because the students can immediately put into practice what they have learned.

Beside this, the Common European Framework of Reference for Languages and the Language Portfolio have been created (Pérez-Vidal, 2007). These two documents are used together to evaluate the knowledge of foreign languages. They ensure that the criteria used across Europe in all member states are the same and when people from two different countries go to another one and claim knowledge of a language at a particular level, they are being assessed in the same way.

As can be seen, Europe has headed firmly towards multilingualism and it is very important to understand what this entails. People should become aware that learning a language does not just mean completing a language course but that they also have to maintain the language if they want to be able to use it years later. It is important to know how languages are forgotten, which are the elements that are forgotten first and which are the ones most vulnerable to attrition, so that measures can be taken and novel teaching programs developed which help adequately maintain the languages learned.

1.4 Multilingual Acquisition

Multilingual acquisition, although being very similar to second language acquisition (SLA), has some particularities of its own. On the one hand, it is affected by the factors that influence SLA, namely *individual factors* such as IQ, aptitude, cognitive style, learning strategies, attitudes, motivation, personality and age, and *contextual factors* - natural vs. formal setting, ethnolinguistic vitality, socioeconomic status, educational context. On the other hand, it is also affected by some additional factors like for instance the language acquisition order, the effects of bilingualism and the effects of the proficiency level in previously acquired languages.

1.4.1 Acquisition order

In bilingualism there are only two languages involved and the acquisition order, as already argued earlier in the chapter, is limited to only two possibilities: sequential or simultaneous. In multilingualism, however, the acquisition order can be very diverse.

1. $L1 \rightarrow L2 \rightarrow L3 \rightarrow L4$	5. $L1/L2 \rightarrow L3 \rightarrow L4$
2. $L1 \rightarrow L2 \rightarrow L3 / L4$	6. $L1/L2 \rightarrow L3/L4$
3. $L1 \rightarrow L2 / L3 \rightarrow L4$	7. $L1/L2/L3 \rightarrow L4$
4. $L1 \rightarrow L2/L3/L4$	8. $L1/L2/L3/L4$

Table 1.1 Adapted from Cenoz & Jessner, 2000, p. 40

To use the example that Cenoz & Jessner (2000) give, if we have four languages involved we can have eight possible acquisition orders. We can have purely sequential or simultaneous acquisition orders as in 1 and 8 in Table 1.1 but we can also have different combinations. In example 2 below we have first sequential acquisition of two languages, followed by simultaneous acquisition of two more languages. We can also have first simultaneous acquisition of two or three languages followed by one, as in 7, or other two simultaneously acquired languages, as in 7. These acquisition orders might have a different effect on the whole acquisition process and it is a matter of further research to establish if this is the case and if so, the nature of these differences.

1.4.2 The Effect of Bilingualism

Another specific factor that affects multilingual acquisition is the influence that bilingualism might have for learning other languages. Studies comparing the language achievements of monolinguals and bilinguals in a third language have demonstrated that literacy in two languages has a positive effect on the acquisition of other of a third language, i.e. that it is easier for bilinguals to learn a third language than for monolinguals (Bild & Swain et al. 1990, Cenoz & Valencia, 1994, Cenoz et al. 2001).

1.4.3 Proficiency in Previously Acquired Languages

According to the *Threshold hypothesis* (Cummins, 1981), originally developed for bilingualism, a high level of proficiency in the first language is likely to contribute to the acquisition of a second one. The question in multilingualism, however, would be whether what matters is the level achieved in the first language acquired; in the penultimate language before acquiring the last one or maybe the last language acquired from the same language family.

1.5 Multilingualism: Definitions and Typology

Even though research on bilingualism has increased tremendously in recent years there is still relatively little research done in the area of multilingualism, in spite of its importance and popularity. Only recently did the studies on Third Language Acquisition (henceforth TLA) and Multilingualism start gathering strength (see Clyne, 1997; Cenoz & Genesee, 1998; Hufeisen & Lindemann, 1998; Cenoz & Jessner, 2000; Dentler & Hufeisen & Lindemann, 2000).

With the growth of multilingualism as a study on its own it became clear that the definitions, models and theories of bilingualism could not be used to properly explain the nature of the processes involved in the more complex phenomenon of multilingualism. Thus, it became obvious that there was need to provide new definitions, terminological and theoretical frameworks to meet the needs of the new field.

One such attempt to define the term multilingualism has been made by Cenoz and Genesee (1998, p. 16), to whom multilingualism “*is the final result of the process of acquiring several non-native languages (i.e. multilingual acquisition)*”. Similarly, Cenoz, Hufeisen and Jessner (2003, p.2) define a multilingual as “*a person who is able to communicate in two or more languages*”.

These definitions, however, just as the definitions of bilingualism discussed earlier in the chapter, are too general. In order to get a more detailed and precise picture of a multilingual there is a need to use other criteria which will give us more information as to the multilingual’s level of proficiency in each language, the functions and uses

he/she assigns to the languages and the level of development of the different competencies and skills in each language.

Not surprisingly, the criteria used to narrow down the meaning of multilingualism are the same as the ones used in research on bilingualism. Multilinguals, just as bilinguals, can be divided into *balanced/unbalanced*, *natural/school* as well as *simultaneous/sequential* multilinguals.

In the case of *balanced/unbalanced* multilinguals, the argument becomes complicated due to the large number of languages involved. It would still be possible to talk about balance in term of level of proficiency in the different languages, but hardly so in terms of complete mastery of all the languages across all possible situations and contexts. Maintaining several languages and all their components seems a very time consuming and challenging task. It is also the case that multilinguals very often use different languages for different purposes and functions, i.e. one language at school, another at home, a third with friends and a fourth one with authorities.

Multilingualism on a personal level (no attention to societal multilingualism is paid in the present work) quite often appears as a result of bilingualism or the sequential acquisition of languages. A situation where a child acquires three or more languages *simultaneously* (as in example 8, table 1.1), although not impossible, is highly unlikely. Even though situations where the grandparents or other people of imminent presence to a child use a language(s) that is/are different from the language(s) spoken by the parents and the language(s) spoken in the surrounding environment are not totally impossible, they seem to be quite rare and exceptional.

Even when there are more than two languages spoken in the surrounding environment, it is very likely that these would have special functions and usage, as already argued in the previous paragraph. It is more likely that these will be acquired gradually and sequentially as the child starts growing up and enlarging the sphere of his/her social encounters and needs.

Such *sequential* multilingual acquisition seems to be a more widespread and common way of achieving multilingualism. The result of such acquisition can be referred to as “additive” multilingualism, which results from the sequential addition of one language after the other. It is to be distinguished from the term “additive” as used by Lambert

(1974) and which is opposed to “subtractive” as applied in research on bilingualism. The former refers to a situation where the learning of another language represents an expansion of the linguistic repertoire and can result in an enriched social, cognitive and linguistic abilities. The latter, to a situation where the learning of a new language may lead to the replacement of the first one and hence refers to the negative affective and cognitive effects of bilingualism.

1.6 Multilingualism: Theories and Models

This section presents the latest views on multilingualism, i.e. the idea of multi-competence, developed only recently to refer to the competence of multilinguals which is the result of the interactions of the different languages that a multilingual speaks. The Dynamic Model of Multilingualism, also a newly developed model which strives to account for the particularities of multilingualism, is also presented here.

1.6.1 Multi-Competence

As mentioned earlier in chapter 1.1.1 Grosjean (1982, 1985) was the first one to stress that bilinguals should not be regarded as the set of two monolinguals, as claimed by the *fractional* view on bilingualism. Grosjean introduced the *wholistic* view on bilingualism, which claims that the coexistence of two languages in the brain of a bilingual produces unique and specific linguistic configurations due to the interactions between the languages.

Under the *fractional*, or also known as *monolingual* view, a multilingual would be regarded as a set of three, four and more multilinguals in one person, depending on the number of languages spoken. He/she would be expected to have separate and isolated language competences in each language, equal to those of monolingual speakers of each language.

However, in real life it is very difficult, if not impossible, to find such perfectly balanced bilinguals, not to mention multilinguals. Bilinguals, and even more so multilinguals, tend to use their languages in different situations and for different purposes. Even translators who might develop very high proficiency in several languages would develop competences in the specific area that their translations deal

with but not necessarily so for all the languages they speak.

Bilinguals and multilinguals develop the languages they speak according to their needs and the surrounding environment, the same way that different languages around the world have developed. Just as in Arabic there are more than twenty words for “sand” but none for “snow” because people do not need it, a multilingual may have a very rich vocabulary in one language, know how to write formal letters in another and be able to maintain everyday conversations in a third one.

To refer to minds where two (or more) grammars exist, Cook (1991, p.12) coined the term *multi-competence*. He notes that while there are terms to refer to knowledge of one language, i.e. *linguistic competence*, and to knowledge of two languages – *interlanguage*, there is no term to refer to knowledge of a first AND second language (Cook 1995, p.94). Cook argues that knowing a second (or more) language(s) does not mean an “imitation” of a first language but rather knowledge that has to be treated as something specific.

This view on bilingualism and multilingualism provides for a multilingual to be regarded not as the sum of several monolinguals but as a person who has developed unique language characteristics and abilities as a result of the knowledge of several languages and the interaction between them. It also allows for a multilingual to develop the different components of communicative competence of each language according to his/her needs.

1.6.2 Dynamic Model of Multilingualism

Traditionally language was considered to be a linear system that is characterized by a steady upward movement. It starts at point *x*, develops over time and stops at point *y* as in Figure 1.1a. The behavior of such a system is easily predictable and testable. However, language is not as simple as that and cannot be represented by a simple linear function. Rather, it is a dynamic process with phases of acceleration, stabilization or deterioration and it is better represented by a curve sine as in Figure 1.1b.

One recently developed model considering language a dynamic not a linear system is the Dynamic Model of Multilingualism (DMM). Developed by Jessner (1997) and Herdina & Jessner (2002), this model draws on different areas of knowledge such as

system research, general biology and cognitive psychology. Under the DMM, a dynamic system is characterized by non-linearity, change of quality, reversibility and stability and these are considered to be the basic characteristics of a language system.

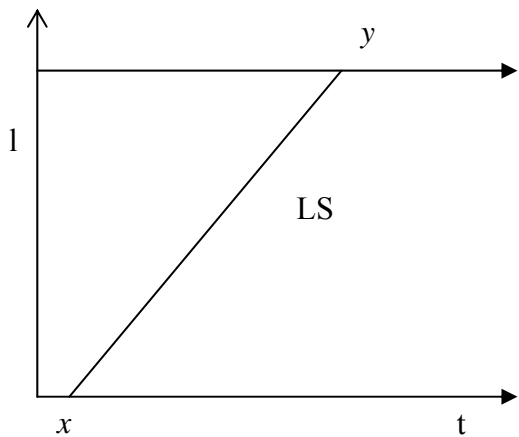


Fig 1.1a

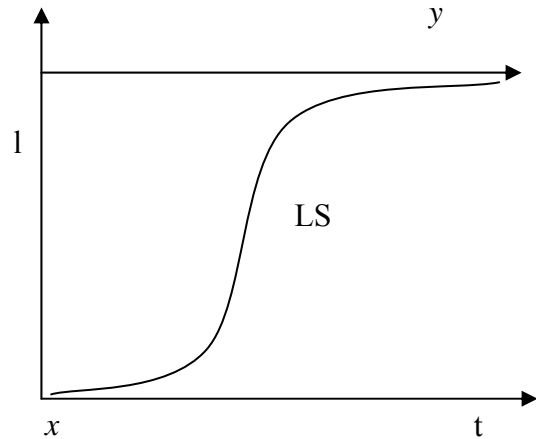


Fig. 1.1b

Figure 1.1 Language as a linear system (a) and a dynamic system (b)

LS – language system; t – time; 1 – language level

Change of quality refers to the fact that proficiency in a given language may fluctuate – it may deteriorate or improve. This change in quality is a reversible process, i.e. a process of deterioration may be reversed by devoting more time and effort to the language and a process of improvement may slacken and turn into a process of deterioration if a language is neglected. The system may also remain stable as long as the time and effort devoted to maintain its elements remains constant.

Accordingly, a multilingual language system is a complex dynamic system which consists of other smaller, nested sub-systems, which are the different languages spoken by a multilingual. Each sub-system in turn consists of other layers, such as morphology, syntax, phonology, etc. for each language. All these levels, subsystems and the complex system interact between themselves and with the surrounding environment. They are in a process “of constant adjustment to the changing environment and internal conditions aiming at maintenance of a state of (dynamic) balance” (Herdina & Jessner 2002, p. 86).

Figure 1.2 represents the language system of a multilingual who speaks four languages. As can be seen, the languages are represented by different size balloons according to the degree that they have been developed. L4, being the last acquired language is the “smallest” but this picture can change drastically with time. If one or two of the languages, L2 and L4 for example, receive less attention these languages would gradually deteriorate and attrite. If this pattern persists for a prolonged period of time, L2 and L4 might shrink considerably and become the size of the present L4 or even smaller. This however, does not mean that the other two languages would automatically develop and that competence in L1 and L3 would improve significantly. If the time devoted to these two languages remains the same, they would not change.

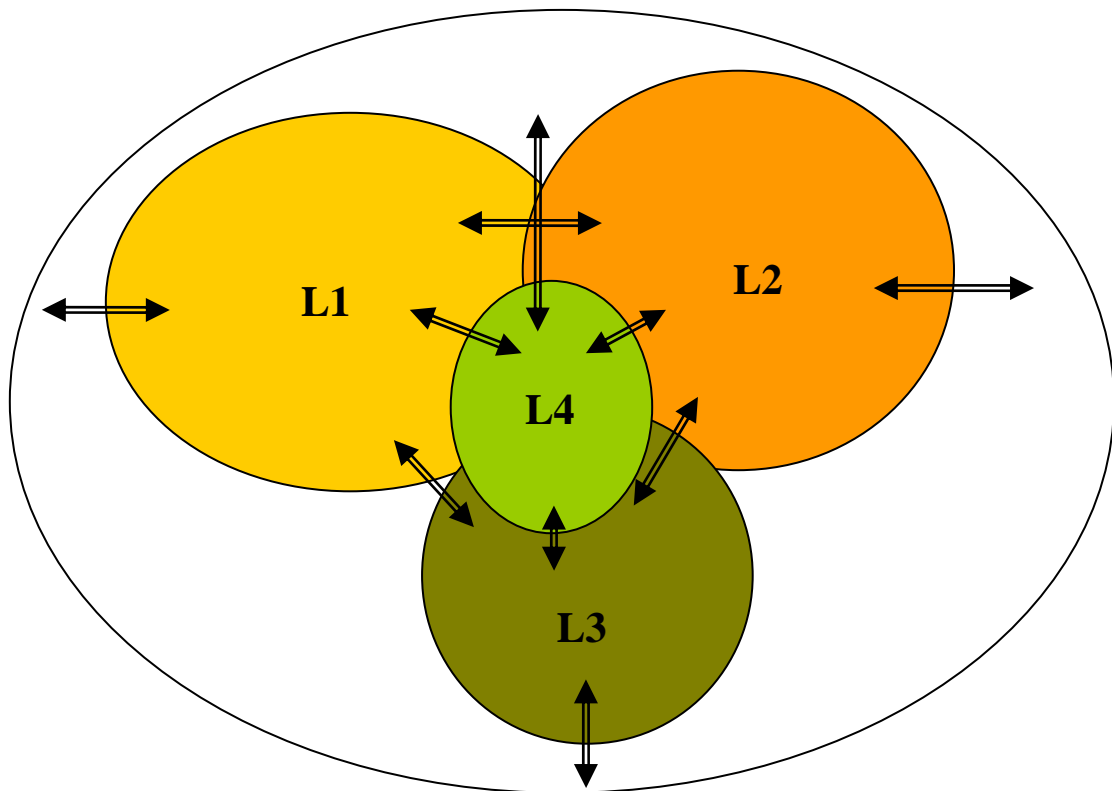


Figure 1.2 A multilingual language system with 4 languages

Learning a new language does not necessarily mean “erasing” another language to make place for it. Rather, it is a matter of devoting enough time to maintain the languages within the system. With two languages, although quite difficult, it is still feasible but the more languages a person speaks the more difficult it becomes to maintain them.

As research on bilingualism has shown, it is difficult to maintain even a two-language system. Thus, the chances of maintaining a language system with four or more languages continuously stable are not very high and a multilingual language system is a very good candidate for language attrition.

1.7 Bilingualism, Multilingualism and Language Attrition

Research into language attrition in bilinguals has demonstrated that even though some factors such as age and attained proficiency may contribute to the retention of language skills, generally bilinguals are quite susceptible to language attrition. Young bilingual children are especially prone to attrition when removed from the environment of the language (See research by Nicoladis & Grabois, 2002; Pallier et al., 2003; Tomiyama, 1991) but since the present study is on adult multilingual attrition, no detailed reference to child language attrition is made here.

Adult L2/FL attrition research has shown that even though adult bilinguals do not suffer from language attrition as drastic as the one found to affect children, they are nonetheless subject to language attrition. This is supported by research from Hansen 1999, Kurashige, 1991 and Russel 1999.

A very scarce amount of research on attrition in multilinguals exists but interestingly enough one of the fundamental studies in the domain of language attrition was carried out with multilinguals. Cohen (1989) studied the language attrition in the third language (Portuguese) of his two English-Hebrew speaking children, aged 9 and 13. Data was collected by means of storytelling for both the attriting and the two dominant languages, at 1, 3 and 9 months after use of Portuguese discontinued. The results demonstrated a significant decrease in the total number of words used to tell the story in Portuguese in comparison to the number of words, both in English and Hebrew. After 9 months, the younger child was found to have suffered more attrition than the older child.

Surprisingly, little or no research at all has been done to see what happens to adult multilinguals and how they manage to maintain their languages. One of the few studies done with multilinguals is Nakuma's (1997) pilot study with Spanish L3 subjects. However, this was done more as a tool for measuring communicative competence than

exploring attrition and has more methodological implications than actually empirical as to the retention or attrition of language skills by the subjects.

It is the aim of the present study to fill this gap by providing an insight into the processes involved when an adult multilingual discontinues her use of a language. Although it is not possible to answer all standing questions, it can at least throw some light which may eventually serve as a basis for further research.

2 Language attrition

The present chapter deals with both theoretical and empirical issues in second language attrition. The chapter starts by explaining how the whole field of research on language attrition started as an area on its own and the main lines of research. The terminology used in the field of language attrition is discussed next. This is followed by a typology for research in language attrition. Some of the underlying findings in research on language attrition such as the Regression hypothesis, the idea of Relearning, the rate of attrition and its linguistic aspects are also discussed. Attention is paid to some factors that might be affecting the process of language attrition. The connection between multilingualism and language attrition is discussed and it is followed by three psychological explanations of forgetting and their possible implications for language attrition in multilinguals. The Dynamic Model of Multilingualism (DMM) is discussed again with a stress on its implications for language attrition in multilinguals. The chapter ends with the hypotheses and research question made in the study.

2.1 The Beginning of a New Field of Study

It was not until as late as the 1980s that the first conference on “natural” language attrition took place in Philadelphia and set the agenda for research in the field of language attrition (See Lambert and Freed, 1982). This however, does not mean that there has been no research devoted to the phenomenon of language attrition prior to that conference. On the contrary, there was a considerable amount of studies devoted to it, but these were directed to two aspects of language attrition in particular: language shift and death and pathological language loss.

The first one, language shift, is of interest to sociolinguists. Research on language shift focuses on loss of a language or a dialect in language contact situations within generations, i.e. it is intergenerational. Language shift is the gradual decline of a language usually within generations of immigrants or in situations where two languages

co-exist, i.e. diglossia situations. Sociolinguistics, which studies the phenomenon of language shift, also looks into the social factors that contribute to the gradual loss of a language. Language shift is considered a normal phenomenon in language contact situations and its most extreme outcome is language death. For a detailed discussion on the topic see Weltens, Dorian, Williamson & Eerde 1980.

Interest in the phenomenon of pathological language loss can be traced back as far as the 16th century (see Berko-Gleason, 1982, p.13). Language loss in brain-damaged patients, or pathological loss, usually occurs as a result of a brain damage which may be caused by an injury, illness, stroke, aneurysm, etc. Neurolinguistics, which is the discipline that studies pathological language loss, has carried out a large amount of research devoted to aphasia (loss of language as a result of a brain damage). Depending on the lieu of the damage in the brain, language competence is affected in a different way. For example, damage to the left frontal (Broca's area) results in the patient's inability to produce grammatically correct sentences while their ability to comprehend remains relatively intact. Broca's aphasia patients produce short simple utterances and are normally aware that they are unable to speak properly. By contrast, damage to the Wernicke's area, which is a more posterior region in the temporal lobe, results in an impairment to comprehend while speech remains grammatically correct but meaningless (Wernicke's aphasia).

In recent years however, research on language loss has mainly focused on the "natural" attrition of a language, or of some of the features of a language, that takes place within healthy individuals. The focus of this language attrition might be both on L1, as for example in elder people or immigrants, or L2 as in the case of school acquired languages. This language loss is intrapersonal as opposed to the interpersonal language loss in research on language shift and death (See Weltens, 1987, p.).

In his foreword to Hansen's "Second Language Attrition in Japanese contexts", De Bot (1999, vii) notes that language attrition is gradually becoming part of the study of second language acquisition (henceforth SLA) due to a number of overlapping problems which are of importance to both fields. Among others, he mentions the role of age, individual differences and socio-psychological factors.

2.1.1 Terminology

Another important issue in the field of language attrition is the terminology being used. Different disciplines have adopted different terminology to refer to the specific type of language attrition that they are studying. Thus, for example, the field of sociolinguistics which studies the language attrition within generations where the focus is on groups of speakers uses the terms *language shift* and *language death*.

During the first decades of research on language attrition, the terms *language loss*, *language attrition* and *language deterioration* were used interchangeably to refer to all types of decline in the linguistic skills of people. However, according to research on memory and cognition, information that enters the brain cannot be entirely erased – it just becomes inaccessible. Thus, it has become generally agreed that the term *language loss* is not to be used to refer to the gradual decay of the linguistic competence within an individual due to its negative connotation of permanency and irreversibility (Hansen 2001, p. 61). Rather, it is to be used as a cover/general term for any time of decline in the linguistic skills, be it on individual or social level. The term *language attrition* is seen as more appropriate to refer to the decline in language skills on an individual level. The term *language attrition* was seen as more appropriate to refer to the decline of language skills on an individual level and it is the term that is going to be used throughout this paper.

In order to refer to the people that experience or suffer from language attrition, Anderson (1982, p.83) proposes the word *attrite*. He also suggests the verb *to attrite* as a verb to refer to the actual act of forgetting a language. Even though, as Anderson points out, these words are not English words, they have established themselves as part of the terminology used in the field of language attrition and are also being used in the present study.

2.1.2 Typology

Following De Bot and Weltens (1985), van Els (1986) proposes a typology for the research oriented towards natural language attrition. The division is made on the basis of the language that is lost, i.e. either the first language (L1) or the second (L2), and the environment in which it is lost, i.e. either in an L1 environment or an L2 environment.

The first type of language attrition, i.e. attrition of L1 in an L1 environment, concerns the deterioration of language skills in elderly people (De Bot & Linsten, 1986; De Bot & Makoni, 2005); dialect loss within the dialect community (Dressler, 1991; Schmidt, 1991); the disappearance of a language or “language death” in “language in contact” situations (Fase, Jaspaert and Kroon, 1991; Schmidt 1991).

Language	L1		L2	
Environment	L1	L2	L1	L2
Type	1	2	3	4

Table 2.1 Types of language attrition (based on van Els 1986)

Type 2, where L1 is lost in an L2 environment, deals with the attrition of the native languages of immigrants both on individual and societal level (Anderson, 2001; Bolonyai, 2000; de Bot, Gommans & Rossing, 1991, Kaufman & Aronoff, 1991, Olshtein & Barzilay, 1991; Opitz, 2004; Turian & Altenberg, 1991; Vago, 1991; Yagmur & de Bot, 1999) or adopted children (Pallier et al., 2004; Nicoladis & Grabois, 2004). To this category also pertain loss of indigenous languages (Schmidt, 1991) and dialect loss outside of the dialect community (Bullock & Gerfen, 2004).

Type three, or loss of L2 in an L1 environment, refers to both L2 attrition: L2 acquired in another country which is lost upon return to the country of origin (Hansen, 1999; Nagasawa, 1999; Reetz-Kurashige, 1999; Russell, 1999; Tomiyama, 1999; Yoshitomi, 1999); and FL attrition: the attrition of foreign language(s) learned at school (Cohen, 1989, Murtag & Van der Slick, 2003; Olshtain, 1986). These two as van Els (1986) points out, are very different to the degree and rate of attrition but that at the same time they have so much in common that they still can be put together under the same category.

The last, fourth type of attrition examines the loss of L2 in the L2 environment, like for example second language attrition in aging immigrants. Very little research has been devoted to this last category (For a review see Clyne 1977; de Bot and Clyne 1989).

2.1.3 Implications for Multilinguals

When it comes to multilinguals, depending on the number of languages spoken, we can have a large number of combinations of the language that is lost and the linguistic environment where it is lost. Typologically however, these would not differ from the research typology discussed in the previous section. All research in the natural attrition of any of the languages of a multilingual but his/her L1(s) which takes place in a linguistic environment different from the language that is being lost would fall within Type 3.

The present study, which investigates the attrition of one of the languages (Spanish) of a multilingual taking place in a different from the attriting language linguistic environment (German), also falls within Type 3 research. The subject in the study - a German who also speaks English, Spanish and Swedish and has some knowledge of French and Dutch - returned home after having lived for two years in Spain, where Spanish was the language she used in her daily activities.

2.2 Underlying Findings in Language Attrition

This section describes some basic findings and hypothesis from research on language attrition which try to explain the processes taking place in the phenomenon of language attrition such as the Regression hypotheses; the linguistic dimension of attrition or whether there is any difference in the way different linguistic skills are affected; the curve of attrition and the Savings paradigm.

2.2.1 The Regression Hypothesis

Originally formulated by Ribot in the 1880s, it was later used by Freud (who coined the term *regression*) in his work with aphasics. The Regression hypothesis was finally adapted by Jacobson who applied it to the phonological regression in aphasics when comparing it to language acquisition in children (Berco-Gleason, 1982, p.17). The Regression Hypothesis claims that the order of language attrition is actually the mirror process of the order of language acquisition, i.e. what is learned last is the first to be forgotten; what is learned first – remains the longest.

Berco-Gleason (1982) points out that when it comes to second language attrition it might be the case that second language learners “lose skills not in the reverse order that children learn them, but rather in the inverse order they themselves learned them”. This line of thought is also supported by Anderson (1982), who suggested that the frequency of items, markedness or functional load and frequency of language usage are all of importance to the process of attrition and determine which part or element of a language would be the first to go.

A number of studies (Hansen & Chen, 2000; Hansen 1999; Kuhberg, 1992; Olshtain 1986) have provided support for the Regression Hypothesis but as Hansen points out, there is still need for more research on the topic in order to see “*when* and under *what* conditions its predictions hold true” (1999, p.150).

2.2.2 Linguistic Dimension of Attrition

In SLA it is generally accepted that the receptive skills precede the productive in acquisition (Ellis, 1994). Therefore, following the Regression Hypothesis the productive skills should precede the receptive in the attrition process. Studies by Bahrick (1984), Cohen (1989) and Olshtain (1989) have demonstrated that indeed, productive skills in vocabulary are more affected by the attrition process than the reception of vocabulary. Tomiyama (1999) in her study on the first stages of attrition of a Japanese returnee found that the first area to be affected by attrition was the lexical retrieval, while phonology and the receptive lexicon were quite unaffected.

The same study and its sequence (Tomiyama 2000) gave support to another important question in research on language attrition – the supposition that the different linguistic levels, (lexical, morphological, syntactical and phonological) are affected differently by attrition. Tomiyama (1999, 2000) reported that the first linguistic level affected in the subject of her study was the lexical one followed by morphology. Similar pattern is reported by Kaufman & Aronoff (1991) in their study on the attrition of Hebrew (L1) in an English speaking environment.

This is contrasted by data from Kuhnberg’s study (1992) on two Turkish children with attriting German where the morphological level was the first one to be affected followed by the attrition in the lexicon. The same pattern emerged in studies by Moorcroft &

Gardner (1987), who suggested that this difference is due to differences in the level of proficiency of the subjects. According to them, low proficiency students have unstable grammars and therefore are more likely to lose grammatical than lexical knowledge. High proficiency students, on the other hand, have stable grammatical knowledge and a larger vocabulary, thus being more vulnerable on the lexical level.

2.2.3 Rate of Attrition

Weltens (1988, p.11) presents two implications for the attrition of language following Ebbinghaus (1885) and his “traditional forgetting curve”:

- 1) Language attrition sets in rapidly at the onset but levels off later on,
- 2) Attrition is *proportionate* to the original proficiency level.

The most important research supporting this line of view is a study carried out by Bahrck (1984), who tested three different proficiency level groups over 50 years of retention of school-acquired Spanish. The study showed that attrition set in quite rapidly and then stabilized. However, he diagrams for the attrition in the three different groups in the study were parallel, thus showing that the subjects lost a fixed amount of knowledge over a given period of time, independent of their initial knowledge, which is inconsistent with Ebbinghaus’s theory.

Alternatively, a number of studies (Kaufman & Aronoff, 1991; Tomiyama, 1999; Weltens & van Els, 1986) demonstrated the existence of a reverse pattern, i.e. an initial period without attrition, or as Weltens and Cohen (1989) called it an “initial plateau”, followed by attrition. In the study of Kaufman and Aronoff (1991) and Tomiyama (1999) attrition occurred at the seventh month, while the study of Weltens and van Els (1986) did not find significant decrease for the first two years of non-use.

Weltens (1988) points out that these apparently different patterns need not be mutually exclusive. Since the studies that reported an “initial plateau” all examined high proficiency subjects compared to the subjects in the other studies, it might be the case that the “forgetting curve” fits in with FL attrition but is preceded by a plateau in the cases when high proficiency or a “threshold level” in the language has been achieved.

2.2.4 Critical Threshold

“The idea of “Threshold” or “Critical” level that has to be achieved in order to retain the proficiency in a language originated from research carried out by Bahrick (1984). He tested a total of 773 subjects on the retention of a school acquired Spanish and made three important discoveries:

- (i) the more years spent studying Spanish at school, the better it is learned;
- (ii) after an initial drop in the proficiency, which could last up to 5-6 years, people stop forgetting each one at a different level of proficiency which corresponds to their original level of proficiency;
- (iii) if a high level of proficiency is acquired, it is more likely to retain the language at question.

The last phenomenon, Bahrick explained with the notion of a *permastore* – a special part of knowledge where all items that acquire lifespan of over 25 years are kept. Neisser (1984, p.33) criticised Bahrick’s interpretation, saying that the idea of a state of permastore is not the most adequate way to interpret the results of the study. Instead, he suggests that there might be a *critical threshold* of strength that some items reach. He claims that having reached such a threshold makes high proficiency speakers of a language immune to substantial language attrition.

This idea is supported by research on L2 attrition as in the study of Weltens (1988) and Murtagh (2003). Hansen (1999) also found support for the *critical threshold* notion. In a study of returned missionaries who had acquired Japanese in naturalistic settings she found that women that had spent only two years in Japan did not retain the language as well as men who had spent there 3 years. She concluded that in order to retain a naturally acquired language it is necessary to spend more than two years “of daily language use in the target culture” (Hansen, 1999: 151).

2.2.5 Relearning (The Savings Paradigm)

The theory of relearning has its origins in the widely held psychological view on forgetting which claims that information from memory is not lost. Instead, it is argued,

it becomes inaccessible due to different factors but it can be retrieved as long as the right cues are used. The savings paradigm (Nelson, 1978) is based on the idea that once a word is learnt, it is not totally lost and that there are residues of knowledge that can be used to reactivate the word. As de Bot et al. (2004) explain, different levels of activation are needed for recall and recognition, i.e. higher for recall and low for recognition. If the level of activation falls down the word would fall below recognition. One way to reactivate the word is through relearning, the assumption being that newly learnt words cannot reach the same level of activation after only a short period of learning as can previously acquired ones.

Research by de Bot & Stoessel (2000), who tried to reactivate the knowledge of a language (Dutch) learned 30 years earlier, provided evidence for the savings effect. A strong cross-linguistic influence for cognate words was also reported. Two more studies, by Hansen et al. (2002) and de Bot et al. (2004), showed results in the similar vein. The final conclusion from the research carried so far on the savings paradigm is that there is need for further research with more attention and control of the individual differences.

2.3 Factors Affecting Language Attrition

Some of the factors/variables that have been found to influence second language acquisition not surprisingly are the same as some of the factors influencing second language acquisition. Among the most prominent factors are age, attained proficiency at the onset of attrition, individual factors like attitude and motivation, and recently it has been suggested that schooling or years of training have also some role to play in the process of language attrition or retention.

2.3.1 Age

Age seems to be an important factor in language attrition especially when it comes to child language attrition. Be it L1 or L2 attrition, young children seem to be very vulnerable to attrition. Fast attrition in young children has become anecdotal in the literature in language attrition. A case study by Nicoladis & Grabois (2002) with a Chinese girl adopted at 17 months by an English speaking family, informs that in as few

as six weeks, the child did no longer produce words in Chinese and showed a remarkably rapid acquisition of English.

Research by Hansen (1980) reports a complete loss of L2 of two children that were frequently judged as native speakers of their L2, while they were in an L1 environment. Now, more than 20 years later the children do not comprehend a word of the L2 while their mother still does. Other studies comparing younger and older children (Cohen 1989; Hansen 1980; Olshtein 1986) and looking into languages as different as Portuguese (L3), Hindu-Urdu (L2) and English (L1) found that the younger children were much more susceptible to attrition than the older ones.

Again, exception to this line is the study by Kuhberg (1992), who found more rapid attrition in the older child. This, he explains, is due to the strong pressure for the older child to become mingled rapidly in the society.

Studies with adults (Murtagh, 2003; Russel, 1999; Weltens, 1989) show that adults generally tend to retain a great part of their linguistic repertoire both in L1 and L2 attrition. The study of Murtagh (2003) which studied the retention of Irish acquired at school found very little attrition in the course of 18 months. The study of Russel (1999) reported insignificant or “cosmetic attrition” which has to be distinguished from “dysfunctional” attrition, as argued by Andersen (1982), for a period of two years in his study on Japanese (L2) attrition in native English-speaking subjects. Weltens (1989) on his part did not detect attrition in the general receptive L2 proficiency of Dutch learners of French for more than four years.

Olstain (1986) in his study of two different age groups of children with attriting English, suggested literacy might be a possible explanation for the age affect that he found. The younger children, he claims, still had not achieved literacy in English and not being able to read, they lost contact with English much more abruptly than the older children. The older children on the other hand had achieved “a native-like level of literacy further developing such literacy by reading mostly in English for pleasure” (Olstain, 1986). The older children were also very motivated to maintain their high level of proficiency and were consciously seeking opportunities to use their English.

2.3.2 Attained proficiency

As it was already mentioned in 3.4.4 the level of Attained Proficiency or Proficiency at the onset of the process of attrition has been suggested as a possible explanation for the different attrition rate patterns observed, i.e. attrition setting rapidly at the beginning and then levelling off as in Bahrck (1984) and an initial “plateau” where no significant loss is detected and a later reduction in the linguistic skills (Weltens & van Els, 1986).

Besides, Proficiency level is very likely to have an impact on the amount of language that is lost within an individual. Bahrck (1984), in his research on the retention of Spanish after 50 years, found that the higher the proficiency at the onset of attrition, the lesser the loss.

In another study by Gardner et al. (1985), which was actually aimed at examining the role of motivation and use in the L2 attrition of high school students of French during the summer vacation, *it was* found that the level of proficiency was the best indicator of retention.

A study conducted by Reetz-Kurashige (1999) with three groups of Japanese returnee children also found support for the inverse hypothesis, i.e. that the higher the proficiency, the lower the degree of attrition. Proficiency was again the best predictor for retention of accuracy of speaking.

2.3.3 Attitude and Motivation

In his contribution to the volume of Lambert & Freed (1982) Gardner proposed a model for the retention and attrition of a language. According to him, “retention refers to the maintenance or improvement of proficiency” in a foreign language after the period of acquisition is over, and attrition is “decrease in the level of proficiency” (Gardner, 1982:24). In his model there are two periods (i) the language acquisition period and (ii) the incubation period. The Language acquisition period spreads from T1, when the language acquisition begins, to T2, when the language acquisition stops. This is followed by the period of Incubation, which is characterised by no specific language training and lack of immediate opportunities to use the language. If language proficiency remains the same or improves by the end of the incubation period we are

talking about retention. However, if it deteriorates we are talking about attrition. Garnder (1982) presents a research done by Edwards in the 1970s with bilinguals working in the Public Service of Canada where the conclusion is that the long-term retention of linguistic and communicative competence depends on “successful prior or initial training, opportunity to use the information initially acquired and interest in using the linguistic resources initially acquired” (Gardner, 1982). Therefore, Gardner hypothesised that “*since latitudinal/motivational characteristics are related to the level of second language proficiency, they will relate to second language retention*” (Garner, 1982: 31).

This line of thought is confirmed by research carried out by Gardner et al (1985). The study looked into the retention of French of high-school students during their summer vacation and found that attitude and motivation are important factors in the retention of a language. A recent study conducted by Murtagh (2003) on the retention of Irish by high-school students in Ireland also found motivation, among others, to be one of the factors stimulating the retention of Irish.

2.3.4 Social networks

Social networks emerge as another factor that has to be considered in language attrition/retention phenomenon. Social network theory suggests that the ways in which an individual creates personal communities, may be very important in language retention. Murtagh (2003) outlines three studies by Hulsen (2002), Smith (2002) and Stoessel (2002) which all demonstrate the importance of social networks on the maintenance of a first language by immigrants.

Even though the present study is not concerned with immigrants, social networks might still prove important to the retention of language skills on an individual basis. This might promote more *frequent* use of a language in the form of writing letters, emails and talking to friends in the language in question.

2.3.5 Language proximity

It should also be noted that the similarity or difference of the language that is being lost and the surrounding linguistic environment might have an important influence on the

attrition process, i.e. a typologically similar language environment might “delay” the attrition and a different language environment, as in the present study, may “accelerate” it. To my knowledge there is no research carried *out* to confirm or reject this proposition.

2.5 Three Psychological Theories on Language Attrition

The idea that theories from psychological research on memory may be used to explain the phenomenon of language attrition is relatively new. An attempt to relate the traditional theories of forgetting to language attrition is made by Ecke (2004). In his article he discusses seven theories of forgetting and their implications for language attrition research. As Ecke explains, in psychology, it is considered that the information that enters the brain can not be totally erased and the problem of forgetting “resides in the storage or the retrieval of structures” (Ecke, 2004). From the seven theories that Ecke presents only three have more general application and will be discussed here: the *Decay theory* the *Interference theory* and the *Retrieval slowdown and failure theory*.

2.4.1 The Decay theory

The *Decay theory*, which is cited also by Köpcke (2004) as one of the two “cognitive processes” which may lead to attrition, claims that lack of use gradually leads to the extinction of a memory trace. This is in line with the Activation Threshold Hypothesis (Paradis, 1993), which predicts that non use of an item will increase its activation threshold and eventually will make the item inaccessible.

In the case of multilinguals, non-use of a language is a frequent phenomenon since in only very limited cases a multilingual practices all his/her languages on an everyday basis. Thus the activation level of one or some of the less-frequently used languages becomes higher and eventually the language(s) may become inaccessible. Even though the main source of evidence for this theory comes from tip-of-the-tongue situations in monolingual speakers, there are studies in L2 attrition that also point to a decay in language as a result of non-use (Tomiya, 1999; Yoshitomi, 1999).

2.4.2 The Interference theory

Another theory on forgetting discussed by Ecke (2004), Hansen (1999) and Köpke (2004) is the *Interference theory*. As Ecke states, most language attrition takes places in situations where two languages compete for cognitive resources in the individual speaker. As a result of limited resources (Bates & MacWhinney, 1987) one language gains importance and frequency of use at the cost of another (Herdina & Jessner, 2002; Seliger & Vago, 1991).

In multilinguals, this might be the case especially when two typologically similar languages are acquired one after the other. The first language may first serve as a skeleton for the acquisition of the next language and then gradually be replaced by it.

2.4.3 The Retrieval slowdown and failure theory

The third theory to be discussed is the *Retrieval slowdown and failure theory*, considered by Ecke (2004) and Hansen (1999). Under this theory the information from the attriting language is not lost but rather becomes inaccessible. Loftus & Loftus (1976) as cited in Hansen (1999: 10) state that forgetting is “much like being unable to find something that we have misplaced somewhere.” In information processing models speed of lexical access and retrieval is of crucial importance to competence and fluency (Murtagh, 2003). Studies in self-correction (Cohen 1986, Olshtain 1989) and circumlocution (Turian & Altenberg, 1991) are the main sources of evidence for the theory.

A non-use of a language, in the case of multilinguals, may very well lead to the gradual decrease of its activation and it may eventually become inaccessible.

2.5 DMM and Language Attrition in Multilinguals

As already mentioned in chapter one, among the basic characteristics of a language system according to the DMM are non-linearity and change of quality. Thus, when learning a new language and putting effort in it, we have a positive growth which leads to a positive change in the quality of a language system. However, if instead of increase of effort we have a decrease in the time devoted to a language we are confronted with a

negative growth, which eventually leads to language attrition or gradual language loss. This process is considered to be the mirrored process of language acquisition (Herdina & Jessner, 2002, p. 91) and is represented by an inverted sine curve as in Figure 2.1.

According to DMM, language attrition is unobservable, at least in the early stages, because it very often is demonstrated by a decrease of performance and therefore passes unnoticed.

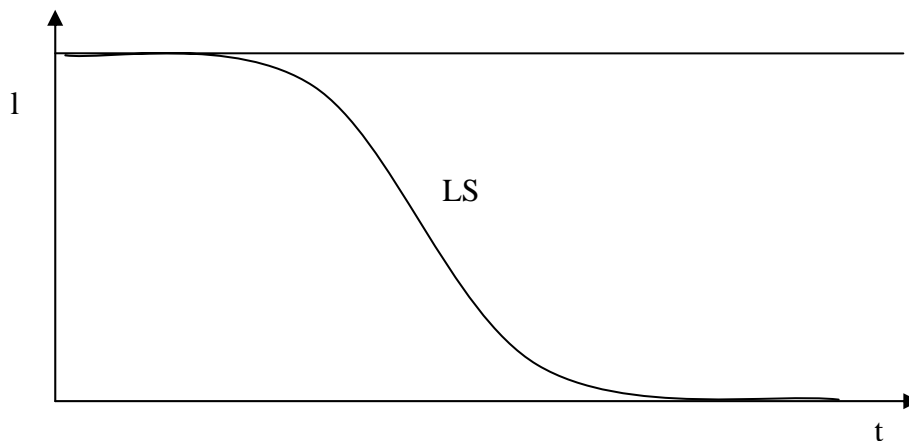


Figure 2.1 Gradual Language Loss under DMM (adapted from Herdina & Jessner, 2002, p91)

LS - Language System; t – time; l – language level

Rather than discussing language attrition, DMM considers the language maintenance effort (LME) that bilinguals and multilinguals have to exercise in order to keep their languages “alive”. LME combines the use of the language for communication and the verification of hypotheses concerning the language system which leads to renewal of some parts of the speaker’s linguistic subsystems. If there is no LME due to lack of use of a language this leads to the deterioration of the competence in that particular language. This is further aggravated by the presence of other languages competing for a position in the “speaker’s psycho-communicative system” (Herdina & Jessner, 2002, p. 99). The amount of LME required to maintain a linguistic system stable also depends on the amount of the existing linguistic knowledge, with more knowledge requiring more LME.

Although DMM is one of the few models, not to say the only one, providing for language attrition within multilinguals, there are several flaws that need to be discussed.

Basically what the model says is that:

- (i) a language will attrite if it is not used, and
- (ii) the more you know (in terms of linguistic competence), the more LME it takes to maintain your language.

As already seen in the previous subchapter, the claim that a language will attrite if it is not used, is also predicted by basic psychological theories. It is also a possible outcome under other models not discussed in detail here, such as the Competition Model (Bates & MacWinney, 1989).

The second claim, although logical, seems to be contradicting: does it mean that the people with higher linguistic level are more prone to language attrition due to the increased LME they have to make when compared to low-proficiency students? If so, this would conflict with the *Threshold Theory* and the idea that actually high proficiency learners have less to worry about when it comes to language attrition.

Another point that has to be noted, is that even though the authors mention that “language loss will affect different linguistic subsystems to an unequal degree” (Herdina & Jessner, 2002, p.97) they do not make any further speculations as to which one or ones are to be more or less affected. There is no distinction between the receptive vs. the productive skills either, and despite saying that the gradual language loss is “the mirrored process of language acquisition” no implications for the order of attrition are made at all.

2.6 Research Questions

Having reviewed the state of the art in research on second language attrition, it becomes clear that there are still many questions to be answered and hypotheses to be built. Rather than testing models or hypotheses, the present study aims at:

1. Exploring the relationship between non-use of a language and language attrition, i.e. whether non-use is enough for language to take place within a multilingual.
2. Exploring the effect that non-use has on a language.
3. Exploring the relationship between multilingualism and language attrition, i.e.

whether multilinguals are really that vulnerable to attrition as is inferred from the psychological theories and dynamic model of multilingualism presented earlier in the chapter.

4. Outlining problems for further research.
5. Contributing to the existing body of data generated from research on language attrition.

2.6.1 Research Questions

- (i) Will the overall accuracy decrease over time?
- (ii) If such a decrease is observed, will it be more evident in the productive skills than in the receptive skills?
- (iii) Will the various linguistic subsystems, i.e. morphology, syntax, lexis, etc. be affected differently?
- (iv) Will fluency be affected?
- (v) Which attrition curve will be observed, immediate attrition or an *initial plateau*?
- (vi) Will support for the Regression Hypotheses be found, i.e. last learned, first to go?

3 The Study

This chapter presents the methodology of the present study. Special attention is paid to the method chosen, i.e. case study approach, and the reasons for doing so. This is followed by a presentation of the participant. Her linguistic background and linguistic abilities in the target language, both self-reported and externally evaluated, are discussed. A comparison is made between the percentage of use of the different languages that the participant speaks, before and after the onset of the attrition process. The design of the study is also outlined here. This chapter also reviews the different questionnaires used to collect the data, i.e. the Language Contact Questionnaire and the Attitude & Motivation Questionnaire, as well as the Language Test, which is the main data collection instrument.

3.1 The Case Study Approach

A case study approach is chosen for the present study for a number of reasons. First, since the nature of the study is more exploratory and qualitative than quantitative, and as stated in the previous chapter is not hypotheses-testing type, no intention of generalisation for a larger sample is made. Second, the subject of a case study can be one person or a small group of people. This can be very useful when it is difficult to find people for a large sample which can be the case in studies in language attrition. For example, finding multilinguals who have the same linguistic background and who stop using the same language, at the same point in time, can prove very challenging. Third, such a small subject sample makes case study approach also especially appropriate for longitudinal studies where subjects have to be followed for years and which can be quite difficult with large samples. Language attrition in particular tends to be a slow and subtle process requiring a prolonged research periods which sometimes may go on for years.

Last but not least, the case study approach allows for a very comprehensive and in-depth account of the subject being studied (Feagin, Orum & Sjoberg, 1991) and helps to create a more complete picture of the processes taking place during the period of study. Being a relatively new field of study, little is known about the processes governing language attrition and there is need for a very detailed and thorough research.

The case study approach has been used in a number of fields, mainly in the social and behavioural sciences. Recently, it has also become increasingly widespread in instruction and SLA research (Barnes 2006, Deucher & Quay 2000, Pérez-Vidal, 1995) and in research on language attrition (Anderson 2001, Nicoladis & Grabois 2002, Tomiyama 1999).

One criticism that is usually expressed regarding case studies is their dependence on a very small sample and consequently the incapability to make generalizations from a single case. However, as Flyvbjerg (2006) points out, the case study approach is suited for making generalization on the basis of the “falsification” test proposed by Popper (1959). The example he sets is that of “all swans are white” (Popper 1959, p.) Popper claims that even if one black swan is observed this would falsify the statement and would encourage more investigation and theory rebuilding. Flyvbjerg states, that the case study approach is very well suited for detecting exactly “black swans” because of its in-depth, detailed approach.

“One can often generalize on the basis of a single case, and the case study may be central to scientific development via generalization as supplement or alternative to other methods. But formal generalization is overvalued as a source of scientific development, whereas “the force of example” is underestimated”

(Flyvberg 2006, p. 228)

Another disadvantage that is usually associated with case studies is the claim that case studies can be used for generating hypotheses or as the opening steps in a research process, while hypotheses and theories are best tested with other methods later on. Eckstein (1975) refutes this assertion by stating that case studies are of importance “at all stages of the theory-building process, but most valuable at that stage of theory-building where at least value is generally attached to them: the stage at which candidate theories are tested.” (p. 80).

3.2 The Participant

This section is dedicated to the participant. Her linguistic background, knowledge of languages and most importantly Spanish – both self-reported and externally evaluated, are presented here. The percentage of use of the different languages that the participant speaks and how these change over time is also discussed here.

3.2.1 Linguistic Background

The participant in the study, Kathi, is a native speaker of German. Both her parents are native speakers of German and German was the only language used in the family. Besides growing up in such a monolingual environment in Austria, Kathi was exposed to Swedish from the age of two, due to a family tradition of spending the summer holidays in Sweden. When data collection started, Kathi was 24;10 years old. Now she lives in a small village on the German-Danish border and she works in a German company in Denmark

As Table 3.1 shows, at the age of 9 she started studying English at school. She had 6h of instruction per week and this continued until she finished school at 17;5, for a total of approximately 1730h. At the age of 14 she also started studying French. She studied it for two years, 2h per week, amounting to approximately 220h.

After finishing school at 17;5 Kathi spent 9 months living in the United Kingdom under the European Voluntary Service scheme. She worked in a NGO organization for social services and English was her language of communication on an everyday basis.

Language	Formal Education		
	Age at onset	Age at end	hours
English	8;9	17;5	1730
French	13;9	16;5	220
Spanish	20	22	116
Dutch	21;01	21;04	30

Table 3.1 Kathi's formal instruction education

At the age of 19 Kathi enrolled at a university in Amsterdam, the Netherlands, where she did her university studies in English. While at university, Kathi had a course of Dutch for a semester for a total of 30h.

As part of her education during her third year at university Kathi did an internship in a company in Madrid, Spain. She lived there for 5 months and had a private Spanish language course of 2h per week for 3 months. While in Madrid, she shared a flat with a Dutchman and English was the language of communication.

Kathi spent her last year at university doing a 10-month Erasmus exchange at a university in San Sebastian, Spain. During this period she did not do any formal Spanish language course but she studied all the subjects and did her exams in Spanish. She shared a flat first with two Englishmen and a French girl and then with two Italians, a Spaniard and a German. English and Spanish were used in the first instance and German and Spanish in the second.

Language	Naturalistic Exposure	
	Duration	Place
German	Since birth	Austria, Spain, Denmark
Swedish	2 months per year for 17 years	Sweden
English	9 months at 18;10 2 years at 19;10	UK the Netherlands
Spanish	5 months at 22;02 10 months at 22;10 10 months at 24	Madrid San Sebastian Barcelona
Dutch	2 years at 19;10	Amsterdam
Basque	10 months at 22;10	San Sebastian
Catalan	10 months at 24	Catalan

Table 3.2 Kathi's natural exposure to languages

After graduating from university Kathi went to work and live in Barcelona, Spain. She spent 10 months there and she did not have any formal classes of Spanish during this period but her main language of communication on an everyday basis was Spanish. She shared a flat with two Spaniards and Spanish was the only language used.

3.2.2 Linguistic Abilities – Self-evaluation

As part of her linguistic profile Kathi was asked to self-evaluate her knowledge in all the languages she has been in contact with. Kathi evaluates her knowledge of Spanish as very good in all skills. She considers her English to be at a near-native level. Although she was exposed to Basque and Catalan while living in the Basque region and in Catalonia respectively, she claims no knowledge at all of these two languages. For an overall language proficiency evaluation, see Table 3.3 below.

	Listening	Speaking	Reading	Writing
German	native	native	native	native
Swedish	good	poor	poor	poor
English	near native	near native	near native	near native
French	poor	poor	poor	poor
Spanish	very good	very good	very good	very good
Dutch	good	poor	poor	poor
Basque	none	none	none	none
Catalan	none	none	none	none

Table 3.3 Kathi's knowledge of languages - self-evaluation

3.2.3 Linguistic Abilities – External Evaluation

Since the present study investigates only the development of Spanish, no evaluation is made of Kathi's knowledge in the other languages that she has been in contact with or has studied.

For Spanish, Kathi was tested with the Cervantes Centre Spanish language placement test. Her level of Spanish was defined as "Superior", i.e. advanced. According to the Common European Framework of Reference for Languages (CEFR) this corresponds to level C2. However, her knowledge of grammar seemed to be slightly inferior to her

listening and reading skills and was rated as “upper intermediate” or B2 level following the CEFR.

3.2.4 Language Use

In order to see the percentage of use of the different languages Kathi speaks, she was administered a Language Contact Questionnaire. She had to fill it in before leaving Spain when the baseline data was collected and then each time she was tested at four month intervals. The questionnaire is described in more detail later in the chapter in section 3.4.1.

As Figure 3.1 demonstrates, before leaving Spain, Kathi spent 33% of her time speaking either English or Spanish and only one percent more using her native German. Thus, she made almost equal use of her three stronger languages.

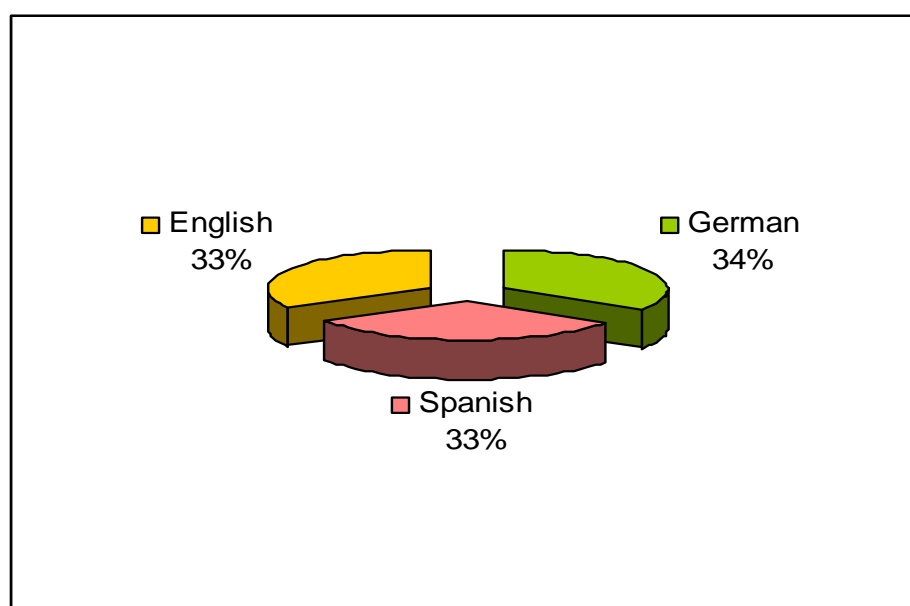


Figure 3.1 Kathi's use of languages before leaving Spain

In contrast, after leaving Barcelona and Spain, Kathi moved to a strictly German speaking environment. After only 4 months, her use of languages has changed from being equally distributed to predominantly using German as shown in Figure 3.2. It can be seen that her use of Spanish has decreased almost by half, dropping down to 17%. Her use of English, although not as drastically, has also suffered a slight decrease, i.e. it is being used 7% less.

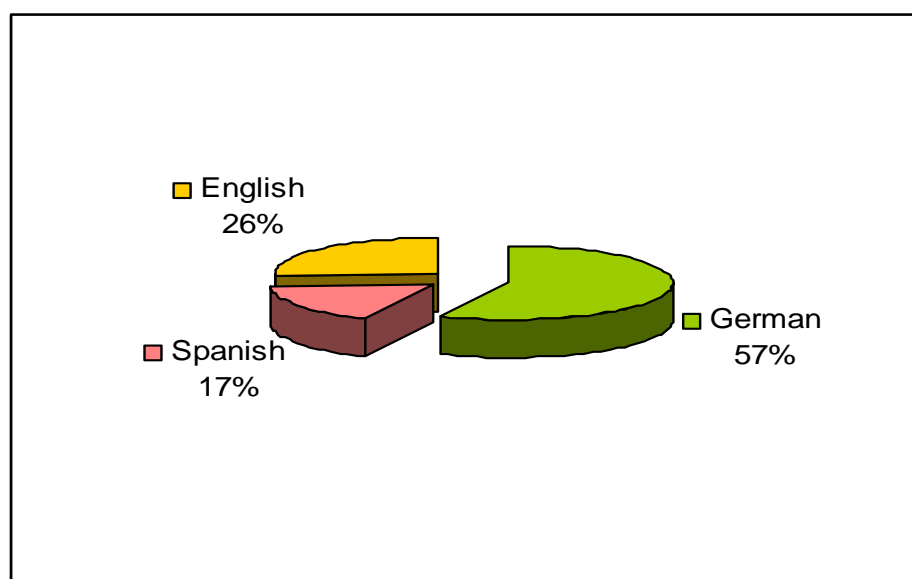


Figure 3.2 Kathi's language use 4 months after leaving Spain

This tendency for a decrease in the use of Spanish and even English continues four months later or 8 months in total after the study started as demonstrated by Figure 3.3. Although not as drastic as the decrease observed at the forth month of non-use of the language, the use of Spanish has decreased again by 4%. In total, the amount of time Kathi spends using Spanish has decreased 20% in 8 months.

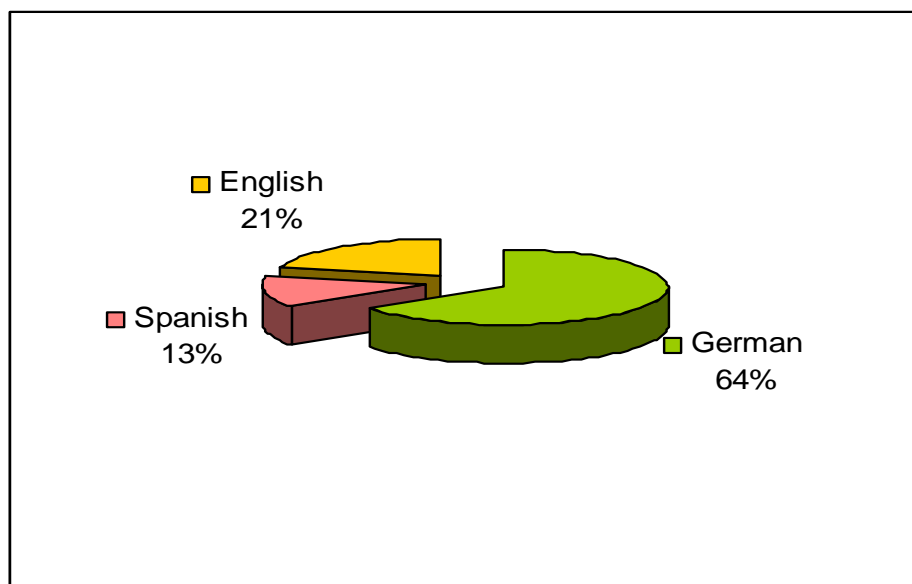


Figure 3.3 Kathi's language use 8 months after leaving Spain

3.2.5 Attitude and Motivation

In order to establish Kathi's attitude and motivation she was administered a modified version of the AMTB test which is described later in the chapter in section 3.4.2.

In each section of the motivation test, Kathi scores very high. She shows high interest in foreign languages (65/70) and strong desire to learn Spanish (27/30). This is accompanied by a high degree of effort spent on acquiring the language (25/30) and a very positive attitude (60/70) to learning Spanish. She demonstrates a positive attitude towards Spanish people (61/70) and scores high on both the instrumental and integrative orientation sections (both 26/28). Thus, as a whole, Kathi can be classified as highly motivated and very positively oriented towards Spanish.

3.3 The Design

Research on L2 attrition often deals with attrition in languages which are acquired at different levels of competence not necessarily at native-like proficiency level (See research carried out by Murtag & Van der Slick 2004, Reetz-Kurashige 1999). Consequently, it is very important to distinguish between "*true attrition*" and "*failure to acquire*", as first noted by Andersen (1982, p.85). In order to be sure that what one is tracking is language attrition indeed, and not failure to acquire some features of the language, it is of utmost importance to have information about the participant's level of competence in the language at the onset of the attrition process.

Thus, it was decided to have a longitudinal design which allows "to establish the fact of acquisition and subsequent attrition" (Tomiyama 1999, p. 60). The first data collection was organised before Kathi left Spain, i.e. before the onset of the attrition period (T0). This data is used as the baseline data against which all consecutive data is analyzed. As figure 3.4 demonstrates, after the initial baseline data collection, data is collected at 4-month intervals (T1 and T2) for a total of 8 months.

Deciding on the duration of the between data collection periods was not an easy task either. In the literature on language attrition there is no consensus as to the duration of the between-data collection periods. These can vary from one month periods (Tomiyama 1999) to a year (Russel 1999) and more (Murtagh & van der Slik 2004).

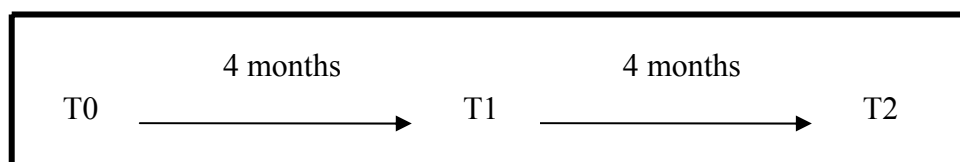


Figure 3.4 Data Collection Design

A major concern was that a one-month period would have a high test-learning effect since the same task is used at all data collection times. On the other hand, a one-year period would not have allowed to track any differences, if any, in the rate of attrition at the different stages of the attrition process. Therefore, it was finally decided to collect data at four-month periods.

As can be seen from Table 3.5, the first data collection was carried out in Barcelona, just before the participant left the town and the country. It was conducted personally by the researcher. The following two data collection times, however, were carried out from a distance. All materials and questionnaires were adapted to electronic format and sent over Internet. The participant was instructed to (self)-time herself and not to use any resource materials. After each data collection time she was asked to erase the materials so that she wouldn't have access to them in between data collection times.

Month	Months after leaving Spain	Data Collection Session
October 06	0	T1
January 07	4	T2
June 07	8	T3

Table 3.4 Summary of Data Collection Periods

3.4 The Questionnaires

This section describes the questionnaires which are used to collect the data. First, the Language Profile Questionnaire which is used to gather data for the participant's linguistic background and language use at different points during the study is presented. Second, the Attitude and Motivation test which was used to evaluate Kathi's level of motivation is described.

3.4.1 The Language Profile Questionnaire

The Language Profile Questionnaire has two versions: a *pre-test* version, which was submitted at T0, and a *post-test* version, which was administered at all subsequent data collection times. The questionnaire was developed using the Language Contact Profile developed by Freed et al (2004).

The *Pre-Test Questionnaire* consists of three sections. Section one gathers personal information, such as age, place of birth, education, languages used by the parents and within the family. Section two is about the languages that the participant has studied or has been in contact with. Here the participant also has to evaluate her knowledge of all the languages that she has been in contact with, be it natural exposure or language courses. The section then focuses on the contact with and use of Spanish before the participant came to Spain. Section three is about the language experience with Spanish while living in Spain. The section also gathers information on her use of languages when communicating with different people and when performing various activities.

The *Post-Test Questionnaire* is actually a modified version of the last section, section three, of the Pre-Test Questionnaire. It is oriented to cover the period of 4 months after Kathi left Spain and between data collection times. It gathers information about languages that Kathi uses when performing different activities and when communicating with different people. This allows to compare Kathi's use of languages at the different stages of the study and note any changes in the time she spends using each language. A copy of the questionnaires can be found in Appendices 1 and 2.

3.4.2 The Attitude and Motivation Test

The Attitude and Motivation test was developed using the Attitude Motivation Test Battery (AMTB) developed by Gardner (1985). Since the original battery was developed to test the attitudes and motivation of Canadian students of French, a slight modification in the questions had to be made. To avoid any changes in the function of the questions, the only change done was substituting the word “French” for the word “Spanish”.

Not all of the 19 measures of the AMTB were included in the Attitude and Motivation test since scales like the Parental Encouragement and the Class Anxiety among others, were not relevant to the present study. Seven out of nineteen scales are included in the present test: “Interest in Foreign Languages”, “Attitude towards Spanish people”, “Attitudes towards learning Spanish”, the “Integrative Orientation” scale, the “Instrumental Orientation” scale, the “Motivational intensity” and “Desire to learn Spanish”. A copy of the questionnaire can be seen in Appendix 3.

3.5 The Language Test

Data is collected by means of a language test. The materials for the test are taken from the official test materials of Cervantes centre for the advanced and intermediate level exam sessions carried out in May 2006. These correspond to levels B2 and C2 from the Common European Framework of Reference for Languages: Learning, Teaching, Assessment, or CEFR (See <http://diplomas.cervantes.es/general/alte.jsp>). The materials taken are not adopted and are used as they are.

In order to be able to answer the research questions and to test the hypotheses made in chapter 2, the test counts with two dependent variables. One is the distinction between the receptive and the productive skills. There are two sections on productive skills - speaking and writing, two on receptive skills - reading and listening and there are also two sections on the recognition of grammar and vocabulary, which count towards the receptive skills.

The other variable in the test is the item difficulty. In order to see if any support for the Regression Hypothesis can be found, i.e. the more difficult – the first to go (based on

the assumption that more difficult items are taught and acquired later), the items in the receptive skill sections are divided into two levels. There are difficult items at C2 level and easier items at B2 level.

3.5.1 Test Specifications

As can be seen in Figure 3.5, the test consists of six sections. There are four sections on the receptive skills, i.e. reading and listening comprehension, and grammar and vocabulary recognition. The whole test takes 3h and 50min to complete and a sample of the test can be found in Appendix 5.

As already mentioned above, the receptive skills section includes reading and listening comprehension task, and grammar and vocabulary recognition task. The scores from these sections are coded as *correct* and *incorrect*.

The productive skills section consists of writing and speaking tasks. The data from these tests are transcribed and analysed using the CLAN programs (McWinnie, 2000). They are used to measure fluency and accuracy - grammatical, lexical and phonological.

The *reading* section (45min) consists of a reading comprehension task. There are four texts, two at an advanced level and two at an intermediate level. Each text is followed by three comprehension questions which make for a total of twelve questions. The first half of the questions is at B2 level and the second half at C2. The texts are real texts adapted from Spanish, Argentinean and Mexican newspapers. There are 350-800 words per text, approximately 2000 words overall.

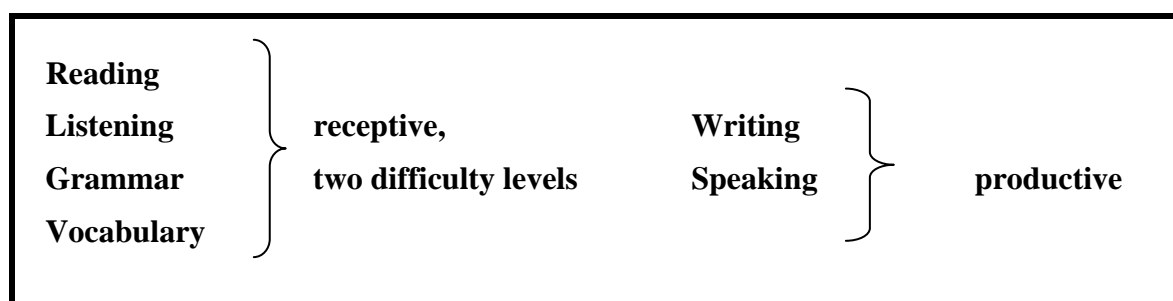


Figure 3.5 Test design

In the *writing* section (45 min), the participant is given a topic (“Etsudiar en extranjero es siempre mayor”) and disposes of 45 min to write a short composition. As specified in

the instruction, it is important to express one's opinion, to discuss the advantages and disadvantages related to the topic and to formulate a short conclusion.

The *listening* section (45 min) consists of a listening comprehension task. There are four texts. Two are at an intermediate level and are followed by three questions each one, and two are at an advanced level followed by four questions. There are fourteen questions on the whole, six B2 level questions and 8 questions at C2 level. One text has a true/false format of the questions and the rest are multiple choice questions. The transcripts of the four texts can be found in Appendix 6.

The fourth section, *grammar*, (60min) contains a grammar recognition task: a multiple choice test. It has two difficulty levels, intermediate and advanced. There are two texts with a total of 40 multiple choice options, 20 per text. The first 20 questions are at B2 level and the rest at C2 level.

The *vocabulary* section (30 min) consists of one vocabulary recognition task. There are two difficulty levels, advanced and intermediate. There are twenty five items, 10 at B2 and 15 at C2 level, in this section. All questions have a multiple choice format.

In the last section, *speaking* (20 min) the participant has to tell a continuous story in the past tense. The story is based on 20 drawings taken from the "Snake Story" (Howard-Williams, 2001) The story requires the use of lots of verbs and quite a rich vocabulary. Time is allowed for the participant to get acquainted with the drawings beforehand. The pictures can be seen in Appendix 5 together with the other sections of the test.

3.5.2 Test Reliability

The test was pre-tested for reliability with 10 people who have a linguistic background similar to the participant's. They all are native speakers of German, fluent in English and have been living in Barcelona for at least a year and not more than three years. They all are highly proficient in Spanish (varying between C2 and B2 levels) but do not have any linguistic education. See Appendix 4 for a demographic form and descriptive statistics of the pre-test sample group.

	<u>N</u>	<u>Mean</u>	<u>Variance</u>	<u>SD</u>
Reading	12	10.19	18.470	4.298
Listening	14	9.53	12.659	3.558
Cloze	40	25.75	82.479	9.082
Vocabulary	25	14.76	23.429	4.840
Overall	91	63.50	29.873	5.462

Table 3.5 Scale-Analysis

Table 3.4 contains the descriptive statistics for the test such as number of items, mean, variance and standard deviation per section and for the test as a whole. Reliability is measured with Cronbach's *Alpha* (α) (Cronbach, 1951). Cronbach's α measures the degree of homogeneity between the different items within a scale, i.e. to what extent the different items of the scale measure the same underlying construct. It is calculated on the basis of the average correlation between items and the number of items in a scale.

	<u>Alpha</u>	<u>Standardized Item Alpha</u>
Reading	.998	.999
Listening	.898	.909
Cloze	.943	.943
Vocabulary	.865	.863
Overall	.983	.984

Table 3.6 Test Reliability coefficient - Cronbach's α .

Table 3.5 presents the Cronbach coefficient, both α and α based on standardized items, for all sections of the test as well as for the test as a whole. It can be seen that the internal reliability in two of the test sections is excellent, i.e. $> .9$, based on the rule provided by George & Malery (2003). The other two sections, Listening and Vocabulary, also have a good coefficient, although not as high $> .8$. The median reliability for the whole test is .983.

4 Data Analysis and Results

This chapter explains how the data gathered were analysed and the results obtained. First, the Receptive skills section of the test is discussed. The coding of the data and the programs used to analyse them are explained. The results of the analysis, including comparative statistics, are presented and discussed with respect to language attrition. Second, the data obtained from the productive skills sections of the test, i.e. storytelling and essay-writing, is presented. The process of transcribing the data and preparing it for further analysis is outlined. The considerations that had to be made in order to analyse these data, i.e. the measures that were chosen to assess language attrition in the production data are given next. Finally, the specific analysis for each measure within the productive data and the results yielded are discussed in separate sections measure by measure. Basic statistics, i.e. difference test for the results obtained at different testing times, are presented whenever possible within each section.

4.1 Test of Receptive Skills

All responses from the receptive skills sections of the test, that is the reading comprehension, the listening comprehension, and the grammar and vocabulary recognition sections, the responses were scored either right or wrong. For the purposes of analyses all items were binary coded (where 1=correct and 0=wrong). The data were then analyzed, section by section and per data collection time, with SPSS.

The preliminary analysis of the data (SPSS, Descriptive statistics) generated information about the number of correct/wrong answers, mean accuracy (%), standard deviation and variance for each section and data collection time.

As can be seen from the data presented in Tables 4.1 to 4.4, the difference in score between T1 and T2, in all four sections, is of one point only to the advantage of T1. The only exception here is the Grammar Recognition section where the difference of one

point is to the advantage of T2. In all four sections there is no difference between the scores obtained at T2 and T3.

	<u>N</u>	<u>Correct</u>	<u>Incorrect</u>	<u>Accuracy</u> %	<u>STD</u>	<u>Variance</u>
Reading T1	12	11	1	91.66	0.2886	.083
Reading T2	12	10	2	83.33	0.3892	.152
Reading T3	12	10	1	92.85	0.3892	.152

Table 4.1 Reading Comprehension scores over time

	<u>N</u>	<u>Correct</u>	<u>Incorrect</u>	<u>Accuracy</u> %	<u>STD</u>	<u>Variance</u>
Listening T1	14	13	1	95.85	0.2672	.071
Listening T2	14	12	2	85.71	0.3631	.132
Listening T3	14	12	2	85.71	0.3631	.132

Table 4.2 Listening Comprehension scores over time

	<u>N</u>	<u>Correct</u>	<u>Incorrect</u>	<u>Accuracy</u> %	<u>STD</u>	<u>Variance</u>
Grammar T1	40	30	10	75.00	0.4385	.192
Grammar T2	40	31	9	78.00	0.423	.179
Grammar T3	40	31	9	78.00	0.423	.179

Table 4.3 Grammar recognition scores over time

	<u>N</u>	<u>Correct</u>	<u>Incorrect</u>	<u>Accuracy</u> <u>%</u>	<u>STD</u>	<u>Variance</u>
Vocabulary T1	25	16	9	64.00	0. 489	.240
Vocabulary T2	25	15	10	60.00	0. 500	. 250
Vocabulary T3	25	15	10	60.00	0.423	.250

Table 4.4 Vocabulary Recognition scores over time

	<u>N</u>	<u>Correct</u>	<u>Incorrect</u>	<u>Accuracy</u> <u>%</u>	<u>STD</u>	<u>Variance</u>
Total Score T1	91	70	21	77.00	0. 424	.179
Total Score T2	91	68	23	75.00	0. 437	.191
Total Score T3	91	68	23	75.00	0. 437	.191

Table 4.5 Receptive Skill - Total scores over time

The number of correct/wrong answers, mean accuracy (%), standard deviation and variance for the whole test are given in Table 4.5. As can be seen the scores from T1 and T2 differ with only two points (70 points at T1 vs. 68 points at T2) and there is no difference between the scores at T2 and T3 (68 points vs. 68 points).

Cochran Q test was used to compare the scores from the different data collection points. The difference, as can be expected with such a small variance between scores, is far from significant $p < .863$.

This result implies that receptive listening and reading skills, as well as the recognition of grammar and vocabulary were not affected by attrition, at least not during the first 8 eight months of non-use of the language.

4.2 The Productive Skills

In order to be able to analyze the data collected through production tasks (essay writing and story telling), it first had to be transcribed and stored. The oral data were transcribed with Transana (2.12), using the transcription rules and coding format of the Codes for the Human Analysis of Transcript (CHAT) developed by MacWinnie (2000). A list with the symbols used to transcribe the data can be found in Appendix G. The data were then stored in CHAT format which is explained further in the chapter.

In principle, CHAT – the transcribing program and CLAN - the accompanying programs for analysis, were developed for work with orally produced data. However, the program has been accommodated to be applied to written data too. Since the written data from the essay writing task were taken as it were, there was no need to use any special transcribing symbols. The program was just used to code and store the data for further analysis.

As a requirement of the program, each file coded with CLAN begins and ends with a special symbol “@”. At the beginning of the file, there are several obligatory headers or tiers, also introduced with the symbol “@”. These contain basic information about the event described in the file like for example the name of the subject, age, language, data collection series, data, interviewer, etc. Besides the obligatory tiers, there is the tier with the speaker’s utterances. Other dependent tier(s) can be included such as comments, interpretations or coding of the speaker’s utterance, i.e. errors, syntactic structure, morphology. These are distinguished by different codes at the beginning of each tier. In this case, the codes are *KAT (or *TEX for the written data) for the subject, %err for coding of the errors and %com for comments on the use of past tense. The transcribed and coded essays and stories can be found in Appendices I to M.

The first step after transcribing the data was to run the “Check” program. The “Check” program is one of the Computerised Language Analysis (CLAN) programs also developed by MacWinnie (2000). This step allows to eliminate any typing or formatting errors which violate the format of the files and prevent further analysis of the data. Once the files were error-free, the coding of the subject-produced speech could begin.

4.2.1 Measuring Attrition in Production Data

Choosing the right measures for assessing the phenomenon of interest is crucial in any study since inappropriate measures may not elicit any information. Therefore, it was decided to rely on well-established measures for measuring language attrition.

Storytelling, as an instrument of gathering data, has been used in a number of studies on language attrition (Hansen, 1991; Reetz-Kurashige, 1991; Tomiyama, 2000; Yoshitomi, 1991). It is usually used to obtain information about any changes in the accuracy and fluency of the subjects.

In general, accuracy as a measure does not pose problems. It measures the degree to which a given task is completed correctly or without mistakes. It is usually measured on the basis of the errors that might have occurring during the completion of a task.

Defining fluency, however, is a rather difficult task as can be seen in Kormos & Dénes (2004). Out of the many definitions that exist, Kormos & Dénes present six different definitions, the one adopted in the present study was chosen for its inclusiveness and clarity. Lenon's (2000)¹ definition states that "fluency might be the rapid, smooth, accurate, lucid, and efficient translation of thought or communicative intention into language under the temporal constraints of on-line processing."

For the purposes of analysis, each category (accuracy and fluency) was designed as a set of several measures (See Table 4.7). The measures used to assess accuracy in the oral data are based on research carried out by Yoshitomi (1991), Tomiyama (1991) and Hansen (1991). Under Yoshitomi, the Lexical Complexity measure falls within the accuracy category, but here it is regarded as a separate category, as done by Pérez-Vidal, Torras & Celaya (2000).

In most studies, fluency is measured in terms of average number of pauses, repetitions, hesitations, etc. per minute. After a careful consideration, Kormos & Dénes's (2004) for measuring these phenomena was found to be the most appropriate one. Only five out of the ten measures proposed by the authors were used, since the total number of measures was considered excessive for a study that aimed at exploring the general picture of language attrition and is not focused exclusively on fluency.

¹ As cited in Kormos & Dénes, 2004, p. 148.

Deciding on the measures for assessing language attrition in the writing skills was more complicated. To the best of my knowledge, no study on the attrition of writing skills in an L2 has been conducted so far and therefore no existing measures could be taken as an example.

Having reviewed a number of studies on language acquisition, it was decided to use the measures adopted by Pérez-Vidal, Torras & Celaya (2000). Originally, these were used to evaluate gains in written performance. However, it was considered that the question of interest measured in the present study is basically the same, viz. proficiency, only that it is measured in a different direction: instead of gains, what is measured is attrition.

Table 4.6 below summarizes the measures used to evaluate language attrition in the productive data in the order in which they are discussed later in the chapter.

	Oral Data	Written Data
Accuracy	Frequency of morphological errors.	
	Frequency of syntactic errors.	
	Frequency of lexical errors.	
	Frequency of phonological / orthographic errors.	
Complexity	Lexical Complexity.	
Fluency	Speech Rate	Words per clause
	Mean Length of Runs	Words per sentence
	Number of silent pauses	Words per minute
	Number of filled pauses	Clauses per sentence
	Number of disfluencies	Error-free clauses

Table 4.6 Measures adapted for assessing language attrition

4.2.2 Coding and Analysis Procedures

After deciding on the measures it was important to code the data. The present section presents the coding and basic analysis procedures common for all measures. Special coding and analysis procedures for the specific measures are discussed in detail in the respective sections later in the chapter.

In order to measure accuracy, five categories of errors were distinguished in both the oral and written data. In the written data was distinguished between MOR (morphological), SYN (syntactic), LEX (lexical) and ORT (orthographic) errors. In the oral data the PHO (phonological) category was substituted for an ORT (orthographic) category.

The researcher and a native speaker judge had to mark all occurrences of mistakes within any of the above listed categories both in the oral and the written data. Interrater agreement was 91 % (61/67) for T1 and 88% (70/79) at T2. Discrepancies were sorted out through discussion. On the basis of this first error analysis the basic categories were further divided into sub-categories.

The MOR category distinguished between agreement mistakes (lexical and verb), tense, aspect, conjugation and mood; the ORT category between spelling and punctuation mistakes; the PHO category, between mispronunciation and different disfluencies, such as repetitions, corrections and retractions. A complete list of all categories and sub-categories can be found in Appendix H. The errors were then introduced with the sign [*] in the subject-produced tier and coded in the dependent error tier.

For the fluency analysis, the oral data were coded for pauses and hesitations. Transana transcribing package (Transana 2.12) was used to measure the length of unfilled pauses. Only unfilled pauses longer than 0.3 seconds were considered for analysis. In the literature on pausological research, unfilled pauses under 0.3 are generally considered as articulation pauses and not hesitation. These were marked with a special symbol in the subject-produced tier, followed by the length of the pause, i.e. #0.6.

Hesitations phenomena were coded in the subject-produced tier. They were introduced with the symbol “&” and then transcribed phonologically, for example “&em”, “&a:”, etc. Repetitions and retractions, corrections and reformulations were marked with

special symbols – [/], [/] and [///] respectively, in the subject-produced tier and then coded with the PHO codes in the %err tier. See Appendix G for a complete list of transcribing symbols.

For the Speech Rate analysis and the Mean Length of Run analysis, syllables and utterances were counted separately by two independent coders: the present researcher and a native speaker. Speech produced between two pauses of 0.3 seconds was counted as an utterance. The interrater agreement was 98% (1640/1671 coding decisions for syllables and utterances on both speech samples).

After the data were coded, the analysis could begin. In order to obtain information about the frequency of different errors within the accuracy measure, i.e. morphological (MOR), lexical (LEX), syntactic (SYN), etc., the FREQ command from CLAN was run for the dependent %err tier. This generated a list with the different codes used in the tier and the total number of occurrences of each one. After careful consideration of the raw analysis, the most frequent errors were chosen for a detailed analysis.

For the analysis of the fluency measures, the FREQ command was used to provide information about the number of occurrence of special symbols such as “&” and “# “. Besides looking for specific information, the program can be used to generate a list of all the words (tokens) used in a sample and the number of different words used (types). This information was used in the fluency analysis in the written sample as well as in the Lexical Density measure.

4.3 The Oral Data

The Storytelling task produced two sets of data, one for each data collection time. The first sample consists of 511 words, produced in 4 min 21 seconds. The second sample consists of 456 words produced in 4 minutes and 5 seconds.

4.3.1 Accuracy

The following sections describe how oral data were analysed with respect to each of the measures specified earlier in the chapter in Table 4.6. The methodological

considerations that had to be taken for each measure, specific coding procedures as well as the problems encountered during the analysis are discussed.

Frequency of Morphological Errors

Morphological errors were coded with MOR in the %err line. Subcategories for agreement (lexical and verbal), aspect, mood, conjugation and tense were distinguished. All mismatches between the agreeer and controller such as “*la* sofa”, “*una* reloj” and “*regalas* caros” were coded as lexical agreement errors. Mismatches between the verb and the object, as in “...se *puede* comprar muchos animals...”, were considered verb agreement errors.

Errors such as “era” instead of “estaba”, as in “pero todavia no *era* superllena”, were coded as errors in aspect. “podia” instead of “podria”, or “sabia” instead of sabria” was considered an error in the mood. Failure to conjugate a verb for the corresponding person, i.e. “...Maria se *puse* (pusó) una falda...”, was marked as a conjugational error.

Finally, errors in the use of the tenses were marked on two levels: errors in the sequence of tenses and incorrect use of the tenses. “...*hablaba* (habló) con el vendedor que se *llama* ...” belongs to the first subcategory – error in tense agreement.

Six different types of errors were found (see Appendix N). Two of these, which were the most frequent ones, were considered for a detailed analysis: the use of Preterito and Verb Conjugations.

The researcher and the native judge had to mark all required uses of Preterito and all required conjugations, as well as the total number of correctly supplied forms and verb conjugations and failures to do so. The interrater agreement was 92% (for 170/183 decisions in both categories). The number of correctly supplied forms/conjugations and the number of obligatory required forms/conjugations were used to calculate the percentage of the correctly supplied forms in all obligatory contexts (hereafter SOC).

As can be seen from Table 4.7, at the beginning of the study, Kathi supplied correctly 14/21 the Preterito and her SOC was 70 %. By the time of T3, there was a 13 % decrease in SOC, because she provided the Preterite correctly only 57% (16/21) of the occasions where she was required to use it.

The number of correctly conjugated verbs decreased by 7 % over data collection times. At T1, Kathi conjugated correctly 72 out 73 verbs where conjugation was required. At T3 however, she conjugated 57 out of 62.

	<u>Preterito</u>		Change Time T1-T3	<u>Verb Conjugation</u>		Change Time T1-T3
	<u>T1</u>	<u>T3</u>		<u>T1</u>	<u>T3</u>	
Used	14	16		72	57	
Required	20	28		73	62	
% SOC	70	57	- 13 %	99	91	- 7 %

Table 4.7 Use of Preterito and Verb Conjugations over time – Oral data

Although the decrease in both categories is not significant (Basic statistics difference test $p < .8498$) this decrease might be indicative of a very slight initial process of language attrition. At future data collection, the percentage of correctly used Preterito and correctly conjugated verbs may drop down significantly.

Further analysis of the use of the Preterito was done which revealed, as can be seen in Table 4.8, that in a 100% of the cases where Kathi failed to supply Preterito she substituted it for the Imperfect tense.

	<u>T1</u>	<u>T3</u>
Incorrect use of Preterite	5	12
Substituted by Imperfecto	5	12

Table 4.8 Oral Data –Substitution of Preterite

On the one hand, this inability to supply the Preterite where required might be a result of failure to acquire the correct use of the tense since this type of error was already present at T1 - %SOC 70.

On the other hand, it might be a case of grammatical transfer from German. In German, two tenses are used to talk about the past: the Imperfekt (Past Simple tense) and the

Perfect (Present Simple). The former, which is a one-word simple tense with morphological inflexions and in that sense correspond to the Spanish Preterito, is used primarily in books and newspapers. The tense used to talk about the past is the Perfect tense (Perfecto) which is a compound tense formed by an auxiliary verb and a past participle, the same way the tense is formed in Spanish. The difference here is that the Spanish Perfecto is used to talk only about recent events in the past, for example something that happened earlier on the day of talking and the Perfecto in German is used to talk about all kinds of events in the past. Neither of these two tenses distinguishes between the perfective (finished actions) aspect and the imperfective aspect (ongoing action) and there is no other tense like in Spanish the Imperfect to talk about actions in the past that are still in progress. Interestingly, instead of over generalising the use of Perfecto, Kathi² over generalises the use of Imperfective and applies it to all situations in the past. Why this is the case is a matter of further research.

What can be said for the purposes of the present research is that there is some pattern of attrition at least in the use of grammatical tenses because even if this item was not fully acquired it gets further aggravated by the lack of use of the language. It is question of further data collection times to see if this pattern continues with time.

Frequency of Syntactic errors

After an initial analysis of the errors which were marked within the SYN category (a list of all errors can be seen in Appendix M), only two subcategories were chosen for further analysis: articles and prepositions. The researcher and the native judge had to mark any unnecessary uses of articles and prepositions, to insert any missing articles or prepositions that were not supplied by the subject. The interrater agreement was 94% (191/203). On the basis of this information the % SOC articles and prepositions was calculated (Table 4.9).

Compared to the attrition of morphology, there was no evidence for attrition of syntax yet. Although at T1 the majority of syntactic errors were connected with the use of articles, instead of aggravating at T3, the use of articles improved. The 78 % of

² Personal observations of the research indicate that this is a common mistake among German L1 speakers of Spanish.

correctly used articles in obligatory context at T1 rose to 85 % at T3 which demonstrates that the Spanish article system was retained quite well.

	<u>Articles</u>		Change Time	<u>Prepositions</u>		Change Time
	<u>T1</u>	<u>T3</u>	T1-T3	<u>T1</u>	<u>T3</u>	T1-T3
Used	32	36		39	39	
Required	41	42		44	45	
% SOC	78	85	+ 7%	88	86	- 2 %

Table 4.9 Prepositions and Articles Used in Obligatory Context – Oral Data

When it comes to the correct use of prepositions in obligatory context, a slight decrease in % SOC is noted between T1 and T3. At T1, Kathi provided 88% of the required prepositions correctly and at T2 - 86 %. This 2% decrease might be an indication of initial problems with the Spanish prepositions.

Frequency of phonological errors

In the area of phonology there was no evidence at all to claim that attrition took place. The PHO category was used to mark errors in pronunciation and disfluencies such as repetitions, corrections and retractions. The latter however, are discussed separately as a measure of fluency later in the chapter.

Session	Item	Pronunciation
T1 (0 months)	Ver	/vier/
	tiempo	/tempo/

Table 4.10 Storytelling – Mispronunciations

Only two instances of the former were observed and at the first data collection (Table 4.10). Even though no other instances of these two words were found in the speech samples both errors seem to be a performance mistake e. As a result it can be said that is no evidence for phonological attrition to have taken place during this eight months.

Frequency of Lexical errors

No evidence for attrition was found either in the productive lexicon. This category (LEX) included errors such as lexical substitutions, e.g. “*hacer* (jugar a) golf; incomplete words - “*sierpe* (serpiente); blended words – “*parrito*” or non words – “*zef*”.

The number of lexical errors in both speech samples was very small and it changed with only one point over time. As shown in Table 4.11 the total number of errors produced is at T1 is 9 and 10 at T2. The only difference is the nature of the errors. At T1, there were 10 errors divided in 4 different categories, i.e. blending, incomplete words, non-words and substitutions. It can be said that at T1 the errors were very scattered.

	<u>T1</u>	<u>T3</u>
Blending	1	0
Incomplete	2	8
Non-words	2	0
Substitutions	4	2
Total	9	10

Table 4.11 Lexical errors – Oral data

The ten mistakes at T2, however, are divided only between two categories – incomplete words and substitutions. The repetitive error here is the word “*serpiente*” which the subject repeatedly referred to as “*sierpe*”. Since no other words were found to suffer from such trimming it is considered that this is a temporary inability to retrieve the full form of the word and it can be said that no evidence for language attrition has been found in the lexical category.

4.3.2 Complexity

Lexical Density

The lexical or vocabulary richness of a text is defined as the ratio between the total number of words (tokens) and the number of different words used (type). Although this measure presents some methodological problems as to the reliability (usually differing

text lengths) and validity (generalizing from a specific activity) (Perdue, 1993), it is widely used in research on language acquisition as an indicator of growing vocabulary, i.e. increase in the proficiency. In research on language attrition, a decrease in the type-token ratio is regarded as an indicator of declining vocabulary.

Even though Russell (1991) found no correlation between text length and type-token ratios, it was decided to control for length effect following Laufer (1991). Thus, only the first 456 words from T1, which correspond to the total number of words in T2 were used in the analysis.

	<u>T1</u>	<u>T3</u>
Type-token ratio	0.395	0.384

Table 4.12 Storytelling - Type-token ratio T1

To calculate the type-token ratio, the `FREQ` command from `CLAN` was used. This generates a file with an alphabetical list of all tokens, the number of the different types of words used and the type-token ratio. As shown in Table 4.12, the type-token ratio does decrease over time, but very insignificantly and it does not provide any clear evidence of language attrition. Still it might be an indicator of a beginning process of lexical attrition.

4.3.3 Fluency

One problem that had to be solved before analysing the data was the difference in length of the two speech samples. To account for this difference, the method recommended by Riggensbach (1991) and applied by Kormos & Dénes (2004) to convert the measurement to occurrences per minute was used in all measures.

It is considered that decrease in the speech rate and mean length of utterance and/or increase in number of silent pauses, number of filled pauses (hesitations), or number of disfluencies are an indication of less fluency. The results from the fluency measures can be seen in Table 4.13.

<u>Variable</u>	<u>T1</u>	<u>T3</u>	<u>p</u>
Speech Rate	202.06	193.95	<.0084
Mean Length of Run	20.44	16.85	<.3754
Number of silent pauses	2.7	6.8	<.0000
Number of hesitations	0.46	3.18	<.0000
Number of disfluencies	3.90	4.89	<.3850

Table 4.13 Changes in fluency over time – difference test

Speech Rate (SR)

Following Riggensbach's method (1991), Rate of Speech (SR) was calculated as the total number of syllables produced in each speech sample which was divided by the total amount of time required to produce the sample expressed in seconds and was finally multiplied by sixty.

In research on language acquisition increase in the rate of speech is usually connected with an increase in proficiency and fluency. Therefore, it was considered that decrease in the rate of speech would be an indication of less fluency.

As can be seen from the results presented in Table 4.13, a slight decrease in the rate of speech was observed. From 202.06 syllables per minute at T1, the rate changed to 193.95 at T3. Basic statistics (Difference test) were used to compare the RS at T and T2 and it showed that the difference was short of significance $p < .0084$. Still it is regarded as an indication of an initial process of attrition.

Mean length of Run (MLR)

Mean length of runs was calculated as the average number of syllables in utterances produced between pauses of 0.3 seconds. Although Kormos & Dénes (2004) used pauses of 0.25 as a cut-off point, as suggested by Towell et al. (1996)³, in the present study, it was not possible to measure fractions of 0.05 seconds due to technical limitations. However, this is not considered to be a serious drawback since the cut-off point for pauses is not firmly established and the 0.25 second limit is only a suggestion.

As in the previous measure, a decrease in the mean length of runs was noted over time. MLR at T1 was 20.44 syllables per utterance and at T3 it dropped down to 16.85 syllables per utterance (Table 4.13).

Difference test showed that the decrease is not significant ($p < .3754$). However, this measure is also taken as a tendency for the participant to produce shorter utterances and therefore show slight signs of attrition.

Number of silent pauses

As explained in the previous section, pauses longer than 0.3 seconds were considered for the present study. The FREQ command was used to count the total number of pauses per data collection time. These were divided by the total time necessary to produce each speech sample expressed in seconds and was then multiplied by sixty to provide the number of pauses per minute.

As shown in Table 4.13, with a total of 29 pauses and duration of 261 seconds, at T1 the number of silent pauses per second was 2.7. In contrast, at T3, the number of total pauses has increased to 28 and the production time has decreased to 245 seconds. Thus, the number of pauses per minute rose to 6.8.

This time the difference between T1 and T2 was found to be significant with $p < .0000$. In addition to the previous two measures, the measure of silent pauses gives grounds to conclude that language attrition has indeed taken place.

³ As cited in Kormos & Dénes, 2004, p. 152.

Number of hesitations

It was explained earlier in the chapter that hesitations were marked with a special symbol “&” in the subject-produced tier. These were then counted with the FREQ command. Again, the total number of hesitations per data collection time was divided by the total amount of time in seconds and was then multiplied by 60.

Only two hesitations were recorded at T1 but at T2 their number rose to 13. As can be seen in Table 4.13, this huge increase combined with the slightly decreased duration of the second speech sample resulted in a soaring increase to 3.18 hesitations per minute at T2, compared to the 0.46 hesitation per minute at T1.

The difference between the two numbers was again compared with basic statistics – difference test, and difference between data collection one and two was found to be significant $p < .0000$. This measure also confirms that language attrition has taken place.

Number of disfluencies

Disfluencies on their turn were marked in the subject-produced tier with [/] for repetitions and retractions as in “le enseño un *un* pajaro” and “tenia *al*-alergia”; the [//] sign was used to mark corrections such as “vio un serpiente *una serpiente*”; and finally, [///] was used for reformulations of speech like for example “Paco le *dij le enseño* un pajaro”. These were then marked in the %err line with PHO codes which were later used to calculate the number of each occurrence at T1 and T3 with the FREQ command.

An increase in the number of disfluencies was found since the number of disfluencies increased from 17 over 261 seconds to 20 over 245 seconds was found. This is a very slight and insignificant increase (difference test $p < .3850$) and still cannot be regarded as clear evidence for attrition.

4.4 The Written Data

The written data produced three sets of data. Even though the subject had 45 min to complete the writing task at all three data collection times, there is a considerable difference in the length of the three texts - 184 words at T1, 467 at T2 and 305. In order

to control for this difference in length in some of the measures, i.e. the lexical complexity measure, only the first 184 word of the samples from T2 and T3 were considered for the analysis.

4.4.1 Accuracy

Frequency of morphological errors

As in the written data, the MOR category distinguished 6 sub-categories, i.e. aspect, agreement, mood, conjugation and tense. The same coding procedure was followed by the researcher and native judge. Unlike in the oral data, the mistakes were very heterogeneous and no patterns could be established. Finally, the subjunctive was chosen for a detailed analysis on the grounds that it is a difficult feature of Spanish and it was a good candidate for attrition.

The researcher and the native judge had to mark all required uses of the subjunctive in the three written samples, as well as all correct and incorrect occurrences. The interrater agreement was 83% (5 out of 6 coding decisions). This information was used to calculate the % SOC of the subjunctive (Table 4.14).

	<u>Subjunctive</u>		
	<u>T1</u>	<u>T3</u>	<u>T3</u>
Used	1	1	0
Required	2	3	1
% SOC	50	33	0

Table 4.14 Oral Data - %SOC of the Subjunctive

Originally at T1 the percentage of correct use of the subjunctive was 50 %. At T2 it dropped down to 33% and at T3 to 0%. The last percentage however is not very revealing since there was only one required use of the subjunctive and the probability to fails one item is very high.

None of the other mistakes noted at T1 aggravated repeatedly at the subsequent data collection times and no additional errors appeared at T2 and T3. Therefore, the analysis of the morphological errors does not provide any evidence for language attrition.

Frequency of syntactic errors

As in the syntax category in the oral data, articles and prepositions were analysed in detail. Again the researcher and the native judge had to mark any unnecessary uses of articles and prepositions and to insert any missing articles or prepositions that were not supplied by the subject. The interrater agreement was 99% (126/127 coding decisions). The % SOC both for articles and prepositions can be seen in Table 4.15.

	<u>Articles</u>			<u>Prepositions</u>		
	<u>T1</u>	<u>T2</u>	<u>T3</u>	<u>T1</u>	<u>T2</u>	<u>T3</u>
Used	18	62	36	28	56	44
Required	19	66	38	29	62	46
% SOC	94	93	94	96	90	95

Table 4.15 Written Data articles and preposition in obligatory context

Although there is a slight difference between the percentage of articles and prepositions correctly used in an obligatory context at T1 and T2 (94 vs. 93 errors in articles, and 96 vs. 90 errors in prepositions), the percentage returned to its original value at T3, i.e. 94 vs. 94 for article use at T1 and T3 and 96 vs. 95 for preposition use at T1 and T3.

The slight tendency for a decrease in the correct use of articles over time which was observed in the oral data is not present in here. There are no grounds to conclude that language attrition has affected the syntactic skills in written production.

Frequency of orthographic errors

Orthographic errors marked as ORT in the %err tier, were further divided into spelling and punctuation errors. The frequency of orthographic errors was calculated as a percentage showing the number of errors per 100 words.

<u>Variable</u>	<u>T1</u>	<u>T2</u>	<u>T3</u>
Spelling	0.54	0.21	1.96
Punctuation	1.08	0.64	0.65

Table 4.16 Written Data - % orthographic errors per 100 words

As can be seen From Table 4.16, initially there is a decrease in the number of spelling errors. From T1 to T3 these dropped from 0.54 % to 0.21 %. From T2 to T3, however, spelling errors increased to 1.96 %.

In the punctuation variable there was actually decrease in the percentage of errors. From 1.08 % at T1, punctuation errors decreased to 0.64 % and then at T3 increased with 1 %.

These changes over time suggest that the orthographic skills of the participant have remained quite intact during the first eight months of non-use of Spanish.

Frequency of lexical errors

The measure of lexical density did not provide firm evidence for language attrition either. The number of mistakes distinguished within this category such as substitutions, incomplete words and blended words was very small and is given in Table 4.17 together with the percentage of errors over 100 words.

As can be seen, at T1 there were no lexical errors at all. Two lexical mistakes were encountered in the data from T2 (0.87% over 100 words) and at T3 these increased to 5 mistakes over 305 words, i.e. 0.98% per 100 words. Although there is some increase the difference which was measured with a difference test is not significant, $p < .0080$. It is

question of further research to see if this tendency continues or is just an effect of the text length, i.e. the longer the text, the higher the probability of a mistake.

<u>Lexical errors</u>	<u>T1</u>	<u>T2</u>	<u>T3</u>
No. Occurrences	0	2	5
% over 100 words	0	0.87	0.98

Table 4.17 Oral data % Lexical errors over 100 words

4.4.2 Complexity

In order to limit any influence that the length of the text/speech might have on the lexical density (Laufer, 1991, p.447), the type-token ratio for the written data was calculated using only the first 184 words from the two subsequent data collection times which correspond to the total number of words produced at T1.

As suggested by Russell (1991) a decrease in the type-token ratio would be interpreted as an indicator of lexical attrition. However, the data is a bit controversial. After an initial increase in the type token ratio, i.e. 0.554 at T1 vs. 0.587 at T2, at T3 the ratio decreased. As can be seen from Table 4.18, at T3 the type token ratio decreased to 0.565.

	<u>T1</u>	<u>T2</u>	<u>T3</u>
type	102	108	104
token	184	184	184
ratio	0.554	0.587	0.565

Table 4.18 Oral data - Type-token ratio over time

Due to the controversial nature of the data it is not possible to make any assumptions that language attrition has taken place during the first 8 months.

4.4.3 Fluency

As already mentioned the fluency data were based on the fluency measures proposed by Pérez-Vidal, Torras & Celaya (2000). To get the total number of words per sample the FREQ command from CLAN was. Sentences and clauses were counted manually by the researcher and the native judge. The interrater agreement was 89% (126 out of 142 coding decisions). Since the time allowed for the completion of this task was 40 min in all three data collection times the whole text samples were taken for the analysis.

The number of words per minute was calculated using Riggensbach's (1991) method, i.e. the total number of words was divided by the total duration of the time (40min) expressed in seconds and the result was then multiplied by 60.

According to Wolfe et al. (1998) (Chenoweth & Hayes, 2001) the length of clauses increases "in a linear relationship to proficiency level across studies, regardless of task, target language, significance of the results, or how proficiency was defined". Increase in the words per sentence, clauses per sentence and words per minute, is also considered as an increase in proficiency. Therefore, any negative changes in these measures would be regarded as a sign for language attrition.

As evident from Table 4.19 the only measure that constantly increases over time is the words per sentence measure. From 13.14 words per sentence at T1, these increased to 21.3 at T2 and reached 21.8 at T3. This comes as a bit surprising, having in mind that the highest number of words was produced at T2. Once we look at the number of sentences measure, however, it becomes clear that this is a result of the sentences becoming longer and longer over time. At T1, Kathi produced 184 words in 14 sentences compared to the 305 words she produced at T3 in the same number of sentences.

Even though increase in the number of words per sentences is generally considered an increase in proficiency, longer sentences are more difficult to construct. They require use of complex structures and thus provide more possibilities for mistakes and lack of clarity. This can be seen in the following sentence from T3 that contains 30 words:

“Estudiantes que deciden a irse al extranjero, particularmente a un país donde se habla una lengua diferente, otra ventaja clave es que se tiene la oportunidad de aprender otro idioma.”

[Students who decide to go to abroad, in particular to a country where a different language is spoken, another important advantage is that there is the possibility to learn another language.]

[Kathi, T3, 8 months non-use]

As a comparison, the longest sentence Kathi produced at T1 consists of 2 words and the longest sentence at T3 of 39 words. Although not all long sentences from T3 present the problems of the one cited above, they in general are quite unnatural and unnecessarily complicated. This increase in sentence length is therefore regarded not as an indication of increase in proficiency but rather as an initial process of attrition.

<u>Variable</u>	<u>T1</u>	<u>T2</u>	<u>T3</u>
Total number of words	184	467	305
Total number of clauses	16	48	31
Total number of sentences	14	20	14
Words per clause	11.5	9.5	8.97
Words per sentence	13.14	21.3	21.8
Clauses per sentence	1.14	2.4	2.21
Words per minute	4.6	11.41	7.62
% Error-free clauses	69	23	19

Table 4.19 Oral data –Fluency measures

Four measures - number of clauses, the number of sentences, clauses per sentence and the words per minute, showed an identical patten of behaviour over time. They increased from T1 to T2 and then decreased at T3. None of these, however, dropped down below the original levels at T1 in each corresponding measure. The number of clauses increased from 16 (T1) to 48 (T2) and then dropped to 31 (T3). The number of

sentences increased from 14 (T1) to 20 (T2) and at T3 went back to 14. Clauses per sentence increased from 1.14 (T1) to 2.4 (T2) and then slightly decreased to 2.21 (T3). Words per minute almost tripled at T2 - 11.41 vs. 4.6 at T1; these then lowered to 7.62 (T3).

Other two measures deserve special attention. One is the total number of words per clause and another one the number of error-free clauses. As shown in Table 4.19, the number of words per clause decreases progressively over time. At T1 there were 11.5 words per clause, at T2 – 9.5 and at T3 - 8.97. The difference between T1 and T3 was compared with a difference test, but it was found not to be significant $p < .3772$. Therefore it cannot be conclusively attributed to language attrition.

The percentage of error-free clauses, which was calculated as the ratio between the error-free clauses out of the total number of clauses and was then multiplied by 100, also decreased over time. At T1 and T2 there was an equal number of error free clauses, i.e. 11 but these were distributed over a different number of total clauses, 16 and 48 respectively for T1 and T2. This gives 69% of error free clauses at T1 and 23% at T2. At T3 the error free clauses were only 6 or 19%. The difference test showed that the difference between T1 and T3 is significant $p < .0024$. Therefore, this can be considered manifestation of attrition.

The overall results and there relation to the hypotheses and research question made in chapter 2 are discussed in the following chapter.

5 Results and Discussion

Chapters 1 and 2 provided background for the present study. In Chapter 1 the growth and importance of multilingualism around the world were discussed together with some implications of multilingualism for language learning and language maintenance within individuals. In Chapter 2 were presented important issues and findings in the study of language attrition. The Dynamic Model of Multilingualism was presented as well as three psychological theories under which multilinguals are especially vulnerable to language attrition. Chapter 2 also provided the research questions set by the study. The present chapter discusses the main findings of the study in the light of the research questions made in Chapter 2; it also compares them to the findings obtained by similar studies.

5.1 Decrease of accuracy over time

What concerns the first research question, i.e. *whether accuracy will decrease over time*, the results yielded do not give grounds to conclude that the overall accuracy has decreased significantly overtime. On the contrary, it can be said that accuracy remained quite intact during the first 8 months on non-use of the language. In the receptive skills section of the test accuracy did not decrease at all. In the production data, three of the accuracy measures, i.e. syntax, lexis and phonology did not generate any evidence for language attrition. The only two measures where some decrease in accuracy was found were the morphological measure both in the oral and written production data and the lexical accuracy measure in the written data. This decrease, however, especially in the latter measure, is very insignificant and is more like a tendency rather than a clear attrition pattern.

Similar finding were obtained by Tomiyama (1999) and Yoshitomi (1999). Tomiyama studied the processes of L2 attrition within a young child during a period of 19 months. She depicts the first stage of attrition as being primarily characterized by loss of fluency and codeswitching which she assumes is a result of problems in lexical retrieval. She

also found some signs of attrition in the morphology and syntax but these were only initial tendency not definite patterns yet. Yoshitomi who also studied the L2 attrition of four Japanese returnee children, comments that although she expected the participants' phonological skills to be retained, she did not expect other production skills, like for example verb morphology, articles, and lexicon to be that well retained. She reports only slight decrease in accuracy in verb morphology and the use of articles.

5.2 Receptive vs. Productive skills

As far as the second research question, whether *any decrease in accuracy will be more evident in the productive than in the receptive skills*, the results from the receptive skills section did not show any signs of attrition. The evidence for attrition, where it was found was in the productive skills. Two of the fluency measures in the oral data, i.e. pauses and hesitations, were demonstrated to have decreased significantly over time thus providing evidence that language attrition has indeed taken place. One measure within the fluency analysis of the written data, the percentage of error free clauses, also allows to conclude that a process of attrition has started. Several more measures in both the oral and written data analysis generated evidence of some tendency for attrition. These are the lexical density measure in the oral data, the morphology analysis in both data sets; the speech rate, mean length of a run and disfluencies from the fluency analysis of the oral data; the lexical accuracy measure in the written data and the words per sentence and words per clause from the fluency analysis of the written data.

Therefore, it might be concluded that the present study supports previous findings which report longer retention of receptive skills over productive skills, such as the ones carried out by Bahrick (1984) who find no attrition in the receptive skills of school acquired Spanish for up to 50 years. Weltens et al. (1989) carried out a study on the retention of school acquired French by Dutch students for a period of 4 years following the acquisition period and also reported no attrition in the receptive skills.

5.3 Attrition and the different linguistic systems

With respect to the way that the different linguistic systems are affected, i.e. *whether they are affected differently or in the same way*, it was observed that the different linguistic skills were not affected in the same way. Some indications of attrition of

morphology and a slight tendency for attrition in the productive lexicon were present, but the phonology/orthography, receptive grammar and lexicon, and syntax remained quite untouched throughout the course of the study.

Similar pattern was found by Moorcroft & Gardner (1987) and Weltens et al. (1989) who found that the morphological level was the first one to be affected in adult foreign language learners, followed by the lexical. This, however, is in contrast to the findings made by Yoshitomi (1992, 1999) who found that vocabulary, i.e. lexical skills, were the first ones to be affected. She came to the conclusion, as Gardner & Moorcroft (1989) suggested, that this difference might be due to the different proficiency levels of the subjects. More proficient students lose more vocabulary than grammar and low proficiency students lose more grammar than vocabulary. This, according to her and Gardner & Moorcroft (1989) is because high proficiency students have fairly stable knowledge of grammar and larger vocabulary. This view is supported by research on L1 attrition (Kaufmann & Aronoff, 1991) where it is accepted that native speakers have fully acquired the L1 grammar and which reports that lexicon is more affected than grammar.

5.4 Attrition and Fluency

Fluency, especially in the oral data, was actually the area where more evidence for attrition was found. A significant increase in the number of pauses and hesitations over time was observed in the oral data. The number of repetitions and self-corrections also increased over time, although not significantly. The speech rate and the mean length of run slightly decreased. Although not all changes observed were significant, when put together they demonstrate deterioration in fluency. In the present study, as well as other longitudinal studies such deterioration of fluency is considered first sign of attrition.

Another study that supports this view is Kuhnberg's (1992) study on three Turkish children with attriting German. The first mark of attrition is reported to be slower speech. Tomiyama (1999), in her study on the attrition of L2 (English) of a Japanese returnee child, also found that an increase in pauses, disfluencies and hesitations was the first manifestation of attrition.

Some evidence that fluency in the writing skills has been affected by attrition was found in the decrease in the percentage of error free clauses over time. This slight but significant decrease was accompanied by a decrease in the clause length too. No comparison to other studies can be made since to my knowledge no other study on attrition of writing skills has been carried out and therefore these are taken as first indications of attrition in the writing skills.

5.5 Immediate Attrition vs. Initial Plateau

The onset of attrition is a controversial point in studies on language attrition. Kuhnberg (1992) reports no change in proficiency for the first 6 months after the children lost contact with the dominant language. Kauffman & Aronoff (1991) report an onset of attrition on the seventh months. These two studies, as well as her own study, made Tomiyama (1999, p. 75) conclude that the onset of attrition occurs “around six months after removal from the dominant language environment”. This is contradicted by research carried out by Murtagh (2003), who found no attrition for the first 18 months after end of training for school acquired Irish. The present study also showed very little change in proficiency for the first 8 months of non-use of a language.

Reports on the rate of attrition are also heterogeneous. Bahricks (1984) influential study demonstrated that attrition occurred rapidly after the end of the acquisition/training period and then levelled off for as long as 50 years. Other studies, however, contradict this pattern. Research by Kaufman & Aronoff (1991); Kuhnberg's (1992), Tomiyama (1999) and Weltens & van Els (1986) showed a reverse pattern. They report an original period without attrition, called by Weltens & Cohen (1989) “an initial plateau” which is later followed by attrition. The duration of this “plateau” may differ significantly, i.e. Kaufman & Aronoff (1991) report 3 months; Kuhnberg's (1992) – six and Tomiyama (1999) – 19 months.

The present study also gives support for the “initial plateau” idea which as explained earlier in Chapter two might be the result of a high original level of proficiency that “protects” the existing knowledge of a language. Besides in fluency and some slight changes in morphology, the present study did not observe any significant changes in the overall proficiency of the participant for the first eight months.

5.6 Last acquired - first to go

The last research question that the present study posed was whether support for the Regression Hypotheses would be found, i.e. whether the elements detected to have attrited during the 8-month period (if any) would be the ones that were learned last. As was argued earlier in the chapter, signs for attrition were found mainly in the fluency measure. The slight tendency for attrition that was observed in morphology, viz. use of Preterito and Subjunctive, do not give grounds to conclude that language is forgotten in the reverse order in which it is acquired. Preterito is a simple tense that comes quite early in the syllabus and is followed by more complex tenses such as the Pluperfect and the Pluperfect Subjunctive. Even though the Subjunctive is a difficult item that is usually acquired later in the learning process, the data are not sufficient to conclude that attrition first affects the elements learned later.

6 Summary and Conclusions

This chapter summarises the main findings of this exploratory study which aimed at investigating the effects of eight-month non-use of one of the languages (Spanish) of a German multilingual. In section 6.1 the methodology used in the study is presented. The next section summarizes the findings of the study and outlines some possible flaws in the project. The last section gives some suggestions for further research which can contribute to expand our knowledge on the problems of language attrition.

6.1 Overview of the Study

The aim of the present study was to investigate the first eight months of non-use of one of the languages (Spanish) of a multilingual (L1 German) and whether this would result in attrition of the language. Under the Dynamic Model of Multilingualism and the three psychological theories which were discussed in detail in chapter two, multilinguals are every vulnerable to attrition. Therefore, the study also aimed at verifying if this is the case or not. The study also aimed at observing whether accuracy would decrease over time; whether the receptive skills would be more affected than the productive in case evidence for attrition was found; whether the different linguistic skills would be affected differently; whether the participant's fluency would be affected; whether attrition would take place immediately or an initial period without attrition will be observed and finally whether any support for the Regression hypothesis would be found.

6.2 Methodology

A case study approach was considered to be the most appropriate for the present study for a number of reasons. Due to the exploratory and qualitative nature of the study no intention for generalisations was made right from the beginning. A case study approach also allows to cope with possible problems when creating groups, such as the inability to find multilinguals with the same linguistic background and who stop using the same language at the same time. It is also particularly suitable for a detailed and in-depth

investigation of the phenomenon being studied. The longitudinal design was chosen because it allows to follow the development of the participant by establishing a baseline for his/her proficiency at the onset of non-use of the language and then comparing all subsequent results with it. This also allowed to avoid the problem of attrition vs. non-acquisition of a given element.

Besides the main data collection instrument (language test), a set of additional questionnaires was created, i.e. a language contact questionnaire and an attitude and motivation questionnaire. These two questionnaires provided information about the participant's linguistic background, knowledge of languages and use of these languages before and after the onset of non-use until the last data collection time. The attitude and motivation questionnaire was considered important because these two factors might influence the process of attrition, i.e. high motivation may slow down the attrition process and low motivation may accelerate it. The language test which consisted of 6 sections was created on the basis of materials from the official exam of Spanish as a foreign language (DELE). It contains four sections on receptive skills – reading comprehension, listening comprehension, recognition of grammar and vocabulary and two production sections - essay writing and story telling. The receptive skills subsections consist of two-level difficulty items, i.e. difficult items at advanced level and easier items at intermediate level. This was done to see if accuracy in the difficult items would decrease more than accuracy in the easy items, and thus find support for the Regression hypothesis.

The subject of the study, Kathi, is a German L1 multilingual, who besides speaking Spanish fluently and at an advanced level, boasts native-like English and some knowledge of French and Swedish. She has also been exposed to Basque and Catalan but claims no knowledge of these two languages. After having studied Spanish at university, Kathi participated in a 9-month Erasmus exchange program at a University in the Basque country. The last year at university she also did a 3-month internship in Madrid and after graduating she went to live and work in Barcelona. In all her stays in Spain she was trying to use Spanish as a means of communication although she was also using German and English at work. After two years in Barcelona Kathi went to Germany where she lives and works in a strictly German speaking environment. The language profile questionnaire shows that her use of Spanish dropped significantly after she left Spain.

As explained earlier in the chapter, data were collected longitudinally. An initial baseline data set was gathered just before Kathi left Barcelona and was used as a baseline against which all consecutive data was evaluated. In order to avoid test effect but also to be able to follow the processes involved in the non-use of the language, subsequent testing was done at four-month intervals. The only exception was the story telling which was done at 8-month intervals. Thus, three sets of data were collected for the receptive skills and the writing task and two for the storytelling task. The present researcher organised the first data collection in Barcelona. For the two subsequent data collections, the materials were adapted to electronic format and were sent over the internet. The participant had to time herself and was instructed not to use any source materials. After data collection she was also asked to erase the materials so that she would not have access to them.

6.3 Summary of Results

The results obtained by the present study can be summarized as follows:

- (i) Generally the participant demonstrated little language attrition over time. Although high retention of receptive skills was expected, the participant's productive subskills such as phonology, vocabulary and syntax were better than expected.
- (ii) Attrition was more evident in the fluency measures. In the oral data, a significant increase in pauses and hesitations was found and there was a slight tendency for a slower rate of speech, shorter mean length of run and a slight increase in the number of disfluencies. In the written data, there was a significant decrease in the number of error-free clauses over time and a tendency for a decrease in the number of words per clauses.
- (iii) More subtle indications of attrition were manifested in the morphology measure in both data sets; the syntactic measure in the oral data and the complexity measure again in the oral data. Kathi's style also slightly changed to longer and complicated sentences providing more opportunities to make mistakes.

- (iv) No indication that attrition happens in the reverse order of acquisition was found, i.e. no support for the Regression Hypothesis was found.

The fact that the participant's proficiency in Spanish did not attrite much during the first eight months of non-use and lack of contact with the language might be explained by a number of factors.

First, as in other studies with similar findings (Kaufmann & Aronoff, 1991; Kuhnberg, 1992; Murtagh, 2003; Tomiyama, 1999 and Tomiyama 2000) the participant in the present study was demonstrated to have started the study with a very high, advanced level in the target language. As argued earlier in Chapter 2, a high level of attained proficiency in the target language might lead to an initial detention of the attrition process or the so called *initial plateau*. The *initial plateau* idea is linked to a *critical threshold* level that has to be reached in order for a person to become "immune" to language attrition. Therefore, it might be the case that even though Kathi's Spanish is a good candidate for attrition under the pressure of the other languages that she speaks and the fact that she no longer uses it actively (DMM model and psychological theories), the high level that she had achieved, helps to preserve it.

Second, another possible reason for the results obtained might be the effect that the testing itself has on the participant. The very data collection process provides contact with and opportunities to practise the language. Hence the opportunity provided by the data collection, although only once at four months, might have helped Kathi to maintain her Spanish to a certain degree. Indications of this positive effect of the data collection might be found in the slight increase in the scores obtained in the Grammar section. Unfortunately, in order to solve this problem the data collection process can not be avoided.

Third, the fact that the test given at all data collection times is the same might result in a priming effect or a test-learning effect. Although when asked if she could remember the test and the tasks Kathi said no, there might be a subconscious memorization of at least some of the items included in the test which help her perform well in subsequent data collection times. This problem might be solved by using a different tests at data collection times but creating several versions of a test that measure exactly the same things is highly improbable and decreases the chances of making a comparison between

the performance at different collection times. Another possibility would be to increase the time span between data collection periods but here again one has to be very careful if the aim is to see the process of attrition not just to establish it. A period of more than a year would most probably guarantee lack of test-learning effect but maybe would not give information as to the process involved in the attrition.

Fourth, it should be noted that the participant was very highly motivated to learn Spanish and had a very positive attitude towards language learning in general and Spanish, Spanish people and culture in particular. These factors might also be contributing to the lack of attrition that was found in the present study. However, it would be a matter of another larger scale study to prove if motivation and attitude can have such a strong retention effect.

Fifth, the results obtained in the present study might be a consequence of some shortcomings of the project. One possibility is that the test used to collect the data is not sensitive enough to detect slight changes in the participant's proficiency, especially in the receptive skills where no attrition at all was detected. Another possibility is flaws in the organization of the data collection, i.e. the first data set was collected in the presence of the investigator and the subsequent ones not. This might be the reason for the discrepancy in the amount of the written data produced at the different data collection times. Instead of producing the longest text at the baseline data collection when supposedly proficiency was still not affected, Kathi came up with the longest text at T2. It might be the case that the presence of the researcher intimidated her and later when she was on her own she felt calmer and was able to easily express herself. For further research it would be better to have similar testing conditions at all data collection times.

Sixth, as noted by Yoshitomi (1999) measuring language skills separately may distort the picture and not reflect well the degree to which overall attrition has taken place. She claims that language skills and abilities are interconnected and that attrition in one element triggers attrition in another. Thus, if a particular group or subsystem is affected more or earlier, sooner or later it will "contaminate" the other subsystems because "no one subsystem can be used in total disconnection with others" Tomiyama (1999, p. 93). Therefore, it is not possible to isolate a particular subskill of a language and accept that the result of its measurement reflects the actual proficiency of the speaker. The fact that

attrition is difficult to measure in some subsystems does not mean that it is not taking place. However, a reliable measure able of capturing all aspects of a language is yet to be found.

Seventh, the lack of proof for the Regression Hypothesis might be due to the fact that the design of the study was not aimed exclusively at checking the Regression Hypothesis. Another possibility is that because the investigated period is still too short and the data gathered are very limited it is yet too early to mark any patterns. With more data on attrition however, it should be easier to see if what is first forgotten is the last to have been acquired.

The results of the present study are insightful in that they demonstrate that multilinguals are not as vulnerable to attrition as would be expected under the Dynamic Model of Multilingualism and the other three psychological theories presented in Chapter 2. High level of attained proficiency might turn out to be a good predictor in the retention of languages even in cases where there is a strong competition for memory space and recourses as in the case of multilinguals.

However, in order to firmly state that multilinguals are not as susceptible to attrition as presumed and that the results of the present study are not merely the result of some personal characteristics of the participant a larger scale study has to be carried out.

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[illegible]

12. ¿Ha vivido alguna vez en una situación donde era expuesto/a a una lengua que **NO** fuera su lengua(s) materna o el español? Por favor, ponga la información en la taula abajo marcando el año y la duración de la instancia y la razón por estar ahí.

Lugar	Lengua	Duración	Razón

13. Por favor, auto-evalúa su nivel de conocimiento al respecto de cada una de las habilidades de cada una de las lenguas que Vd. habla, utilizando la siguiente escala:

1 – Malo, 2 – Bueno, 3 – Muy bueno, 4 – Nativo/casi-nativo

Lengua	Comprensión auditiva	Expresión oral	Comprensión de lectura	Expresión escrita

14. ¿Ha estudiado español en cada uno de los niveles siguientes? Si la respuesta es positiva, por favor marque el periodo también.

14a. primaria: ___ No ___ Si: ___ menos de un año; ___ 1-2 años; ___ más de 2 años

14b. secundaria: ___ No ___ Si: ___ menos de un año; ___ 1-2 años; ___ más de 2 años

14c. bachillerato: ___ No ___ Si: ___ menos de un año; ___ 1-2 años; ___ más de 2 años

14d. universidad: ___ No ___ Si: ___ menos de un año; ___ 1-2 años; ___ más de 2 años

14e. Otro (por favor específica) _____

___ No ___ Si: ___ menos de un año; ___ 1-2 años; ___ más de 2 años

17. Por favor, cumple la información referente a su alojamiento en la taula que sigue, marcando el tipo de alojamiento (piso compartido, dormitorio, etc.), la nacionalidad de cada uno de los compañeros del piso (si vivía/vive solo/a, ponga solo/a) y la lengua que utilizaba/utiliza con cada uno.

Lugar	Alojamiento	Compañeros del piso	Lengua(s)

18. Por favor, marque la lengua que utiliza con las siguientes personas y estime la frecuencia con cual lo hace. Si utiliza más de una lengua con la misma persona empieza por la lengua que se utilice más frecuentemente que puede variar según la persona. Utilice la siguiente escala:

1 – Nunca, 2 – A veces, 3 - Siempre

Con	Lengua	Lengua	Lengua	Lengua	Lengua	Lengua
padre						
madre						
hermano/a						
amigos						
mismo/a						
novio/marido						
mascota						
compañeros del trabajo						

19. ¿Que lengua utiliza normalmente (si utiliza mas de una lengua enuméralas empezando por la lengua más frecuente) cuando:

19a. Hace calculaciones: adición, multiplicación, etc. _____

19b. Sueña _____

19c. Expresa sentimientos _____

19d. Dice palabrotas _____

19e. Mira la televisión _____

19f. Escucha la radio _____

19g. Hace la compra _____

19h. Lee libros _____

19i. Lee periódicos _____

19j. Lee revistas _____

19k. Lee menús, horarios, etc. _____

19l. Lee emails _____

19m. Escribe cartas _____

19l. Escribe emails _____

19n. Mira paginas por Internet _____

19o. Mira películas o videos _____

20. ¿Es fácil para usted aprender lenguas?

1 – Muy fácil, 2 –Fácil, 3 – Ni fácil ni difícil, 4 – Difícil, 5 – Muy difícil

21. ¿Cual cree que es la parte más fácil de aprender de una lengua?

1 - La pronunciación

2 - El vocabulario

3 - La gramática

Appendix B Language Profile Questionnaire – Subsequent Testing

CUESTIONARIO - LENGUAS

Fecha

1. Por favor, marque cuanto tiempo dedicaba a las siguientes actividades después de irse de España.

1. Leer periódicos en español

☐ – nunca, ☐ – algunas veces al año, ☐ – mensualmente, ☐ – semanalmente, ☐ – a diario

2. Leer libros en español

☐ – nunca, ☐ – algunas veces al año, ☐ – mensualmente, ☐ – semanalmente, ☐ – a diario

3. Leer revistas en español

☐ – nunca, ☐ – algunas veces al año, ☐ – mensualmente, ☐ – semanalmente, ☐ – a diario

4. Leer revistas en español

☐ – nunca, ☐ – algunas veces al año, ☐ – mensualmente, ☐ – semanalmente, ☐ – a diario

5. Leer emails en español

☐ – nunca, ☐ – algunas veces al año, ☐ – mensualmente, ☐ – semanalmente, ☐ – a diario

6. Leer paginas de Internet en español

☐ – nunca, ☐ – algunas veces al año, ☐ – mensualmente, ☐ – semanalmente, ☐ – a diario

7. Escuchar música española

☐ – nunca, ☐ – algunas veces al año, ☐ – mensualmente, ☐ – semanalmente, ☐ – a diario

8. Escuchar la radio en español

☐ – nunca, ☐ – algunas veces al año, ☐ – mensualmente, ☐ – semanalmente, ☐ – a diario

9. Mirar la tele en español

☐ – nunca, ☐ – algunas veces al año, ☐ – mensualmente, ☐ – semanalmente, ☐ – a diario

10. Mirar películas o videos en español

☐ – nunca, ☐ – algunas veces al año, ☐ – mensualmente, ☐ – semanalmente, ☐ – a diario

11. Escribir cartas o notas en español

☐ – nunca, ☐ – algunas veces al año, ☐ – mensualmente, ☐ – semanalmente, ☐ – a diario

12. Escribir emails en español

☐ – nunca, ☐ – algunas veces al año, ☐ – mensualmente, ☐ – semanalmente, ☐ – a diario

13. Hablar en español con gente nativa

☐ – nunca, ☐ – algunas veces al año, ☐ – mensualmente, ☐ – semanalmente, ☐ – a diario

14. Hablar en español con otros extranjeros que hablan español

☐ – nunca, ☐ – algunas veces al año, ☐ – mensualmente, ☐ – semanalmente, ☐ – a diario

2. Pensando en los últimos meses después de irse de España, marque la lengua que utilizaba con las siguientes personas y estime la frecuencia con cual lo hacía. Si utiliza más de una lengua con la misma persona, empiece por la lengua que utilice más frecuentemente. Use la siguiente escala:

1 – Nunca, 2 – A veces, 3 – A menudo 4 - Siempre

Padre

Madre

Hermano/a

Amigos

Uno mismo

Novio

Mascota

Compañeros del trabajo

3. ¿Qué lengua utiliza normalmente cuando? (Si utiliza más de una lengua enuméralas empezando por la lengua más frecuente)

1. Hace cálculos: sumas, multiplicación, etc.

2. Sueña

3. Expresa sentimientos

4. Dice palabrotas

5. Mira la televisión

6. Escucha la radio

7. Hace la compra

8. Lee libros

9. Lee periódicos

10. Lee revistas

11. Lee menús, horarios, etc.

12. Lee emails

13. Escribe cartas

14. Escribe e-mails

15. Mira páginas por Internet

16. Mira películas o vídeos

Appendix C Attitude and Motivation Questionnaire

Following are a number of statements with which some people agree and others disagree. There are no right or wrong answers since many people have different opinions. We would like you to indicate your opinion about each statement by circling the alternative below it which best indicates the extent to which you disagree or agree with that statement.

Following is a sample item. Circle the alternative below the statement which best indicates your feeling.

1. Canadian hockey players are better than Russian hockey players.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
----------------------	------------------------	----------------------	---------	-------------------	---------------------	-------------------

In answering this question, you should have circled one of the above alternatives. Some people would circle Strongly Disagree, others would circle Strongly Agree, and still others would circle one of the alternatives in between. Which one you circled would indicate your own feelings based on everything you know and have heard. Note, there is no right or wrong answer. All that is important is that you indicate your personal feeling.

Please give your immediate reactions to each of the following items. Don't waste time thinking about each statement. Give your immediate feeling after reading each statement. On the other hand, please do not be careless, as it is important that we obtain your true feelings.

1. If I were visiting a foreign country I would like to be able to speak the language of the people.

<input type="checkbox"/> Strongly Disagree	<input type="checkbox"/> Moderately Disagree	<input type="checkbox"/> Slightly Disagree	<input type="checkbox"/> Neutral
<input type="checkbox"/> Slightly Agree	<input type="checkbox"/> Moderately Agree	<input type="checkbox"/> Strongly Agree	

2. I wish I could speak another language perfectly.

<input type="checkbox"/> Strongly Disagree	<input type="checkbox"/> Moderately Disagree	<input type="checkbox"/> Slightly Disagree	<input type="checkbox"/> Neutral
<input type="checkbox"/> Slightly Agree	<input type="checkbox"/> Moderately Agree	<input type="checkbox"/> Strongly Agree	

3. I want to read the literature of a foreign language in the original language rather than a translation.

<input type="checkbox"/> Strongly Disagree	<input type="checkbox"/> Moderately Disagree	<input type="checkbox"/> Slightly Disagree	<input type="checkbox"/> Neutral
<input type="checkbox"/> Slightly Agree	<input type="checkbox"/> Moderately Agree	<input type="checkbox"/> Strongly Agree	

4. I often wish I could read newspapers and magazines in another language.

<input type="checkbox"/> Strongly Disagree	<input type="checkbox"/> Moderately Disagree	<input type="checkbox"/> Slightly Disagree	<input type="checkbox"/> Neutral
<input type="checkbox"/> Slightly Agree	<input type="checkbox"/> Moderately Agree	<input type="checkbox"/> Strongly Agree	

5. I would really like to learn a lot of foreign languages.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

6. If I planned to stay in another country, I would make a great effort to learn the language even though I could get along in English/German.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

7. I would study a foreign language in school even if it were not required.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

8. I enjoy meeting and listening to people who speak other languages.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

9. Studying a foreign language is an enjoyable experience.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

10. It is important for Austrian people to learn foreign languages

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

11. Spanish people are considerate of the feelings of others.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

12. I have a favourable attitude towards Spanish people.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

13. The more I learn about Spanish people, the more I like them.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

14. Spanish people are trustworthy and dependable.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

15. I have always admired Spanish people.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

16. Spanish people are very hospitable and friendly

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

17. Spanish people are cheerful, agreeable and good humoured.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

18. I would like to get to know Spanish people better.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

19. Spanish people are very kind and generous people

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

20. For the most part, Spanish people are sincere and honest.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

21. Learning Spanish was really great.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

22. I really enjoyed learning Spanish.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

23. Spanish is an important part of the school programme.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

24. I planned learning as much Spanish as possible.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

25. I loved learning Spanish.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

26. I hated Spanish.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

27. I would rather spend my time on subjects other than Spanish.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

28. Learning Spanish was a waste of time.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

29. I thought that learning Spanish was dull.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

30. I gave up the study of Spanish entirely because I was not interested in it.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

31. Studying Spanish can be important to me because it allows me to be more at ease with people who speak Spanish.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

32. Studying Spanish can be important for me because it allows me to meet and converse with more and varied people.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

33. Studying Spanish can be important for me because it enables me to better understand and appreciate Spanish art and literature.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

34. Studying Spanish can be important for me because I am able to participate more freely in the activities of other cultural groups.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

35. Studying Spanish can be important for me only because I'll need it for my future career.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

36. Studying Spanish can be important for me because it will make me a more knowledgeable person.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

37. Studying Spanish can be important to me because I think it will someday be useful in getting a good job.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

38. Studying Spanish can be important for me because other people will respect me more if I have a knowledge of a foreign language.

- ☐ Strongly Disagree ☐ Moderately Disagree ☐ Slightly Disagree ☐ Neutral
☐ Slightly Agree ☐ Moderately Agree ☐ Strongly Agree

Part II. Put a tick in the box corresponds more closely to your answer.

1. During Spanish class, I would like:

- ☐ to have a combination of Spanish and English/German spoken.
- ☐ to have as much English/German as possible spoken.
- ☐ to have only Spanish spoken.

2. If I had the opportunity to speak Spanish outside of school, I would:

- ☐ never speak it.
- ☐ speak Spanish most of the time, using English only if really necessary.
- ☐ speak it occasionally, using English whenever possible.

3. Compared to my other courses, I liked Spanish:

- ☐ the most.
- ☐ the same as all the others.
- ☐ least of all.

4. If there were a Spanish Club in my university, I would:

- ☐ attend meetings once in awhile.
- ☐ be most interested in joining.
- ☐ definitely not join.

5. If it were up to me whether or not to take Spanish, I:

- ☐ would definitely take it.
- ☐ would drop it.
- ☐ don't know whether I would take it or not.

6. I found studying Spanish:

- ☐ not interesting at all.
- ☐ no more interesting than most subjects.
- ☐ very interesting.

7. I would watch Spanish T.V. programmes:

- ☐ sometimes.
- ☐ as often as possible.
- ☐ never

8. If I had the opportunity to see a Spanish play, I would:

- ☐ go only if I have nothing else to do.
- ☐ definitely go.
- ☐ not go.

9. If there were Spanish-speaking families in my neighbourhood, I would:

- ☐ never speak Spanish to them.
- ☐ speak Spanish with them sometimes.
- ☐ speak Spanish with them as much as possible.

10. If I had the opportunity and knew enough Spanish, I would read Spanish magazines and newspapers:

- ☐ as often as I could.
- ☐ never.
- ☐ not very often.

11. I actively think about what I have learned in my Spanish class:

- ☐ very frequently.
- ☐ hardly ever.
- ☐ once in a while.

12. If Spanish were not taught in university, I would:

- ☐ pick up Spanish in everyday situations (i.e., read Spanish books and newspapers, try to speak it whenever possible, etc.).
- ☐ not bother learning Spanish at all.
- ☐ try to obtain lessons in Spanish somewhere else.

13. When I had a problem understanding something we were learning in Spanish class, I:

- ☐ immediately asked the teacher for help.
- ☐ only sought help just before the exam.
- ☐ just forgot about it.

14. When it comes to Spanish homework, I:

- ☐ put some effort into it, but not as much as I could.
- ☐ work very carefully, making sure I understand everything.
- ☐ just skim over it.

15. Considering how I study Spanish, I can honestly say that I:

- ☐ do just enough work to get along.
- ☐ will pass on the basis of sheer luck or intelligence because I do very little work.
- ☐ really try to learn Spanish.

16. If my teacher wanted someone to do an extra Spanish assignment, I would:

- ☐ definitely not volunteer.
- ☐ definitely volunteer.
- ☐ only do it if the teacher asked me directly.

17. After I get my Spanish assignment back, I:

- ☐ always rewrite them, correcting my mistakes.
- ☐ just throw them in my desk and forget them.
- ☐ look them over, but don't bother correcting mistakes.

18. When I am in Spanish class, I:

- ☐ volunteer answers as much as possible.
- ☐ answer only the easier questions.
- ☐ never say anything.

19. If there were a local Spanish T.V. station, I would:

- ☐ never watch it.
- ☐ turn it on occasionally.
- ☐ try to watch it often.

20. When I hear a Spanish song on the radio, I:

- ☐ listen to the music, paying attention only to the easy words.
- ☐ listen carefully and try to understand all the words.
- ☐ change the station.

Appendix 4 Demographic form Pre-Test Participants

Number	Sex	Years Spain	Age
1	1	3,1	28
2	1	1,8	28
3	1	1,8	27
4	2	1	29
5	1	2,4	29
6	2	1,1	36
7	2	1,9	26
8	2	3,4	26
9	2	3	22
10	2	2,8	25

Sex – 1 female, 2 male; years in Spain in years, months; age in years

Minimum/Maximum/Mean Age & Years in Spain

	Mean	Maximum	Minimum
Age	26.40	29	22
Years in Spain	2.23	1	3.4

Men – Women ratio

Men	- 60%
Women	- 40%

Appendix E Language Test

Fecha

Nombre y apellido

TEST DE ESPAÑOL COMO LENGUA ESTRANJERA

SECCION I

COMPRESIÓN ESCRITA	4 PRUEBAS	40 MIN
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SECCION II

EXPRESIÓN ESCRITA	1 PRUEBA	40 MIN
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SECCION III

COMPRESIÓN ORAL	4 PRUEBAS	40 MIN
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SECCION IV

GRAMÁTICA	2 PRUEBAS	40 MIN
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SECCION V

VOCABULARIO	2 PRUEBAS	30 MIN
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SECCION VI

EXPRESIÓN ORAL	1 PRUEBA	20 MIN
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TOTAL 210 MIN (3h30min)

SECCION I COMPRENSIÓN ESCRITA**INSTRUCCIONES**

En esta sección encontrará usted tres textos y una serie de preguntas relativas a cada uno de ellos. Seleccione la respuesta correcta entre las tres opciones que se le ofrecen: **a**, **b** o **c**.

Texto 1**CÓMO NEGOCIAR UN CONTRATO**

La negociación de un contrato de trabajo es uno de los momentos clave para un directivo a lo largo de su carrera. Se debe asumir de forma profesional, planteando a la empresa lo que se espera conseguir con el nuevo contrato, pero sin olvidar que una presión excesiva puede perjudicar.

La mayor parte de las negociaciones frustrantes se producen por inseguridad y precipitación. Muchas veces el directivo adopta una postura totalmente errónea y se plantea inmediatamente las condiciones económicas de su contratación, obviando los demás componentes de la oferta. “Siempre interesa más estimar la proposición en su conjunto, teniendo en cuenta aspectos muy concretos, como, por ejemplo, el tipo y duración del contrato”, el nombre del puesto, su categoría y las condiciones económicas. También hay que concretar detalles como la determinación de los objetivos, las ventajas adicionales, los beneficios sociales y las cláusulas especiales. Finalmente, están las condiciones de rescisión del contrato y de indemnización.

Nunca se debe tomar una decisión definitiva en el mismo momento de recibir una oferta. Una reflexión de entre 24 y 48 horas permite también pedir asesoramiento sobre el tema. También es conveniente reflexionar sobre aspectos subjetivos de la oferta para asegurarse de que cubre el nivel de vida deseado y será fuente de motivación durante cierto tiempo. Evite las trampas más frecuentes, como un salario exagerado, unas condiciones muy generosas o la falta de contrato.

Otro aspecto a tener en cuenta es que el directivo no considere a su posible nuevo empleado como un enemigo. Una vez que la empresa ha tomado la decisión de contratar a un profesional, es la primera interesada en superar los obstáculos que puedan aparecer en la negociación.

Por último, una vez valorado el conjunto de la oferta, el directivo siempre tiene la última palabra, tanto si la acepta como si prefiere rechazarla. En ambos casos, lo oportuno es manifestar agradecimiento, así como los motivos de la decisión, con entusiasmo y respeto y sin perder la oportunidad de seguir en contacto con la empresa para otras posibilidades en el futuro.

(Adaptado de Expansionyempleo.com, España)

1. Según el texto, es aconsejable que el directivo presione a la empresa para conseguir un buen contrato.

☐ Verdadero.

☐ Falso.

2. Según el texto, en la negociación de un contrato no sólo deben tomarse en consideración los aspectos económicos de la oferta.

☐ Verdadero.

☐ Falso.

3. Según el texto, si se rechaza la oferta de contrato es preferible no comunicar los motivos a la empresa.

☐ Verdadero.

☐ Falso.

Texto 2

CURSOS PARA EMPRENDER UN NEGOCIO

Cuando un proyecto de negocio propio empieza a hacerse concreto, muchos emprendedores necesitan que alguien los oriente y anime en esta especie de locura que es lanzarse al mercado. Pensando en estas personas, el Centro Cultural Ricardo Rojas, de la Universidad de Buenos Aires ofrece, desde su departamento de Capacitación Continua, formación para micro y pequeñas empresas.

«En el Rojas diseñamos cursos de distintos formatos y de duración variable, según las necesidades de la gente. Nuestros cursos están orientados a personas que quieren empezar o ya han iniciado su aventura empresarial», explica Claudio Lesnichevsky, coordinador de los cursos.

Las áreas de las que se ocupan estos cursos son: presentación de proyectos empresariales, diseño y ejecución del plan de mercadotecnia, estrategias de promoción y publicidad, y gestión de ventas. También es posible formarse en informática y lenguas extranjeras, entre otras cosas.

La mayoría de estos cursos no requieren estudios previos y están dirigidos a jóvenes y adultos que pueden desempeñarse en espacios institucionales, comunitarios y empresariales. «La característica más importante de nuestros cursos es que tienen una aplicación absolutamente práctica y, en general, esto es muy valorado por los alumnos. Además, ofrecemos los servicios de consultoría y orientación para buscar financiamiento», comentó Lesnichevsky a La Nación.

Después de haber vivido cuatro años en París trabajando en el sector gastronómico, Antonio Soriano volvió a la Argentina con ganas de comenzar algo nuevo. Montó una pequeña empresa junto con su esposa. Al contar su experiencia en el curso de gestión que está tomando, aseguró: «Estoy contento, aprendí que soy empresario y, además, todo lo que aprendemos me sirve para ponerlo en práctica hoy mismo».

Entre sus compañeros podemos encontrar desde el dueño de una heladería o una ferretería hasta el mago que quiere montar una empresa de entretenimiento. Algunos están dando sus primeros pasos y otros quieren renovar negocios familiares. «Todos aportan su mirada y las posibles soluciones para los problemas. Hay teoría, pero relacionada con situaciones cotidianas que nos toca enfrentar. Así, aprendemos a controlar nuestras empresas para no dejarnos llevar por los sucesos del momento», contó Soriano.

(Adaptado de La Nación. Argentina)

4. Según el texto, los cursos que ofrece el Centro Cultural Ricardo Rojas:

- ☐ están dirigidos a todo tipo de empresas.
- ☐ cambian constantemente.
- ☐ se ajustan a las necesidades del emprendedor.

5. Según el texto, los participantes de estos cursos:

- ☐ tienen que tener experiencia empresarial.
- ☐ aprecian que sean prácticos.
- ☐ reciben financiación para su proyecto.

6. En el texto se nos informa de que Antonio Soriano:

- ☐ realiza un curso con su mujer.
- ☐ aplica lo que aprende en el curso.
- ☐ está renovando un negocio familiar.

INSTRUCCIONES

En esta sección encontrará usted tres textos y una serie de preguntas relativas a cada uno de ellos. Seleccione la respuesta correcta entre las tres opciones que se le ofrecen: **a**, **b** o **c**.

Texto 3

CAMBIAR LA PERSONALIDAD

Hace ya algunos años que la ciencia descubrió que los rasgos de la personalidad no son inamovibles. En la actualidad la ciencia ha ganado la batalla y ha demostrado que es posible elegir las características que nos hacen únicos. La mayoría de los psicólogos están de acuerdo en que el conjunto de rasgos responsables de perfilar nuestra personalidad se compone de cinco factores muy precisos.

Estos rasgos son conocidos como los cinco grandes: extraversión, afabilidad, conciencia, estabilidad y flexibilidad. La combinación y el porcentaje de estos rasgos, presentes en cada uno de nosotros, es lo que nos diferencia del resto de los mortales, lo que nos hace únicos. Pero, ¿es posible cambiar estos porcentajes? ¿Se puede lograr, supongamos, una mayor estabilidad emocional? ¿Ser más extravertidos? Hoy los científicos aceptan, cada vez con más firmeza, que el resultado de lo que somos está en nuestras huellas genéticas, pero que estas improntas no están escritas con tinta indeleble y pueden ir cambiando.

Los científicos han descubierto que el ambiente tiene un impacto mucho mayor en nuestra personalidad de lo que se creía hasta hoy. De tal manera que, por medio de un estudio realizado entre más de 130.000 voluntarios desde los 21 a los 60 años, llegaron a la conclusión de que, a partir de los 20 años, se desarrolla un mayor sentido de la disciplina y de la organización, virtudes ambas propias de la conciencia.

Al llegar a los 30 años somos más sociales y generosos, cualidades relacionadas con la afabilidad. Pero a medida que envejecemos hay un declive en nuestra capacidad de apertura y cada vez nos volvemos más rígidos en nuestras convicciones.

El estudio viene a añadir nuevos elementos a la larga controversia humana sobre si es más determinante en la formación de la personalidad la herencia genética o el ambiente social en el que nos desarrollamos.

Recientes investigaciones demuestran que al menos un 32% de nuestra inteligencia está moldeada por el medio social en el que el cerebro está constantemente aprendiendo, en un permanente dinamismo. Aunque también es cierto que toda función humana, incluida la personalidad, existe en un espectro en el que inicialmente está predeterminada por un preciso y único perfil genético.

Sin embargo, en qué lugar de ese espectro nos situemos es una decisión propia y del ambiente en el que vivimos, que no está predeterminada genéticamente. De hecho, no hay un gen único para determinar la inteligencia, ni para definir la personalidad ni para explicar nuestros comportamientos.

Todos estos aspectos son poligénicos, es decir, están influidos por varios genes. La Asociación Americana de Psicología asegura que hay muchos niveles en la estructura de cada personalidad y el nivel en que ésta actúa en cada momento es sensible a lo que ocurra alrededor: así, es posible cambiar nuestra personalidad si intencionalmente alteramos las circunstancias que nos afectan. Aquí se encuentra la primera puerta abierta al cambio. De todos los mecanismos destinados a modificar nuestra personalidad, éste es el más sencillo: no requiere una introspección personal ni un conocimiento muy profundo de las características y de los rasgos propios.

Para producir un cambio más sustancial hay que saber reconocer cuánto nos influyen los cinco grandes y cómo manipular esa influencia en nuestro beneficio.

En este sentido, según Antonio Bolinches, psicólogo clínico y miembro de la Academia de Ciencias Médicas de Cataluña y Baleares, se puede cambiar la personalidad a partir del comportamiento si entendemos cambiar por mejorar, pero es necesaria cierta flexibilidad que con los años se va perdiendo.

Hasta los 40 o 30 años, las posibilidades de moldear nuestra personalidad son reales. Es posible aprender a modificar ciertos rasgos de la personalidad, cambiando comportamientos que parecen ser dominantes, como la timidez y los arranques de ira. Si esos rasgos pasan de dominantes a ser controlables parece que hemos cambiado, pero sólo hemos controlado una característica dominante.

La tercera causa posible de cambios en la personalidad requiere un conocimiento personal objetivo y a la vez vasto y es el más difícil de alcanzar, pues ni es provocado por un nuevo entorno ni se origina en un acontecimiento sorpresivo. De hecho, el modo en que lidiamos con lo inesperado es parte de nuestra personalidad y ser consciente de ello puede llevarnos al cambio. Cambiar la personalidad es como conducir un velero. No se puede dar un giro brusco, pero unos pocos grados bastan para llevarnos en una dirección distinta.

No importa que nuestra personalidad sea principalmente genética o esté influida por el ambiente, la realidad es que cambiar es una necesidad evolutiva.

Bolinches la explica del siguiente modo: “La persona no cambia voluntariamente, sino a través de una crisis que la hace plantearse su realidad. Nos planteamos una modificación cuando queremos resolver algún conflicto que nos causa un sufrimiento y eso es lo que activa un cambio. Cuando uno está bien no precisa cambiar.”

(Adaptado de la revista *Quo*, España)

1. En el texto se afirma que:

- ☐ el entorno es el factor que tiene más influencia en nuestra forma de ser.
- ☐ a medida que nos hacemos viejos nos volvemos más abiertos.
- ☐ nuestras huellas genéticas son dominantes.

2. Según el texto, hasta los 30 años:

- ☐ podemos cambiar completamente la personalidad.
- ☐ tenemos más capacidad para compartir nuestras opiniones.
- ☐ es posible pulir ciertos rasgos de carácter.

3. En el texto se afirma que:

- ☐ nadie cambia cuando está satisfecho.
- ☐ las modificaciones en el carácter son espontáneas.
- ☐ nuestro carácter cambia si no nos enfrentamos a lo sorpresivo.

Texto 4

PAPEL: LAS COSAS SALIERON AL REVÉS

Las cosas suelen salir al revés de lo que se esperaba. Lo que se supone facilita la circulación termina por hacerla más lenta y lo que parecía iba a dar más seguridad resulta una amenaza. Los optimistas del progreso técnico deben pensar dos veces antes de sacar sus conclusiones.

Hace unos quince años, cuando comenzaron a difundirse las computadoras, arrancó Internet y se generalizó el correo electrónico, muchos pensaron que el consumo de papel en el mundo iba a disminuir: el que se utiliza en la comunicación escrita, tanto en periódicos como en las oficinas, sería remplazado por flujos de información electrónica. Esto permitiría avanzar en la trayectoria de una “desmaterialización” de la producción debido al predominio de las tecnologías de la información.

Pero ni las computadoras ni el correo electrónico han contribuido a reducir el consumo de papel en las sociedades industrializadas. La mayor parte de las empresas de estos países siguen utilizando archivos impresos para sus operaciones de todo tipo y sólo una minoría de esos registros se guarda de forma electrónica. Las millones de impresoras de tinta y láser que operan en el mundo reclaman una cuota cada día más grande de papel.

En las comunicaciones mundiales el correo escrito sigue siendo muy importante y no sólo en los países con menor número de computadoras. Mucho de ese volumen está ligado al comercio por catálogo y a listas de distribución de publicidad comercial. Aunque mucho del papel que se utiliza para periódico en el mundo es reciclado, se espera que el crecimiento de la demanda para los cotidianos del mundo se mantenga estable a lo largo de los próximos años. Esas proyecciones están basadas en el creciente número de lectores en Asia, donde los periódicos tienen tirajes que superan los millones de ejemplares diarios. Por su parte, las publicaciones electrónicas (otra de las promesas para la “desmaterialización”) apenas ocupan una parcela inferior al 10 por ciento del mercado editorial en el mundo. La demanda de papel y cartón se multiplicó. El crecimiento más vertiginoso se produjo a partir de 1973. Un componente importante de esta demanda creciente depende de los embalajes y de la industria empacadora.

La mayor parte de la pulpa y papel que se produce en el mundo proviene de la explotación forestal. Una parte de esta producción se origina en bosques sujetos a normas de manejo forestal más o menos aceptables; otra parte proviene de plantaciones forestales, algunas de las cuales están sujetas a certificación por organismos que buscan garantizar la sustentabilidad de la explotación. Pero las plantaciones entrañan problemas en la medida en que introducen especies exóticas poco amistosas con el medio ambiente anfitrión. Además, a medida que aumenta la demanda, la presión sobre bosques primarios crecerá. La industria de la pulpa y papel es la otra fuente de problemas ambientales. Es intensiva en agua y energía y arroja muchos compuestos tóxicos a las aguas.

Las negociaciones para la continuación de un régimen sobre cambio climático seguramente tendrán un efecto sobre las plantaciones y el régimen de manejo forestal al considerar los bosques como sumideros netos de carbono. Esas medidas no resolverán el problema de la acumulación de gases invernadero a la atmósfera. Tampoco van a servir para garantizar el manejo sustentable de los recursos forestales. Sería más productivo comenzar a pensar en normas de reciclaje obligatorio y un régimen serio y transparente de certificación forestal. Si no se avanza por ese camino y si se quiere evitar que las cosas salgan al revés, el siguiente paso será establecer metas para reducir el consumo.

(Adaptado de *La Jornada*, México, www.flacso.edu.mx)

4. Según el texto, con la llegada de las nuevas tecnologías:

- ☐ se ha reducido el gasto de papel.
- ☐ el consumo de papel no ha experimentado variaciones.
- ☐ se está incrementando la demanda de papel.

3. Del texto se desprende que las plantaciones forestales:

- ☐ son siempre sustentables.
- ☐ a veces rompen el ecosistema.
- ☐ han sustituido casi totalmente a los bosques primarios.

☐ se resolverá continuando con las medidas actuales.

☐ no se solucionará plantando más árboles.

Instrucciones

“Estudiar en el extranjero es siempre mejor.”

[illegible]

SECCION III COMPRENSIÓN ORAL**INSTRUCCIONES**

En esta sección usted va a oír cuatro textos. Oirá cada uno de ellos dos veces. Al final de la segunda audición de cada uno de los textos, dispondrá de tiempo para contestar a las preguntas que se le formulan.

Hay dos modalidades de pregunta.

Primer tipo: a) Verdadero.

b) Falso.

Segundo tipo: Selección de una respuesta entre tres opciones que se le ofrecen: **a, b o c.**

Texto 1**CONCURSO DE RELATOS**

A continuación escuchará un texto en el que se informa de un concurso de guiones organizado por RNE.

(Adaptado de RNE. España)

Preguntas:

1. Según la grabación, los Juegos Olímpicos de Japón son el tema del concurso de guiones.

☐ Verdadero.

☐ Falso.

2. Según la grabación, cada participante tiene que presentar dos copias de cada guión.

☐ Verdadero.

☐ Falso.

3. En la grabación se dice que la propuesta ganadora será publicada.

☐ Verdadero.

☐ Falso.

Texto 2**CURSOS A DISTANCIA**

A continuación escuchará una noticia sobre unos cursos a distancia.

(Adaptado de radio.uchile.cl. Chile)

Preguntas:

4. En la grabación se dice que el curso está dirigido a:

- ☐ estudiantes.
- ☐ profesores.
- ☐ desempleados.

3. En la grabación se afirma que este curso:

- ☐ se desarrollará por primera vez.
- ☐ se impartirá por videoconferencias.
- ☐ tendrá una duración de seis meses.

6. En la grabación se informa de que:

- ☐ el curso tratará el tema de la evaluación.
- ☐ será necesario aprobar un examen para poder participar en el curso.
- ☐ todos los participantes recibirán un diploma de asistencia.

Texto 3**GUILLERMO ARRIAGA, ESCRITOR Y GUIONISTA**

A continuación escuchará una entrevista con el guionista y escritor mexicano Guillermo Arriaga.

(Texto adaptado de Punto Radio. España)

Preguntas:

1. El entrevistado explica que en este libro:

- ☐ ha dado un giro a su trayectoria.
- ☐ se funden todas sus ideas previas.
- ☐ ha buscado influencias externas a su obra.

2. De la entrevista con Guillermo Arriaga se desprende que el guionista se alegró porque en Cannes:

- ☐ hubo otros premiados de su película.
- ☐ pudo dedicar el premio al público.
- ☐ sintió mejor acogida que en Venecia.

3. En la grabación el entrevistado opina que el escritor de cine:

- ☐ está sólo al servicio de los directores.
- ☐ tiene que ser reconocido como un verdadero autor.
- ☐ debe respetar la visión de los directores.

4. Según Arriaga, suele crear sus historias:

- ☐ soñando con posibles galardones.
- ☐ para realzar la importancia de los guionistas.
- ☐ inspirándose en la propia existencia.

Texto 4

ELEGIR UN GIMNASIO

A continuación escuchará unos consejos para elegir bien un gimnasio.

(Texto adaptado de Localia TV. España)

Preguntas:

11. En la grabación se afirma que la mayoría de los gimnasios disponen de servicios similares.

- ☐ Verdadero.
- ☐ Falso.

12. Según la grabación, el factor más importante para que el gimnasio resulte efectivo es el tipo de actividades que uno desarrolle en él.

- ☐ Verdadero.
- ☐ Falso.

13. En la grabación se recomienda acudir a gimnasios con un nivel de ejercicios medio.

- ☐ Verdadero.
- ☐ Falso.

14. En el texto se afirma que cancelar los pagos a través de tarjeta es muy complicado.

- ☐ Verdadero.
- ☐ Falso.

SECCION IV GRAMÁTICA**PRUEBA 1****Instrucciones**

Complete el siguiente texto eligiendo para cada uno de los huecos una de las tres opciones que se le ofrecen.

SOLO, CORTADO, CON LECHE...

¿Quién no ha tomado un café en su vida? Sería difícil encontrar a alguien que no ____1____ esta bebida energética tan popular. De hecho, en nuestro país tomarse un café ____2____ parte de la cultura cotidiana: en el desayuno, a media mañana, tras una buena comida o cena... Nos gusta ____3____ que hemos inventado mil maneras de presentación: solo, cortado, corto de café, con leche fría, en vaso, en taza pequeña, descafeinado ____4____ máquina...

Según cuenta la leyenda, la culpa de todo esto la tiene un pastor que al ____5____ la excitación en la que se encontraba su rebaño ____6____ de tomar los frutos de unos arbustos, recogió muestras de esta planta y se ____7____ llevó a los monjes de un monasterio cercano. Estos ____8____ que la infusión conseguida de los frutos ____9____ mantenía despiertos y comenzaron su recolección y su propagación.

Existen hoy más de sesenta especies botánicas diferentes, ____10____ son dos las de ____11____ consumo: la arábica y la robusta. La primera, originaria de Etiopía, es la más antigua y la más rica en cafeína. La robusta, ____12____, es más suave y menos excitante. Como ____13____ lógico, la calidad del café depende de su recolección y del tratamiento que recibe, pero el proceso ____14____ a nosotros nos importa preferentemente es el tueste. ____15____ este proceso la semilla del café aumenta de tamaño y cambia de color, determinando el ____16____ y el sabor.

Llegamos, por fin, ____17____ la hora de la elaboración. Muchas ____18____ las posibles recetas que en el mercado ____19____ saborear: en infusión, filtrado, en puchero o espresso... De todos modos, si tuviéramos que señalar la más conocida, sin duda, la elegida ____20____ el espresso. Pues bien, ya sabemos un poco más de esta asombrosa bebida. ¿No le apetece tomarse un café?

(Adaptado de El Dominical. España)

- | | | | |
|-----|---------------------------------------|--|--|
| 1. | <input type="checkbox"/> haya probado | <input type="checkbox"/> habría probado | <input type="checkbox"/> habrá probado |
| 2. | <input type="checkbox"/> da | <input type="checkbox"/> forma | <input type="checkbox"/> hace |
| 3. | <input type="checkbox"/> tan | <input type="checkbox"/> tantos | <input type="checkbox"/> tanto |
| 4. | <input type="checkbox"/> con | <input type="checkbox"/> en | <input type="checkbox"/> de |
| 3. | <input type="checkbox"/> comprobar | <input type="checkbox"/> comprobando | <input type="checkbox"/> comprobado |
| 6. | <input type="checkbox"/> después | <input type="checkbox"/> tras | <input type="checkbox"/> luego |
| 7. | <input type="checkbox"/> las | <input type="checkbox"/> les | <input type="checkbox"/> los |
| 8. | <input type="checkbox"/> descubrían | <input type="checkbox"/> han descubierto | <input type="checkbox"/> descubrieron |
| 9. | <input type="checkbox"/> los | <input type="checkbox"/> las | <input type="checkbox"/> se |
| 10. | <input type="checkbox"/> aunque | <input type="checkbox"/> porque | <input type="checkbox"/> por lo tanto |
| 11. | <input type="checkbox"/> grande | <input type="checkbox"/> mayor | <input type="checkbox"/> muy |
| 12. | <input type="checkbox"/> pero | <input type="checkbox"/> sin embargo | <input type="checkbox"/> sino que |
| 13. | <input type="checkbox"/> es | <input type="checkbox"/> está | <input type="checkbox"/> hay |
| 14. | <input type="checkbox"/> el que | <input type="checkbox"/> el cual | <input type="checkbox"/> que |
| 13. | <input type="checkbox"/> Mientras | <input type="checkbox"/> Durante | <input type="checkbox"/> En tanto |
| 16. | <input type="checkbox"/> fragancia | <input type="checkbox"/> esencia | <input type="checkbox"/> aroma |
| 17. | <input type="checkbox"/> a | <input type="checkbox"/> en | <input type="checkbox"/> por |
| 18. | <input type="checkbox"/> hay | <input type="checkbox"/> están | <input type="checkbox"/> son |
| 19. | <input type="checkbox"/> podamos | <input type="checkbox"/> podemos | <input type="checkbox"/> pudiéramos |
| 20. | <input type="checkbox"/> sea | <input type="checkbox"/> sería | <input type="checkbox"/> fuera |

PRUEBA 2**Instrucciones**

Complete el siguiente texto eligiendo para cada uno de los huecos una de las tres opciones que se le ofrecen.

Ejecutivos con corazón

En uno de los libros más populares de este verano _____ 21_____ un capítulo íntegro dedicado a los “ejecutivos con corazón”. Explica su autor que, si estos quieren ser eficaces, la vida _____ 22_____ va a exigir poner en su trabajo más corazón. La inteligencia social es un aspecto que nos _____ 23_____ actuar sabiamente en las relaciones humanas y constituye un elemento que hay que _____ 24_____ en cuenta para valorar el coeficiente intelectual de una persona. El término resultó muy sugestivo, hasta _____ 23_____ punto que se iniciaron varias investigaciones sobre este tipo de inteligencia. Estudios posteriores han llegado a una conclusión importante: “la inteligencia social no sólo es diferente de las habilidades académicas, sino que constituye un elemento para que las personas _____ 26_____ adecuadamente los imperativos prácticos de la vida”. Uno de los elementos más valorados en el campo laboral es el punto de sensibilidad que hace que los directivos _____ 27_____ eficaces ante los mensajes tácitos de sus subordinados. Hubo un largo tiempo _____ 28_____ el cual se premiaba al jefe manipulador, que se movía en el trabajo como si se _____ 29_____ en la selva. Esa lucha representa el pasado de la vida corporativa, _____ 30_____ el futuro está simbolizado por la persona experta en las habilidades interpersonales. _____ 31_____ jefe no tiene nada _____ 32_____ ver con el control de los demás, sino con el arte de persuadirles para colaborar en la construcción de un objetivo común. Y, en lo que _____ 33_____ a nuestro propio mundo interior es esencial reconocer nuestros sentimientos más profundos, que nos _____ 34_____ qué hacer para estar más satisfechos con nosotros mismos. Quizás se nos ha inculcado _____ 35_____ forma machacona que la inteligencia es lo que nos _____ 36_____ de los irracionales. Y es así, pero esa inteligencia, que nos _____ 37_____ regalada, no la podemos desarrollar sólo en primera persona, en una postura que encerraría el afán legítimo _____ 38_____ llegar a la cumbre del saber en una terrible dosis de egoísmo. Es posible que nuestra inteligencia, al abrirse hacia el mundo que nos rodea, empiece a adquirir un nivel de mayor calidad, no porque nuestros logros personales _____ 39_____ siempre en relación con el otro, sino con

los otros. _____40_____ tengamos que pasar de la sociedad del bienestar a la sociedad de la preocupación por los que tenemos a nuestro alrededor.

(Adaptado de Revista Telva. España)

- | | | | |
|-----|---------------------------------------|---------------------------------------|-------------------------------------|
| 21. | <input type="checkbox"/> tiene | <input type="checkbox"/> está | <input type="checkbox"/> hay |
| 22. | <input type="checkbox"/> los | <input type="checkbox"/> se | <input type="checkbox"/> les |
| 23. | <input type="checkbox"/> permite | <input type="checkbox"/> permita | <input type="checkbox"/> permitiera |
| 22. | <input type="checkbox"/> tener | <input type="checkbox"/> haber | <input type="checkbox"/> darse |
| 24. | <input type="checkbox"/> tan | <input type="checkbox"/> tanto | <input type="checkbox"/> tal |
| 26. | <input type="checkbox"/> frenen | <input type="checkbox"/> afronten | <input type="checkbox"/> apuesten |
| 27. | <input type="checkbox"/> sean | <input type="checkbox"/> son | <input type="checkbox"/> serán |
| 28. | <input type="checkbox"/> durante | <input type="checkbox"/> desde | <input type="checkbox"/> mientras |
| 29. | <input type="checkbox"/> hallaría | <input type="checkbox"/> hallaba | <input type="checkbox"/> hallara |
| 30. | <input type="checkbox"/> sólo que | <input type="checkbox"/> mientras que | <input type="checkbox"/> sino que |
| 31. | <input type="checkbox"/> Ser | <input type="checkbox"/> Es | <input type="checkbox"/> Siendo |
| 32. | <input type="checkbox"/> a | <input type="checkbox"/> que | <input type="checkbox"/> de |
| 33. | <input type="checkbox"/> relaciona | <input type="checkbox"/> refiere | <input type="checkbox"/> respecta |
| 32. | <input type="checkbox"/> indicaran | <input type="checkbox"/> indicaron | <input type="checkbox"/> indicarán |
| 33. | <input type="checkbox"/> de | <input type="checkbox"/> con | <input type="checkbox"/> en |
| 36. | <input type="checkbox"/> distinguiera | <input type="checkbox"/> distinga | <input type="checkbox"/> distingue |
| 37. | <input type="checkbox"/> ha estado | <input type="checkbox"/> ha sido | <input type="checkbox"/> ha dado |
| 38. | <input type="checkbox"/> en | <input type="checkbox"/> por | <input type="checkbox"/> con |
| 39. | <input type="checkbox"/> están | <input type="checkbox"/> estén | <input type="checkbox"/> estarán |
| 40. | <input type="checkbox"/> Así que | <input type="checkbox"/> De ahí que | <input type="checkbox"/> Como si |

SECCION V

VOCABULARIO

PRUEBA 1**Instrucciones**

En cada una de las frases siguientes se ha marcado con **letra negrita** un fragmento.

Elija de entre las tres opciones de respuesta, aquélla que tenga un significado equivalente al del fragmento marcado. Por ejemplo:

– Marta no ha venido: **se encuentra un poco indispuesta**, pero se le pasará.

a) está ocupada

b) está algo enferma

c) se ha enfadado

(La respuesta correcta es b.)

1. – ¿Qué te pasa? ¿No te encuentras bien?

– La verdad es que estoy **agotado**.

☐ triste

☐ cansado

☐ preocupado

2. – El Sr. Director **había quedado** con usted a las 3, ¿verdad?

– Sí, pero me ha sido imposible llegar antes.

☐ tenía una cita

☐ lo llamó a

☐ estuvo con

3. – ¿Cuándo se discutirán los presupuestos con los inversores?

– Mañana mismo voy a **convocar** una reunión.

☐ tener

☐ anunciar

☐ cancelar

2. – El gerente nos ha pedido que le pasemos los informes **más a menudo**.

– Sí, claro. No hay ningún problema.

☐ más completos

☐ más frecuentemente

☐ más esquemáticos

3. – Date prisa, está a punto de empezar la conferencia y ya sabes que me gusta **llegar a tiempo**.

– No te preocupes que ya he acabado.

☐ antes

☐ sin prisas

☐ a la hora

6. – Carlos sigue enfadado conmigo.

– Es normal. **Ponte en su lugar**.

☐ Intenta comprenderlo

☐ Intenta disculparte

☐ Intenta hablarle

7. – **Parece mentira** que haya bajado tanto la temperatura.

– Ya lo habían avisado en las noticias de la mañana.

☐ No es verdad

☐ Es increíble

☐ Es dudoso

8. – ¿**Te hacen falta** todavía los materiales que te presté?

– No, mañana mismo te los devuelvo.

☐ Llevas

☐ Necesitas

☐ Sirven

9. – ¡Por fin tienes el libro de Pitol que tanto deseabas!

– Sí, lo encontré **de casualidad** en una feria de libros en México.

☐ por suerte

☐ muy barato

☐ hace poco

10. – ¿Qué CD quieres?

– Da lo mismo, el que **esté más a mano**.

☐ tengas en la mano

☐ esté más cerca

☐ sea más moderno

PRUEBA 2**Instrucciones**

En cada una de las frases siguientes se ha marcado con **letra negrita** un fragmento.

Elija de entre las tres opciones de respuesta, aquélla que tenga un significado equivalente al del fragmento marcado. Por ejemplo:

– Marta no ha venido: **se encuentra un poco indispuesta**, pero se le pasará.

a) está ocupada

b) está algo enferma

c) se ha enfadado

(La respuesta correcta es b.)

11. El otro día, a mi vecina le dio un **patatús** cuando oyó la noticia.

☐ susto

☐ desmayo

☐ disgusto

12. No me gusta **tomar partido** por nadie cuando un asunto es importante.

☐ inclinarme a favor de alguien

☐ ponerme en contra de alguien

☐ competir con alguien

13. El profesor los vio copiar e **hizo la vista gorda**, pero no creo que fuera la primera vez que lo hacían.

☐ denunció la situación

☐ explicó la situación

☐ pasó por alto la situación

12. Ayer **no pegué ojo** en toda la noche y hoy estoy rendida.

☐ no dormí

☐ no aparté la vista

☐ no me concentré

13. Es una película muy **macabra**, hacía tiempo que no veía algo igual.

☐ tenebrosa

☐ exótica

☐ cómica

16. Mi hermana **se pone cerril** cuando habla sobre temas laborales.

- ☐ se preocupa
- ☐ se muestra grosera
- ☐ se pone nerviosa

17. Nunca ayudaba a sus compañeros, pero un día **se lo echaron en cara**.

- ☐ se lo reprocharon.
- ☐ lo obligaron.
- ☐ se resignaron.

18. Mi hijo **es muy indolente**, estoy un poco preocupada por él.

- ☐ no es sociable
- ☐ no es diligente
- ☐ no es simpático

19. Eso que me cuentas es un hecho **insólito**, por lo menos esa es mi opinión.

- ☐ desacostumbrado
- ☐ desfavorable
- ☐ desafortunado

20. Fue una actuación **sin parangón** con la de los demás artistas.

- ☐ sin preparación
- ☐ sin éxito
- ☐ sin comparación

21. Las declaraciones del presidente del jurado han **caldeado** el ambiente.

- ☐ calentado
- ☐ aburrido
- ☐ alegrado

22. Es un poeta urbano de lenguaje **certero**, por eso destaca sobre los demás.

- ☐ atinado
- ☐ improvisado
- ☐ crítico

23. Me reveló sus más **recónditos** secretos y realmente me quedé sorprendida.

- ☐ increíbles
- ☐ hondos
- ☐ pequeños

22. Ella comentó que el delegado le había prestado una atención **exigua**.

☐ excelente.

☐ parca.

☐ excesiva.

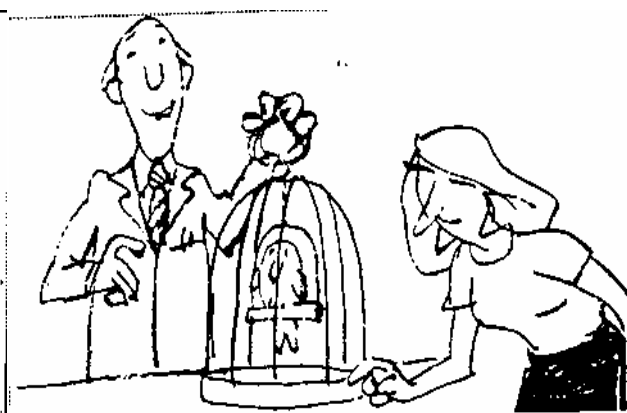
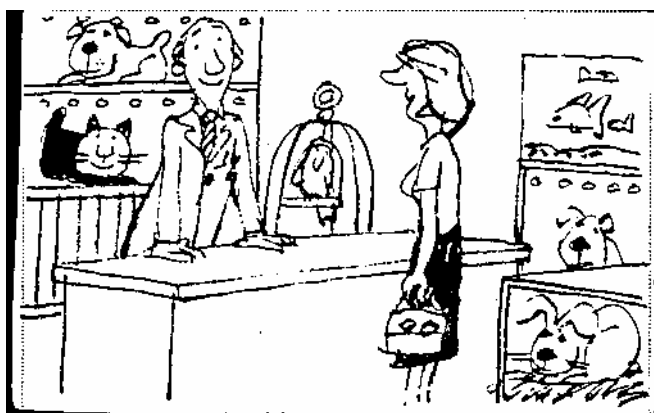
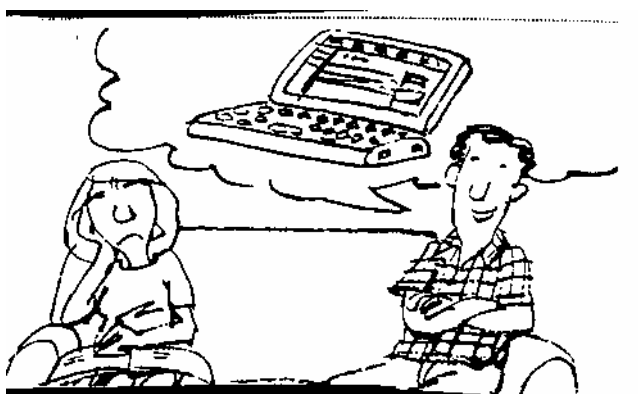
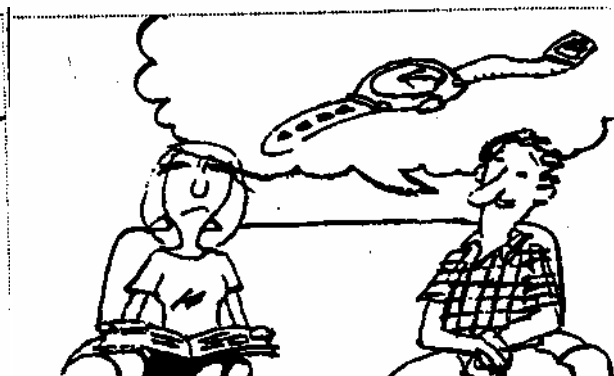
23. En medios literarios causó **estupor** la noticia.

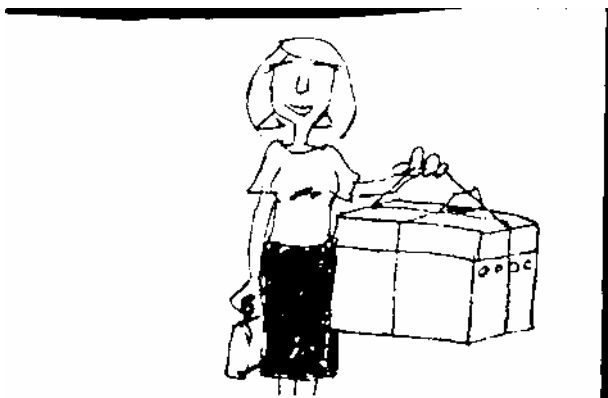
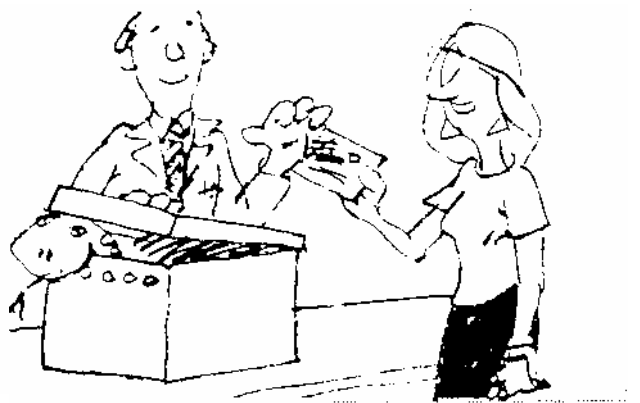
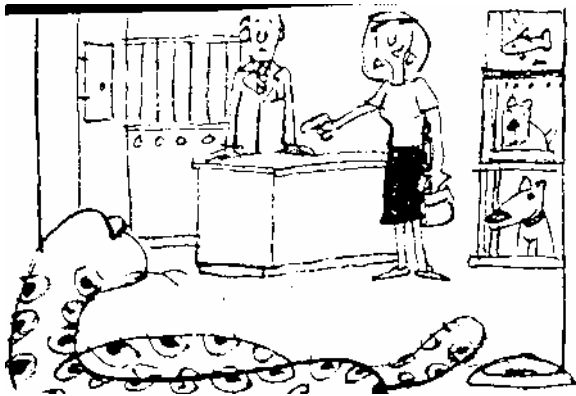
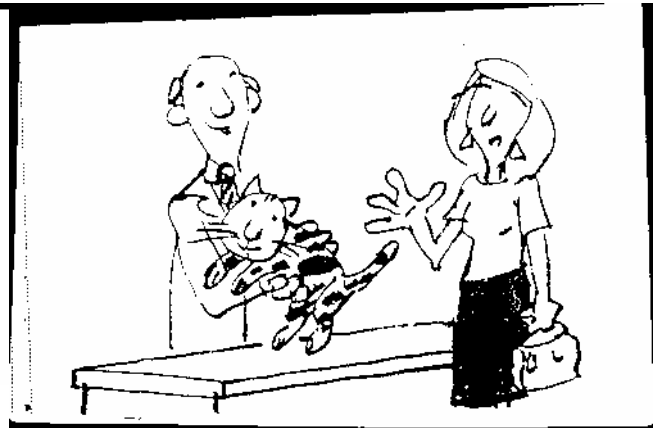
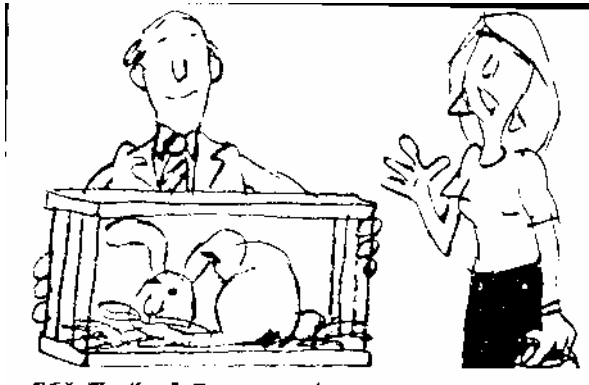
☐ pasmo

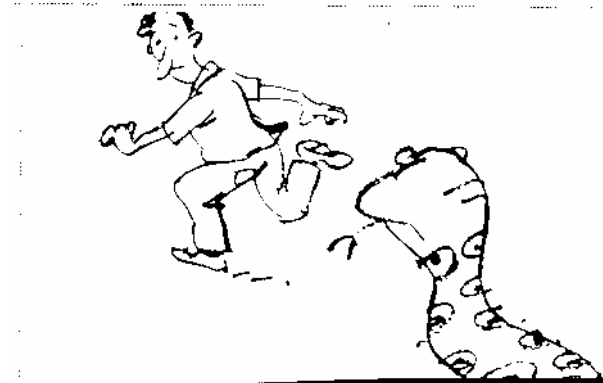
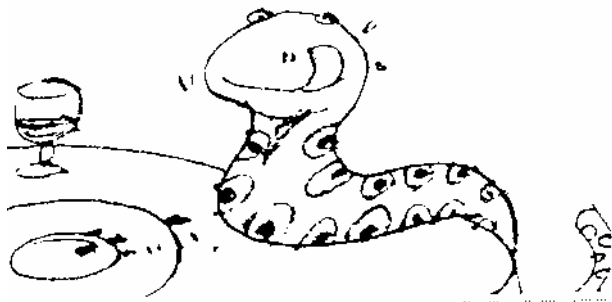
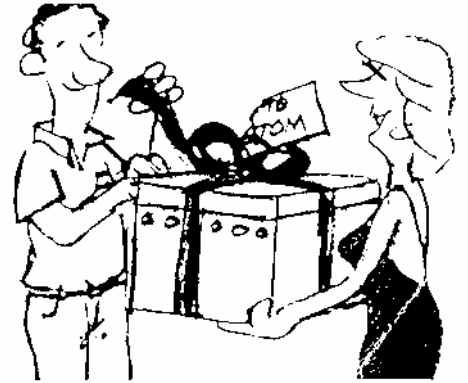
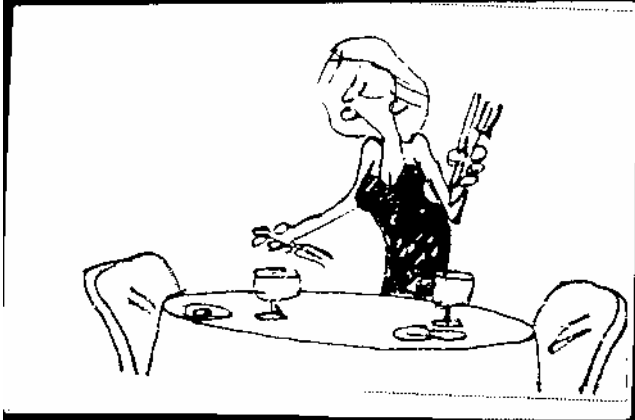
☐ alegría

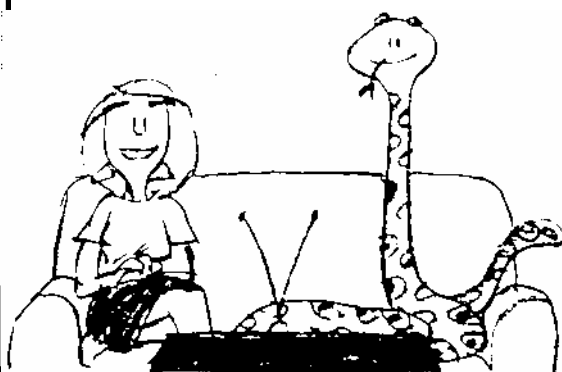
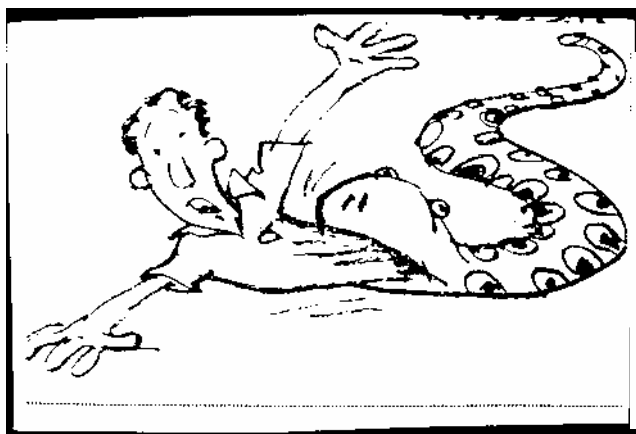
☐ indignación

SECCION VI ESPRESIÓN ORAL









Appendix F Transcripts

Texto 1

Usted va a oír cuatro textos. Oirá cada uno de ellos dos veces. Al final de la segunda audición, dispondrá de tiempo para contestar a las preguntas que se le formulen.

3 segundos

Texto 1

3 segundos

A continuación escuchará un texto en el que se informa de un concurso de guiones organizado por Radio Nacional de España.

5 segundos

El mundo crítico, revista cultural radiofónica, convoca un concurso de guiones de radio. El objetivo de este certamen es promocionar los próximos Juegos Olímpicos que tendrán lugar en Pekín y, al mismo tiempo, estimular a los jóvenes escritores en lengua castellana a que muestren sus trabajos.

Los requisitos para participar en el concurso son que el tema del guión tiene que estar relacionado con el deporte y que los trabajos deben ser inéditos, estar escritos en lengua castellana y libres de otros compromisos con medios de comunicación y editoriales.

Los guiones no podrán superar una duración de entre 3 y 5 minutos en antena. Los autores pondrán en juego, con las indicaciones pertinentes, cuantos recursos radiofónicos les parezcan necesarios para que el texto sea realizado lo mejor posible; por ejemplo: varios narradores, música, planos sonoros, efectos especiales, etc.

No se admitirán más de dos guiones por autor y deberán estar escritos a doble espacio. Además de cada guión se presentarán original y cuatro copias.

El ganador recibirá como premio la realización y emisión del espacio por parte de la dirección de programas. El segundo clasificado recibirá un premio en metálico y un accésit firmado por el presidente del Comité Olímpico Internacional. Y, por último, sólo cabe añadir que Radio Nacional se reserva el derecho de transmisión y posible publicación del guión premiado. **5 segundos**

Texto 1

3 segundos

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Texto 2

3 segundos

A continuación escuchará una noticia sobre unos cursos a distancia.

5 segundos

La Escuela de Negocios de la Universidad de Chile y la empresa periodística La Nación acaban de firmar un acuerdo para ofrecer un curso de perfeccionamiento de la enseñanza que se realizará a distancia y que permitirá el desarrollo profesional de los participantes.

Esta primera versión, que comenzará en el segundo semestre de 2006, está orientada al perfeccionamiento docente. Los contenidos serán proporcionados por la Escuela de Negocios de la Universidad de Chile, a través de su Centro de empleo. «Los beneficiarios podrán disfrutar de cursos que les van a permitir adquirir mayores conocimientos y una educación de calidad», explicó el gerente general de La Nación, Francisco Feres.

Los docentes interesados accederán a los contenidos a través de publicaciones semanales y de la página web del diario La Nación. Se espera que en próximas convocatorias sea posible el uso de videoconferencias. De esta manera se superarán las barreras que plantean las clases presenciales y se conseguirá un alcance nacional y masivo.

Como señaló Joseph Ramos, decano de la facultad de Ciencias Económicas de la Universidad de Chile, ésta es una nueva oportunidad de reafirmar el interés y el compromiso de la Universidad con la educación. Con este proyecto se persigue mejorar la educación y el nivel de preparación de nuestros docentes.

El contenido del curso está inserto en la reforma educacional puesta en marcha por el gobierno y tiene como objetivo proporcionar las herramientas teóricas y prácticas para la evaluación del grado de aprendizaje de conocimientos y habilidades por parte de los alumnos, bajo las diversas modalidades de enseñanza.

Al final del curso los participantes tendrán que realizar un examen que, una vez aprobado, permitirá al docente recibir un diploma en Evaluación educativa. **5 segundos**

Texto 2**3 segundos**

A continuación escuchará una noticia sobre unos cursos a distancia.

5 segundos

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Al final del curso los participantes tendrán que realizar un examen que, una vez aprobado, permitirá al docente recibir un diploma en Evaluación educativa. **5 segundos**

Texto 3**3 segundos**

A continuación escuchará una entrevista con el guionista y escritor mexicano Guillermo Arriaga.

5 segundos

PERIODISTA: Buenos días, Guillermo. Acabas de publicar un libro: Retorno 201. Háblanos un poco de él.

ENTREVISTADO: Pues son exploraciones éticas y estéticas. Uno puede escurrir las estructuras que utilicé en mis anteriores trabajos. Las preocupaciones de todas mis películas, de todos mis libros, se concentran aquí. Es un germen síntesis de toda mi obra.

PERIODISTA: Eres el primer mexicano en ser reconocido en el festival de cine de Cannes. ¿Qué recuerdo tienes? ¿Cómo fue aquello?.

ENTREVISTADO: Tuve una sensación de alegría que no para. En algún momento borbotea por allí esa alegría. Fue para mí un honor ganar ese premio y le estoy sumamente agradecido a la película y a la experiencia. Pero creo que no serviría de nada si no tuviera con quién compartirlo.

PERIODISTA: Además, también el actor se llevó premio, la Palma de Oro.

ENTREVISTADO: Me dio mucho gusto porque en Venecia también se lo llevó. Me gusta escribir para los actores, me gusta pensar en ellos y, si ganan premios, me da doble alegría.

PERIODISTA: Antes hubo un tiempo en el que no se consideraba a los guionistas cuando, realmente, el armazón de la película lo tenéis vosotros. ¿Qué tal están ahora las cosas?.

ENTREVISTADO: Mira, están mal en todas partes, pero yo he querido darle dignidad al escritor de cine. Que éste sea considerado el autor importante de la obra y no solamente alguien que sirve para ensalzar o construir o elaborar la visión del director. Yo no trabajo para directores, yo trabajo junto con ellos, junto con productores. Creo que la mayor crisis del cine está en las historias. Mi sueño sería que alguien fuera a ver una película por quién la escribió.

PERIODISTA: ¿Por qué crees que hay esa crisis en las historias?.

ENTREVISTADO: Pues nos han arrebatado la vida interior, cada vez vamos más hacia fuera. Si no contamos historias perdemos la brújula un poco de quiénes somos.

PERIODISTA: A veces es cierto que el público huye de historias dramáticas y parece que nos estamos alejando de lo que forma parte de la realidad, ¿no crees?.

ENTREVISTADO: Sí, he querido recuperar toda la gama de experiencias y emociones porque todo ello es parte de la vida y, si perdemos el sentimiento de todas estas cosas, entonces la existencia se convierte en una gelatina blanda sin ningún sentido. Todo esto nos ayuda a crecer, a seguir adelante.

PERIODISTA: Gracias Guillermo. Nos alegramos de tu presencia en el programa. **5 segundos**

Texto 3**3 segundos**

A continuación escuchará una entrevista con el guionista y escritor mexicano Guillermo Arriaga.

5 segundos

PERIODISTA: Buenos días, Guillermo. Acabas de publicar un libro: Retorno 201. Háblanos un poco de él.

ENTREVISTADO: Pues son exploraciones éticas y estéticas. Uno puede escurrir las estructuras que utilicé en mis anteriores trabajos. Las preocupaciones de todas mis películas, de todos mis libros, se concentran aquí. Es un germen síntesis de toda mi obra.

PERIODISTA: Eres el primer mexicano en ser reconocido en el festival de cine de Cannes. ¿Qué recuerdo tienes? ¿Cómo fue aquello?.

ENTREVISTADO: Tuve una sensación de alegría que no para. En algún momento borbotea por allí esa alegría. Fue para mí un honor ganar ese premio y le estoy sumamente agradecido a la película y a la experiencia. Pero creo que no serviría de nada si no tuviera con quién compartirlo.

PERIODISTA: Además, también el actor se llevó premio, la Palma de Oro.

ENTREVISTADO: Me dio mucho gusto porque en Venecia también se lo llevó. Me gusta escribir para los actores, me gusta pensar en ellos y, si ganan premios, me da doble alegría.

PERIODISTA: Antes hubo un tiempo en el que no se consideraba a los guionistas cuando, realmente, el armazón de la película lo tenéis vosotros. ¿Qué tal están ahora las cosas?.

ENTREVISTADO: Mira, están mal en todas partes, pero yo he querido darle dignidad al escritor de cine. Que éste sea considerado el autor importante de la obra y no solamente alguien que sirve para ensalzar o construir o elaborar la visión del director. Yo no trabajo para directores, yo trabajo junto con ellos, junto con productores. Creo que la mayor crisis del cine está en las historias. Mi sueño sería que alguien fuera a ver una película por quién la escribió.

PERIODISTA: ¿Por qué crees que hay esa crisis en las historias?.

ENTREVISTADO: Pues nos han arrebatado la vida interior, cada vez vamos más hacia fuera. Si no contamos historias perdemos la brújula un poco de quiénes somos.

PERIODISTA: A veces es cierto que el público huye de historias dramáticas y parece que nos estamos alejando de lo que forma parte de la realidad, ¿no crees?.

ENTREVISTADO: Sí, he querido recuperar toda la gama de experiencias y emociones porque todo ello es parte de la vida y, si perdemos el sentimiento de todas estas cosas, entonces la existencia se convierte en una gelatina blanda sin ningún sentido. Todo esto nos ayuda a crecer, a seguir adelante.

PERIODISTA: Gracias Guillermo. Nos alegramos de tu presencia en el programa. **5 segundos**

Texto 4

A continuación escuchará una opinión sobre el liderazgo.

5 segundos

Podemos definir el liderazgo como la capacidad de influencia que tiene un sujeto sobre un conjunto de personas. Ser un verdadero líder significa tener condiciones para vender un sueño, una idea diferente a la realidad, a un conjunto de personas o tener las habilidades suficientes para influir en el ánimo de la gente, para poder llevarla hacia un objetivo considerado importante. Ambas habilidades son necesarias, poder entusiasmar y poder influir en las personas mediante nuestra capacidad de comunicación e interrelación. De hecho, la reflexión en torno al liderazgo y el poder es más compleja, considerando estos dos aspectos como opuestos o, al menos, diferentes. Pero, ¿es posible ser líder sin ser jefe? La idea que intentamos transmitir es que no necesitamos tener poder para ser líderes; es más, algunas veces tener poder es un obstáculo para desarrollar el liderazgo. Por eso creemos que un enfoque más pragmático, es decir, identificar concretamente las conductas que practican los líderes, sería más interesante. En nuestra opinión, una de las principales características de los líderes es ayudar a establecer los objetivos y a clarificar las metas. Otra de las características de los líderes es la capacidad de sistematizar, que parte del supuesto de que todo tiene una función. Muchas veces una determinada persona no cumple la función para la cual fue contratada; su verdadera función es satisfacer determinadas necesidades de quien la nombró y darle la necesaria información. Otra de las conductas posibles es promover el aprendizaje en equipo. Debemos ayudar a una reflexión con nuestras preguntas y con las preguntas de otras personas: la idea es convertirnos en un portal de información. Liderar es un proceso de integrar a las personas para que contribuyan a un objetivo común. El hecho de involucrar a otros es fundamental para ser líderes. Una clave para tener éxito en esta labor es conocer los intereses de los demás; y conocer a las personas es un elemento que nos da poder. Por último, y quizá sea el aspecto más ambicioso, debemos saber si estamos en condiciones de evaluar a las personas, ya que para hacerlo necesitamos conocer más de cerca la información que tenemos de ellas y estudiar los resultados que la propia información nos ofrece. Este aspecto es clave para valorar los éxitos de las personas y para ayudar a corregir los errores. **5 segundos**

Texto 4

A continuación escuchará una opinión sobre el liderazgo.

5 segundos

Podemos definir el liderazgo como la capacidad de influencia que tiene un sujeto sobre un conjunto de personas. Ser un verdadero líder significa tener condiciones para vender un sueño, una idea diferente a la realidad, a un conjunto de personas o tener las habilidades suficientes para influir en el ánimo de la gente, para poder llevarla hacia un objetivo considerado importante. Ambas habilidades son necesarias, poder entusiasmar y poder influir en las personas mediante nuestra capacidad de comunicación e interrelación. De hecho, la reflexión en torno al liderazgo y el poder es más compleja, considerando estos dos aspectos como opuestos o, al menos, diferentes. Pero, ¿es posible ser líder sin ser jefe? La idea que intentamos transmitir es que no necesitamos tener poder para ser líderes; es más, algunas veces tener poder es un obstáculo para desarrollar el liderazgo. Por eso creemos que un enfoque más pragmático, es decir, identificar concretamente las conductas que practican los líderes, sería más interesante. En nuestra opinión, una de las principales características de los líderes es ayudar a establecer los objetivos y a clarificar las metas. Otra de las características de los líderes es la capacidad de sistematizar, que parte del supuesto de que todo tiene una función. Muchas veces una determinada persona no cumple la función para la cual fue contratada; su verdadera función es satisfacer determinadas necesidades de quien la nombró y darle la necesaria información. Otra de las conductas posibles es promover el aprendizaje en equipo. Debemos ayudar a una reflexión con nuestras preguntas y con las preguntas de otras personas: la idea es convertirnos en un portal de información. Liderar es un proceso de integrar a las personas para que contribuyan a un objetivo común. El hecho de involucrar a otros es fundamental para ser líderes. Una clave para tener éxito en esta labor es conocer los intereses de los demás; y conocer a las personas es un elemento que nos da poder. Por último, y quizá sea el aspecto más ambicioso, debemos saber si estamos en condiciones de evaluar a las personas, ya que para hacerlo necesitamos conocer más de cerca la información que tenemos de ellas y estudiar los resultados que la propia información nos ofrece. Este aspecto es clave para valorar los éxitos de las personas y para ayudar a corregir los errores. **5 segundos**

Appendix G Transcript Symbols

Standards used	Description of Standards
#2.3	Unfilled Pause (pause indicating number of sec)
.	Period. End of an unmarked (declarative) utterance.
?	Question Mark. End of a question.
!	Exclamation Point. End of an imperative or emphatic utterance.
+...	Trailing Off. Incomplete, but not interrupted, utterance.
+,	Self-Completion. Completion of an utterance after an interruption.
<u>underlined</u>	Speech in German or English
[*text]	Ungrammatical word
xxx	Unintelligible Speech
&	Phonological Fragment such as “hm”, “uhu”, etc
:	Lengthening of a sound or syllable
<fragment>	String of words modified by the following symbol.
&=	Simple Events. Sounds produced by the speaker not being words such as laughs, munching, etc.
[/]	Retracing Without Correction. Repetition of early material without change.
[//]	Retracing With Correction. Repetition of the basic phrase, changing the syntax but maintaining the same idea.
[///]	Retracing With Reformulation. Full and complete reformulations of the message without specific corrections.

Appendix H Coding Categories

\$MOR:

:LAGA - lexical agreement, agreeer wrong
:LAGC - lexical agreement, controller wrong
:LAGB - both wrong
:VAG - verb agreement
:ASP - aspect
:TENSE
 :PRES - present
 :PAS - past
 :FUR - future
 :SUBJ - subjunctive
:CON - conjunction
:MOOD - mood

\$LEX

:SUB - substitution
:INC - incomplete
:BLE - blending
:NW - non word

\$PHO

:REP - repetition
:COR - correction
:RFS - retraction of speech
:REF - reformulation of speech
:HES - hesitation
:INT - intonation
:MISPRON - mispronunciation

\$SYN:

:POS - positional error
:OMIS - omission
 :SUB - subject
 :V - verb
 :PRON - pronoun
:ADD - addition
:BLE - blending
:ART - wrong article
:ART0 - missing article
:ART+ - unnecessary art
:PREP - wrong prep.
:PREP0 - miss prep
:PREP+ - unnecessary prep.
:REP - repetition

\$ORT

:SP - spelling
:PUNCT0 - missing punctuation
:PUNCT+ - unnecessary punctuation

Appendix I Essay Baseline (T1)

@Begin
 @Languages: Spanish
 @Participants: TEX Luna_Name Text
 @Filename: Essay_Luna_T1_Oct06.cha
 @Date: 18-OCT-2006
 @Test type: Essay
 @Session: I
 @Location: Barcelona
 @Transcriber: Teodora
 @Coder: Teodora
 @ID: sp|dea|TEX||female|||Text||
 *TEX: Yo hice mis estudios en extranjero, en Holanda, Espana y en Alemania.
 TEX: Para mi [] estudiar en paises diferentes era [*] una experincia muy importante.
 %err: \$ORT:PUNCT \$MOR:ASP
 TEX: Se aprende mucho estudiando en universidades distintos [].
 %err: \$MOR:LAGA
 *TEX: Profesionalmente es muy interesante ver las maneras diferentes de estudiar y trabajar de paises diferentes.
 TEX: Tambien la [] experiencias que se hace [*] en la vida personal son importantes.
 %err: \$MOR:LAGA \$MOR:VAG
 TEX: Se ve [] maneras de vida destintos [*] y esta [*] confrontado a gente de culturas distintas.
 %err: \$MOR:VAG \$MOR:LAGA \$MOR:CON
 *TEX: Pero, como todo, estudiar en el extranjero tambien tiene sus desventajas.
 TEX: Profesionalmente es una desventaja si el nivel de la universidad extranjera es inferior comparando [] a la universidad del pais propio.
 %err: \$LEX
 TEX: Ademias, puede ser dificil estar lejos de la familia [] de los amigos.
 %err: \$SYN:OMIS:CONJ
 TEX: El estandar de la [] vida puede ser inferior y tambien puede ser que se tiene [*] dificultades a acostumbrarse a las costumbres desconocidas.
 %err: \$SYN:DET:ART+ \$MOR:TENSE:SUBJ
 TEX: Aunque [] se enfrente a algunos [*] dificultades estudiando en el extranjero, en mi opinion [*] cada uno que tiene la posibilidad deberia hacerlo.
 %err: \$LEX:OMISS:N \$MOR:LAGA \$ORT:PUNCT0
 *TEX: Se puede ganar mucho de una estancia fuera de su pais, profesionalmente y personalmente.
 TEX: Para mi, estudiar en tres paises europeos era [] lo mejor que podia hacer.
 %err: \$MOR:ASP
 @End

Appendix J Essay T2

@Begin

@Languages: Spanish FL

@Participants: TEX Luna_Name Text

@Filename: Essay_Luna_T2_Feb07.cha

@Date: 10-FEB-2006

@Test type: Essay

@Session: II

@Location: Germany

@Transcriber: Teodora

@Coder: Teodora

@ID: sp|dea|TEX||female|||Text||

*TEX: En mi opinion no se puede decir que estudiar en el extranjero es siempre mejor.

*TEX: Hay diferentes aspectos que hay que tener en cuenta.

*TEX: Los puntos positivos de estudiar en el extranjero son puntos muy importantes.

TEX: Un semestre en el extranjero hace que los estudiantes tienen [] la posibilidad de conocer otras culturas.

%err: \$MOR:TENSE:SUBJ

TEX: Casi todas las veces [] los estudiantes no solamente aprenden sobre la cultura y la gente del pais del [*] destino, [*] tambien van conociendo a mas studiantes internacionales y asi aprenderan [*] automaticamente sobre estas [*] culturas.

%err: \$ORT:PUNCT0 \$LEX:OMISS:V \$SYN:DET:ART+ \$SYN:OMIS:CONJ
\$MOR:TENSE:FUT \$LEX:SUB

*TEX: Hacer amigos internacionales y aprender sobre culturas distintas sone probablemente las experiencias mas importantes para los estudiantes del programa Erasmus.

TEX: Estos estudiantes muchas veces estan mas abiertos cuando vuelven a su propio pais, porque han visto cosas que nunca podrian [] ver en casa.

%err: \$MOR:TENSE

TEX: Ademas [] estudiar en el extranjero tiene la ventaja de aprender idiomas nuevos o mejorar lenguas que solamente [*] se habla [*] un [*] poco.

%err: \$ORT:PUNCT0

*TEX: Usar estas lenguas adicionales a la lengua materna es un factor muy importante para conocer y entender la cultura de un pais.

TEX: Teniendo en cuenta la educacion universitaria [] una estancia en el extranjero da las [*] posibilidades de conocer nuevas maneras de aprender, estudiar y trabajar y los estudiantes pueden usarlas cuando vuelvan [*].

%err: \$ORT:PUNCT0 \$SYN:DET:ART+ \$MOR:TENSE:SUBJ

*TEX: Aunque estas maneras no son necesariamente mejores, esta muy bien conocer una variedad de posibilidades.

*TEX: Despues de discutir sobre las ventajas de estudiar en el extranjero, quiero explicar porque no pienso que estudiar en el extranjero es siempre mejor.

*TEX: Una de las desventajas es el problema que muchos estudiantes del programa Erasmus tienen con el idioma del país donde estudian un o dos semestres.

TEX: Sobre todo en el [] principio el nivel de la lengua puede ser muy bajo y por eso los estudiantes no entienden las clases muy bien.

%err: \$SYN:DET

TEX: También los profesores tratan [] los estudiantes internacionales diferente que [*] los estudiantes normales, que está bien del [*] punto de vista personal, pero esto también hace que los estudiantes internacionales no aprenden [*] tanto como en su universidad.

%err: \$SYN:DET:PREP0 \$SYN:DET:PREP0 \$SYN:DET \$SYN:DET

TEX: Además puede ser que el nivel de la universidad es [] diferente que el [*] nivel a que los estudiantes están acostumbrados, y por eso están aburridos [*] porque es demasiado fácil o no pueden entender las clases porque el nivel es demasiado alto.

%err: \$MOR:TENSE:SUBJ \$SYN:DET \$ORT:SP

TEX: Para algunos estudios muy concretos también puede ser que las universidades en el extranjero no ofrecen exactamente los cursos que el estudiante necesita y esto resulta en problemas con los créditos en la [] universidad del país propio [*].

%err: \$SYN:DET:PREP \$SYN:POS

TEX: Muchos estudiantes no se preocupan de este [], disfrutaban el [*] tiempo y aprenden muchas cosas fuera de la universidad como las mencionadas antes.

%err: \$MOR:LAGA \$SYN:DET:PREP0

TEX: Para otros es un factor muy importante y puede significar que a causa de su semestre en el extranjero tienen [] que estudiar un semestre extra y así "pierden" tiempo.

%err: \$MOR:TENSE:SUBJ

TEX: Para mí personalmente, estudiar en el extranjero era [] lo mejor que pude hacer.

%err: \$MOR:ASP

@End

Appendix K Essay T3

@Begin
 @Languages: Spanish FL
 @Participants: TEX Luna_Name Text
 @Filename: Essay_Luna_T3_June07.cha
 @Date: 06-JUN-2007
 @Test type: Essay
 @Session: III
 @Location: Germany
 @Transcriber: Teodora
 @Coder: Teodora
 @ID: sp|dea|TEX||female|||Text||
 *TEX: Cada ano mas estudiantes van al extranjero para estudiar por
 lo menos un [*] o dos semestres en el extranjero [*].
 %err: \$LEX:INC \$LEX:REP
 TEX: Yo hice todos mis estudios en diferentes paises en el extranjero [].
 %err: \$LEX:REP \$LEX
 TEX: En cuatro anos estudiaba [] cuatro semestres en los paises bajos,
 dos semestres en Espana y [*] hice practicas de un semestre cada uno [*] en
 Espana y Alemania.
 %err: \$MOR:TENSE:PAS \$ORT:SP:SUB \$MOR:LAGA
 TEX: La ventaja mas grave [] de estudiar en el extranjero es [*] en mi opinion [*]
 que se tiene la posibilidad de conocer otras culturas y otras
 maneras de vivir y trabajar.
 %err: \$LEX:ANT \$ORT:PUNCT0 \$ORT:PUNCT0
 TEX: Estudiantes que deciden a [] irse al extranjero, particularmente
 a un pais donde se habla una lengua diferente, otra ventaja clave es
 que se tiene la oportunidad de aprender otro idioma.
 %err: \$SYN:DET:PREP+
 *TEX: A causa de la union europea que facilita trabajar en otros paises
 europeos y muadarse [*], poder hablar idiomas es muy importante para ser
 exitoso en una variedad de trabajos y por eso muchos estudiantes
 incluyen idiomas en sus estudios.
 %err: \$ORT:SP:ADD
 *TEX: Pero estudiar en el extranjero no solamente tiene ventajas.
 *TEX: Muchas veces universidades en el extranjero no ofrecen cursos
 muy especificos que son obligatorios en la propia universidad.
 TEX: O aunque los cursos tratan basicament [] los mismos temas, la
 propia universidad no valora los creditos obtenidos en la universidad
 en el extranjero.
 %err: \$SYN:DET:PREP0
 TEX: Hasta que los creditos europeos no son [] aceptados en todos [*]
 los [*] universdades [*] , este problema no va a disminuir.
 %err: \$MOR:TENSE:SUBJ \$MOR:LAGA \$MOR:LAGA \$ORT:SP:OMIS
 *TEX: Asi se ve que estudiar en el extranjero puede ser una buena
 oportunidad [*] para estudiantes para conocer otras culturas y lenguas,
 pero tambien puede resultar en problemas con la universidad [*]

propia.
%err: \$ORT:SP:ADD \$ORT:SP:OMIS
*TEX: Personalmente, pienso que estudiar en el extranjero es una
posibilidad que cualquiera debería tener y usar.
TEX: Se puede [] aprender muchas cosas, no solamente para los estudios
pero [*] tambien cosas que son importante para el desarrollo
personal.
%err: \$MOR:VAG \$LEX:SUB
TEX: Aviso [] a todos los estudiates a irse al extranjero por lo menos una
vez para estudiar.
%err: \$LEX
@End

Appendix L Story Baseline (T1)

@Begin
 @Languages: Spanish
 @Participants: LUN Luna Subject
 @Filename: Story_Luna_T1_Oct06errors.cha
 @Age of LUN: 25;
 @Sex of LUN: female
 @Date: 18-OCT-2006
 @Test type: Storytelling
 @Session: 1
 @Location: Barcelona
 @Transcriber: Teodora
 @Coder: Teodora
 @ID: sp|dea|LUN|25;|female|||Subject||
 *LUN: Maria y su marido Pedro estaban sentados e:n su sofa.
 *LUN: Maria leyendo su revi/sta: pensaba en el cumpleanos
 de Pedro el dia siguen/te.
 *LUN: Decia oye carino manana es tu cumplenos no?
 *LUN: Yo queria: hacerte una tarta muy grande muy dulce # y
 tambien queria hacerte u:n regalo # que quieres de regalo?
 %err: \$PHO:PAU \$PHO:PAU
 LUN: Pedro no tenia [] ni [*] pensar.
 %err: \$MOR:TENSE:PAS \$SYN:OMIS:CONJ
 LUN: El queria: una: [] # relo/j muy grande: muy cara: [*] que el
 xxx so [?] en una tienda # y tambien hablaba de una [*] port/atil muy
 moderno, muy chulo.
 %err: \$MOR:LAGA \$PHO:PAU \$MOR:LAGA \$LEX:NW \$PHO:PAU \$MOR:LAGA
 LUN: Maria estaba muy triste porque ella no tenia di:nero para regalas []
 <tan caras> [/] tan caros y cuando Pedro empezo [*] hablar de un
 bolso para sus palos de golf # ella estaba muy infeliz.
 %err: \$MOR:LAGC \$PHO:REP:COR \$SYN:DET:PREPO \$PHO:PAU
 LUN: El [] dia siguiente <el pen> [/] pensaba que podia hacer # que
 regalo podia: [*] [: podia] hacer a a: Pedro.
 %err: \$SYN:DET:PREP \$PHO:REP:RFS \$PHO:PAU \$PHO:MISPR
 LUN: Se fue a un Zoo [].
 %err: \$LEX:SUB
 LUN: Y: hablaba [] con: el vendedor que se llama [*] Juanjo.
 %err: \$MOR:TENSE:PAS \$MOR:TENSE:PRES
 *LUN: Decia oye Juanjo, yo quiero hacer un regalo a mi marido que es
 muy especial y saba [*] [: estaba] pensado que teneis muchos animales
 muy bonitos aqui.
 %err: \$PHO:MISPR
 *LUN: Que animales tienes para <mi armi> [/] <ma a> [/] para mi marido?
 %err: \$PHO:REP:RFS \$PHO:REP:COR
 LUN: El: Juanjo [] le enseno un parrito [*] # pequeno pero a Maria no le gustaba
 tanto.
 %err: \$SYN:DET:ART+ \$LEX:INC \$MOR:TENSE \$PHO:PAU
 LUN: Tampoco le gustaba: <el> [/] el xxx hiebre [?] [] # porque era

demasiado pequeno.

%err: \$PHO:REP \$LEX:NW \$PHO:PAU

LUN: Y cuando el: [] Juanjo al fin # vino con un gato le daba [*] mucho [*] susto a Maria porque ella tenia un [*] <al> [/] аллергия, en xxx [*] un contra [?] los gatos y no le gustaban nada.

%err: \$SYN:DET:ART+ \$PHO:PAU \$MOR:TENSE:PAS \$LEX:SUB

\$SYN:DET:ART+
\$PHO:REP:RFS \$LEX:NW

LUN: Maria ya empezo a pensar que nunca: iba: a encontrar algo para su marido hashta [] [: hasta] que vio # <un serpiente> [/] una serpiente en la esquina de la empresa [*].

%err: \$PHO:REP:COR \$PHO:PAU \$PHO:REP:COR \$LEX:SUB

LUN: Sabia que esta [] era: el regalo per/fecto para su marido # y le [*] compro.

%err: \$MOR:LAGA \$SYN:DET:ART

*LUN: Juanjo tambien estaba bastante contento # que Maria se <comp> [/] <se eh em> [/] compro este serpiente.

%err: \$PHO:PAU \$PHO:REP:RFS \$PHO:REP:COR

*LUN: Muy contenta Maria se fue a casa # y: empezo a preparar la: comida <para:> [/] para Pedro.

%err: \$PHO:PAU \$PHO:REP

LUN: Cuando Pedro: regreso: # le daba mucha illusion vier [] [: ver] esta caja muy grande y muy bon/ita y: emepzo a pensar otra vez en: el portatil: y el reloj: y todo esto.

%err: \$PHO:PAU \$PHO:MISPR

*LUN: Cuando <Pred> [/] Pedro # abrio la caja # y: /vio la serpiente, le daba mucho mucho susto.

%err: \$PHO:REP:COR \$PHO:PAU \$MOR:TENSE:PAS \$LEX:SUB

*LUN: Que: el tenia: mucho miedo de: serpientes y Maria no lo sabia antes.

%err: \$LEX:INC

*LUN: Pedro empezo a <corrier> [/] a correr y: al mismo t(i)empo el: serpiente estaba # bastante contenta de <xxx zef [?] > [/] eh: libre por primera vez.

%err: \$PHO:REP:COR \$PHO:MISPR \$PHO:PAU \$LEX:NW

*LUN: Vio la comida: muy ri/ca: y se comio todo todo todo.

*LUN: Muy contenta pero: todavia pero todavia no: bastante llena la serpiente pensaba # .

%err: \$MOR:TENSE:PAS \$PHO:PAU

*LUN: Hm, que mas podia comer y: asi vi: <el:> [/] el Pedro corriendo de miedo.

%err: \$MOR:MOOD \$PHO:REP \$SYN:DET:ART+

*LUN: El serpiente nunca habia comido una: persona antes pero # como tenia todavia hambre y: el Pedro parecia bastante # rico # se comio el Pedro.

%err: \$MOR:LAGA \$MOR:CON \$SYN:DET:PREP0 \$SYN:DET:ART+
\$SYN:OMIS:PRON
\$PHO:PAU \$PHO:PAU \$SYN:DET:PREP0

*LUN: Maria # no sabia que pensar # como: +...

%err: \$PHO:PAU \$PHO:PAU

*LUN: <Tenia de un momento a otro> [///] no tenia mas <u:n> [/] un marido # pero #
tenia una serpiente.

%err: \$PHO:REP:REF \$PHO:REP \$PHO:PAU \$PHO:PAU

*LUN: Al fin ella pensaba que: su marido # siempre queria cosas muy
caras y nunca estaba < contenta y satisf> [//] contento y
satisfecho.

%err: \$PHO:PAU

*LUN: Y asi # decidia que ella y <el serp> [//] y la sepriente
podian ser amigas muy buenas.

%err: \$MOR:TENSE:PAS \$PHO:REP:COR \$SYN:POS

*LUN: Y: las dos bebieron # juntos # hasta el fin de sus dias.

%err: \$PHO:PAU \$MOR:LAGA \$PHO:PAU

@End

Appedix M Storytelling T2

@Begin
 @Languages: Spanish
 @Participants: LUN Luna Subject
 @Filename: Story_Luna_T3_June07errors.cha
 @Age of LUN: 25;
 @Sex of LUN: female
 @Date: 06-JUN-2006
 @Test type: Storytelling
 @Session: 3
 @Location: Germany
 @Transcriber: Teodora
 @Coder: Teodora
 @ID: sp|dea|LUN|25;|female|||Subject||
 LUN: Maria y su: marido Jorge estaban sentados en la [] sofa de su piso.
 %err: \$MOR:LAGA
 *LUN: Maria leyendo un periodico ### empezo a hablar de: [///]
 de:l cumpleaños de Jorge que era el [*] dia siguiente.
 %err: \$PHO:PAU \$PHO:REP:COR \$SYN:DET:PREP
 *LUN: Maria: dijo a [/] a Jorge # "oye carino voy a hacer una tarta muy muy rica
 para ti pero no [///] todavia no tengo ni una [*] idea que quieres de regalo".
 %err: \$PHO:REP \$PHO:PAU \$PHO:REP:REF \$SYN:ADD
 LUN: Jorge sin pensar empezaba [] a hablar de un: reloj muy chulo que habia visto:
 y como le: gusta: un portatil nuevo: que puede hacer cosas muy chu:lo:s [*] y:
 tambien # un bolso [*] para ir a hacer [*] golf.
 %err: \$MOR:TENSE:PAS \$MOR:LAGA \$PHO:PAU \$MOR:LAGB \$LEX:SUB
 LUN: A Maria no le gustaban [] ni una [*] de: # los regalos porque ella queria darle
 algo
 mas personal y menos caro.
 %err: \$MOR:VAG \$PHO:PAU \$MOR:LAGA
 LUN: El [] dia sequente [*] el dia de cumpleans de Jorge [*] por la manana Maria fue
 a: a la
 tienda de su amigo: ### Paco &ehm # y [*] donde se puede [*] comprar muchos
 animales
 muy bonitos.
 %err: \$PHO:PAU \$PHO:PAU
 LUN: Le preguntaba [] que animal: # tiene Paco que es muy majo y el [/] # el [/] el
 regalo
 perfecto para su marido.
 %err: \$PHO:PAU \$PHO:REP \$PHO:REP
 *LUN: Paco le dij [///] le: enseno: un [/] un pajaro # pero a Maria no le gusto mucho el
 pajaro
 como era [///] [*] # no podia: # ni volar y [*] nada y decia que no no [*] es el
 correcto.
 %err: \$PHO:REP:REF \$PHO:REP \$PHO:PAU \$PHO:REP:REF \$PHO:PAU
 \$PHO:PAU

\$LEX:SUB \$PHO:REP
 LUN: Despues Paco vie [/] vino con un una [] liebre pero a Maria tampoco le gustaba.
 %err: \$PHO:REP:COR \$PHO:REP:COR
 LUN: Lo mismo era [] con el gato que ella pensaba no # no es lo que quiero para mi marido.
 %err: \$MOR:ASP \$PHO:PAU
 LUN: Vale # al fin # cuando ya estaba ### eh ### desesperada &a: vi [] una sierpe [*] en la: esquina
 de la tienda y dic [/] y sabia [*] que queria dar [*] su marido este sierp [/]
 sierpe [*].
 %err: \$PHO:PAU \$PHO:PAU \$PHO:PAU \$PHO:PAU \$PHO:HES \$MOR:CON
 \$LEX:INC
 \$PHO:REP:REF \$MOR:TENSE:PAS \$SYN:DET:PREPO \$LEX:INC
 \$PHO:REP:COR
 \$LEX:INC
 LUN: Vale # Paco contento: que: alguien queria comprar la sierpe [] ### &a:m lo [*] puse [/] puso en
 un: cajon # y Maria le [*] llevo a casa.
 %err: \$PHO:PAU \$LEX:INC \$PHO:PAU \$PHO:HES \$MOR:LAGA \$PHO:REP:COR
 \$PHO:PAU
 \$SYN:DET
 LUN: En la [] casa ### Maria vi [*] la sierp [*] otra vez y pensaba [*] es ## el regalo perfecto # para Jorge y:
 si a el no le gusta: [*] sabia [*] que no es el hombre de t [/] su vida.
 %err: \$SYN:DET:ART+ \$PHO:PAU \$MOR:CON \$LEX:INC \$MOR:TENSE:PAS
 \$PHO:PAU
 \$PHO:PAU \$MOR:TENSE \$MOR:MOOD \$PHO:REP:COR
 LUN: Por la noche ### Maria ## se puse [] un [/] # una falda muy bonita: y: y &ehm cocinaba [*] algo
 muy rico para: [/] para Jorge.
 %err: \$PHO:PAU \$PHO:PAU \$MOR:CON \$PHO:REP:COR \$PHO:REP \$PHO:HES
 \$MOR:TENSE:PAS
 LUN: Cuando Jorge vino a casa ### ella le: [/] le daba [] el regalo # y cuando Gorge lo [/] lo
 abrio no le gustaba [*] nada la sierpe # [*] le daba [*] un susto enorme.
 %err: \$PHO:PAU \$PHO:REP \$MOR:TENSE:PAS \$PHO:PAU \$PHO:REP
 \$MOR:TENSE:PAS
 \$LEX:INC \$PHO:PAU \$SYN:OMIS:CONJ \$MOR:TENSE:PAS
 LUN: La sierpe [] tambien [*] no le gusta: [*] Jorge mucho pero cuando vi [*] toda la comida que era [*] tan
 rica # se [*] comio todo [*].
 %err: \$LEX:INC \$LEX:ANT \$MOR:TENSE:PAS \$MOR:CON \$MOR:ASP
 \$PHO:PAU
 \$SYN:DET:ART0 \$MOR:LAGA
 LUN: Pensaba "m: que bueno" # pero todavia no era [] # &a: superllena.
 %err: \$PHO:PAU \$MOR:ASP \$PHO:HES
 LUN: Asi la sierpe vi [] [*] Jorje corriendo y ella pensaba [*] "vale este hombre ## tambien parece

bastante rico" y se lo comio.
 %err: \$LEX:INC \$MOR:CON \$SYN:DET:PREP0 \$MOR:TENSE:PAS \$PHO:PAU
 LUN: Maria al principio ## le daba un poco [] miedo y estaba as [/] asustada pero al
 fin pensaba [*]
 &ehm vale asi # se que Jorje no es el hombre de mi vida y: ## asi se sentaba [*]
 a:l [/] al [*] sofa
 con el [*] sierpe [*] y viendo [*] en [///] la television ## hasta murieron [*].
 %err: \$PHO:PAU \$SYN:DET:PREP0 \$PHO:REP:REF \$MOR:TENSE:PAS
 \$PHO:HES \$PHO:PAU
 \$PHO:PAU \$MOR:TENSE:PAS \$PHO:REP \$SYN:DET \$MOR:LAGA
 \$LEX:INC
 \$MOR:TENSE:PAS \$SYN:DET:PREP+ \$MOR:ASP
 @End

Appendix N Morphological y Syntactic errors – Oral Data

	<u>T1</u>	<u>T3</u>
Agreement	6	8
Aspect	0	4
Mood	1	1
Conjugation	1	5
Tense (agreement)	1	2
Tense (Preterite)	5	12
Total	15	32

Occurencies of Morphological errors – Oral Data

	<u>T1</u>	<u>T3</u>
Unnecessary article	6	2
Lack of article	2	2
Wrong article	1	2
Lack of preposition	3	4
Unnecessary preposition	0	1
Wrong preposition	2	1
Others	2	4
Total	16	16

Occurencies of Syntactic errors – Oral Data