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ELABORATION AND SIMPLIFICATION OF LISTENING TEXTS: EVIDENCE FROM A QUALITATIVE STUDY OF COLLEGE STUDENTS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in the Graduate School of The Ohio State University

By

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To My Parents
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CHAPTER I

THE PROBLEM

Introduction to the Problem

Listening is the most used skill in human communication. In fact, as Rivers (1981) has noted, between forty and fifty percent of human interaction involves listening skills. It is common knowledge that people have turned to electronic media, especially television, for entertainment and information. This notion was reported by Dunkel (1981) who found that there has been a "shift from literacy to orality in modern society" (p. 451).

In the last two to three decades, the focus in most second language classrooms has also shifted from reading and writing to listening and speaking. Van Lier (1991), in discussing second language classroom talk, points out that contemporary language classrooms tend to emphasize listening and speaking skills. Chastain (1988) contends that in L2 learning, the speaking skill is necessarily dependent on the learners' highly developed listening skills. Moreover,
according to James (1984), listening is "absolutely necessary [...] especially for speaking, and even writing" (p. 129), and according to Lund (1991) "listening has enjoyed a theoretically eminent, if not preeminent, place in virtually all approaches to language teaching since audiolingualism, but research efforts have been largely devoted to reading" (p. 196). Also, Lund points out that there has been increasing acknowledgement of the fact that "listening is a set of skills in its own right ..." (p. 196) and ought to be the focus of much needed research.

There are a number of different definitions of listening comprehension. Hirsch (1983) presents a linear view of the process of listening comprehension; "the process whereby the human ear receives sound stimuli from other people [sic] and through a series of steps interprets the sound stimuli in the brain and remembers them" (p. 1). According to Pearson et al. (1982), in order for a listener to comprehend auditory messages, the listener must have a command over four aspects of language: phonology, syntax, semantics, and text structure. Sticht et al. (1974) define listening comprehension from a psycholinguistic perspective:
listening comprehension is "the process of attending to information in the auditory SIS (sensory information store) to process it for immediate use or for storage in long-term memory for later use" (p. 54).

Each of these definitions of listening comprehension bears only partial truth. The first definition (Hirsch, 1983) is a very general one, and broadly applies to first and second language listening comprehension. The second definition (Pearson et al., 1982) applies to both first and second language, but it is limited only to the listener, rather than encompassing both listener and text. However, it is unclear as to what information the listener is supposed to comprehend. Nevertheless, it is important because these aspects presented by Pearson are sine qua non conditions that the learner must meet in order to effectively comprehend a listening text. The third definition (Sticht et al., 1974) covers both of the previous definitions and improves them by describing 'sound stimuli' and raising them to a level of something worth 'comprehending'. It is also important because it relates to information that the listener may immediately react to, and to information s/he may
need for later use, as is the case in much academic listening.

It is important to point out that during the process of attending to information, a number of single bits of information come into play, namely, phonology, syntax, semantics and text structure as described by Pearson et al. Therefore, an adequate definition presupposes the presence of not only individual learner factors, but also factors that relate to the information that is to be comprehended.

Approaches to listening comprehension have their origin in different "theoretical assumptions of how we go about deriving meaning from a string of language signs and of those elements that are considered crucial for achieving comprehension" (Byrnes, 1984 p. 317). These approaches include three emphases: linguistic, conceptual, and communicative. The first of these refers to how "the hearer arrives at a structural description of the utterance based on the phonological, lexical, syntactic, and semantic aspects of language" (p. 317-18). The second approach refers to "how the hearer assigns a conceptual structure to the linguistic input" (p. 318), which is discussed from
a schema-theoretic perspective.

Third, the communicative approach involves not only the hearer, but also the speaker. Hence listening comprehension "is achieved when the hearer has successfully identified what the speaker intended to communicate..." (p. 318).

Although the aforementioned approaches to listening comprehension may seem artificial, they serve an important purpose in the conduct of research when different aspects must be isolated so that generalizable results may be identified. In the study, a linguistic approach to listening comprehension is adopted because it deals specifically with the syntactic complexity of aural texts.

The Problem

Listening comprehension is one area in second language education that lacks empirical research. Long (1989) points out that there is an overall scarcity in second language listening research. Some reasons for this dearth of research have been the assumptions that learners develop the skill of listening comprehension naturally, and consequently, that it does not present
problems for the learner. "Comprehension processes are still not well understood" (Omaggio, 1986, p. 122). In addition, Chastain (1976) asserts that for most language teachers and researchers, the role of listening comprehension has been "incidental to the goal of speaking" (p. 284), which explains, in part, the lack of attention this process has been given.

Defining language learning from such a narrow perspective may mean ignoring "the critical role that input--i.e., listening --plays in the cognitive processes which shape output and produce growth in oral proficiency" (Met, 1984, p.519). Gilman and Moody (1984, p. 331) assert that "language is not imitation of speech," as the dominant behavioristic view contended, but rather it is "an association of meaning and sounds."

Long (1989) notes that most current theories of second language take into account the construct of comprehension in the "processing, storage, and retrieval of linguistic input ..." (p. 32), but joins in the call for additional empirical research focusing on listening comprehension. Instructional methodology based on the Natural Approach (NA) emphasizes the use
of the target language in second language classrooms. Proponents of this NA assert that the use of the target language in the classroom is vital in the process of language learning. It provides listening practice for the students and helps them develop the listening skill which is vital in real communication. Despite these considerations, language teachers generally do not speak to students in the language classroom as they do when speaking to other users of the L2. Language teachers tend to modify their language, typically simplifying it for the sake of the learners. Teachers, in communicating with learners in the L2 classroom, typically use what is known as teacher talk. Gaies (1977) found, for example, that teachers used utterances that were simpler on a range of measures of syntactic complexity when addressing pupils than when talking among themselves.

The question of whether and to what extent learners should be subjected to natural, unmodified L2 input during instruction is still unresolved. Researchers are engaged in studies of listening comprehension attempting to provide data upon which to build a theory of listening comprehension. One area
recently investigated is rate of speech (Dahl, 1981; Hakansson, 1986; Henzel, 1973, 1979; Ishiguro, 1986; Rader, 1990). These studies deal with learners' ability to understand a foreign language when it is spoken at a normal rate of speech (i.e., at a native speaker's normal rate of speech). The speech is subsequently slowed down to determine the students' level of comprehension. Slowed speech is an aspect of foreigner talk and teacher talk both of which are said to aid students' comprehension. Other recent studies of listening comprehension include the work of Bongaerts, 1983; Cervantes, 1983; Chaudron, 1983; Parry et al., 1984; Conrad, 1985; Glisan, 1985; Kelch, 1985; Kobayashi, 1985; Long, 1985; Flynn, 1986; Fujimoto et al., 1986; Mannon, 1986; Pica et al., 1986; Parker et al. 1987; Valdés et al., 1988; Van Patten, 1989; Blau, 1990; Long, 1989, 1990 and 1991; Chung et al., 1992; Bacon, 1992; Buck, 1991; Schmidt-Rinehart, 1992; and others. Despite the number of studies completed in the last ten years, the results have been inconclusive with respect to the role of listening comprehension on students' learning of a foreign language in classroom settings.
Statement of the Problem

Knowledge of the syntax of the second language is central to the task of identifying propositions when listening to a second language. According to Richards (1983), knowledge of syntax enables the listener to chunk auditory input into segments or constituents, because "The ability to correctly identify chunks or constituents is a by-product of grammatical competence" (Richards, 1983; p. 220). This input is generally considered one of the most important elements in listening comprehension, according to Long (1990). In Long's words, "...linguistic knowledge plays a prominent role in comprehension when appropriate schemata are not available to the listener" (p.73). Hence, the comprehensibility of listening texts can be operationalized in considering the lexical and syntactic features of the text (Long, 1990b). Syntax recognition is considered an important factor in the process of listening comprehension. In fact, in extensive discussions of the comprehensible input hypothesis, Krashen (1980, 1981, 1982) argues that syntactic structure that is simple enough for the L2 listener to identify is assumed to be a key element to
comprehension and further acquisition of a second language. The researcher has stated that caretaker speech and foreigner talk, which contain syntactic modifications, accompany all successful cases of first as well as second language acquisition. Syntactic complexity is a major factor in the comprehension of input in the target language. According to Krashen (1982), in order for second language learners to progress, it is necessary for them to receive input in the target language that is comprehensible and slightly beyond the learning stage at which the learners are. On the other hand, Long (1980, 1981, 1983) and Parker et al. (1987) have suggested that interactional modifications (i.e., modifications that resemble natural conversational exchanges), rather than syntactic simplifications (i.e., syntax that is structurally less complex than natural language), are bound to have an impact on the learners' ability to comprehend auditory input. Parker and Chaudron (1987) conclude:

As several studies have suggested...if one is inclined to present the most native-like input, one should modify the input in the direction of elaborative alterations rather than syntactic simplification, for these would allow more native-like complexity and
be at least equally successful in promoting comprehension, if not better. (p.114)

Fujimoto et al. (1986), conducted a study investigating syntactic modification as a main variable. Three versions of an academic style lecture were developed by the researchers (p. 156) and were labelled a "native speaker" (NS) version (no modifications), a "modified input" version (simplified), and a "modified interaction" version (which involved features of discourse function). The study showed that listeners who heard the two modified versions performed better on a post-lecture multiple choice test than those listeners who heard the native speaker version.

According to Chaudron (1988), who disputes the conclusions in this particular study, the two versions that showed a significant enhancement on the learners' level of comprehension were not controlled for rate of speech because both versions of the modified lectures were spoken more slowly than the NS version. The modified versions were spoken at a rate of 117 and 124 words per minute versus 140 per minute, which characterized the NS version.
In the Speidel et al. (1985) study which examined syntactic complexity/simplification, no increased comprehension effects were found for the simple syntax versions. This study involved 120 second graders who heard six versions of the same three stories; combinations of simple or complex syntax, and spoken in either Standard English, Hawaiian English, or standard English with local Hawaiian pronunciation.

Despite the efforts shown by researchers, it still remains to be shown to what extent syntactic simplicity and elaborative modifications play a role in listening comprehension. The proposed study investigated these text-based aspects presented to students through modified Spanish aural texts, and attempted to determine whether syntactic modifications would aid learners in comprehending listening texts.

**Purpose of the Study**

The purpose of the present study is threefold: first, it is to provide an expanded database for L2 listening comprehension research. Second, this study attempted to examine syntactic simplifications as an aid to students' comprehension of L2 Spanish aural
texts. Third, the study investigated elaborative modifications as an aspect of Spanish aural texts. The study specifically addresses the following questions:

1. Is the level of syntactic difficulty of a text a key factor in listening comprehension for three types of texts: original, simplified and elaborated?

2. Does an elaborated text appear to provide more comprehensible input to students than a simplified text?

3. Do the listeners recall more from a text with which they are more familiar?

4. What characteristics appear to make a text comprehensible: textual factors such as vocabulary, syntactic elaboration/simplicity, etc.; or individual listener's factors such as levels of syntactic, lexical, or topic knowledge?

**Theoretical bases**

Schema theorists claim the existence of three kinds of background knowledge: (1) linguistic knowledge, (2) discourse structure knowledge, and (3) knowledge of the world. Omaggio (1986) states that a
text is not meaningful by itself, but that "comprehenders make use not only of the linguistic information in the text, but also of their knowledge of the world and their understanding of discourse structure to make sense out of the passage" (p. 97).

The use of these kinds of knowledge, especially syntactic, in interpreting input is not overt because it happens in the mind of the learner. It is easier to determine the kinds of world knowledge the learners use to comprehend texts, when evaluating written recall protocols, for example. In fact, Goodman (1972) states that "most of us are quite unable to describe the use we make of grammar in coding and decoding speech, yet all language users demonstrate a high degree of skill and mastery over the syntax of the language even in our humblest and most informal uses of speech" (emphasis mine) (p. 19). The extent to which knowledge of syntax may affect one's comprehension of an aural text is unclear. However, listening comprehension is often viewed as a interactive process (Byrnes, 1984; Joiner, 1986) in L1 as well as in L2. All three kinds of knowledge appear to interact with each other during the processing of aural input. Byrnes (1984) states that
language processing involves "an interplay between all types of knowledge—phonological, lexical, structural and semantic—where each knowledge source continuously has two-way access to every other source in the task of analyzing sensory input" (p. 322). Later, Byrnes goes on to state that "the proper interpretation of any language form draws on very complex contextual restrictions. These restrictions are not merely extralinguistic and referential but also linguistic and systemic." (p. 323)

Thus, it is clear that, when listening for understanding, learners bring with them knowledge that is not only limited to what they know about the world, but also linguistic knowledge. Thus, it becomes increasingly important to determine what is the influence of syntax upon a listener when s/he is attempting to comprehend an aural message.

**Definition of Terms**

*Listening Comprehension*: The level of comprehension of auditory input is measured through a quantitative analysis of immediate post-listening recall protocols written in the subjects' native
language.

**Syntactic Complexity:** The level of syntactic simplicity/complexity of the texts as measured by T-unit analysis. Three levels of syntactic complexity are included in the present study: (1) simplified, where all complex sentences are simplified by making each t-unit shorter, bearing fewer words, sentence nodes, and clauses per T-unit; (2) the intact version of the texts; and (3) the elaborated (interactional) version, which bears redundancy in terms of the insertion of definitions, paraphrases, and synonyms.

**Immediate Recall Protocol:** The written recollection by the subjects, in their native English language, of information from the listening task as completely and accurately as possible.

**Level of Instruction:** The level of instruction refers to intermediate college Spanish 104 at The Ohio State University. The students in this population have studied Spanish for three quarters in the Spanish program, or have tested into this level due to their knowledge from previous studies in high school, other academic institutions, or both.
Listening texts: Syntactically simplified, elaborated and intact spoken versions of personal communication texts on topics related to events in Spanish-speaking countries, spoken by native speakers and randomly selected for use in the present study. The listening texts are recorded by one single native speaker once all modifications to the texts are done. The modified versions differ only in length of time, but not on rate of speech, due to the modifications done on the texts for the purposes of the study.

Syntactic Simplification: The changes made to the original text which reflected in the text, by means of shorter sentences, fewer S-nodes (nouns, noun phrases and pronouns) per T-unit, fewer clauses per T-unit, and use of simple tenses whenever possible. No lexical modifications are used.

Listening Task: The students listen to one version of a text twice, and write a recall protocol in English to the best of their ability.

Elaborative Modification: The changes performed on the original texts that provide conversational features such as greater redundancy than the original by inserting definitions, paraphrases, synonyms, and
missing elements of ellipsis, as explained by Chaudron (1988).

T-units: As defined by Hunt (1970), a T-unit is a "main clause plus whatever subordinate clauses happen to be attached to or embedded within it." The T-unit is a useful grammatical concept which bridges the gap between the clause and the sentence (Hunt, 1970).

Assumptions

It is assumed in this study that:

1. The subjects in all the sections chosen for this study are at a similar level of Spanish language competency at the time of the listening tasks.

2. The subjects will listen attentively to the taped aural text for each section, and will, to the best of their ability, write a complete recall of the information contained in the text.

3. The T-unit analysis of the texts, as used in similar textual analyses by Long (1985), Fujimoto et al. (1985) for similar research purposes, and as acknowledged by Kelch (1985)
as a valid measure of syntactic complexity.

4. No subject has a serious hearing impairment.

5. The learners' ability to write a free recall protocol of an aural text is a valid measure of their ability to comprehend that aural text.

6. The elaborated and simplified versions of the texts consistently keep the message intended in the original (intact) texts.

Limitations of the Study

1. This study is designed to provide additional information about the influence that syntactic simplifications and elaborations may have on the listening comprehension of second language learners. It is acknowledged, however, that conclusions about how syntax can be manipulated in order to improve comprehension of Spanish L2 learners cannot be made on the basis of this study alone.

2. The results of this study may only be attributable to the manipulation of the texts used in this study alone. Any generalization
Significance of the Study

Listening comprehension is, according to Bialystok (1981), the route to all future comprehension and later production in a second language. If a learner is to communicate in the target language, he/she will have to comprehend input in order to act upon it. It is important, therefore, to gather information that can provide evidence about the kind of linguistic input learners are able to comprehend.

Referring to textual complexity in reading comprehension, Omaggio (1986) recommends that it is possible to obtain positive results "by using simplified versions of authentic materials and gradually mov[ing] toward incorporating complete, unedited language samples into courses..." (p. 71-2). This consideration is especially important due to the fact that during reading the learner has the text in front of him/her and is able to go back to it to verify inferences made about the text. A listener, on the other hand, may not have that advantage; therefore, it
is even more important for him/her to be able to decode the message without the burden of overly complex syntax. In the same light, Clarke (1979) used similar arguments against the use of unaltered authentic texts in the lower levels of L2 learning because they may contain linguistic complexities that impede comprehension. Another point by the same author is that it is unrealistic to expect beginning and intermediate-level learners to deal with high level native speaker textual complexities in an effective manner. Lund (1990) provides a taxonomy for teaching second language listening in which he stresses the use of authentic texts because he contends that the difficulty should be seen as a feature of tasks to be performed by the learner, rather than of the text. He goes on to encourage teachers consider the use of any text (regardless of textual difficulty) at the novice level.

Recent attempts to answer some of the contingent questions regarding the importance of surface syntax on the comprehension of auditory input have not provided conclusive answers to the problem. Chaudron (1987) suggests that more study is needed that can provide
control over extraneous variables such as word rate when dealing with modified texts. He refers to the 1986 study by Fujimoto et al., in which the researchers failed to control for the word rate of the modified versions of the lecture used as a listening task. As reported by Chaudron, the NS passage registered at 140 words per minute (wpm), the non-native-speaker (NNS) modified input version showed only 117 wpm, and the NNS modified interaction version was spoken at a rate of 124 wpm. These differences are what motivates Chaudron (1987, p. 112; 1988, p. 157) to reject the findings of Fujimoto et al. In contrast, it is important to note that a 1990 listening comprehension study by Rader, dealing with three levels of speech rate in Spanish texts, showed no significant differences among three versions of three different texts.

Another study of syntactic complexity in which results show a questionable role in listening comprehension for syntactic complexity is Mannon (1986), a study that used two videotaped versions (one NS, the other NNS) of the same lecture. According to Chaudron (1988, p. 157), the lack of significance may be due to subtle uncontrolled differences in complexity
between the lecture versions.

The differences of opinion by theorists and researchers (Lund, 1990; Chaudron, 1986; Omaggio, 1984 Clarke 1979), and the disputable research conclusions (Fujimoto et al. 1986; Long, 1985; Mannon, 1986; Speidel et al., 1985) seem to suggest that indeed, more research is needed in the area which can control for extraneous variables that may render equivocal and confounding results.

The above considerations, and the lack of empirical research published in the area of L2 listening (Long, 1989; Pearson and Fielding, 1982) support the need to establish a reliable database that can be the groundwork for future work on listening comprehension. Long (1989) points out that only one fourth of the just over two hundred articles published in the field of listening comprehension report on empirical research.

Organization of the Study

Chapter 1 includes an introduction to the problem under investigation and the specific questions to be answered by means of an analysis of the data used in
this study; definition of terms and assumptions regarding the materials, and the subject participating in the study. Chapter 2 includes a review of literature relevant to this study. Chapter 3 includes a description of the procedures, the population and the selection of the sample, as well as the research design and variables used in the present study. A discussion of the results yielded by the analysis of the data is included in Chapter 4. Finally, in Chapter 5 answer to the research questions are provided, and recommendations for further study are offered.
CHAPTER II

Review of Related Literature

A review of the literature regarding the problem of listening comprehension in second language reveals that only a small number of the published works on the topic are empirical studies in aural comprehension. Also, the number of areas of research dealing with the issue of listening comprehension are limited.

Listening comprehension has been researched in the following areas: the effects of input modifications in listening comprehension (Cervantes, 1983, 1992; Long, 1985; Kelch, 1985; Spiedel et al., 1985; Mannon, 1986; Fujimoto et al., 1986; Chaudron et al., 1986); the effects of rate of speech (Nelson, 1948 as cited in Olsen and Berry, 1982; Carroll, 1967; Orr, 1968; Cain and Lass, 1974; Pimsleur et al., 1977; Conrad, 1989; Rader, 1990), an area of research that has yielded inconsistent results. The effects of background knowledge on listening comprehension (Schmidt-Rinehart, 1992; Chung and Dunkel., 1992). Long (1989, 1990,
1990b) has offered valuable insight into the viability of schema theory in listening comprehension.

Another area of investigation, which has also provided confounding results, relates to the effects of simplified speech—also known as "foreigner talk" and "teacher talk." Bell (1984) and Levelt (1989), as cited in van Lier (1991), call it "audience design" (p.42), depending on whether the environment is a natural setting or the L2 classroom.

The Long (1985) study investigated the effects of foreigner talk (FT) type texts on the listening comprehension of 87 ESL university students. The assessment of comprehension was performed through a measure of a multiple choice test, which the subjects took while listening to the text. The results showed that the FT text—which was less complex (fewer S-nodes per T-unit), was recorded at a slower rate of speech, and contained interactional characteristics such as rephrasing and restatements—was comprehended better.

Kelch’s (1985) study, which also used the results of a dictation as a measure of comprehension, presented the 26 ESL subjects with four versions of the same text. The first one was the unadulterated NS version
with 191 wpm (words per minute); the second was slowed
down to 124 wpm; the third contained FT modifications
such as synonyms, paraphrases and parallelisms, and was
read at a 200 wpm rate; the last one contained the same
modifications as the third version, but was read at a
slower rate (140 wpm). The results showed that, for
exact word, the second and fourth versions were
comprehended better than the other two. For the
assessment with equivalent meaning, the same results
were obtained. In addition, the fourth version of the
text proved to be easier than the similar version
(third) with higher rate of wpm.

Speidel et al. (1985) carried out a study (L1)
that included 120 second graders as subjects (all
native speakers of English, standard and non-standard
Hawaiian English), and two versions of one text
differing in syntactic complexity. The results did not
show any significant difference between the two groups.

Results of the Mannon (1986) study, although not
statistically significant, showed a trend toward better
comprehension of texts with a slower rate of speech
(112 vs. 123), and inclusion of more repetitions (28
vs. 16) on a multiple choice test after the listening
Another field of research in listening comprehension has focused on the importance of pauses in the listening text (Johnson and Friedman, 1969; Lass, 1970; Aaronson et al., 1971; Huberman et al., 1974; Grosjean and Deschamps, 1975; Grosjean and Lane, 1976; Grosjean and Lass, 1977; Neff, 1978; Heilenman, 1978; as cited in Rader, 1990) when testing listening comprehension ability. The results of these investigations have yielded inconsistent results, a notion that Blau (1990) has also pointed out. However, there exists a trend toward the notion that pauses may help the SL listeners in coping with the syntactic complexities, as well as the vocabulary difficulties of a SL text.

In an attempt to determine what alterations to input directed to second language learners may affect comprehensibility, Blau (1990) conducted a study with two groups of students from different native language backgrounds, i.e. Polish and Spanish. Three versions of three monologues were recorded for the students to listen to and answer a wh-question comprehension test in English. One of the versions of each of the
Background Knowledge in Listening Comprehension

Studies that have researched the importance of schemata in listening comprehension have revealed the salience of background knowledge in the comprehension of aural texts. Long (1990a) discusses the role of background knowledge saying that the effects of background knowledge may be both positive and negative: "Appropriate schemata can help listeners fill in missing information, or allow them to listen at a less attentive level and still comprehend the message. When applied erroneously, however, schemata can lead the learner to false conclusions" (Long, 1990a, p. 2). In an exploratory study into the effects of background knowledge on listening comprehension, Long (1990) had her subjects (two groups) listen twice to a passage (U2 and Gold Rush). The subjects were not allowed to take notes before they wrote recall protocols. Before listening the subjects were tested on their knowledge...
the California Gold Rush. Also, after the recall protocols were written, a checklist was filled out by the students which contained false and paraphrased statements. The same procedure was followed for the second text. The results for the first text showed that despite the lack of topic-related schemata, the subjects were able to rely on their linguistic knowledge in attempting to comprehend the passage. The results for the second passage, a topic which the subjects had greater familiarity with, showed that the recall protocols revealed a significantly higher proportion of correctly recalled idea units. In concluding, the researcher asserts that both background knowledge and linguistic knowledge play prominent roles in the comprehension of aural texts.

A recent EFL (English as a Foreign Language) study by Chung et al. (1992) attempted to show the influence of prior knowledge as well as of speech modification on L2 listening comprehension. The subjects, all students at the Chinese Naval Academy, listened to familiar and unfamiliar lectures. The subjects were tested for English listening proficiency through the CELT (Comprehensive English Language Test),
and were grouped according to proficiency levels. The familiar lecture was one on "Confucius and Confucianism," while the unfamiliar lecture dealt with "The Amish People and the Pennsylvania Dutch Country." The subjects were tested soon after they listened to the lectures. The tests consisted of completion items with four response choices, and contained lecture-specific, as well as general, information about the topics. The results showed that background knowledge played an important role in comprehension. The group that listened to the familiar lecture showed higher passage-independent scores than those who listened to the text on the Amish.

Another study by Schmidt-Rinehart (1992) corroborates the finding that background knowledge, more specifically topic familiarity, is a powerful internal factor in listening comprehension. The researcher presented two authentic aural texts (one familiar, the other unfamiliar) to three intact classes, at the beginning (101, 102 and 103) levels of Spanish instruction. The researcher followed the standard procedures for the recall protocol as a method of assessing listening comprehension. The subjects
were not allowed to take notes, and wrote their protocols in their native language, English. The results of the study showed that topic familiarity, as well as course level, affected the recall measures of listening comprehension. All the subjects who heard the familiar topic text recalled significantly more information than the others.

Ample evidence is being gathered that corroborates the significance of background knowledge on the comprehension of both reading and listening. As noted above, Long (1990) has also asserted that background knowledge, together with linguistic knowledge, are two of the most important factors in listening comprehension.

Research on Syntax in Listening Comprehension

Studies that have investigated the effects on listening comprehension of various levels of complexity/simplicity of syntax, at and beyond the sentence level, are not abundant. Levels of syntactic complexity have been regarded as the number of words, Sentence nodes (S-nodes), and clauses per T-unit by researchers such as Gaies (1977), who used words per T-
unit, clauses per T-unit, words per clause as a measure of the complexity/simplicity of the speech of ESL teachers, both in and outside the classroom. The number of S-nodes per T-unit as a valid measure of syntactic complexity has been used by Long (1985) and Fujimoto (1985).

In a study that included native as well as non-native subjects, Conrad (1985) concludes that a highly significant element in increasing the amount of information remembered in short-term memory by native and non-native groups is the knowledge of the target language syntax that the subjects possess. Thus, as Windfield and Nolan (1980) found in their L1 studies, memory span for connected discourse, an essential feature in L2 listening comprehension assessment as well, is highly influenced by syntactic structure.

Furthermore, Windfield and Nolan's 1980 assessment of their research allowed them to indicate that their subjects tended to chunk speech by syntactic structure rather than by temporal duration of the input, or number of words per minute.

Glisan (1985) investigated the effect of word order on the listening comprehension of Spanish by
native speakers of English. The participants in the study were 43 English-speaking undergraduate students of Spanish enrolled in advanced level Spanish courses, as well as a control group of 21 Spanish-speaking individuals. The participants listened to paragraphs which consisted of about 150 syllables per passage. All the passages were stories found in different Spanish textbooks, some of which were modified by native speakers of Spanish from Latin America. Each passage contained one key sentence with different word order (S-V-O, V-S-O, O-V-S), which was the central point of the study. The results showed that, within the group of non-native subjects, "a hierarchy of comprehension difficulty associated with word order was revealed" (p. 457). The subjects showed better comprehension of sentences that had S-V-O (subject, verb, object) patterns over V-S-O and O-V-S patterns. These results showed that the learners' L1 had an effect in the retention of the key sentences. Subjects retained V-S-O and O-V-S sentences in a S-V-O pattern, which reflected the normal English sentence pattern. According to the researcher, "These findings corroborate those of Sachs (1967), Bransford and Franks
suggesting that listeners retain information in some basic form, which reflects some language transfer, and shows that language universals are interacting variables in comprehension of syntax" (p. 463).

Bongaerts (1983) investigated the comprehension of three complex English structures by Dutch learners, as an attempt to expand on the research by d'Anglejan and Tucker (1975), and Cooper et al. (1979). There were three tasks for the subjects to do. The first was to test the students' ability to discriminate between the following similar surface structure sentences using adjective+to+verb structure, as in these examples: (a) "The doll is eager to see" and (b) "The doll is easy to see". The second task was to test the "subjects' ability to distinguish the underlying syntactic structures associated with promise from the general pattern for other verbs sharing a similar surface structure, such as tell, order, persuade, allow, and advise." In other words, similar surface syntax would vary in meaning with the use of various verbs, but whose meaning was widely different under the minimum distance principle (MDP) i.e. "the implicit subject of
the complement verb is the noun immediately preceding it" (Bongaerts, 1983, p. 160), e.g. (a) "Bozo promised Donald to stand on the book," (b) "Bozo told Donald to stand on the book." The third task was designed to let the subjects discriminate between sentences containing verbs 'tell' and 'ask': e.g. (a) "The girl asks the boy what to paint," and (b) "The girl tells the boy what to paint." The results showed that for task 1 and task 2 the subjects had few problems interpreting the control sentences. The results for task three, however, showed that sentences containing the verb TO ASK, which violates the minimum distance principle (MDP), pose substantially more difficulty for the subjects. In concluding, Bongaerts asserts that differences between experience in learning L1 and L2 may cause difficulty for L2 learners when dealing with a different surface structure.

With few exceptions, the studies described above are, for the most part, a reflection of research done in the prolific field of ESL (English as a Second language). It remains to be seen whether studies in languages other than English would yield similar results.
Elaborations of Input

During interactions with non-native speakers, native speakers tend to modify their speech in order to make it comprehensible for their interlocutors (Long, 1983). These modifications can be linguistic simplifications, modifications of interaction, and those modifications coined by Parker and Chaudron (1987) as elaborations. Elaborations are defined by Parker and Chaudron (1987) as "a combination of features of redundancy and thematic structure." Features enumerated by Parker and Chaudron that characterize elaborations of input are: (a) phonological; slower speech, clearer articulation, and emphatic stress; (b) morpho-syntactic; paraphrases, synonyms and restatements, rhetorical signalling devices, self-repetition, and supplying of optional syntactic signals (e.g. relative and complement clause markers).

In spite of methodological differences, some generalizations were made in relation to a number of studies that Parker and Chaudron analyzed for findings regarding effects of elaborations in various research efforts which investigated some aspects of input
modification. The conclusion seems to be that comprehension was improved when elaborative modifications were present (Long, M., 1990).

The Cervantes (1983) study presented sixteen ESL listeners with a native speaker (NS) text whose modification characteristic was elaboration. The subjects heard the text twice. The assessment of comprehension was a measure of the subjects' ability to write what they heard on the two occasions the subjects listened to the same text. The assessment of these dictation measures was based on the evaluation of subjects' writing of the exact morphemes and equivalence in meaning when the subjects changed particular words. The results showed that the subjects scored better when they wrote the dictation piece the second time.

The 1987 Parker and Chaudron (1987) study analyzed the results and methodologies used in various experiments dealing with modification of input in listening comprehension tasks. They also proposed that "the modifications most critical for comprehension are in fact repetitions or redundancy, ..." (p. 108). These are characteristics of the so-called foreigner
talk (FT), and are normally used in natural interactions during conversations with, both, native and non-native speakers. Parker and Chaudron proposed a third type of modification of input, namely elaboration. Elaboration may entail several changes in the input, such as: "repetition of constituents, paraphrases, use of synonyms, use of left dislocation, slower speech, clearer articulation, emphatic stress, rhetorical signalling or framing, [and] suppliance of optional syntactic markers" (p. 126).

The Parker and Chaudron study involved the presentation of two written passages, one containing no modifications and the second containing two forms of elaborative modifications, redundancies and thematic structure changes. Comprehension of these passages was assessed by cloze outcomes. The results showed no significant differences between the comprehension of either type of text. There was no comment on the possibility that cloze procedure may not be a reliable measure to assess comprehension of L2 texts.

Another recent EFL (English as a Foreign Language) study by Chung and Dunkel (1992) attempted to show the influence of prior knowledge as well as of
speech modification on L2 listening comprehension. The subjects, all students at the Chinese Naval Academy, listened to modified and unmodified, familiar and unfamiliar lectures. The subjects were tested for English listening proficiency through the CELT (Comprehensive English Language Test), and were grouped according to proficiency levels. The familiar lecture was one on "Confucius and Confucianism," while the unfamiliar lecture dealt with "The Amish People and the Pennsylvania Dutch Country." Both lectures were modified to include elaborated information using paraphrases and repetition of information. The subjects were tested soon after they listened to the lectures. The tests consisted of completion items with four response choices, and contained lecture-specific, as well as general, information about the topics. The results showed a significant interaction between modified speech and listening proficiency, showing that students with higher proficiency benefited from the speech modification while the other group did not, at least not to the same degree. Regarding background knowledge, the group that listened to the familiar lecture showed higher passage-independent scores than
those who listened to the text about the Amish.

Therefore, given the results obtained in the reported studies, it is pertinent to say that the interaction between text elaboration and presence of background knowledge seems to have a positive effect on aural comprehension.

**Syntactic Memory**

Syntactic memory refers to the ability that learners have to segment speech by syntactic structure. Conrad concluded in her 1989 study that one of the main elements in remembering linguistic material is knowledge of the target language syntax. In her study, the researcher observed the (aural processing strategies of native and non-native speakers. Different groups listened to English sentences at different rates of speech.) As reported, the recall of the sentences at faster-than-normal rates decreased as the subjects' proficiency levels decreased.

Call (1979) investigated the relationship between short-term memory and listening comprehension of English as a Foreign Language at the university level. She found that syntactic memory was of crucial
importance for effective listening comprehension. Later, a 1985 study by the same researcher showed syntactic memory was the most salient factor in her subjects' ability to comprehend single sentences. She concluded that learners cannot retain information in short-term memory when they do not have suitable syntactic knowledge to comprehend segments of the target language.

The Immediate Recall Protocol as a Measure of Comprehension

One discordant characteristic in most listening research is that of comprehension assessment. The diversity of assessment measures of listening comprehension precludes a fair understanding of where we stand regarding listening comprehension research. It is argued that questionnaires and multiple choice tests of listening comprehension may not provide an accurate assessment of comprehension. Some reasons can be mentioned to support this assertion are that questionnaires and multiple choice tests necessarily include information that may supply some listeners with clues to the correct answers without having to
necessarily understand the original text. Moreover, questionnaires are usually written in the target language, hence they require that the learner perform more than just the task of demonstrating comprehension; they also require writing. By the same token, multiple choice test, as a discrete-point measure, does not emulate real-life tasks. In other words, as pointed out by James (1986), "comprehension involves total meaning and individual reaction to that meaning. It is holistic and idiosyncratic." (p.23)

Likewise, it is not clear whether or not the ability to write down an L2 text through dictation represents a true comprehension test since it is not possible to separate spelling ability from comprehension. The same argument may also be used to represent cloze testing. When assessing listening comprehension through this technique it is not possible to determine whether or not there is a difference between a listener's ability to identify words missing in a text, and actual comprehension of the same text.

Several researchers have argued that the immediate recall protocol is a more accurate way of assessing comprehension, especially in reading tasks.
(Bernhardt, 1983; James, 1986; James and Bernhardt, 1987). Johnston (1983) calls it the "most straightforward assessment of the result of the text-reader interaction." James (1984), in making the case for the use of immediate recall protocols, says that it "may prove to be one of the best means for determining the extent of listening comprehension of a target language text." Recall protocols from listening comprehension tasks have been used in several investigations of listening comprehension (Eykyn, 1992; Schmidt-Rinehart, 1992; Long, 1990; Rader, 1990; Bernhardt and James, 1987; James, 1984). One of the practical differences, important though it may be, between these two types of tasks (listening and reading) is that the reader may refer to the text again and again before writing the recall protocol, whereas the listener has only one or two opportunities to hear the text.

Rader (1990) referred to the use of the recall protocol as one of the possible reasons why her study did not show significant differences between her groups in a word rate/listening comprehension study. She stated that "... the recall procedure may have
confounded any effects of word rate on listening comprehension." The researcher's rationale was that her subjects may not have been used to the procedure, which requires the subjects' undivided attention while listening because they are not allowed to take notes of any kind.

Recall protocols are written in the subjects' native language in order to avoid the learner's L2 skills "interfer[ing] with the subsequent analysis of their comprehension abilities" (Bernhardt et al. 1985, p. 72). Moreover, James (1986) contends that it is easier for learners of a second language to express themselves in the native language than in a target language.

T-Unit Analysis

Analysis of text using the so-called Hunt's (1964) T-unit analysis is a valid measure of overall syntactic complexity of a reading or listening text, according to Gaies (1980). While the use of T-unit analysis in order to determine syntactic maturity (proficiency and quality) in second language has been subject to justified criticism, T-unit analysis has
been the most widely used of the measures created for determining syntactic complexity" (Reed et al., 1988) of samples of written language. Fujimoto et. al (1986) used T-unit analysis as the unit of measure in order to determine the degree of syntactic complexity/simplicity of the texts used in their study. The present study is a natural extension of the latter and uses the T-unit analysis in order to determine degrees of syntactic complexity/simplicity.

In the present study, as in the Fujimoto et al. (1986) study, the use of T-unit is limited only to the analysis of native speaker (NS) texts in order to determine the syntactic complexity/simplicity of such texts. Most importantly, the T-unit analysis was used to separate different textual segments for further necessary modification of each text. For example, the following T-unit taken from the original text 'El juego de pelota':

'Este juego se jugaba en una cancha / que tenía unas dimensiones de 30 metros por 80, / con dos muros paralelos de aproximadamente 8 metros de alto'.

was divided into three segments that were used to form three independent sentences for the simplified version:
1. Este juego lo jugaban en una cancha.

2. Esta tenía unas dimensiones de treinta metros por ochenta.

3. Tenía dos muros paralelos de aproximadamente ocho metros de alto.

Later, in order to add information that would aid the subjects in comprehending the text, the same segment was modified, using elaborations, by adding one definition, and one synonym.

"Este juego se jugaba en una cancha, (1) o sea un campo de juego, que tenía unas dimensiones de treinta metros por ochenta, con dos muros, (2) o paredes paralelas de aproximadamente ocho metros de alto."

This procedure was performed on all texts, which were later recorded for use in the listening task.
CHAPTER III

What follows in this chapter is an explanation of the procedures, as well as a description of the subjects, research design, variables and testing measurement used in this study.

Procedures, Population and Sample Selection

The sample population for this study was randomly drawn from nine fourth-quarter college classes of students of Spanish at The Ohio State University. The Ohio State University is a state-supported institution with a two-year high school foreign language entrance requirement. Upon admission to the University, all students who studied foreign language in high school take a placement test. The scores determine at which level students begin their study regardless of the amount of time spent studying a particular language at the high school level. Typically, students with one year or less of Spanish in high school and a score between 1 and 19 on the placement test enroll in
101.01. Students with one to two years of high school Spanish who score between 20 and 29 are placed in 102.01 and students with one to three years of high school Spanish and a score between 30 and 39 are placed in 103.01. Students pursuing a Bachelor's degree in the College of Arts and Sciences, as well as students from other schools, must demonstrate proficiency at the 104 (fourth quarter) level, through their course work or through their results on the placement test.

Spanish 104 is the last course in a series of four introductory Spanish courses offered by the Department of Spanish and Portuguese available to the entire OSU student population. The University uses a ten-week quarter system.

At the 104 level, students are defined as intermediate learners because they have already completed the beginning course sequence Spanish 101, 102, 103, but are not eligible to enroll in more advanced courses at the 200 level or above. This level was selected for several reasons. First, these students have completed the three-course sequence already mentioned, and have covered a uniform curricular sequence through the use of the same
Similarly, all instructors receive training that enables them to provide rather uniform instruction in their classes. Moreover, most testing materials are provided by the supervisor of the Spanish section, thus achieving a high degree of uniformity with respect to what is expected from all students. Second, 104 students have had exposure to aural texts throughout their 101, 102, and 103 classes both for practice and testing purposes. Therefore, it is expected that they will be familiar with listening to extended aural discourse. Similarly, at the 104 level the students have had exposure to most grammatical features of Spanish, as well as extensive exposure to vocabulary.

Third, the large population of students (at least 200 per quarter) taking Spanish 104 provided not only a sufficient number of subjects, but also the necessary homogeneity from which equitable samples were drawn.

Nine intact sections of Spanish level 104 were selected in chronological order from all the scheduled sections offered during the Spring Quarter, 1994. Classes were selected in this manner in order to allow the researcher to be present in each class. The typical number of students per class is between 15 and
20. Only students who had completed at least the third level of the three-course sequence of Spanish language at this university were the pool from which the sample for this study was ultimately selected. In order to make the final selection of subjects, those students who tested out of the 101-103 Spanish sequence and enrolled directly in Spanish 104 were eliminated from the sample. Subsequently, the researcher randomly selected 10 subjects from each of the nine sections for data analysis. The final sample size was 90 subjects.

Table 1 shows the levels of Spanish instruction that the final sample of students selected received at The Ohio State University prior to enrolling in level 104. Five (5.5%) of the ninety students selected had taken the full 101-103 Spanish course sequence. Forty-seven (52.2%) placed in 102 and had completed 103. Thirty-eight (42.2%) students had taken only 103 at The Ohio State University. As seen in Table 1, the majority of the subjects had had ample exposure to basic Spanish grammar, either by completing levels 101-103, or by testing into and completing 103, which requires that they have acquired a level of grammar and vocabulary proficiency that will allow them to succeed
in the next Spanish level, 104.

Table 1: Spanish instruction received by the subjects at OSU.

<table>
<thead>
<tr>
<th>Course Level</th>
<th>101-103</th>
<th>102 &amp; 103</th>
<th>103 only</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>El mate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elaborado</td>
<td>(n=10)</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Intacto</td>
<td>(n=10)</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Simplificado</td>
<td>(n=10)</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>El juego de pelota</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elaborado</td>
<td>(n=10)</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Intacto</td>
<td>(n=10)</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Simplificado</td>
<td>(n=10)</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td><strong>La vuelta a Colombia</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elaborado</td>
<td>(n=10)</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Intacto</td>
<td>(n=10)</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Simplificado</td>
<td>(n=10)</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5=5.6%</td>
<td>47=52.2%</td>
<td>38=42.2%</td>
</tr>
</tbody>
</table>

The Texts

Three different sets of lectures of similar syntactic complexity were randomly assigned to the experimental groups, i.e., (1) three groups listened to one of three syntactically intact texts; (2) a second group of three classes listened to one of three
syntactically simplified texts; and (3) a third group of three classes listened to one of three texts that had been elaborated by adding synonyms, paraphrases, explanations and definitions. All treatment groups listened to the texts twice before writing their recall protocols.

Research Design

Three original texts were modified by simplifying them and by adding information that would theoretically provide a better chance for the subjects to comprehend the texts. The total number of texts used in the study was nine. Therefore, nine groups were randomly chosen to take part in this one-time, one-task study. There was no pretest involved in the study. The subjects answered a short questionnaire after they wrote an immediate recall protocol for an aural text listening experience. During the listening task, the subjects were not allowed to take notes. Table 2 shows the number of groups, the text and particular version to which the subjects listened.
Table 2. **Layout of the Design Showing Versions of the Texts**

<table>
<thead>
<tr>
<th>Texts</th>
<th>Elaborated</th>
<th>Intact</th>
<th>Simplified</th>
</tr>
</thead>
<tbody>
<tr>
<td>El mate</td>
<td>G1</td>
<td>G2</td>
<td>G3</td>
</tr>
<tr>
<td>El juego</td>
<td>G4</td>
<td>G5</td>
<td>G6</td>
</tr>
<tr>
<td>La vuelta</td>
<td>G7</td>
<td>G8</td>
<td>G9</td>
</tr>
</tbody>
</table>

n=10 for each group
G1, G4, G7= Elaborated versions groups.
G2, G5, G8= Intact versions groups.
G3, G6, G9= Simplified versions groups.

**Variables and Treatment conditions**

The Independent Variables

The main independent variable of this study consists of three different levels of syntactic complexity determined with the consensus of three native Spanish-speaking college Spanish teachers, and the criterion used was the T-unit analysis. The three levels were labelled:

1. NNS elaborated version
2. NS intact version
3. NNS simplified version
The NS (native speaker) intact version was subjected to no modifications. It was kept unchanged because it reflected the natural word per minute ratio and natural syntax with which the informants spoke.

The NNS (non-native speaker) simplified version was composed of shorter T-units, fewer words per T-unit, fewer clauses per T-unit, and fewer sentence nodes per T-unit, changes that were assumed to make the texts easier for the subjects to comprehend.

The NNS elaborated (interactive) version contained longer T-units which in turn contained a larger number of words and clauses per T-unit. These versions also contained additional segments such as definitions and/or explanations, that would have hypothetically helped the subjects comprehend these texts better than those learners who listened to the intact versions. These additions consisted of, as indicated above, synonyms, paraphrases, repetitions and definitions for all those terms that may be considered difficult for the subjects to understand. Figure 1 shows the number of non-syntactic elaborations used to modify the original texts.
Figure 1. Non-Syntactic Elaborations on Intact Texts.

<table>
<thead>
<tr>
<th></th>
<th>Synonym</th>
<th>Paraphra</th>
<th>Definit</th>
<th>Repetit</th>
</tr>
</thead>
<tbody>
<tr>
<td>El mate</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>El juego de pelota</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>La vuelta a Colombia</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
<td>14</td>
<td>14</td>
<td>18</td>
</tr>
</tbody>
</table>

Key: Synonym = synonyms
Definit. = definition
Paraphr. = paraphrase
Repetit. = repetition

Modifications of speech, as explained by Kelch (1985), are usually assumed to be attempts to make the L2 more comprehensible for the non-native speaker learner. These modifications are found in teachers' classroom discourse, otherwise known as Teacher Talk. Henzl (1979) found that teachers modify their speech when talking to their students in the target language. These modifications were:

1. Grammatical: using less subordination, shorter sentences, and increase in the use of the present tense.
2. Phonological: using clearer articulation, and slower rate of speech.
3. Lexis: using synonyms and paraphrases, as
well as fewer idioms.

Gaies (1977, 1979), as noted above, in similar observations of L1 and L2 classrooms, found that teachers' utterances were simpler on a range of measures of syntactic complexity when they addressed their students than when they were talking among themselves. The latter showed that there is a systematic simplification of the formal characteristics of the teachers' language.

Parker and Chaudron (1987) assert that the most critical types of modification of input are repetitions or redundancy, and clearer signalling of the thematic structure of the text.

The following chart shows differences between modifications involving simplification of input, elaboration of input and modifications in conversational interaction (Parker and Chaudron, 1987), some of which were used in this study. The ones used in this study are: repetition of constituents, paraphrases, synonyms, and clarification requests in the form of explanations and definitions.
Figure 2. Types of Modifications

A. Modifications of Input

a. Simplification

Shorter utterances: (a) fewer words per utterance  
(b) fewer words per T-unit  
(c) fewer T-units per utterance  

Less complex syntax: (a) fewer clauses per T-unit  
(b) fewer S-nodes per T-unit  
(c) omission/deletion of sentence elements  
(d) omission of inflections  

Less complex lexis: (a) smaller type-token ratio

b. Elaboration

1. Redundancy: (a) repetitions of constituents *  
   (b) paraphrase *  
   (c) use of synonyms *  
2. Use of left dislocation
3. Slower speech
4. Clearer articulation
5. Emphatic stress
6. Rhetorical signalling or framing
7. Suppliance of syntactic markers
8. Thematic structure
9. Presentative movement
10. Extraposition
11. Cleft construction

B. Modifications of Interaction

1. Clarification requests *
2. Comprehension checks
3. Confirmation checks
4. Utterance completion
5. Other repetitions
6. Decomposition of propositions via dialogue

* Elements used in the elaboration of the text for this study
The Independent Variables

The first independent variable, text type, consists of three aural passages:

1. El mate
2. El juego de pelota
3. La vuelta a Colombia

The second independent variable, Syntactic complexity, includes:

1. Elaborated (interactional) version
2. Original (intact) version
3. Simplified version

Explanation of the Independent Variables

The texts chosen for this study were orally rendered by three college-educated native speakers of Spanish from three different Latin American countries, namely Colombia, Mexico and Argentina. The native speakers were asked to talk about cultural traits of their countries with characteristics that were particular to their culture, that were universal in nature, but contained specific cultural features. The texts were spoken in a manner that resembled natural, personal communication since the informants related
their chosen event directly to the researcher, who recorded the story. This procedure follows Swaffar’s 1985 definition of a native aural text as one that is used for the purposes of a foreign language class, and with the particular purpose of communicating meaning.

Rader (1990) asserted that background knowledge becomes an important variable to be acknowledged in listening comprehension research. Despite attempts to control for this variable in her study, background knowledge surfaced as a factor in the comprehension of a sports text—which elicited the most successful recall scores, according to the researcher—and in the other two texts where the Spanish words for city and country appeared. A number of the subjects recalled these texts as comparisons between 'la ciudad' and 'el campo', which were topics the students had previously dealt with in their classes.

For this study, no effort was made to exclude vocabulary that may have caused the subjects to draw on their background knowledge, nor were the texts edited in any other way, with exception of the syntactic modifications. Likewise, the topics that all three texts deal with are universal since they deal with
sports and food. It was thus assumed that there is an equal share of background knowledge regarding the three texts and that background knowledge would not interfere with the listening comprehension of the subjects.

Because this study is considered to be a baseline study, given the small number of studies, and in order to control for any "unusual advantages that subjects may encounter with any solitary text topic or the content of the text" (Rader, 1990, p. 60), three texts were selected for this study. Each version of each text was read and recorded from a prepared script. It is important to point out that the decision record rather than give a spontaneous reading of the texts stems from the researcher's interest in keeping an identical rate of speech both times the subjects heard their randomly assigned version of each text, and to allow all the subjects to hear the same voice.

Table 3 shows an analysis of the three original texts compared with an elaborated and simplified versions. Aspects present in this analysis are: number of words, number of clauses, number of T-units, number of words per clause, number of words per T-unit, and number of clauses per T-unit. This analysis was made
in order to show the differences among the versions of each particular passage.

Table 3: Text Analysis within text

<table>
<thead>
<tr>
<th>Text</th>
<th>Words</th>
<th>Clause</th>
<th>T-unit</th>
<th>W/Cl</th>
<th>W/t-U</th>
<th>Cl/T-unit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>El juego de pelota</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A/Intact</td>
<td>204</td>
<td>23</td>
<td>15</td>
<td>8.86</td>
<td>13.60</td>
<td>1.53</td>
</tr>
<tr>
<td>B/Simplif.</td>
<td>180</td>
<td>23</td>
<td>19</td>
<td>7.82</td>
<td>9.47</td>
<td>1.21</td>
</tr>
<tr>
<td>C/Elab.</td>
<td>300</td>
<td>30</td>
<td>16</td>
<td>10.00</td>
<td>18.75</td>
<td>1.87</td>
</tr>
<tr>
<td><strong>La vuelta a Colombia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A/Intact</td>
<td>280</td>
<td>36</td>
<td>22</td>
<td>7.77</td>
<td>12.72</td>
<td>1.63</td>
</tr>
<tr>
<td>B/Simplif.</td>
<td>260</td>
<td>35</td>
<td>28</td>
<td>7.42</td>
<td>9.28</td>
<td>1.25</td>
</tr>
<tr>
<td>C/Elab.</td>
<td>322</td>
<td>36</td>
<td>20</td>
<td>8.94</td>
<td>16.10</td>
<td>1.80</td>
</tr>
<tr>
<td><strong>El mate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A/Intact</td>
<td>243</td>
<td>36</td>
<td>24</td>
<td>6.75</td>
<td>10.12</td>
<td>1.50</td>
</tr>
<tr>
<td>B/Simplif.</td>
<td>215</td>
<td>37</td>
<td>33</td>
<td>5.81</td>
<td>6.51</td>
<td>1.12</td>
</tr>
<tr>
<td>C/Elab.</td>
<td>301</td>
<td>44</td>
<td>30</td>
<td>6.84</td>
<td>10.03</td>
<td>1.46</td>
</tr>
</tbody>
</table>

Table 4 shows word, clause, and T-unit counts comparing the similar syntactic versions of each text grouped together.
Table 4: Text versions grouped together.

<table>
<thead>
<tr>
<th>Text</th>
<th>Words</th>
<th>Clause T-unit</th>
<th>W/Cl</th>
<th>W/t-U</th>
<th>Cl/T-unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>JP/Intact</td>
<td>204</td>
<td>23</td>
<td>15</td>
<td>8.86</td>
<td>13.60</td>
</tr>
<tr>
<td>VC/Intact</td>
<td>280</td>
<td>36</td>
<td>22</td>
<td>7.77</td>
<td>12.72</td>
</tr>
<tr>
<td>EM/Intact</td>
<td>243</td>
<td>36</td>
<td>24</td>
<td>6.75</td>
<td>10.12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Text</th>
<th>Words</th>
<th>Clause T-unit</th>
<th>W/Cl</th>
<th>W/t-U</th>
<th>Cl/T-unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>JP/Simplif.</td>
<td>180</td>
<td>23</td>
<td>19</td>
<td>7.82</td>
<td>9.47</td>
</tr>
<tr>
<td>VC/Simplif.</td>
<td>260</td>
<td>35</td>
<td>28</td>
<td>7.42</td>
<td>9.28</td>
</tr>
<tr>
<td>EM/Simplif.</td>
<td>215</td>
<td>37</td>
<td>33</td>
<td>5.81</td>
<td>6.51</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Text</th>
<th>Words</th>
<th>Clause T-unit</th>
<th>W/Cl</th>
<th>W/t-U</th>
<th>Cl/T-unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>JP/Elabora.</td>
<td>300</td>
<td>30</td>
<td>16</td>
<td>10.00</td>
<td>18.75</td>
</tr>
<tr>
<td>VC/Elabora.</td>
<td>322</td>
<td>36</td>
<td>20</td>
<td>8.94</td>
<td>16.10</td>
</tr>
<tr>
<td>EM/Elabora.</td>
<td>301</td>
<td>44</td>
<td>30</td>
<td>6.84</td>
<td>10.03</td>
</tr>
</tbody>
</table>

JP= El juego de pelota  
VC= La vuelta a Colombia  
EM= El mate

The texts were 77 and 122 seconds long. This was an expected variation between the duration of the simplified, intact, and elaborated versions of each text. This variation was due to the length of the original texts, the increase in the number of words and clauses in the elaborated versions, and the simplification of T-units, which called for repetition of various sentence parts; i.e., if a long T-unit such as the following from Gaies (1980, p. 55)--"So he went
through the woods and pulled the feather out of his hat from the partridges and put a flower in his hat and walked on through the woods."-- were to be simplified into several shorter, more attainable, T-units, the resulting number of T-units would be five, that is:

(1) So he went through the woods.
(2) He pulled the feather out of his hat.
(3) The feather was a partridge feather.
(4) He put a flower in his hat.
(5) He walked into the woods.

A text (short story) prepared by a Spanish native-speaking playwright presents the following example of a long T-unit: "Ni siquiera cuando la gente del pueblo se prepara por lo que que cree que va a pasar algo pasa nada y ese martes la gente de Doñihue se había preparado por lo que esta vez estaban seguros de que algo iba a pasar".

Simplification of this very complex T-unit sample would yield 6 short T-units for the simplified text.

(1) Nunca pasa nada en Doñihue.
(2) Ni siquiera cuando la gente del pueblo se prepara.
(3) Ese martes, la gente se había preparado.
(4) Por lo que creían que algo iba a pasar.
(5) Esta vez estaban seguros.
(6) Algo iba a pasar.

The main ideas embedded in the long T-unit are all present in the number of smaller T-units that resulted from the simplification process. The subjects were supposed to have an advantage with a text simplified in this way, and were expected to better comprehend the information.

Both, the English example provided by Gaies (1980) and the one prepared by native-Spanish-speaking informant, contain a large number of ideas which reflect authentic target language. These individual ideas were identified and included in separate sentences in order to provide the typical Subject-Verb-Object structure expected in simple syntax sentences.

The Dependent Variable

The dependent variable was the subjects' scores obtained on the immediate recall protocol of each of the texts to be submitted to a one-between, one-within analysis of variance for analysis of main effects. The recall protocols were scored by means of the Johnson
(1970) system of propositional analysis.

In order to avoid interference from possible subjects' lack of background knowledge, or familiarity with the topic of the texts, the texts all referred to culturally universal topics such as sports and food in various Spanish-speaking countries. In the abstract describing her study, Rader (1990) suggests that one possibility for the lack of significant differences among the different groups in her study may have been the "absence of background knowledge" (Dissertation Abstracts International 1991, Vol. 51, no. 10, p. 3351-A) on the part of the subjects.

The Johnson System

The system most used to score the results of recall protocols is the Jonhson system. This system is based on pausal units, or breath groups. According to Johnson, these units indicate where one might pause "to catch a breath, give emphasis to a story or enhance meaning" (p.13). After a division, each pausal unit is weighted for a 1-4 value according to their salience to the message of the text (Bernhardt, 1991). According to Bernhardt, "fluent readers are asked to divide the
text into four levels: the lowest level being the least important 25 percent of the propositions in the text, the next level being the next least important, and so forth." The least important propositions are considered to be of value 1, the next least important 2, the next 3, and the highest propositional value, which contains the most important information, is 4.

This system has been used in reading comprehension (Allen et al., 1987; Beltrán et al. 1989;), as well as listening comprehension studies (Lund, 1991; Rader, 1990; Schmidt-Rinehardt, 1992) that have used the recall protocol as an accurate measure of assessing comprehension. Schmidt-Rinehardt also scored her subjects' recall protocols assigning one point per proposition, which showed exactly the same results as with the weighted propositions proposed by Johnson. This proved to be a more efficient way of evaluating recall protocols, and was thus used in the present study.

Modification of the Johnson System

In a recent study, Deville and Chalhoub-Deville (1993) demonstrated that scoring recall protocols
dichotomously, i.e., according to only the presence or absence of ideational units or propositions in the subjects' protocols, is an efficient alternative to the Johnson's weighted proposition method. Deville and Chalhoub-Deville's study yielded a very high .988 correlation between their subjects' total dichotomous test scores, and the total weighted test scores. The data pertaining to the present study was scored according to the Deville and Chalhoub-Deville method of dichotomously scored protocols.

**Instrumentation**

The instrument chosen to measure the comprehension of the texts is the immediate post-listening recall protocol. The recall protocol has been recommended by Bernhardt (1983) due to the fact that other existing ways of measuring--multiple choice and cloze tests--provide information that could confound the results of the study.

The researcher and two trained Spanish speakers performed the propositional analysis developed by Johnson (1970). They first divided the texts into propositional units, and later met to score the
subjects' recall protocols following Schmidt-Rinehardt's (1992) recommendation that the scorers meet and rate the protocols as a group rather than do it independently.

Pilot study

One version of the three different texts to be used in this study were tested with students at a similar level in Spanish at West Georgia College, in Carrollton, Georgia. Thirty students from the same Spanish 104 class listened to each aural text twice before wrote their protocols. The students were not informed about the syntactic differences between the texts they heard. The protocols were used only to discuss the texts with the researcher. Before the discussion, they had rated the texts as very difficult, difficult, fair, easy, or very easy, according to their perceived difficulty level. The students in this pilot study were given the same instructions that were later used at the time of the actual experiment. This was done in order to ensure that the procedures for the actual experiment presented no difficulties. Table 5 shows the result of the students' survey. The majority
of the students found that the texts were difficult.

Table 5. Results of WGC student survey on one version of each text.

<table>
<thead>
<tr>
<th>Text Version</th>
<th>V. Diff.</th>
<th>Diff.</th>
<th>Fair</th>
<th>Easy</th>
<th>V. easy</th>
</tr>
</thead>
<tbody>
<tr>
<td>El juego de pelota (elab)</td>
<td>3(10%)</td>
<td>20(66%)</td>
<td>7(23%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>El mate (simplified)</td>
<td>5(16.6%)</td>
<td>20(66%)</td>
<td>5(16.6)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>La vuelta a Colombia (int)</td>
<td>2(6.6%)</td>
<td>19(63%)</td>
<td>9(30%)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Key: V. Diff.=very difficult
Diff.=difficult
V. easy.=very easy

As had been previously done with the students at West Georgia College, the subjects in this study were asked to provide information as to their perception of difficulty regarding the version of the text they heard. The results shown in Table 6 demonstrate that the majority of the students rated their version of the text as difficult. The figures reflect the number of students who rated the text that they heard from very difficult to very easy, and the percentages corresponding to that particular group.
Table 6. Results of study’s survey on each version of each text.

<table>
<thead>
<tr>
<th></th>
<th>VD</th>
<th>D</th>
<th>F</th>
<th>E</th>
<th>VE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>El mate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elaborated</td>
<td>7=70%</td>
<td>3=30%</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Intact</td>
<td>3=30%</td>
<td>6=60%</td>
<td>1=10%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Simplified</td>
<td>4=40%</td>
<td>3=30%</td>
<td>1=10%</td>
<td>1=10%</td>
<td>1=10%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>14=46.6%</td>
<td>12=40%</td>
<td>2=6.6%</td>
<td>1=3.3%</td>
<td>1=3.3%</td>
</tr>
<tr>
<td><strong>La vuelta</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elaborated</td>
<td>--</td>
<td>6=60%</td>
<td>4=40%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Intact</td>
<td>2=20%</td>
<td>6=60%</td>
<td>2=20%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Simplified</td>
<td>1=10%</td>
<td>6=60%</td>
<td>3=30%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3=10%</td>
<td>18=60%</td>
<td>9=30%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>El juego</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elaborated</td>
<td>2=20%</td>
<td>6=60%</td>
<td>2=20%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Intact</td>
<td>--</td>
<td>10=100%</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Simplified</td>
<td>--</td>
<td>8=80%</td>
<td>2=20%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2=6.6%</td>
<td>24=80%</td>
<td>4=13.3%</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Key: VD=very difficult  
D=difficult  
F=fair  
E=easy  
VE=very easy

Data collection

The subjects were given the listening tasks during a regular class period at the beginning of the Spring quarter (third week of classes). They were asked to listen carefully to one version of each text and to write down all the information that they
remembered from it. Recall protocols were written after each version of the text was repeated to the students twice. The subjects were asked not to take any notes during the activity.

The students were informed that their participation in the study was voluntary, and that the results of the listening tasks would not affect their overall class grade in any way.

The version of the texts was chosen by the instructors just before class time from those versions of texts that had not been previously used. Before this time, they had not heard the texts, nor had they been briefed as to their content.

Each tape was played twice. Bernhardt and James (1987), and Lowe (1984), in discussions of the number of passes that should be provided in listening tests, recommended two passes. Bernhardt & James (1987) explained that the passage should be played "once to familiarize the students with the text, and once to establish a mental structure with which to retain aspects of the text needed for generating a protocol" (p. 74-75).
After the second playing, the students wrote all they were able to remember in their native language, (i.e., English). Recall protocol materials were then collected from the participants for subsequent analysis.

Once the subjects had finished writing their recall protocols, they were asked to provide information regarding the length of time during which they had studied Spanish at The Ohio State University or elsewhere. They were also asked to rate the perceived difficulty level of the text they had been asked to listen to using a scale from 1 (very easy) to 5 (very difficult).

Data Analysis

Two trained raters and the researcher scored the recall protocols using the modified Jonhson system for quantitative analysis. Because the recall protocols were written in the subjects' native language, the interpretation of the units recalled was relatively liberal. Any reasonable paraphrasing was acknowledged as valid, and properly scored, any repeated proposition in the text version recalled in the subjects' protocol
was acknowledged and scored only once.

An analysis of variance (ANOVA) (one-between, one-within) was performed on the data in order to investigate the relationship between these multi-level independent variables. The analysis of the scores within each group/type of text would reveal the possible variability and interaction due to text, and the analysis between treatment groups would reveal the possible effects that syntactic complexity (simplification and elaborations) had on the recall of the texts between levels of that variable.

Likewise, this design also allowed for the investigation of the possible interaction between the two independent variables because there was the possibility that the subjects in the different treatment groups may have been more or less familiar with one or another of the text topics.

Factors in the one-way analysis of variance were texts (which were chosen randomly from a number of texts developed for the study by native speakers of Spanish, who talked about topics unique to their countries), and syntactic complexity (as explained below). The dependent variable is the percentage of
text material recalled as demonstrated through an Immediate Recall Protocol technique.

The data was analyzed, both statistically and qualitatively in order to be able to answer questions regarding the performance of the subjects through the Immediate Recall Protocol procedure, and the possible influence of elaborations and simplifications on the subjects' comprehension of the texts. Descriptive analyses were done to explore a number of aspects: first, by comparing the total number of propositions in each text with the number of propositions recalled by the subjects; second, comparisons of the subjects' perceived text difficulty with the means of propositions present in recalls by text version was also performed; third, a holistic analysis of the protocols in order to determine the level of comprehension of the overall text shown by the subjects' recalled information; and, finally, by interpreting the subjects' comments regarding the texts, rate of speech and the vocabulary present in the different versions of the texts.

While the study utilized statistical procedures, it is essentially a descriptive research study which
attempted to establish baseline findings, particularly on the topic of text modification in the area of listening comprehension.
CHAPTER IV
RESULTS AND DISCUSSION

Introduction

The purpose of this study was to investigate the influence that input modifications such as syntactic simplifications and elaborations would have on the listening comprehension of Spanish texts by college students at the 104 level. Students in nine intact sections of college Spanish 104 listened to one version of the three texts recorded by the researcher. One text was entitled 'El mate' a unique beverage in Argentina; another was about a sport in ancient Mayan and Tolteca cultures called 'El juego de pelota'; and the third was about a current popular bicycling event in Colombia called 'La vuelta a Colombia'. The texts were audiobaped by the informants and were later re-recorded by the researcher, once the three syntactically different versions were obtained. The researcher chose to record all the versions as performed by only one native speaker so that there
would be uniformity in the voice the subjects would hear, thus avoiding the possibility that the voice itself would become a variable _per se_. The subjects heard the text twice, and wrote in English, as instructed, all they could remember from what they had just heard.

The primary research questions investigated in this study were:

1. Is the level of syntactic difficulty of a text a key factor in listening comprehension for three types of texts: original, simplified and elaborated?

2. Does an elaborated text appear to provide more comprehensible input to students than a simplified text?

3. Do the listeners recall more from a text with which they are more familiar?

4. What characteristics appear to make a text comprehensible: textual factors such as vocabulary, syntactic elaboration/simplicity, etc.; or individual listener's factors such as levels of syntactic, lexical, or topic knowledge?

**Descriptive Analysis**

**Analysis by Propositions**

What follows is an analysis of the three texts and their three versions regarding the number of propositions recalled by the different groups.
The elaborated version of text 1, 'El mate', contained 122 propositions, the intact version contained 97 propositions, and the simplified version contained 89 propositions. The elaborated version of text 2, 'La vuelta a Colombia', contained 141 propositions, the intact version contained 92 propositions, and the simplified version contained 119 propositions. The elaborated version of text 3, 'El juego de pelota', contained 139 propositions, the intact version contained 92 propositions, and the simplified version contained 79 propositions. Table 7 shows the number of propositions by text and type of modification.

Table 7. Numbers of Propositions by Text and Type of Modification.

<table>
<thead>
<tr>
<th>Texts</th>
<th>Elaborated</th>
<th>Intact</th>
<th>Simplified</th>
</tr>
</thead>
<tbody>
<tr>
<td>El mate</td>
<td>122</td>
<td>97</td>
<td>89</td>
</tr>
<tr>
<td>La vuelta</td>
<td>141</td>
<td>129</td>
<td>119</td>
</tr>
<tr>
<td>El juego</td>
<td>139</td>
<td>92</td>
<td>79</td>
</tr>
</tbody>
</table>

The above chart shows that 'La vuelta a Colombia' had the largest number of propositions among the three texts, while the other texts had similar numbers of propositions.
An analysis of the propositions recalled from the different versions of the text 'El mate' showed the following results. Of the 122 propositions in the elaborated version, 17 (13.9%) were recalled by at least 2 (20%) of the subjects. Six (6.7%) of the 89 propositions in the simplified version were recalled by at least 2 (20%) of the subjects. The intact version, with 5 (5.1%) of the 97 propositions recalled, was the version that had the least recalled number of propositions.

The different versions of the text 'La vuelta a Colombia' showed that 27 (19.1%) propositions were recalled by at least 2 (20%) of the subjects who listened to the elaborated version. 13 (10.0%) propositions were recalled by at least 2 (20%) subjects who listened to the intact version. Of the 119 propositions in the simplified version, 24 (20.0%) propositions were recalled by at least 2 (20%) subjects who listened to it.

The number of propositions recalled by subjects who listened to text versions of 'El juego de pelota' are the following: 23 (16.5%) propositions were recalled by at least 2 (20%) of the subjects who
listened to the elaborated version; 14 (15.2%) propositions were recalled by at least 2 (20%) of the subjects who listened to the intact version; and 21 (26.5%) propositions were recalled by at least 2 (20%) of the subjects who listened to the simplified version. Table 8 shows the numbers and percentages of propositions recalled by subjects who listened to the different versions of the texts.

Table 8

Numbers of Propositions Recalled by 20% or More of the Subjects.

<table>
<thead>
<tr>
<th>Texts</th>
<th>Elaborated</th>
<th>Intact</th>
<th>Simplified</th>
</tr>
</thead>
<tbody>
<tr>
<td>El mate</td>
<td>17 (13.9%)</td>
<td>5 (5.1%)</td>
<td>6 (6.7%)</td>
</tr>
<tr>
<td>La vuelta</td>
<td>27 (19.1%)</td>
<td>13 (10.0%)</td>
<td>24 (20.0%)</td>
</tr>
<tr>
<td>El juego</td>
<td>23 (16.5%)</td>
<td>14 (15.2%)</td>
<td>21 (26.5%)</td>
</tr>
</tbody>
</table>

Table 9 shows the number of propositions, and percentages, recalled by 50% or more of the subjects.

Table 9. Numbers of Propositions Recalled by 50% or More of the Subjects.

<table>
<thead>
<tr>
<th>Texts</th>
<th>Elaborated</th>
<th>Intact</th>
<th>Simplified</th>
</tr>
</thead>
<tbody>
<tr>
<td>El mate</td>
<td>2 (1.6%)</td>
<td>1 (1.0%)</td>
<td>3 (3.3%)</td>
</tr>
<tr>
<td>La vuelta</td>
<td>11 (7.0%)</td>
<td>7 (5.4%)</td>
<td>8 (6.7%)</td>
</tr>
<tr>
<td>El juego</td>
<td>5 (3.5%)</td>
<td>4 (4.3%)</td>
<td>8 (10.1%)</td>
</tr>
</tbody>
</table>
The discussion below is an analysis of the propositions that were recalled by a majority of the subjects.

**Text: 'El mate'**

In general, this particular text, regardless of syntactic complexity, was very superficially understood by the subjects who listened to the three different versions. Clearly, the elaborated version provided information that the other two versions (intact and simplified) did not. The following is an analysis of the numbers and percentages of propositions recalled by the subjects who separately listened to the three versions of 'El mate'.

Of the elaborated version of text 'El mate', two propositions—#8 "de Argentina" (90%) and #11 "de Paraguay" (50%)—were recalled by a majority (at least 50%) of the subjects. The fact that the subjects recalled these two propositions indicated that a majority had an idea as to the general geographical location of the passage. By the same token, the majority did not grasp the main idea of the passage. One subject (#4) was able to recall details that
allowed the researcher to believe s/he had understood
details beyond the main idea of the passage. Some of
the ideas recalled, however, did not come from the
passage itself. S/He recalled:

The plant mate. It grows in the northern
part of Argentina, in the south of Chile and
in part of Paraguay. It grows nowhere else
in the world. Mate is a type of squash.
There are various types of mate, such as in
wood and silver. Mate can be soaked in
water, and then you drink its tea from the
leaf, the person next to him must also drink
from the same place as you did. This must
sound gross, but this is not gross to me
because I am used to this.

Table 10 shows propositions recalled by at least
20% of the subjects who listened to the elaborated
version of text 'El mate'.
Table 10. **Number and Percentage of Propositions Recalled by at Least 20% of the Subjects:**

<table>
<thead>
<tr>
<th>No.</th>
<th>Proposition</th>
<th>No. of Times</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>El mate</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>2.</td>
<td>es una planta</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>5.</td>
<td>que crece</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>7.</td>
<td>en el noroeste</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>8.</td>
<td>de Argentina</td>
<td>9</td>
<td>90%</td>
</tr>
<tr>
<td>11.</td>
<td>de Paraguay</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>12.</td>
<td>No crece</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>13.</td>
<td>en ninguna</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>14.</td>
<td>otra parte</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>15.</td>
<td>del mundo</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>33.</td>
<td>prepararlo</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>62.</td>
<td>en Buenos Aires</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>110.</td>
<td>a otra persona</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>113.</td>
<td>la otra persona</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>114.</td>
<td>tiene que tomar</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>115.</td>
<td>del mismo lugar</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>116.</td>
<td>que tomaste tú</td>
<td>2</td>
<td>20%</td>
</tr>
</tbody>
</table>

Further analysis of these recalled propositions shows that only some of the subjects (20%) understood enough to know that the topic dealt with a unique plant that grows in a particular location in South America, and that it is a type of beverage, and that people share the same vessel and 'straw' when they drink this beverage (el mate) as they pass it along.

An analysis of the propositions recalled by subjects who listened to the intact version of text 'el
mate' shows that one of the subjects was able to grasp part of the main idea in the passage, although s/he seemed to think that el mate was a place in Paraguay. S/He wrote:

'El mate' is part of Paraguay, South of Brazil. The man says it is a special present for us. It is not in any other part of the world. It's very strong. It's a drink. You can add water to it to make it easier to drink, to weaken it.

The rest of the subjects in this group were only able to recall details which contained vocabulary that is familiar to most students in a Spanish class at the 104 level. Table 11 shows the propositions recalled by 20% of the subjects in that group.

<table>
<thead>
<tr>
<th>No.</th>
<th>Proposition</th>
<th>No. of Times</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>de Argentina</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>5</td>
<td>sur de Brasil</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>7</td>
<td>de Paraguay</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>11</td>
<td>del mundo</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>80</td>
<td>de agua</td>
<td>2</td>
<td>20%</td>
</tr>
</tbody>
</table>

As seen in the table above, the information recalled by some of the subjects could only provide details as to the area of the world they had heard about, but not the topic dealt with in the passage.
The number of propositions recalled by subjects who heard the simplified version shows that the subjects recognized a geographical area, as well as important details, but, as with the majority of the subjects who listened to the intact and elaborated versions, did not grasp the gist of the passage. Table 12 shows the number of propositions recalled by 20% of the subjects who listened to the simplified version of 'El mate'.

<table>
<thead>
<tr>
<th>No. Proposition</th>
<th>No. of Times</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. El mate</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>4. de Argentina</td>
<td>9</td>
<td>90%</td>
</tr>
<tr>
<td>7. de Paraguay</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>24. prepararlo</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>57. y fuerte</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>60. El agua</td>
<td>6</td>
<td>60%</td>
</tr>
</tbody>
</table>

The figures obtained from this set of data shows that, as a whole, the class that listened to this simplified version of 'el mate' understood very little of the passage, with the exception of two subjects who understood the words "el mate", which allowed them to know that the text was about the popular beverage. Again, geographical location, as well as the words
"water" and "strong," and the verb "to prepare" provided a superficial grasp of the essence of the text.

Text: 'La vuelta a Colombia'

All the subjects (100%) who listened to the three versions of 'La vuelta a Colombia' recalled proposition #2 "a Colombia", which allowed them to know the specific geographical location of the passage. A majority of the subjects were also able to identify other countries mentioned in the text. A number of subjects (15=50%, all groups combined) understood that the topic dealt with bicycles (en bicicleta), but only 3 (10%) of those who listened to the elaborated version were able to understand that the topic dealt with cycling as a sport event, rather than just bike riding. Tables 13, 14 and 15 show the propositions that were recalled by at least 3 (30%) of the subjects in each group.
Table 13. Propositions Recalled by 30% of the Subjects who Listened to the Elaborated Version of 'la vuelta a Colombia':

<table>
<thead>
<tr>
<th>No.</th>
<th>Proposition</th>
<th>No. of Times</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>a Colombia</td>
<td>10</td>
<td>100%</td>
</tr>
<tr>
<td>17.</td>
<td>que es el ciclismo</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>26.</td>
<td>las montañas</td>
<td>7</td>
<td>70%</td>
</tr>
<tr>
<td>50.</td>
<td>la radio</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>51.</td>
<td>y la televisión</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>52.</td>
<td>y los periódicos</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>71.</td>
<td>España</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>73.</td>
<td>a Francia</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>78.</td>
<td>a Italia</td>
<td>7</td>
<td>70%</td>
</tr>
<tr>
<td>90.</td>
<td>Todos los domingos</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>93.</td>
<td>La gente sale</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>94.</td>
<td>a andar</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>95.</td>
<td>en bicicleta</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>97.</td>
<td>Bogotá</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>104.</td>
<td>las familias</td>
<td>8</td>
<td>80%</td>
</tr>
<tr>
<td>105.</td>
<td>salgan</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>106.</td>
<td>a montar</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>107.</td>
<td>en bicicleta</td>
<td>6</td>
<td>60%</td>
</tr>
</tbody>
</table>

Subjects who listened to the elaborated version of 'la vuelta a Colombia' were able to grasp the idea that the passage dealt with people (#93) riding bicycles (#94, #95), and that families (#104) go out to ride bicycles (#105-#107). Three subjects were able to understand that the topic dealt with bicycling (#17) as a sport event, and some understood that the event was broadcast over radio (#51), television (#51), and that newspaper (#52) journalists were also present. A majority recalled proposition #26 "las montañas", which
allowed the subjects to speculate where people and families went for bike rides or, in the case of those who understood that the passage dealt with a sport event, one of the geographical locations where this event happened.

Table 14 shows the propositions that were recalled by at least 30% of the subjects who listened to the intact version of 'La vuelta a Colombia'. This analysis reveals that the majority of the subjects related bicycling only to people and families riding bicycles, rather than bicycling as a sport event in Colombia.

Table 14. Propositions Recalled by 30% of the Subjects who Listened to the Intact Version of 'la vuelta a Colombia':

<table>
<thead>
<tr>
<th>No.</th>
<th>Proposition</th>
<th>No. of Times</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>a Colombia</td>
<td>10</td>
<td>100%</td>
</tr>
<tr>
<td>24</td>
<td>las montañas</td>
<td>7</td>
<td>70%</td>
</tr>
<tr>
<td>35</td>
<td>y la gente</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>67</td>
<td>a Francia</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>96</td>
<td>las familias</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>98</td>
<td>a montar</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>99</td>
<td>en bicicleta</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>100</td>
<td>mamá</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>101</td>
<td>papá</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>102</td>
<td>y niños</td>
<td>6</td>
<td>60%</td>
</tr>
</tbody>
</table>
The number of propositions recalled by subjects who listened to the simplified version of 'la vuelta a Colombia' show that the subjects were able to recall that the passage dealt with something relating to Colombia (#2=100%), and with geographical features such as "los valles" (#20=30%), "las montañas" (#21=60%) and "la selva" (#22=20%). Subjects recalled the propositions "la radio" (50%), and "la televisión" (70%) as loose details present in the text. As with the other two versions, the names of other countries mentioned were also recalled by a number of subjects (30%).

Also, subjects who listened to the simplified version (30%-70%) recalled that people (#80=la gente), or families (#85=las familias) go out (#81/#86) for bike rides (#82/#83~#88/#89), and that it is a family (#91/#92/#93) activity. Table 15 shows those propositions that were recalled by at least 30% of the subjects.
Clearly, the information recalled by these subjects allowed them to account only for details of the text, which only partially reflected the main topic of the passage. In all the three versions of the text 'La vuelta a Colombia' the majority of the subjects who were able to understand and recall ideas of the passage did so partially, and missed the main idea of the text.

Table 15. Propositions Recalled by 30% of the Subjects who Listened to the Simplified Version of 'La vuelta a Colombia':

<table>
<thead>
<tr>
<th>No.</th>
<th>Proposition</th>
<th>No. of Times</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>a Colombia</td>
<td>10</td>
<td>100%</td>
</tr>
<tr>
<td>20</td>
<td>los valles</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>21</td>
<td>las montañas</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>42</td>
<td>la radio</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>43</td>
<td>la televisión</td>
<td>7</td>
<td>70%</td>
</tr>
<tr>
<td>59</td>
<td>a españa</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>61</td>
<td>a Francia</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>65</td>
<td>a Italia</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>80</td>
<td>la gente</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>85</td>
<td>Las familias</td>
<td>7</td>
<td>70%</td>
</tr>
<tr>
<td>86</td>
<td>salen</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>87</td>
<td>a montar</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>88</td>
<td>en bicicleta</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>90</td>
<td>Mamá</td>
<td>7</td>
<td>70%</td>
</tr>
<tr>
<td>91</td>
<td>Papá</td>
<td>8</td>
<td>80%</td>
</tr>
<tr>
<td>92</td>
<td>y niños</td>
<td>6</td>
<td>60%</td>
</tr>
</tbody>
</table>

Text: 'El juego de pelota'

Twenty-seven (90%) of the 30 subjects who listened to a version of the text 'El juego de pelota'
were able to recall the name of a country (México), or geographical area (América Central) mentioned in the texts. A number of the subjects were able to understand that the text dealt with a sport, and that it was some kind of ball game (este/el juego de pelota) played (lo jugaron/se jugaba) on a field (en una cancha). Table 16 shows an account of the propositions recalled by at least 30% of the subjects who listened to the elaborated version.

Table 16. Propositions Recalled by 30% of the Subjects who Listened to the Elaborated Version of 'El juego de pelota':

<table>
<thead>
<tr>
<th>No.</th>
<th>Proposition</th>
<th>No. of Times</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>el juego</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>3</td>
<td>de pelota</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>4</td>
<td>se jugó</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>7</td>
<td>de América Central</td>
<td>9</td>
<td>90%</td>
</tr>
<tr>
<td>8</td>
<td>y en México</td>
<td>10</td>
<td>100%</td>
</tr>
<tr>
<td>13</td>
<td>en primera instancia</td>
<td>7</td>
<td>70%</td>
</tr>
<tr>
<td>61</td>
<td>las manos</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>84</td>
<td>era una ceremonia</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>111</td>
<td>practicando</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>139</td>
<td>morían</td>
<td>4</td>
<td>40%</td>
</tr>
</tbody>
</table>

As can be seen in the table above, subjects were able to recall some details such as when the game was "first" (#13) played, that it was also a "ceremony" (#84), that the players needed to "practice" (#111-#113) a lot, and that they sometimes "died" (#139). It
is evident, then, that some subjects did actually grasp the main idea of the elaborated passage.

The number of propositions recalled from the intact version, on the other hand, shows that the subjects only grasped very general ideas about the passage. Two (20%) subjects were able to recall that the topic was a sport played with a ball (#1 and #2), and that the players needed a lot of practice (#71-#73). Table 17 shows the number of propositions recalled by the subjects who listened to the intact version.

Table 17. Propositions Recalled by 20% of the Subjects who Listened to the Intact Version of 'El juego de pelota':

<table>
<thead>
<tr>
<th>No.</th>
<th>Proposition</th>
<th>No. of Times</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Este juego</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>2.</td>
<td>de pelota</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>5.</td>
<td>del continente</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>6.</td>
<td>y en México</td>
<td>7</td>
<td>70%</td>
</tr>
<tr>
<td>11.</td>
<td>los Mayas</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>13.</td>
<td>se jugaba</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>18.</td>
<td>por ochenta</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>39.</td>
<td>las manos</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>62.</td>
<td>los jugadores</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>71.</td>
<td>practicando</td>
<td>9</td>
<td>90%</td>
</tr>
<tr>
<td>82.</td>
<td>su ropa</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>86.</td>
<td>era sumamente importante</td>
<td>2</td>
<td>20%</td>
</tr>
</tbody>
</table>
The subjects who listened to the simplified version of the text 'El juego de pelota' were able to more uniformly recall a larger number of propositions, and were also able to grasp the main idea of the text. Table 18 shows the frequency of propositional recall of the simplified text.

Table 18. Propositions Recalled by 40% of the Subjects who Listened to the Simplified Version of 'El juego de pelota':

<table>
<thead>
<tr>
<th>No.</th>
<th>Proposition</th>
<th>No. of Times</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Este juego</td>
<td>7</td>
<td>70%</td>
</tr>
<tr>
<td>2.</td>
<td>de pelota</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>3.</td>
<td>lo jugaron</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>5.</td>
<td>y los Mayas</td>
<td>7</td>
<td>70%</td>
</tr>
<tr>
<td>6.</td>
<td>en la parte central</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>8.</td>
<td>y en México</td>
<td>10</td>
<td>100%</td>
</tr>
<tr>
<td>59.</td>
<td>practicando</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>70.</td>
<td>su ropa</td>
<td>4</td>
<td>40%</td>
</tr>
</tbody>
</table>

Subjects Perception of Text Difficulty

The subjects in this study were asked to provide information about their perception of difficulty regarding the version of the text version they had heard. The results shown in Table 6, showing the results of the survey in which the subjects rated each text regarding its difficulty, demonstrate that the majority of the students rated their version of the
text as difficult or very difficult.

The most recurring comment in the students' ratings regarding text difficulty was the "speed" with which the passages were spoken. This comment was made by subjects in all groups. It is important to note, however, that these word rates are considered from moderate slow to moderate, i.e., 140 wpm in the simplified version of 'El juego de pelota', to average, i.e., 170 wpm, as with the elaborated version of 'El mate' according to the word per minute (wpm) classification that appears in the textbook (A conocernos, Long and Macián, 1992) that the majority of the subjects used throughout Spanish 103, and were used to listening to Spanish tapes at these rates.

It is also important to point out that the longest passage was exactly two minutes long, which is the maximum time suggested by Bernhardt and James (1987) for listening passages of this kind. Table 20 shows the number of words per minute (wpm), and words per second (wps) in which the passages were delivered, as well as the number of words per passage (wpp).
As the table above shows, the passage 'El mate' was delivered at a higher rate of words per minute than the other two passages across complexity levels.

One last consideration, regarding the characteristics of the texts that the subjects were exposed to, is the chronological length of the different versions. Table 21 shows the average number of propositions captured by the subjects, and the length of each text.

### Table 20. Number of Words per Minute per Text Version.

<table>
<thead>
<tr>
<th>Texts</th>
<th>Elaborated</th>
<th>Intact</th>
<th>Simplified</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>wpm</td>
<td>wps</td>
<td>wpp</td>
</tr>
<tr>
<td>El mate</td>
<td>173 2.9</td>
<td>301</td>
<td>175 2.8</td>
</tr>
<tr>
<td>La vuelta</td>
<td>168 2.8</td>
<td>322</td>
<td>166 2.7</td>
</tr>
<tr>
<td>El juego</td>
<td>150 2.5</td>
<td>300</td>
<td>145 2.4</td>
</tr>
</tbody>
</table>

### Table 21. Chronological Length of Texts and Mean Scores obtained by Subjects in all Groups

<table>
<thead>
<tr>
<th>Texts</th>
<th>Syntactic Complexity in Text</th>
<th>Elaborated</th>
<th>Intact</th>
<th>Simplified</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Length Mean Length Mean Length Mean Length</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>El mate</td>
<td>7.50 103 2.30 85 3.50 77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>La vuelta</td>
<td>13.70 112 7.50 101 10.90 96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>El juego</td>
<td>10.30 122 4.00 82 9.20 77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>10.50 4.60 7.86</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As we can see in this table, the length of the texts does not seem to have become a variable in this study since the chronologically longest texts bear some of the highest averages. The only exception is the elaborated version of the text 'El mate', which was one of the texts that the subjects understood the least. Possible reasons for this lack of comprehension are discussed below regarding the issue of background knowledge.

Summary
It is important to point out that the majority of the propositions recalled by all the subjects in the nine groups reflect the use of their basic lexical knowledge of Spanish, rather than their syntactic knowledge. Thus, most of the propositions recalled by the subjects were the same for each version of the three texts.

For example, from the text 'El juego de pelota', the following propositions were recalled by at least 20% of the subjects in at least two of the groups: 'este juego', 'de pelota', 'se jugó/se jugaba/lo jugaron', 'y en México', 'los mayas', 'las manos',

'practicando', and 'su ropa'. These propositions form the core of what was recalled from the text in spite of differences in syntactic complexity.

Similarly, at least 30% of the subjects who listened to the simplified version of the text 'la vuelta a Colombia' showed comprehension of basic lexical items having to do with family members, names of countries, and other familiar items.

The propositions that contained words that represent family members were widely understood: 'las familias', 80%; 'mamá', 70%; 'papá', 80%; 'y niños', 60%. Those propositions having to do with places and locations were also widely comprehended. The word 'Colombia' was understood by all the subjects, and 30% of the subjects understood names of other countries mentioned in the texts, such as 'España', 'Italia', and 'Francia'. The word 'Guatemala', on the other hand, was not present in any of the protocols for this group. Finally, two cognates, #42 (la radio) and #43 (la televisión) were included by five and seven subjects, respectively.

Similar evidence is present in those protocols that reflected a higher level of comprehension shown by
the subjects. The only difference is that these few subjects (4=40%) included propositions #87 (a montar) and #88 (en bicicleta), which allowed them to have some idea of what the text was about; however, they did not understand that the text was about an important cycling event, rather than just about bike riding as a family activity. One subject (#7) who was able to grasp a large number of propositions from the text wrote:

It is a sport for the whole family that is very popular in Colombia. From the mountains to the valleys, the cities to the jungles it is very popular. Television, radio and newspapers report about it to the general public. Even in France, Spain, Portugal and Italy it is popular but mostly in Colombia. It is a sport that mother, father and the kids can play. There are many national heroes that are superb at this sport. [sic]

In spite of the many ideas from the text included in the protocol, this subject was not able to understand that the text was about the yearly sport event known as the 'Tour of Colombia'.

The previous considerations become clear when comparing the protocol written by subject number 7, above, with the one written by subject number 4, who listened to the elaborated version of the same text. This subject understood that the text was about cycling, not just about bike riding, although s/he
drifted into bicycling as a family activity toward the end of the protocol. This subject wrote:

In Colombia, a traditional sport is cycling. People ride bikes in the mountains, especially the Andes, and in the jungles, and in the streets. The media, television, and newspapers tells Columbia about the world of cycling and those famous in the sport. It is popular in other countries as well: Spain, Guatemala, Italy, as most popular in France. Bogotá has 8 million people and the whole family bicycles: parents and children. Parents teach the children how to bike ride at an early age and take them into the Andes... [sic]

As can be seen in this protocol, the subject was able to grasp many of the details related to the central topic, but s/he did not come up with the main idea discussed in the text.

On the other hand, subject number 1, who listened to the elaborated version of ‘La vuelta a Colombia’, identified the word ‘vuelta’, which is the equivalent of ‘tour’ regarding this particular sport. S/he also identified the term for bicycles, lexical items related to the family, terms related to media, etc., but was unable to put all the information together to reflect comprehension of the central topic. This subject wrote:
The 'vuelta' is a very important event in Columbia. In Columbia, there are mountains, rivers, and plain (sic). There are five main types of communication networks in Columbia radio, television, newspapers and 2 kinds of magazines. A typical family in Columbia is made of mother, father and children. Columbia is comparable to Italy, France, and Spain in its beauty and attractions. On Sundays, people ride their bicycles (to church?).

It is possible, then, that had these subjects had previous knowledge about the 'Tour of Colombia', a well-known yearly bicycling competition that is carried out in Colombia, they would have been able to put the grasped ideas together in a way that would have related to the main topic.

Elaborations to the Texts

Some additional information inserted in the elaborated version of the text 'El juego de pelota' was also recalled: 'de América Central' (90%), 'indias' (20%), 'no podían usar' (20%), 'o jugadores' (20%), 'de limpieza' (10%), 'uno de los grupos' (10%). Some redundant propositions such as: 'Este/el juego' (30%), 'tomar baños' (20%), and 'practicando' (60%) were also recalled by a number of subjects. Some synonyms provided as part of the elaboration of the text, such as: "campo de juego" (cancha), 'paredes' (muros),
'bola' (pelota), 'de goma' (de caucho), and 'iniciar' (llevar a cabo) did not seem to help the subjects to recall the information. Only the synonym 'morían', used to facilitate the recall of the propositions 'podían' and 'perder la vida', seemed to have worked because 40% of the subjects did write 'died' in their recalls. One subject (#3) who listened to this version of 'El juego de pelota' mistook the verb 'morir' for 'matar' and came to the conclusion that the winning players, not the defeated ones, were supposed to be killed at the end of the game. S/He wrote:

...The winners of the game were killed. The killings were done in a ceremony. The winners were first washed in a special bath. Even though the winners were killed, the players of the game were always practicing because it was a great honor to be killed in the ceremony.

Although this subject did not write the word 'sacrifices' in his/her protocol, it seemed to have triggered some background information about the Mayans, who are said to have performed sacrificial ceremonies during important occasions. It is clear that the verb provided did, in fact, help this subject reconstruct some meaning from the scattered information s/he was able to grasp from the passage. The issue of
background knowledge will be discussed later in this chapter.

Regarding the elaborations on the text 'El mate’, we can state that only a few elaborations were useful in helping the subjects recall some information. Forty percent of the subjects recalled the proposition ‘es una planta’, but only 1 subject (#4) was able to use three redundancies: ‘el té ese’, ‘tú tomas’ and ‘a eso’. This particular subject was the one that recalled the most, and most accurate, information (28 propositions) about the passage. S/he wrote:

The plant mate. It grows in the north eastern part of Argentina, in the south of Chile and in part of Paraguay. It grows nowhere else in the world. mate is a type of squash. There are various types of mate, such as in wood and silver. Mate can be soaked in water, and then you drink its tea from the leaf. then the person next to must drink from the same place as you did. This might sound gross, but this is not gross to me because I am used to this.

Similarly, the elaborations performed on the text ‘La vuelta a Colombia’ seem to have helped some of the subjects in their recall protocols. Twenty percent of the subjects recalled the proposition ‘un importante’, a modifier used in conjunction with proposition #4 ‘torneo ciclistico’, in order to explain what ‘la
vuelta a Colombia' is. Seventy percent of the subjects recalled a redundant proposition 'las montañas'; one (10%) subject recalled proposition #68, 'a otros lugares', which was used to help with the proposition 'otras regiones'; two (20%) subjects recalled the proposition 'la vuelta a Francia', which was provided to clarify the meaning of 'la vuelta' in 'la vuelta a Colombia'; and 60% of the subjects recalled the synonym of a montar, 'a andar', which increased recall in this group by 20%.

Simplifications of the Texts

The fact that the subjects who listened to the simplified versions of the texts showed higher overall propositions recalled, though in lesser degree than those who listened to the elaborated versions, leads to the assumption that simplifications, as performed on the texts for this study (shorter T-units, fewer words per T-unit and fewer clauses per T-unit), allowed the subjects to recall more information than the subjects who listened to unmodified versions of the texts.

It should not be assumed, however, that the difference between intact and simplified versions
regarding the number of propositions recalled lead to a better comprehension of the texts. In fact, the subjects who listened to the simplified version of the text 'La vuelta a Colombia' did not understand what the main topic was, and constructed their protocols mainly based on loose lexical items that they were able to grasp. A dramatic example of the latter is provided by subject number 10, who listened to 'La vuelta a Colombia'.

En Columbia, sports are important. Bogotá is the center. They play France, Italy, Spain. Parents teach their children at a young age. They play in the mountains and at the beach. They all have a lot of fun.

In this particular example, it can be clearly seen that the subject did grasp a few lexical items. However, it seems that, although not mentioned in the protocol, the subject reconstructed the text thinking about a team sport, maybe soccer, which would suggest that the subject's own world knowledge became involved in allowing her/him to reconstruct a text that would make sense in the subject's mind.

The subject also went beyond the array of ideas provided to him/her in the text as s/he writes 'at the beach'. There is no mention of that particular
geographical area in the text, but it is an extension of the subject’s own recollection of vocabulary that is usually taught as one unit.

Several very clear examples of the subjects’ apparent preoccupation with vocabulary, rather than with syntactic structure, as mentioned above, are the following brief recall protocols written by subjects who listened to the text ‘El mate’:

I have absolutely no idea what was said. I understood specific words such as water, gold, Argentina and Paraguay.

where subject number 5’s memory seems to have failed, as the word for silver, not gold, was present in the text.

"El mate" (I think it’s a food) is common in North America and Paraguay. Water is added to it."

This subject (#1) did understand a previously known word, ‘el mate’, which allowed him/her to apparently recall that ‘water is added to it’

It is clear that the protocols showed that the subjects relied mostly on the previous knowledge that had, or thought they had, in order to process the information. Thus, it is relevant to discuss the issue of background knowledge as an indispensable part of the
comprehension process.

**Background Knowledge**

As with subject #3, who listened to the elaborated version of 'El juego de pelota', many subjects used, in higher or lesser degree, the information from the passages to reconstruct their own text.

In Central America, mostly in Mexico, the Aztecs and Mayans had a game that they played. The players were not allowed to use their hands. The purpose of the game was to get a ball into a goal. The winners of the game were killed. The killings were done in a ceremony. The winners were first washed in a special bath. Even though the winners were killed, the players of the game were always practicing because it was an honor to be killed in the ceremony.

In this case the subject used only information that s/he was able to grasped from the text. However, having understood that the text was about a game after which some people would sometimes die, it is valid to assume that the subject related it to a game in which winners, not losers, would be killed because of some honorable cause. This subject may have related the words 'ceremonia' and 'sacrificios' to some exotic sport played necessarily by people unlike him/herself. His/her assumption may have been influenced by
historical assumptions that portray Aztecs and Mayans having sacrificed many people to the gods.

Thus, it seems that background knowledge, triggered by diverse lexical items heard in the passages, played an important role in the subjects' recall of the texts. The lexical knowledge reflected in the subjects' protocols had a positive as well as a negative impact in their recollection of the text. The most salient examples of the importance of lexical knowledge can be seen in protocols where, after hearing family terms used in the text, some subjects wrote a 'family oriented' recall protocol. Similarly, some subjects who understood the word 'Dios' (God) and 'domingos' (Sunday) recalled sections of texts dealing religion rather than the actual topic.

The following subjects did pick up information from the passages, which they later accommodated to their own previous knowledge in order to make sense of what they heard. For instance, subject #1 who heard the elaborated version of 'La vuelta a Colombia' wrote:

The 'vuelta' is a very important event in Columbia. In columbia, there are mountains, rivers, and plain [sic]. There are five main types of communication networks in Columbia radio, television, newspapers and 2
kinds of magazines. A typical family in Columbia is made of mother, father and children. Columbia is comparable to Italy, France, and Spain in its beauty and attractions. On Sundays, people ride their bicycles (to church?).

This is a very clear example of a listener who only understood separate bits of information. The subject is attempting to put every lexical item attained in a logical order. Although the word 'vuelta' appears in the protocol, the subject does not know what it means, or if s/he does, it is not clear given the information provided in the protocol.

Another subject, who listened to the intact version of 'El mate', recalled the word 'regalo' (gift) wrote:

There are many gifts a person can give that come from Latin America. Cigars is an example. Clothes which can range in many colors are another good example. Countries mentioned are Argentina, Paraguay and Venezuela."

This subject, as was the case with most of the subjects in this group, did not grasp the main idea of the passage, but picked up a few words and constructed their own text.

Subject number 2, who listened to the elaborated version of the text 'La vuelta a Colombia', picked up a
number of lexical items which allowed him/her to write the following recall protocol:

"COLUMBIA"

In this story I heard the man speaking about the national sports of the country. He also spoke about the scenery, and the things there are to do. For example dancing and mountains. He spoke about what there was to do the different days of the week and on Sundays. What the family did. For example riding bicycles. He also told about different forms of entertainment in the home, like reading, listening to the radio, or watching television.

This subject allowed him/herself to be misled by his/her own life experience in relation to the lexical items s/he was able to understand. S/he related the word 'mountains' with a description of the scenery, and expanded from the word 'Domingo' to activities that people do, probably extrapolated from his/her own reality, during "days of the week", including "on Sundays."

Because of the one instance in which the word for God, 'Dios', was mentioned in the text 'El mate', religion was an idea that filtered into some protocols. The following text is a protocol that most likely stemmed from the subject's own reality rather than the text s/he heard:
El Martes lives in Argentina with his wife and baby and they was to get their baby christian for God. So they explain what happened at the christianting when they put water on the baby. (sic)

Prior knowledge plays an important role in the comprehension process. This knowledge may help the comprehender to accurately recall information from a text; however, in many instances, it can also prove to influence the comprehension process in a negative way. Long (1990), asserts that "schemata can also have a dysfunctional effects on L2 listening comprehension." Evidence from several protocols analyzed in this study support this assertion. Furthermore, when faced with a text whose contents are unknown to the learners, it is possible that lexical items which are well-known to the listeners may be the only crutch on which the learner relies, and lead him/her to address the wrong schemata in order to ultimately reconstruct a text that may prove erroneous. Thus, it is also valid to say that the baggage of knowledge in the listeners' minds may hinder the comprehension of new listening texts when the proficiency level of the learner is low, i.e., having the ability to recognize words in isolation and chunks of meaningful formulaic language.
On the other hand, subjects whose proficiency level seemed to be higher used the information provided in the text to reconstruct more accurate interpretations of the text to which they were exposed. In some cases the subjects, because of their own training regarding comprehension of texts, may not have felt the need to add so much detail given that they thought they had understood the text sufficiently well. The following is a protocol written by a subject who listened to the intact version of the text 'El mate'. The subject did not write much detail; however, the information s/he was able to write down was largely accurate. The only exception is that the subject did not remember the main country talked about was Argentina, and the assumption that because 'the drink' was strong, one would use the water to 'weaken it'.

"El mate" is part of Paraguay, south of Brazil. The man says "it is a special present for us". It is not in any other part of the world. It's very strong. It's a drink. You can add water to it to make it easier to drink, to weaken it. (sic)

Subject #5 (Elab. version of 'El mate') wrote a rather accurate protocol with central ideas, and limited the recall to the very gist of the text topic. S/he did not include, or remembered, much detail. It
is unclear whether s/he understood that 'el mate' is a drink, and that the same word is used for the container in which 'mate' is served.

Mate is an Argentine dish that has a strong flavor and is traditional. It takes a long time to make. A bombilla is shared and not washed. The next person takes from the same place as the first person.

The previous discussion supports previous information regarding the issue of background knowledge. Learners use all kinds of background knowledge: topic, lexical, syntactic, world, etc., in order to comprehend the new information to which they are exposed. Learners may rely on different kinds of knowledge depending on the lack or abundance of another. As was shown above, many subjects used their knowledge of the world in order to put together the information that they were able to capture by means of the lexical items they comprehended. In many cases the subjects' knowledge of the world did not match the topic that they were exposed to, and wrote erroneous recalls.

The most salient kind of knowledge that was missing from the subjects’ minds seems to have been prior knowledge of the actual topic of the text. This
fact became evident when analyzing some recall protocols which contained enough lexical information which; for a learner who knew about mate, the tour of Colombia, or had read about ancient sports played by early inhabitants of Central and North America; would have lead to full comprehension of the texts.

Subjects' Insights Regarding Lack of Comprehension

Although there were differences in comprehension between subjects who listened to the different versions of the three texts, it is evident that only a few of the subjects actually comprehended the texts they listened to, when considering the specific propositions recalled as well as an overall analysis of each of the protocols. In fact, only eleven of the ninety subjects involved in the study demonstrated that they had understood the gist of the texts to which they had been exposed. Some subjects showed partial comprehension of the texts. They were able to understand some lexical items, as shown in Chapter 3 and Appendices V through SS; however, there was no evidence to support a conclusion that they understood the main propositions of the entire text. Some subjects showed comprehension
of a small number of lexical items, not enough to make sense of the text. Finally, some subjects showed no comprehension of the text as they pick up and recalled only two or three lexical items.

Table 22 shows the number of subjects whose recall was labelled 'good' (showed specific comprehension of the texts and added details); 'some' (showed general comprehension of the texts, but could not provide specific information); 'loose' (showed comprehension of relevant lexical items only, but no general comprehension of the topic of the texts); and 'none' (subjects did not show comprehension of the text, at all, despite their apparent understanding of some lexical items).
Table 22. **Number and percentage of subjects showing different levels of comprehension.**

<table>
<thead>
<tr>
<th></th>
<th>Good</th>
<th>Some</th>
<th>Loose</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>El mate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intact</td>
<td>1</td>
<td>---</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Elaborated</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Simplified</td>
<td>---</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

| **La vuelta** |      |      |       |      |
| Intact  | ---  | 4    | 5     | 1    |
| Elaborated | 3    | 4    | 3     | ---  |
| Simplified | ---  | 4    | 6     | ---  |

| **El juego** |      |      |       |      |
| Intact  | ---  | 3    | 7     | ---  |
| Elaborated | 3    | 1    | 4     | 2    |
| Simplified | 2    | 4    | 2     | 2    |

**Total**  11=12.2%  23=25.5%  33=36.6%  23=25.5%

When comparing the total number of propositions that comprised the different texts with the mean number of propositions tallied as present in the subjects' recall protocols, further evidence is found that very little of the total content of the texts was comprehended by the subjects, especially of the text 'El mate' as a whole. The four highest means were the elaborated and simplified versions of the text "La vuelta a Colombia" $X=13.70$ (9.7% of total number of propositions), $X=10.90$ (9.1% of the total number of propositions), respectively; the elaborated and simplified versions of "El juego de pelota" $X=10.30$
(7.4% of the total number of propositions), and X=9.20
(11.6% of the total number of propositions),
respectively. These percentages show that very little
was understood in the different versions of the texts,
regardless of topic and type of modification.
Nevertheless, these means were much higher than those
obtained by subjects who listened to the intact
versions of the same texts, as well as the different
versions of the text "el mate." On the whole, the data
show that most of the subjects' degree of comprehension
across texts was very limited.

Finally, students' perception of text difficulty
regarding text versions with the four highest means
showed that for the elaborated and simplified versions
of "La vuelta a Colombia," four and three subjects,
respectively, thought that it was "fair" in difficulty.
Regarding the text "El juego de pelota," in the opinion
of two subjects, in each case, the elaborated and
simplified versions were also rated fair, i.e., in
their opinion, the subjects thought that the text was
neither easy nor difficult.
Possible Problems in Comprehension

There are a number of possible reasons for the lack of comprehension shown by protocols in a number of cases. According to the subjects themselves, the rate of delivery was one of the main problems they confronted. A second factor was the lack of vocabulary recognition, as expressed by some of the subjects. A third possible cause is related to the subjects' lack of experience putting loose ideas together in a comprehensible context. Fourth, several subjects referred to short-term memory as a factor influencing their protocol writing. Finally, several isolated comments were offered: lack of pauses after each sentence, physical absence of the speaker, or a text to follow along, and the amount of material to which they were exposed.

Across all texts, subjects mentioned rate of delivery as one of the aspects that most hindered their comprehension of the texts. It is important to point out that the speed of delivery varied from one hundred seventy-five words per minute in the intact version of 'El mate' to one hundred and forty words per minute in the simplified version of the text 'El juego de
pelota. In a previous study and in contrast with this perception, this aspect of delivery was not shown to be significant. Results from the Blau (1990) investigation of normal and slowed speech whose 'normal' versions were approximately 170 wpm, versus the slower versions (85% of normal) of approximately 145 wpm across syntactically modified texts showed no significant effects. Therefore, judging from the subjects' comments, it seems that the rate of delivery would not have made a difference in their recalls if the speed had been either slower or faster.

With regards to the students' contention that their lack of 'vocabulary' prevented them from comprehending the texts, it can be said that only a few words from each text do not appear in the textbook 'A conocernos,' which was used by the subjects before entering the 104 class. The words atravesar, enterarse, and tristeza were the only words from the text 'La vuelta a Colombia' that did not appear in the previous textbook. The wordsasco, asqueroso and yuyo, the latter used only as a description of the plant mate, are the words from 'El mate' that were absent from the textbook 'A conocernos.' Lastly, only the
words seriedad, agradar, caucho and goma are the lexical items from 'El juego de pelota' that were absent from the above textbook. Therefore, in spite of having been exposed to the majority of the lexical items present in the text, it seems that the students may have not had enough opportunities for listening practice.

If the majority of the relevant vocabulary that the subjects needed in order to comprehend the text was present in their textbook, and they presumably experienced those lexical items in the many reading and listening passages, grammar exercises, then it is pertinent to mention the factor of background (topic) knowledge as having played an important role in the subjects comprehension of the listening passages. The listening texts were, as pointed out in chapter three, universal topics, e.g., two texts about sports and one about food; however, the sports dealt with in the texts were particular. In fact, only eleven subjects demonstrated having grasped the gist of the topics across texts. Of the eleven subjects, five of them listened to versions of 'El juego de pelota.' These subjects had to use the discreet information provided
in the text and think past the stereotypical game of soccer, often associated with Latin America, especially when dealing with a sport played with a ball, in order to comprehend the text. In the case of the sport of cycling, portrayed in the text 'La vuelta a Colombia,' only three subjects identified the sport in spite of having been exposed to a great deal of vocabulary dealing with sports, and discussed sports of all kinds except for cycling. In the case of the text 'El mate,' only three subjects remembered the term 'mate' from a cultural note included in the students' textbook and were able to relate their previous exposure to the new text.

Therefore, it becomes relevant to mention the subjects' lack of experience dealing with a comprehension testing procedure such as the recall protocol, because even when the subjects had been previously exposed to the majority of the lexical items that appear in all the texts, it seems that they had problems writing a recall of all the information present in the texts. In their dissertation documents, both, Schmidt-Rinehardt (1992) and Rader (1991) offered some insights regarding the fact that the subjects
should be either trained in this testing procedure, or be tested through different procedures in order to ascertain their comprehension levels. The fact that some of the subjects pointed out that they had understood the vocabulary, but that they had not been able to put it in a context shows that Rader's and Schmidt-Rinehardt's contentions may be correct. It is possible that those subjects who said they understood the vocabulary could have better shown their comprehension through a different testing procedure.

The issue of memory is related to the issue of the recall protocol as a measure of comprehension, as used in this study, since the procedure requires that the subjects write out as much information as they could remember from the text that they have heard. In studies regarding short-term memory processing of information and long-term storing, it has been found that not all the information which has entered short-term memory for processing is passed on to long-term memory. In fact, once sentential, phrasal or clausal meaning has been extracted, the exact words are forgotten (Call, 1985). Moreover, Jarvella (1971) has pointed out that only the last-heard sentence or clause
can normally be recalled verbatim. This would present a serious problem to researchers working with the immediate recall protocol (IRP) procedure since the subjects will have difficulty in re-writing as much information as possible; therefore the tabulation of the resulting protocols will not necessarily reflect the actual amount and quality of the information comprehended by the subjects while listening. Similar criticism of the IRP is offered by Aweiss (1993) regarding the use of the procedure in reading comprehension research.

Short-term memory overload, as pointed out by some subjects, may also be a factor affecting their performance in writing their recalls. As Call (1985) points out, "even though language learners may be able to recognize each word of an utterance as it is spoken, they may not be able to hold lengthy utterances in mind long enough to interpret them." This is especially true when the learners are exposed to, as expressed by a number of subjects, long listening texts spoken at a rate that the subjects consider fast.

Some subjects mentioned that the most salient information that they were able to remember was at the
beginning and at the end of the texts, a fact that was also obvious when analyzing the recall protocol check lists. The majority of the propositions checked as having been attained by the subjects are, in fact, at the beginning and toward the end of the texts. One possible explanation for this may be that at the beginning of a text the students short-term memory has not yet been overwhelmed with input to process, and that at the end of the text there is less information to process, especially when the subjects are listening to the text for a second time, and they know that the text will soon end, thus the subjects may be more at ease in processing the incoming information.

Using the Immediate Recall Protocol Procedure

The immediate recall protocol procedure has been widely used in reading comprehension research, and as of late it has also been used in listening comprehension research. The procedure is an option to the traditional Question and Answer, and the Cloze procedures.

During the different phases leading to this study, some difficulties emerged. To begin with, there
were problems in trying to find professionals that were familiar with the procedure. Time and effort were devoted to train professionals to divide the texts into idea units that would be consistent enough to obtain a high enough degree of reliability for research purposes. Because the results during the trial texts were not satisfactory, it was decided that the researcher would work together with the evaluators, which required many meetings and approximately three to four hours of work per week.

During the evaluation of the protocols, the evaluators needed to be trained regarding the collection of data from the protocols. This phase also required intensive work because it was necessary to interpret the subjects' recall protocols. It was necessary to meet in numerous evaluation sessions. A high reliability eventually was reached after many trial and error sessions using protocols randomly chosen from the final sample.

Finally, given the accuracy, but lack of detail of some of the individual recall protocols written by the students, it is possible that the recounting of idea units from protocols may not reflect how much the
subjects understood. One reason for this is that the subjects may reason that writing what the text was about in a summary-like fashion may be sufficient to them, in spite of having been asked to write as much as possible. Another question that arises is whether the subjects did not remember all the details, but understood the text as a whole.

One possible explanation for this problem may be that these subjects captured the gist of the text, and that information alone became the totality of their recall.

As explained by Richards (1983) in referring to the form of the message, "once the listener has identified and reconstructed the propositional meanings, these are held in long-term memory, and the form in which the message was originally received is deleted." A similar explanation may apply to the supporting information in a text. Once the listener captured the main idea of a text, the information which was not relevant might have also been forgotten. Therefore, a listener's recall protocol would lack much of the detail, yielding what might erroneously be considered a poor recall, showing little or no
comprehension.

From an attitudinal point of view, a possible explanation for the lack of information written in the subjects' recall protocols may have been the subjects' attitude toward the research and/or researcher. It is possible that in spite of having been asked to do the best they could with the task at hand and to write as much as they could remember from the text, there is a possibility that the subjects did not focus on their tasks seriously because they did not know the researcher. On the other hand, during the Long (1990) experiment the subjects' own instructors carried out the experiment, thus allowing that researcher to obtain a usable set of data. It is also possible that the subjects in this study, who share similar characteristics of the subjects in the Long study, could have written more in their recall protocols had their own instructor lead the task. As a result, it is also possible that the subjects' attitude could have lead to a better effort on their part, and a higher number of idea units recalled by all the subjects in this study.
CHAPTER V
SUMMARY AND RECOMMENDATIONS

Three main sections are found in this chapter. First, answers to each of the research questions posited are provided reflecting information obtained from the data. Second, limitations of the study are presented. Third, recommendations for further research are offered.

Overview of the Study

Investigations of the effects of syntactic complexity/simplification on listening comprehension have been undertaken mostly in the field of English as a Second Language (ESL) (Fujimoto et al., 1986; Ishiguro, 1986; Long, 1985; Mannon, 1986; Chiang et al., 1992; Cervantes et al., 1992). The results of these studies, to date, have been consistent regarding the issue of redundancy and simplification of aural texts.
Studies investigating the comprehension of aural ESL texts showed that repetitions or redundancy aid comprehension (Parker and Chaudron, 1987). Similarly, syntactic simplification and elaboration of texts has been shown to aid comprehension of aural texts as well (Fujimoto et al., 1986; Chiang et al., 1992; Cervantes et al., 1992).

The present study, an extension of previous investigations in the area of modified syntactic input, studies the effects of syntactic elaboration and simplification of authentic texts on listening comprehension, and was designed to provide new information to the existing database in the area of Spanish as a Foreign/Second Language.

Besides investigating the variable of syntactic elaborations and simplifications, this study also included text topic as a variable. The latter provided the opportunity to examine several hypothesized differences in learners’ comprehension of three different texts, which was intended to minimize the possibility that the topic of a single stimulus may become a variable itself. One text; ‘El mate’ dealt with a traditional beverage in Argentina; the second,
'La vuelta a Colombia', dealt with a traditional sport event in Colombia; and the third, 'El juego de pelota', dealt with an ancient sport played by ancient Central American and Mexican peoples. All three texts were originally recorded by native speakers from these countries, two females and one male, and were considered samples of authentic speech in this study. All the different versions of the texts heard by the subjects were subsequently also recorded by the researcher. Modifications in the texts were made to provide elaborations that would hypothetically aid comprehension on the part of the listeners, and to syntactically simplify the same texts in order to aid comprehension. The listening comprehension variable was assessed by means of a native-language (English) recall protocol that was later evaluated dichotomously (i.e., the propositions were either present or absent in the subjects' recall protocols) and were given a value of one for each proposition present in the protocol. A currently accepted theorist's schema for analysis of the protocols was utilized.
Findings and Discussion

In the following section, each research question is restated and discussed in accordance with the results of the study.

It is not possible to answer the research questions definitively. For each question a response is provided, along with a discussion of the finding. A recommendation for further study is also provided.

Question 1: Is the level of syntactic difficulty of a text a key factor in listening comprehension for three types of texts; original, simplified and elaborated?

The descriptive analysis of the data provided in Chapter Four indicates that the elaborated texts were better understood than the simplified ones, and both types of modifications seem to have aided comprehension on the part of the subjects. Although the propositions added to the elaborated texts, which provided repetitions, synonyms and explanations, were not conspicuously present in the recall protocols, the subjects were able to recall more information from all the elaborated texts. It should be noted, however, that the absence of the elaboration information from many of the recall protocols suggests that post-test introspective interviews with the subjects may be
necessary to determine whether those elaborations did, in fact, aid in the comprehension of the texts by each individual subject. It was not possible to conduct interviews with all subjects in the present study in order to investigate whether elaborations had an effect on text aural comprehension.

The overall comprehension of the texts bearing the modifications discussed above seem to corroborate the results of the study by Fujimoto et al. (1986), Cervantes (1983), Cervantes et al. 1992), and Chiang et al. (1992) studies which showed that both modifications, whether syntactic simplification or the addition of redundancies, appeared to improve comprehensibility (Chaudron, 1988).

It must be noted, however, that the amount of information recalled by the subjects in their protocols was very little compared to the ideal scores (total number of propositions). Moreover, because recall-protocol evaluation is based on the presence of short isolated idea units (propositions) the procedure did not demonstrate conclusively whether the subjects had actually understood their corresponding text as a whole. This is an evident drawback in the recall
protocol procedure that needs to be addressed in further listening comprehension research.

Given the comparatively higher amount of information recalled by the subjects in this study suggests that elaborations may indeed be helpful in increasing the level of aural comprehension. Of the three formats examined in the study (original, simplified and elaborated), it appears that the elaborated texts is the format that has the potential for instructional purposes. However, further research is needed.

Question 2: Does an elaborated text appear to provide more comprehensive input to the subjects than a simplified text?

The higher number of propositions recalled by the subjects from the elaborated versions, rather than from the simplified versions of the texts, seems to show that elaboration of texts appears to aid in the comprehension of aural texts. Moreover, these apparent results corroborate the outcome of previous studies (Fujimoto, 1986; Parker and Chaudron, 1987; Cervantes, 1983 and 1992; Long, 1985; Kelch, 1985; Mannon 1986) in the area.
However, as mentioned above, many of the subjects' recall protocols showed that lexical items were crucial in the comprehension of the texts. It is possible, then, that the subjects relied more on their knowledge of vocabulary and of the topic, notwithstanding the syntactic differences among the versions of each text, to reconstruct what they thought they had understood of the text.

The issue of topic knowledge or familiarity (Long, 1990; Schmidt-Rinehart, 1992) appears to have become a variable in this study. One of the units in the text used in the required Spanish courses at The Ohio State University contains a short explanation, in English, about what 'El mate' is. Some of the subjects who listened to that particular text recalled only information that was present in the textbook but virtually no information that was provided in the text itself; however, some of the subjects did not understand but just a few isolated lexical items, thus partial comprehension, on the part of these subjects, cannot be claimed.

The topic of sports, present in the other two texts, may have caused the subjects who heard those
passages to use their schemata of sports to call upon their previous knowledge of vocabulary relating to the topic in order to make sense of what they heard. It is important to point out that several subjects recalled 'El juego de pelota' not as an ancient sport, but as soccer, which shows that the word 'pelota' was a crucial element in this text, which caused those subjects to address the wrong schema in their attempt to comprehend the text. With regards to the text 'La vuelta a Colombia', because the majority of the subjects were able to understand lexical items related to the 'family', it is obvious that their knowledge of those items lead them to relate the sport discussed in the text solely as a family activity.

Regarding the simplified versions, the amount of information recalled shows that there was a difference between the texts. The data showed that the simplified versions of the texts 'La vuelta a colombia' (x=10.90), and 'El juego de pelota' (x=9.20) were not different from each other, but both showed that the subjects comprehended substantially more than from the same version of 'El mate' (x=3.50). Again, the subjects who heard the first two text versions may have made use of
their general knowledge about sports, and sports vocabulary, in an attempt to comprehend these texts.

The results of this study show that elaborations and, in a lesser degree, simplifications, seemed to have aided the subjects during the recall of the texts. The data seem to support the results of ESL studies by Fujimoto's 1986; Cervantes et al., 1992; and Chiang et al. (1992), which showed that, both, elaborations of the texts and simplifications had a positive effect on comprehension.

One reason for the facilitative role that syntactic simplification plays in the comprehension process may be that the restricted levels of syntactic elaboration (Murphy, 1989) in simplified texts is said to be a characteristic of intrapersonal communication or inner speech (Murphy, 1989), which "may be seen as central to the listening process" (p. 32-33).

Despite the results reported in this section, it is clear that the majority of the subjects did not understand the gist of the texts they were presented. The differences reported here may only skim the surface of what really went on during the listening and recall of the texts. The large majority of the subjects,
62.1%, did not understand the texts. Instead, most of the recalled information reflected the comprehension of discrete lexical items, rather than the central idea of the texts. Some of the possible reasons for the lack of comprehension on the part of the subjects have been enumerated and discussed in the previous chapter.

**Question 3:** Do the listeners recall more from a text with which they are more familiar?

The data in this study show that the subjects recalled more from the two topically familiar texts, 'La vuelta a Colombia' and 'El juego de pelota'. However, when each modified version was analyzed separately, the results were not straightforwardly consistent. The amount of information recalled from elaborated texts shows little difference among the three texts. Table 23 shows the average number of propositions recalled by the subjects who listened to the elaborated versions of the texts.

<table>
<thead>
<tr>
<th>Text</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>El mate</td>
<td>7.50</td>
</tr>
<tr>
<td>La vuelta</td>
<td>13.70</td>
</tr>
<tr>
<td>El juego</td>
<td>10.30</td>
</tr>
</tbody>
</table>
This seems to demonstrate that the topic of the text did not seem to make a significant difference when dealing with elaborations. In this case, and assuming that there actually was a difference in the topic familiarity between 'El mate' and the other two texts, the results would contradict those obtained from research dealing with topic familiarity in listening comprehension (Long, 1990; Schmidt-Rinehart, 1992). The researchers found that topic familiarity in listening comprehension aids in the comprehension of aural texts.

The simplified versions of the texts 'La vuelta a Colombia' (X=10.90) and 'El juego de pelota' (X=9.20) were shown to be similar, and well above the average for the text 'El mate' (X=3.50). Thus, topic familiarity may have become a factor in the subjects' recall of these particular text versions. In this particular case, the data corroborate the Long (1990), and Schmidt-Rinehart (1992) studies.

Given the data provided in the protocols analyzed, the answer to this particular question cannot be answered conclusively due to the difference in the amount of information recalled from the different
versions of the texts. The elaborated versions provided similar amounts of recalled material across all three texts; however, the simplified versions separated the more familiar text topics, 'La vuelta a Colombia' and 'El juego de pelota', from the least familiar one 'El mate'.

**Question 4:** What characteristics make a text comprehensible: textual factors such as vocabulary, syntactic elaboration/simplicity, etc.; or individual listener's factors such levels of syntactic, lexical, or topic knowledge?

The answer to this question appears to be very elusive. On the one hand, textual factors such as vocabulary and speech rate were mentioned by the subjects as being aspects of the texts that either facilitated or hindered their comprehension. On the other, these perceived difficulties or facilitative factors seem to become even more important when coupled with the lack of background knowledge of the topics of the texts.

Several subjects mentioned having understood particular vocabulary words in the texts; however, they were not able to build a context around those words. Then, it becomes clear that lexical knowledge alone is
not enough to assist the learner in comprehending a text, if doing so means being able to accurately reconstruct the text.

None of the subjects mentioned syntax as a factor in comprehending the texts. Thus, it seems that this textual aspect does not appear to be prominent in the minds of the subjects when thinking about textual difficulty.

The speech rate factor, on the other hand, because it was the most recurring aspect addressed by the subjects in their comments, appears to be an important element in attempting to comprehend an aural text. Because the data base provided through research on speech rate has shown a variety of contradictory results, there is a need to investigate this factor through different measurement techniques. Thus, a combination of Immediate Recall Protocol, questionnaires, measures of dictation, etcetera, should be used when conducting research in this area. Furthermore, studies need to be conducted on the degree to which particular text features, especially vocabulary, influence aural comprehension when a variable such as text familiarity is held constant.
Finally, the main findings in this study were that:

(a) both types of modifications seemed to have made it easier for the subjects to understand the texts;

(b) modifications of input in the form of elaborations to a text seem to provide more comprehensive input to the learners.

(c) lexical knowledge played a prominent role in the way the subjects recalled the texts. Also, lack vocabulary knowledge was one of the main concerns of the subjects in relation to the texts.

(d) topic familiarity appeared to play a role in aural comprehension when the simplified texts were analyzed. However, the elaborated versions did not appear to be significantly different from each other.

(e) speech rate was the main concern of the subjects.
Limitations of the Study

The following limitations in this study are acknowledged:

1 Subjects: The subjects for this study were randomly chosen intact classes. Because the testing was performed in a single day, classes were chosen according to the schedule of 104 classes in order to allow time for the researcher to go from one class to the other. Ten subjects' protocols were later randomly drawn from each intact class for data analysis. There exists the possibility that results may have varied with the use of different classes, thus generalizability of findings regarding fourth-quarter university Spanish subjects is limited to the student population used in the study.

2 Syntactic Complexity: Syntactic complexity was measured in terms of length of T-units, number of T-units per text, number of words per T-unit, number of clauses per T-unit, and number of words per clause. The resulting syntactic complexities in the modified versions of the texts may have been different had a different rationale been used, thus the results are limited to this particular type of textual analysis.
Moreover, the results of the study may have been different should the subjects have listened to a different version of a different text.

3. Elaborations: This study used redundancy provided by repetitions, paraphrases, and synonyms in the elaboration of the texts. Also, explanations and definitions were used as interactional modifications that would respond to request for clarification in authentic spoken conversations. It is acknowledged that the use of other forms of elaborations may have yielded different results.

4 Texts: This study used three expository passages originally spoken by three college-educated native speakers of Spanish, which were later recorded by one college-educated native speaker of Spanish once the modifications to the texts were completed. Other results may have been found had the topic of the texts been different.

5 Speaker: The recording of the final texts was performed by the researcher himself, a Spanish native-speaker from Chile whose speech is characterized by syllable final aspiration of the consonantal sound /s/. This fact may have hindered subjects' listening
comprehension because subjects are accustomed to hearing careful classroom speech, known as Teacher Talk, or speech from other, non-aspiring, dialects of Spanish.

6 Recall: The assessment procedure was done through recall protocols which the subjects may have been unfamiliar. The passages were played twice and no notes were taken during the listening exercise. Thus, subjects had to rely on short term memory in order to recall the amount of information provided in each passage version. It is acknowledged that other listening comprehension testing measures may have yielded different results.

Based on subjects' comments regarding the difficulty in remembering what they heard, as well as the difficulty in being able to put paradigmatic information in a context, the recall protocol procedure might not be a reliable measure for testing listening comprehension. At a minimum, this measure should be substantiated with another measurement for verification.

7 Word Rate: Despite efforts to record all texts at the same number of words per minute (wpm), the
naturalness of speech with which the passage versions were spoken yielded varying word rates. This fact may have become a variable in this study in spite of findings by Rader (1990) that word rate did not appear to affect subjects' listening comprehension of simulated radio broadcasts.

Recommendations for Further Research

Because most research in syntactic complexity in L2 listening comprehension has been done in English as a Second Language (ESL), the question of how syntactic modifications affects the listening comprehension of other languages still remains. This study was intended to contribute to the baseline data in Foreign Language listening comprehension research. Replication of this study in Spanish and other languages is in order. The same study could be replicated with different populations at different instructional levels. Also, rate of speech should be controlled for in order to provide a similar listening testing instrument for all groups, although the results would be limited to unnatural speech rates. Given the problems encountered in this study with the recall protocol procedure
regarding the measurement of listening comprehension data, it is also recommended that other procedures be used that may avoid the limitations encountered by this researcher in the Immediate Recall Protocol procedure. Since this procedure generally does allow note-taking, it would be important to determine whether allowing subjects to take notes could help them recall texts more accurately and with more detail, thus possibly yielding different results.

It is also important to research the strategies that individual learners use in order to successfully comprehend listening passages. One study that investigated adjustment of strategies used by learners in attempting to comprehend authentic listening texts (Bacon, 1992) reported that the subjects understood "at least some of the Mobile Home passage and all but one person understood something from the Electric Converter passage." Given this kind of result, it also becomes necessary to research the use of listening topics that are familiar to the listeners in order to establish if this variable is significant.

Because the tense difference (past tense) in one of the passages did not seem apparent in the subjects'
recall protocols, introspective research regarding the parts of speech listeners focus on when trying to comprehend aural texts in a second language also needs to be investigated.

Many subjects in this study expressed a concern that the texts were spoken too fast for them to comprehend. Schmidt-Rinehart (1992) suggested that the problem of syllabification across word boundaries as well as glide formation in the linking of word final and word initial vowel sounds may have been a cause for her subjects' lack of comprehension. Research that can corroborate or refute this hypothesis is needed. The use of technology as tool to manipulate various interventions to determine factors that significantly impact a listener's comprehension of an aural text is also needed.

Implications of the Study

Theoretical Implications

Listening comprehension has been increasingly investigated in the last decade, but a formulation of a widely accepted theory of comprehension in the field is far from realization. Researchers have investigated
the effects of a host of different variables on the ability to comprehend L2 aural messages. To date, however, results of studies focusing on text characteristics such as rate of speech have yielded confounding results. Word order has been shown to aid in the comprehension of aural texts. Modification of texts, whether through addition of information or simplification of authentic texts, has also been shown to aid comprehension. Background knowledge in its various modes has steadily been shown to aid listening comprehension. There has been an increasing interest in listening comprehension research during the past decade, and researchers are providing some data that would allow theorists to design accurate models of listening comprehension with a focus on text characteristics. More research is still needed.

One area of research that should be addressed is the issue of paradigmatic memory and how it affects listening comprehension for those individuals who possess that characteristic. Another area of research should address the influence of the rhetorical versus linguistic aspects of listening comprehension texts.
Despite the seemingly positive results of the present study, it remains unclear whether, or to what extent, both, elaborations and simplifications aid listeners in comprehending aural texts. It is important, therefore, that more empirical research be done on foreign/second language listening that can allow theorists to formulate more comprehensive models of listening comprehension.

**Pedagogical Implications**

This study provided descriptive data that supports previous results regarding elaboration and simplification of texts. However, because there is a paucity of statistical data, the study can only refer to qualitative information gathered from the subjects' recall protocols. Other testing instruments may have provided different insights. Therefore, the researcher avoided making pedagogical recommendations based on this single set data.

However, it is fair to state that providing input that is comprehensible, whether by adding information to, or syntactically simplifying aural texts, may help foreign/second language students in the learning
process. Perhaps technology will eventually provide some appropriate pedagogical implications once that too is used to make modifications on a variety of texts for a variety of learners.

The data also reflected a strong influence of background knowledge in the protocols analyzed. Thus, given previous information gathered from other studies of students' listening comprehension, this aspect of the listening comprehension process should not be overlooked. Providing information relevant to the topics dealt with as well as listening practice with expository texts classroom listening exercises can be predicted to enhance the learners' ability to comprehend aural texts.

Also, given the comments of the subjects in this study regarding the speed of the spoken utterances in the passages used in this study, it is important that teachers provide students with exposure to normal, native-like rates of speech in order for the students to be able to understand authentic oral communication.
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El mate es una planta, en principio, la yerba mate, que crece nada más en el noroeste de Argentina, sur de Brasil, y parte de Paraguay. No crece en ninguna otra parte del mundo. Han intentado plantarla, pero..., no hubo caso. Se ve que Dios eligió este lugar, y nos regaló el mate: un regalo especial sólo para nosotros. Es como un yuyo verde, como un té fuerte, fuerte, y es toda una ceremonia prepararlo, y tomarlo. Se toma generalmente en un zapallo chiquito, en una calabacita que se deja secar, y después hay que curarla. La curas con yerba. Se deja muchos días, y todo. Hay también mates de madera. Hay mates de plata que se usaban mucho en el siglo pasado, y mates que son unas simples calabazas, una simple y humilde calabaza. Y, si no, los porteños, que son los que viven en Buenos Aires, que no tienen mucha idea de mate, lo toman en una latita, pero es horrible el mate en latita. Bueno, y para preparar el mate tienes que poner la yerba, que es como el té ese: bien, bien fuerte. Es todo verde.
Después, una bombilla, que es una pajita de metal, y el agua tiene que estar justo antes de hervir, porque si llega a hervir tienes que tirarla porque ya no sirve. Se te fue el arte del mate. Y... tú pones un poquito de agua en el mate y tienes que chupar de la bombilla. Y..., el mate está hecho para ser compartido, o sea, que tú tomas tu mate y se lo pasas a otra persona, y no tienes que limpiar la bombilla. La otra tiene que tomar del mismo lugar que tomaste tú. Es medio asqueroso, pero a mí no me hace asco porque estoy acostumbrada a eso.
El mate es una planta, en principio, la yerba mate, que crece nada más en el noroeste de Argentina, sur de Brasil, y parte de Paraguay. No crece en ninguna otra parte del mundo. Han intentado plantarla, pero..., no hubo caso. Se ve que Dios eligió este lugar, y nos regaló el mate: un regalo especial sólo para nosotros. Es como un yuyo verde, como un té fuerte, fuerte, y es toda una ceremonia prepararlo, y tomarlo. Se toma generalmente en un zapallo chiquito, en una calabacita que se deja secar, y después hay que curarla. La curas con yerba. Se deja muchos días, y todo. Hay también mates de madera. Hay mates de plata que se usaban mucho en el siglo pasado, y mates que son unas simples calabazas, una simple y humilde calabaza. Y, si no, los porteños, que son los que viven en Buenos Aires, que no tienen mucha idea de mate, lo toman en una latita, pero es horrible el mate en latita. Bueno, y para preparar el mate tienes que poner la yerba, que es como el té ese: bien, bien fuerte. Es toda verde.
Después, una bombilla, que es una pajita de metal, y el agua tiene que estar justo antes de hervir, porque si llega a hervir tienes que tirarla porque ya no sirve. Se te fue el arte del mate. Y... tú pones un poquito de agua en el mate y tienes que chupar de la bombilla. Y..., el mate está hecho para ser compartido, o sea, que tú tomas tu mate y se lo pasas a otra persona, y no tienes que limpiar la bombilla. La otra tiene que tomar del mismo lugar que tomaste tú. Es medio asqueroso, pero a mí no me hace asco porque estoy acostumbrada a eso.
APPENDIX C

EL MATE (simplificado)
215 words (77 seconds)
163 words per minute

El mate crece sólo en el noroeste de Argentina, sur de Brasil, y parte de Paraguay. No crece en otra parte del mundo. Han intentado plantarlo, pero..., no hubo caso. Dios eligió este lugar y nos regaló el mate. Es un regalo especial sólo para nosotros. Es como un té fuerte. Es toda una ceremonia prepararlo, y tomarlo. Lo toman generalmente en un zapallo chiquito. Lo dejan a secar, y después lo curan. Lo curan con yerba por muchos días. Hay también mates de madera. Los de plata los usaban mucho en el siglo pasado. Hay mates que son unas simples calabazas. Los porteños no tienen mucha idea de mate. Lo toman en una latita. Es horrible el mate así. Para preparar el mate, tienes que poner la yerba. Es verde y fuerte. Después usas una bombilla. El agua tiene que estar justo antes de hervir. Si llega a hervir tienes que tirarla porque ya no sirve. Se te fue el arte del mate. Tú pones un poquito de agua en el mate y tienes que chupar de la bombilla. El mate es compartido y no tienes que
limpiar la bombilla. La otra persona tiene que tomar
del mismo lugar que tomaste tú. Es medio asqueroso,
pero a mí no me hace asco. Estoy acostumbrada.
APPENDIX D

**EL MATE** (elaborado)

301 words & 30 T-units

10.03 words per t-unit

El mate es una planta, en principio, la yerba mate, que crece nada más en el noroeste de Argentina, sur de Brasil, y parte de Paraguay.

No crece en ninguna otra parte del mundo.

Han intentado plantarla,

pero..., no hubo caso.

Se ve que Dios eligió este lugar,

y nos regaló el mate: un regalo especial sólo para nosotros.

Es como un yuyo verde, como un té fuerte, fuerte,

y es toda una ceremonia prepararlo, y tomarlo.

Se toma generalmente en un zapallo chiquito, en una calabacita que se deja secar,

y después hay que curarla.

La curas con yerba.

**Se deja** muchos días, y todo.

Hay también mates de madera.

Hay mates de plata que se usaban mucho en el siglo pasado, y mates que son unas simples calabazas, una simple y humilde calabaza.

Y, si no, los porteños, que son los que viven en Buenos Aires, que no tienen mucha idea de mate, lo toman en una latita,
pero es horrible el mate en latita.

Bueno, y para preparar el mate tienes que poner la yerba, que es como el té ese: bien, bien fuerte.

Es toda verde.

Después usas una bombilla, que es una pajita de metal,
y el agua tiene que estar justo antes de hervir, porque si llega a hervir tienes que tirarla porque ya no sirve.

Se te fue el arte del mate.

Y... tú pones un poquito de agua en el mate
y tienes que chupar de la bombilla.

Y..., el mate está hecho para ser compartido,
o sea, que tú tomas tu mate
y se lo pasas a otra persona,
y no tienes que limpiar la bombilla.

La otra tiene que tomar del mismo lugar que tomaste tú.

Es medio asqueroso,
pero a mí no me hace asco porque estoy acostumbrada a eso.
APPENDIX E

EL MATE (intacto)
243 words & 24 T-units
10.12 words per t-unit

El mate crece nada más en el noroeste de Argentina, sur de Brasil, y parte de Paraguay.

No crece en ninguna otra parte del mundo.

Han intentado plantarla,
pero..., no hubo caso.

Se ve que Dios eligió este lugar,
y nos regaló el mate; un regalo especial sólo para nosotros.

Es como un té fuerte, fuerte,
y es toda una ceremonia prepararlo, y tomarlo.

Se toma generalmente en un zapallo chiquito que se deja secar,
y después hay que curarlo.

Lo curas con yerba por muchos días, y todo.

Hay también mates de madera; y de plata, que se usaban mucho en el siglo pasado; y mates que son unas simples calabazas.

Y, si no, los porteños, que no tienen mucha idea de mate, lo toman en una latita,

pero es horrible el mate así.

Bueno, y para preparar el mate tenés que poner la yerba, que es bien, bien fuerte, y verde.
Después usas una bombilla, y el agua, que tiene que estar justo antes de hervir, porque si llega a hervir tienes que tirarla porque ya no sirve.

Se te fue el arte del mate.

Y... tú puedes un poquito de agua en el mate
y tienes que chupar de la bombilla.

Y..., el mate está hecho para ser compartido,
y no tienes que limpiar la bombilla.

La otra tiene que tomar del mismo lugar que tomaste tú.

Es medio asqueroso,

pero a mí no me hace asco porque estoy acostumbrada.
El mate crece sólo en el noroeste de Argentina, sur de Brasil, y parte de Paraguay.

No crece en otra parte del mundo.

Han intentado plantarlo,
pero..., no hubo caso.

Dios eligió este lugar
y nos regaló el mate.

Es un regalo especial sólo para nosotros.

Es como un té fuerte.

Es toda una ceremonia prepararlo, y tomarlo.

Lo toman generalmente en un zapallo chiquito.

Lo dejan a secar,
y después lo curan.

Lo curan con yerba por muchos días.

Hay también mates de madera.

Los de plata los usaban mucho en el siglo pasado.

Hay mates que son unas simples calabazas.

Los porteños no tienen mucha idea de mate.

Lo toman en una latita.
Es horrible el mate así.
Para preparar el mate, tienes que poner la yerba.
Es verde y fuerte.
Después usas una bombilla.
El agua tiene que estar justo antes de hervir.
Si llega a hervir tienes que tirarla porque ya no sirve.
Se te fue el arte del mate.
Tú pones un poquito de agua en el mate
y tienes que chupar de la bombilla.
El mate es compartido
y no tienes que limpiar la bombilla.
La otra persona tiene que tomar del mismo lugar que
tomaste tú.
Es medio asqueroso,
pero a mí no me hace asco.
Estoy acostumbrada.
El mate es una planta, en principio, la yerba mate.

que crece nada más en el noroeste de Argentina, sur de Brasil, y parte de Paraguay.

No crece en ninguna otra parte del mundo.

Han intentado plantarla,

pero..., no hubo caso.

Se ve

que Dios eligió este lugar,

y nos regaló el mate: un regalo especial sólo para nosotros.

Es como un vuyo verde, como un té fuerte, fuerte,

y es toda una ceremonia prepararlo, y tomarlo.

Se toma generalmente en un zapallo chiquito, en una calabacita

que se deja secar,

y después hay que curarla.

La curas con yerba.

Se deja muchos días, y todo.

Hay también mates de madera.

Hay mates de plata
que se usaban mucho en el siglo pasado,
y mates que son unas simples calabazas, una simple y humilde calabaza.

Y, si no, los porteños, (que son los que viven en Buenos Aires, que no tienen mucha idea de mate), lo toman en una latita,

pero es horrible el mate en latita.

que son los que viven en Buenos Aires,

que no tienen mucha idea de mate

Bueno, y para preparar el mate tienes que poner la yerba,

que es como el té ese: bien, bien fuerte.

Es todo verde.

Después usas una bombilla,

que es una pajita de metal,

y el agua tiene que estar justo antes de hervir,

porque si llega a hervir

tienes que tirarla

porque ya no sirve.

Se te fue el arte del mate.

Y... tú pones un poquito de agua en el mate

y tienes que chupar de la bombilla.

Y..., el mate está hecho para ser compartido, o sea,

que tú tomas tu mate

y se lo pasas a otra persona,
y no tienes que limpiar la bombilla.
La otra tiene que tomar del mismo lugar
que tomaste tú.
Es medio asqueroso,
p ero a mí no me hace asco
porque estoy acostumbrada a eso.
APPENDIX H

EL MATE (intacto)
243 words & 36 Clauses
6.75 words per Clause

El mate crece nada más en el noroeste de Argentina, sur de Brasil, y parte de Paraguay.

No crece en ninguna otra parte del mundo.

Han intentado plantarla,

pero..., no hubo caso.

Se ve

que Dios eligió este lugar,

y nos regaló el mate: un regalo especial sólo para nosotros.

Es como un té fuerte, fuerte,

y es toda una ceremonia prepararlo, y tomarlo.

Se toma generalmente en un zapallo chiquito

que se deja secar,

y después hay que curarlo.

Lo curás con yerba por muchos días, y todo.

Hay también mates de madera; y de plata,

que se usaban mucho en el siglo pasado;

y mates que son unas simples calabazas.

Y, si no, los porteños, (que no tienen mucha idea de mate), lo toman en una latita,
pero es horrible el mate así.

que no tienen mucha idea de mate

Bueno, y para preparar el mate tienes que poner la yerba, que es bien, bien fuerte, y verde.

Después usas una bombilla, y el agua, que tiene que estar justo antes de hervir, porque si llega a hervir tienes que tirarla porque ya no sirve.

Se te fue el arte del mate.

Y... tú pones un poquito de agua en el mate y tienes que chupar de la bombilla.

Y..., el mate está hecho para ser compartido, y no tienes que limpiar la bombilla.

La otra tiene que tomar del mismo lugar que tomaste tú.

Es medio asqueroso, pero a mí no me hace asco porque estoy acostumbrada.
APPENDIX I

EL MATE (simplificado)
215 words & 37 Clauses
5.81 words per Clause

El mate crece sólo en el noroeste de Argentina, sur de Brasil, y parte de Paraguay.

No crece en otra parte del mundo.

Han intentado plantarlo,
pero..., no hubo caso.

Dios eligió este lugar
y nos regaló el mate.

Es un regalo especial sólo para nosotros.

Es como un té fuerte.

Es toda una ceremonia prepararlo, y tomarlo.

Lo toman generalmente en un zapallo chiquito.

Lo dejan a secar,
y después lo curan.

Lo curan con yerba por muchos días.

Hay también mates de madera.

Los de plata los usaban mucho en el siglo pasado.

Hay mates
que son unas simples calabazas.

Los porteños no tienen mucha idea de mate.
Lo toman en una latita.
Es horrible el mate así.
Para preparar el mate, tienes que poner la yerba.
Es verde y fuerte.
Después usas una bombilla.
El agua tiene que estar justo antes de hervir.
Si llega a hervir
 tienes que tirarla
porque ya no sirve.
Se te fue el arte del mate.
Tú pones un poquito de agua en el mate
y tienes que chupar de la bombilla.
El mate es compartido
y no tienes que limpiar la bombilla.
La otra persona tiene que tomar del mismo lugar
que tomaste tú.
Es medio asqueroso,
pero a mí no me hace asco.
Estoy acostumbrada.
Este deporte, el juego de pelota, se jugó en la parte central del continente de América Central, y en México. El juego de pelota lo jugaron los Toltecas en primera instancia, y luego los Mayas.

Los Toltecas y los Mayas fueron unas civilizaciones indias precolombinas. Este juego se jugaba en una cancha, o sea un campo de juego, que tenía unas dimensiones de treinta por ochenta, con dos muros, o paredes paralelas de aproximadamente ocho metros de alto. En la parte central, los muros tenían dos anillos circulares verticales a una altura de seis metros de alto. El objetivo de este juego era tratar de, o intentar introducir en los anillos una pelota de caucho, o bola de goma endurecida, para lo cual tenían prohibido, o sea no podían usar las manos. La pelota, o bola de goma, tenía que ser golpeada, o sea, impulsada con las caderas.

Si la pelota, al caer en el suelo, el piso de la cancha, se moría; es decir, no volvía al aire; también

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los contrincantes, o jugadores, morían. Este juego era una ceremonia también porque había una relación entre jugar y agradar a sus dioses. Antes de llevar a cabo, o iniciar, este juego o ceremonia, los jugadores tenían que pasar un proceso de purificación, o sea de limpieza, lo cual incluía tomar baños en un Temazcal, una forma de baño turco o ruso, y pasaban horas practicando, practicando y practicando. Este juego, tenía varios niveles de seriedad. Cuando los contrincantes, uno de los grupos de jugadores, perdían, podían perder sus pertenencias, las cosas que poseían, o perder su ropa. Pero había momentos en que el juego era sumamente importante, y para esto tenían que hacerse sacrificios previos antes del partido y, los jugadores también podían perder la vida, es decir morían.
Este juego de pelota se jugó en la parte central del continente, y en México, lo jugaron los Toltecas en primera instancia, y luego los Mayas. Este juego se jugaba en una cancha que tenía unas dimensiones de treinta metros por ochenta, con dos muros paralelos de aproximadamente ocho metros de alto. En la parte central, dos anillos a una altura de seis metros. El objetivo de este juego era tratar de introducir en los anillos una pelota de caucho endurecida, para lo cual tenían prohibido usar las manos. La pelota tenía que ser golpeada con las caderas. Si la pelota, al caer en el suelo, se moría, también los contrincantes morían. Este juego era una ceremonia también porque había una relación entre jugar y agradar a sus dioses. Antes de llevar a cabo este juego, los jugadores tenían que pasar un proceso de purificación, lo cual incluía tomar baños en un Temazcal, y pasaban horas practicando, practicando y practicando. Este juego tenía varios niveles de seriedad. Cuando los contrincantes perdían,
podían perder sus pertenencias, o perder su ropa. Pero había momentos en que el juego era sumamente importante, y para esto tenían que hacerse sacrificios previos, y los jugadores también perdían la vida.
Este juego de pelota lo jugaron los Toltecas y los mayas en la parte central del continente, y en México. Este juego lo jugaban en una cancha. Esta tenía unas dimensiones de treinta metros por ochenta. Tenía dos muros paralelos de aproximadamente ocho metros de alto. En la parte central tenía dos anillos a una altura de seis metros. El objetivo de este juego era tratar de introducir una pelota de caucho endurecida en los anillos. Tenían prohibido usar las manos. Golpeaban la pelota con las caderas. Si la pelota caía al suelo, y se moría, también los contrincantes morían. Este juego era una ceremonia también. Había una relación entre jugar y agradar a sus dioses. Antes de jugar, los jugadores pasaban un proceso de purificación. Esto incluía tomar baños en un Temaxcal. Pasaban horas practicando, practicando y practicando. Este juego tenía varios niveles de seriedad. Cuando los contrincantes perdían, podían perder sus pertenencias, o perder su ropa. Había momentos en el juego que eran
sumamente importantes. Hacían sacrificios previos. En estas ocasiones, los jugadores podían perder la vida también.
Este deporte, el juego de pelota, se jugó en la parte central del continente de América Central, y en México. El juego de pelota lo jugaron los Toltecas en primera instancia, y luego los Mayas. Los Toltecas y los Mayas fueron unas civilizaciones indias precolombinas.

Este juego se jugaba en una cancha, o sea un campo de juego, que tenía unas dimensiones de treinta metros por ochenta, con dos muros, o paredes paralelas de aproximadamente ocho metros de alto.

En la parte central, los muros tenían dos anillos circulares verticales a una altura de seis metros de alto.

El objetivo de este juego era tratar de, o intentar introducir en los anillos una pelota de caucho, o bola de goma endurecida, para lo cual tenían prohibido, o sea no podían usar las manos.

La pelota, o bola de goma, tenía que ser golpeada, o sea, impulsada con las caderas.

Si la pelota, al caer en el suelo, el piso de la cancha, se moría—es decir, no volvía al aire—también los contrincantes, o jugadores, morían.

Este juego era una ceremonia también porque había una relación entre jugar y agradar a sus dioses.

Antes de llevar a cabo, o iniciar, este juego o ceremonia, los jugadores tenían que pasar un proceso de purificación, o sea de limpieza, lo cual incluía tomar baños en un temaxcal, una forma de baño turco o ruso,
y pasaban horas practicando, practicando y practicando.

Este juego, tenía varios niveles de seriedad.

Cuando los contrincantes, uno de los grupos de jugadores, perdían, podían perder sus pertenencias, las cosas que poseían, o perder su ropa.

Pero había momentos en que el juego era sumamente importante,

y para esto tenían que hacerse sacrificios previos antes del partido,
y los jugadores también podían perder la vida, es decir morían.
Este juego de pelota se jugó en la parte central del continente, y en México.

Lo jugaron los Toltecas en primera instancia, y luego los Mayas.

Este juego se jugaba en una cancha que tenía unas dimensiones de 30 metros por 80, con dos muros paralelos de aproximadamente 8 metros de alto.

En la parte central, tenía dos anillos a una altura de 6 metros.

El objetivo de este juego era tratar de introducir en los anillos una pelota de caucho endurecida, para lo cual tenían prohibido usar las manos,

entonces la pelota tenía que ser golpeada con las caderas.

Si la pelota, al caer en el suelo, se moría, también los contrincantes morían.

Este juego era una ceremonia también porque había una relación entre jugar y agradar a sus dioses.

Antes de llevar a cabo este juego, los jugadores tenían que pasar un proceso de purificación, lo cual incluía tomar baños en un temazcal,

y pasaban horas practicando, practicando y practicando.

Este juego tenía varios niveles de seriedad.

Cuando los contrincantes perdían, podían perder sus pertenencias, o perder su ropa.
Pero había momentos en que el juego era sumamente importante

y para esto tenían que hacerse sacrificios previos,
y los jugadores también perdían la vida.
Este juego de pelota lo jugaron los Toltecas y los mayas en la parte central del continente, y en México.

Este juego lo jugaban en una cancha.

Esta tenía unas dimensiones de treinta metros por ochenta.

Tenía dos muros paralelos de aproximadamente ocho metros de alto.

En la parte central tenía dos anillos a una altura de seis metros.

El objetivo de este juego era tratar de introducir una pelota de caucho endurecida en los anillos.

Tenían prohibido usar las manos.

Golpeaban la pelota con las caderas.

Si la pelota caía al suelo, y se moría, también los contrincantes morían.

Este juego era una ceremonia también.

Había una relación entre jugar y agradar a sus dioses.

Antes de jugar, los jugadores pasaban un proceso de purificación.

Esto incluía tomar baños en un Temaxcal.

Pasaban horas practicando, practicando y practicando.

Este juego tenía varios niveles de seriedad.
Cuando los contrincantes perdían, podían perder sus pertenencias, o perder su ropa.

Había momentos en el juego que eran sumamente importantes.

Hacían sacrificios previos.

En estas ocasiones, los jugadores podían perder la vida también.
Este deporte, el juego de pelota, se jugó en la parte central del continente de América Central, y en México.

El juego de pelota lo jugaron los Toltecas en primera instancia, y luego los Mayas.

Los Toltecas y los Mayas fueron unas civilizaciones indias precolombinas.

Este juego se jugaba en una cancha, o sea un campo de juego.

que tenía unas dimensiones de treinta metros por ochenta, con dos muros, o paredes paralelas de aproximadamente ocho metros de alto.

En la parte central, los muros tenían dos anillos circulares verticales a una altura de seis metros de alto.

El objetivo de este juego era tratar de, o intentar, introducir en los anillos una pelota de caucho, o bola de goma endurecida,

para lo cual tenían prohibido, (o sea no podían) usar las manos, o sea no podían.

La pelota, o bola de goma, tenía que ser golpeada, o sea impulsada, con las caderas.

Si la pelota, al caer en el suelo, el piso de la cancha, se moría; es decir, no volvía al aire; también los contrincantes, o jugadores, morían.

Este juego era una ceremonia también
porque había una relación entre jugar y agradar a sus dioses.

Antes de llevar a cabo, o iniciar, este juego o ceremonia, los jugadores tenían que pasar un proceso de purificación, o sea de limpieza,

lo cual incluía tomar baños en un temazcal, una forma de baño turco o ruso,

y pasaban horas practicando, practicando y practicando.

Este juego, tenía varios niveles de seriedad.

Cuando los contrincantes, uno de los grupos de jugadores, perdían,

podían perder sus pertenencias, (las cosas que poseían), o perder su ropa.

las cosas que poseían

Pero había momentos

en que el juego era sumamente importante,

y para esto tenían que hacerse sacrificios previos antes del partido y,

los jugadores también podían perder la vida, es decir morían.
APPENDIX O

EL JUEGO DE PELOTA (intacto)
204 words & 23 clauses
8.86 words per clause

Este juego de pelota se jugó en la parte central del continente, y en México.

Lo jugaron los Toltecas en primera instancia, y luego los Mayas.

Este juego se jugaba en una cancha que tenía unas dimensiones de 30 metros por 80, con dos muros paralelos de aproximadamente 8 metros de alto.

En la parte central, tenía dos anillos a una altura de 6 metros.

El objetivo de este juego era tratar de introducir en los anillos una pelota de caucho endurecida, para lo cual tenían prohibido usar las manos,

entonces la pelota tenía que ser golpeada con las caderas.

Si la pelota, al caer en el suelo, se moría, también los contrincantes morían.

Este juego era una ceremonia también porque había una relación entre jugar y agradar a sus dioses.

Antes de llevar a cabo este juego,
los jugadores tenían que pasar un proceso de purificación,
lo cual incluía tomar baños en un Temaxcal, 196
y pasaban horas practicando, practicando y practicando.
Este juego tenía varios niveles de seriedad.
Cuando los contrincantes perdían,
podían perder sus pertenencias, o perder su ropa.
Pero había momentos
en que el juego era sumamente importante
y para esto tenían que hacerse sacrificios previos,
y los jugadores también perdían la vida.
APPENDIX R

EL JUEGO DE PELOTA (simplificado)
180 words & 23 Clauses
7.82 words per Clause

Este juego de pelota lo jugaron los Toltecas y los Mayas en la parte central del continente, y en México.

Este juego lo jugaban en una cancha.

Esta tenía unas dimensiones de treinta metros por ochenta.

Tenía dos muros paralelos de aproximadamente ocho metros de alto.

En la parte central tenía dos anillos a una altura de seis metros.

El objetivo de este juego era tratar de introducir una pelota de caucho endurecida en los anillos.

Tenían prohibido usar las manos.

Golpeaban la pelota con las caderas.

Si la pelota caía al suelo

y se moría,

también los contrincantes morían.

Este juego era una ceremonia también.

Había una relación entre jugar y agradar a sus dioses.

Antes de jugar, los jugadores pasaban un proceso de purificación.

 Esto incluía tomar baños en un Temaxcal.
Pasaban horas practicando, practicando y practicando.
Este juego tenía varios niveles de seriedad.
Cuando los contrincantes perdían,
podían perder sus pertenencias, o perder su ropa.
Había momentos en el juego
que eran sumamente importantes.
Hacían sacrificios previos.
En estas ocasiones los jugadores podían perder la vida
también.
La vuelta a Colombia, un importante torneo ciclístico anual, es un evento deportivo que involucra a todas las regiones, o departamentos, del país. Aquí tenemos uno de los deportes más tradicionales en Colombia, que es el ciclismo. Entonces, esta vuelta ciclística a Colombia tiene obstáculos magníficos, porque el objetivo es que se trata de atravesar las montañas, la cordillera de los Andes, los valles, las montañas y la selva, en una competencia de verdaderos héroes. Cada región del país lanza su más famoso ciclista, atleta del ciclismo, y lo apoya, y lo entusiasma, y la gente sale a los caminos, las carreteras para aplaudir y saludar a sus héroes del ciclismo. Este evento trae mucho entusiasmo. La radio y la televisión... y los periódicos informan sobre este evento o acontecimiento, y hay rivales tradicionales dentro del país. El acontecimiento, esta carrera ciclística, trasciende las fronteras de Colombia porque siempre se manda representantes a otras lugares o
regiones del mundo: España, Guatemala, a Francia, donde está la famosa carrera la vuelta a Francia, y también a Italia. Ahí siempre los ciclistas colombianos tienen triunfos, o sea ganan, en las carreras. Es una tradición bonita porque es un deporte de familia. Todos los domingos, si tú vas a Bogotá, la gente sale a andar, o montar en bicicleta. Bogotá es una ciudad de ocho millones de habitantes o personas, y las grandes avenidas se cierran para que las familias salgan a montar en bicicleta: los padres, mamá, papá, y niños. Los papás o padres entrenan a sus niñitos desde pequeños para que sean los grandes héroes del futuro en este evento, o carrera ciclista. Es bueno porque el deporte es saludable. Trae entusiasmo, unión entre la gente y yo creo que es bueno que el mundo se entere de que esto nos quita un poquito la tristeza que nos da cuando hablamos de las cosas de Colombia en estos días.
La vuelta a Colombia es un evento deportivo que involucra a todas las regiones del país. Aquí tenemos unos de los deportes más tradicionales en Colombia, que es el ciclismo. Entonces, esta vuelta a Colombia tiene obstáculos magníficos porque se trata de atravesar la cordillera de los Andes, los valles, las montañas, y la selva, en una competencia de verdaderos héroes. Cada región del país lanza su más famoso ciclista, y lo apoya, y lo entusiasma, y la gente sale a los caminos, las carreteras para aplaudir y saludar a sus héroes del ciclismo. Entonces, este evento trae mucho entusiasmo, la radio y la televisión... Los periódicos informan sobre este acontecimiento, y hay rivales tradicionales dentro del país. El acontecimiento trasciende las fronteras de Colombia porque siempre se manda representantes de... ciclistas a otras regiones del mundo, España, Guatemala, a Francia, donde está la famosa carrera, y también a Italia. Ahí siempre los ciclistas colombianos tienen triunfos en estas
carreras. Es una tradición, y es una tradición bonita porque es un deporte de familia. Todos los domingos, si tú vas a Bogotá, la gente sale a montar en bicicleta. Es una ciudad de ocho millones de habitantes, y las grandes avenidas se cierran para que las familias salgan a montar en bicicleta; mamá, papá, y niños. Los papás entrenan a sus niñitos desde pequeños para que sean los grandes héroes del futuro en este evento. Es bueno. El deporte es saludable. Trae entusiasmo, unión entre la gente y yo creo que es bueno que el mundo se entere de que esto nos quita un poquito la tristeza que nos da cuando hablamos de las cosas de Colombia en estos días.
APPENDIX U

LA VUELTA A COLOMBIA (simplificado)
260 words (98 seconds)
159 words per minute

La vuelta a Colombia es un evento deportivo que involucra a todas las regiones del país. El ciclismo es uno de los deportes más tradicionales en Colombia. Esta vuelta a Colombia tiene obstáculos magníficos. Se trata de atravesar la cordillera de los Andes, los valles, las montañas y la selva. Es una competencia de verdaderos héroes. Cada región del país lanza su más famoso ciclista, y lo apoya, y lo entusiasma. La gente sale a los caminos y las carreteras. Aplauden y saludan a sus héroes del ciclismo. Este evento trae mucho entusiasmo. La radio, la televisión y los periódicos informan sobre este acontecimiento. Hay rivales tradicionales dentro del país. El acontecimiento trasciende las fronteras de Colombia. Siempre mandan representantes de... ciclistas a otras regiones del mundo: a España, a Guatemala, a Francia donde está la famosa carrera—y también a Italia. Los ciclistas colombianos siempre tienen triunfos en las
carreras. Es una tradición bonita. Es un deporte de familia. Bogotá es una ciudad de ocho millones de habitantes. Todos los domingos, la gente sale a montar en bicicleta. Las grandes avenidas se cierran. Las familias salen a montar en bicicleta. Salen Mamá, papá, y niños. Los papá entrenan a sus niñitos desde pequeños para ser los grandes héroes del futuro en este evento. Esto es bueno.

El deporte es saludable. Trae entusiasmo y unión entre la gente. Yo creo que es bueno que el mundo se entere de que esto nos quita un poco la tristeza que nos da cuando hablamos de las cosas de Colombia en estos días.
APPENDIX V

LA VUELTA A COLOMBIA (elaborado)
(322 words & 20 t-units)
16.10 words per t-unit

La vuelta a Colombia, un importante torneo ciclístico anual, es un evento deportivo que involucra a todas las regiones, o departamentos, del país.

Aquí tenemos uno de los deportes más tradicionales en Colombia, que es el ciclismo.

Entonces, esta vuelta ciclística a Colombia tiene obstáculos magníficos, porque el objetivo es que se trata de atravesar las montañas, la cordillera de los Andes, los valles, las montañas y la selva, en una competencia de verdaderos héroes.

Cada región del país lanza, o sea que manda, su más famoso ciclista que es un atleta del ciclismo,

y lo apoya,

y lo entusiasma,

y la gente sale a los caminos, las carreteras para aplaudir y saludar a sus héroes del ciclismo.

Este evento trae mucho entusiasmo.

La radio, la televisión..., y los periódicos informan sobre este evento o acontecimiento,

y hay rivales tradicionales dentro del país.

El acontecimiento, esta carrera ciclística, trasciende las fronteras de Colombia porque siempre se manda representantes de... ciclistas a otras lugares o regiones del mundo: España, Guatemala, a Francia, donde está la famosa carrera la vuelta a Francia, y también a Italia.
Ahi siempre los ciclistas colombianos tienen triunfos, o sea ganan, en las carreras.

Es una tradicion bonita porque es un deporte de familia.

Todos los domingos, si tis vas a Bogota, la gente sale a andar, o montar en bicicleta.

Bogota es una ciudad de ocho millones de habitantes o personas,
y las grandes avenidas se cierran para que las familias salgan a montar en bicicleta: los padres, mamá, papá, y niños.

Los papás o padres entrenan a sus niñitos desde pequenos para que sean los grandes héroes del futuro en este evento, o carrera ciclistica.

Es bueno porque el deporte es saludable.

Trea entusiasmo, union entre la gente

y yo creo que es bueno que el mundo se entere de que esto nos quita un poquito la tristeza que nos da cuando hablamos de las cosas de Colombia en estos dias.
La vuelta a Colombia es un evento deportivo que involucra a todas las regiones del país.

Aquí tenemos unos de los deportes más tradicionales en Colombia, que es el ciclismo.

Entonces, esta vuelta a Colombia tiene obstáculos magníficos porque se trata de atravesar la cordillera de los Andes, los valles, las montañas, y la selva, en una competencia de verdaderos héroes.

Cada región del país lanza su más famoso ciclista, y lo apoya, y lo entusiasma, y la gente sale a los caminos, las carreteras para aplaudir y saludar a sus héroes del ciclismo.

Entonces, este evento trae mucho entusiasmo.

La radio y la televisión...y los periódicos informan sobre este acontecimiento, y hay rivales tradicionales dentro del país.

El acontecimiento trasciende las fronteras de Colombia porque siempre se manda representantes de... ciclistas a otras regiones del mundo, España, Guatemala, a Francia, donde está la famosa carrera, y también a Italia

y siempre los ciclistas colombianos tienen triunfos en estas carreras.

Es una tradición,
y es una tradición bonita porque es un deporte de familia.

Todos los domingos, si tú vas a Bogotá, la gente sale a montar en bicicleta.

Bogotá es una ciudad de ocho millones de habitantes,
y las grandes avenidas se cierran para que las familias salgan a montar en bicicleta; mamá, papá, y niños.

Los papás entrenan a sus niñitos desde pequeños para que sean los grandes héroes del futuro en este evento.

Es bueno.

El deporte es saludable.

Trae entusiasmo, unión entre la gente.

y yo creo que es bueno que el mundo se entere de que esto nos quita un poquito la tristeza que nos da cuando hablamos de las cosas de Colombia en estos días.
La vuelta a Colombia es un evento deportivo que involucra a todas las regiones del país.

El ciclismo es uno de los deportes más tradicionales en Colombia.

Esta vuelta a Colombia tiene obstáculos magníficos.

Se trata de atravesar la cordillera de los Andes, los valles, las montañas y la selva.

Es una competencia de verdaderos héroes.

Cada región del país lanza su más famoso ciclista,
y lo apoya,
y lo entusiasma.

La gente sale a los caminos y las carreteras.

Aplauden y saldan a sus héroes del ciclismo.

Este evento trae mucho entusiasmo.

La radio, la televisión y los periódicos informan sobre este acontecimiento.

Hay rivales tradicionales dentro del país.

El acontecimiento trasciende las fronteras de Colombia.

Siempre mandan representantes de... ciclistas a otras regiones del mundo: a España, a Guatemala, a Francia—donde está la famosa carrera—y también a Italia.
Los ciclistas colombianos siempre tienen triunfos en las carreras.

Es una tradición bonita.

Es un deporte de familia.

Bogotá es una ciudad de ocho millones de habitantes.

Todos los domingos, la gente sale a montar en bicicleta.

Las grandes avenidas se cierran.

Las familias salen a montar en bicicleta.

Salen Mamá, papá, y niños.

Los papás entrenan a sus niñitos desde pequeños para ser los grandes héroes del futuro en este evento.

Esto es bueno.

El deporte es saludable.

Trae entusiasmo y unión entre la gente.

Yo creo que es bueno que el mundo se entere de que esto nos quita un poco la tristeza que nos da cuando hablamos de las cosas de Colombia en estos días.
La vuelta a Colombia, un importante torneo ciclístico anual, es un evento deportivo que involucra a todas las regiones, o departamentos, del país.

Aquí tenemos uno de los deportes más tradicionales en Colombia, que es el ciclismo.

Entonces, esta vuelta ciclística a Colombia tiene obstáculos magníficos, porque el objetivo es que se trata de atravesar, la cordillera de los Andes, los valles, las montañas y la selva, en una competencia de verdadeños héroes.

Cada región del país lanza, o sea que manda) su más famoso ciclista, (que es un atleta del ciclismo), y lo apoya,
y lo entusiasma,
que es un atleta del ciclismo
y la gente sale a los caminos y las carreteras para aplaudir y saludar a sus héroes del ciclismo.

Este evento trae mucho entusiasmo.
La radio, la televisión..., y los periódicos informan sobre este evento o acontecimiento,
y hay rivales tradicionales dentro del país.
El acontecimiento, esta carrera ciclística, trasciende las fronteras de Colombia

porque siempre se manda representantes de... ciclistas a otras lugares o regiones del mundo: España, Guatemala, a Francia, (donde está la famosa carrera la vuelta a Francia), y también a Italia,

donde está la famosa carrera la vuelta a Francia

Ahí siempre los ciclistas colombianos tienen triunfos en las carreras, o sea que ganan

Es una tradición bonita

porque es un deporte de familia.

Todos los domingos, (si tú vas a Bogotá), la gente sale a andar, o montar en bicicleta.

si tú vas a Bogotá

Bogotá es una ciudad de ocho millones de habitantes, o personas,

y las grandes avenidas se cierran

para que las familias salgan a montar en bicicleta: los padres, mamá, papá, y niños.

Los papás, o padres, entrenan a sus niñitos desde pequeños

para que sean los grandes héroes del futuro en este evento, o carrera ciclística.

Es bueno

porque el deporte es saludable.

Trae entusiasmo, unión entre la gente

y yo creo

que es bueno
que el mundo se entere de
que esto nos quita un poquito la tristeza
que nos da cuando hablamos de las cosas de Colombia en estos días.
La vuelta a Colombia es un evento deportivo que involucra a todas las regiones del país. Aquí tenemos unos de los deportes más tradicionales en Colombia, que es el ciclismo. Entonces, esta vuelta a Colombia tiene obstáculos magníficos porque se trata de atravesar la cordillera de los Andes, los valles, las montañas, y la selva, en una competencia de verdaderos héroes. Cada región del país lanza su más famoso ciclista, y lo apoya, y lo entusiasma, y la gente sale a los caminos, las carreteras para aplaudir y saludar a sus héroes del ciclismo. Entonces, este evento trae mucho entusiasmo, la radio y la televisión..., y los periódicos informan sobre este acontecimiento, y hay rivales tradicionales dentro del país. El acontecimiento trasciende las fronteras de Colombia porque siempre se manda representantes de... ciclistas a otras regiones del mundo, España, Guatemala, a Francia,
donde está la famosa carrera, y también a Italia
y siempre los ciclistas colombianos tienen triunfos en
estas carreras.
Es una tradición,
y es una tradición bonita
porque es un deporte de familia.
si tú vas a Bogotá

Todos los domingos, (si tú vas a Bogotá), la gente sale
da montar en bicicleta.

Bogotá es una ciudad de ocho millones de habitantes),
y las grandes avenidas se cierran
para que las familias salgan a montar en bicicleta; mamá, papá, y niños.

Los papás entrenan a sus niñitos desde pequeños
para que sean los grandes héroes del futuro en este
evento.

Es bueno.
El deporte es saludable.
Trae entusiasmo, unión entre la gente y
yo creo
que es bueno
que el mundo se entere
de que esto nos quita un poquito la tristeza
que nos da
cuando hablamos de las cosas de Colombia en estos días.
La vuelta a Colombia es un evento deportivo que involucra a todas las regiones del país.

El ciclismo es uno de los deportes más tradicionales en Colombia. Esta vuelta a Colombia tiene obstáculos magníficos.

Se trata de atravesar la cordillera de los Andes, los valles, las montañas y la selva.

Es una competencia de verdaderos héroes.

Cada región del país lanza su más famoso ciclista, y lo apoya, y lo entusiasma.

La gente sale a los caminos y las carreteras. Aplauden y saluden a sus héroes del ciclismo.

Este evento trae mucho entusiasmo.

La radio, la televisión y los periódicos informan sobre este acontecimiento.

Hay rivales tradicionales dentro del país.

El acontecimiento trasciende las fronteras de Colombia.

Siempre mandan representantes de... ciclistas a otras regiones del mundo: a España, a Guatemala, a Francia- (donde está la famosa carrera)-y también a Italia.
donde está la famosa carrera

Los ciclistas colombianos siempre tienen triunfos en las carreras.

Es una tradición bonita.

Es un deporte de familia.

Bogotá es una ciudad de ocho millones de habitantes.

Todos los domingos, la gente sale a montar en bicicleta.

Las grandes avenidas se cierran.

Las familias salen a montar en bicicleta.

Salen Mamá, papá, y niños.

Los papás entrenan a sus niñitos desde pequeños para ser los grandes héroes del futuro en este evento.

Esto es bueno.

El deporte es saludable.

Trae entusiasmo y unión entre la gente.

Yo creo

que es bueno

que el mundo se entere de

que esto nos quita un poco la tristeza

que nos da

cuando hablamos de las cosas de Colombia en estos días.
APPENDIX  BB

EL MATE (elaborado)

1. El mate
2. es una planta
3. en principio,
4. la yerba mate,
5. que crece
6. nada más
7. en el noroeste
8. de Argentina,
9. sur de Brasil,
10. y parte
11. de Paraguay.
12. No crece
13. en ninguna
14. otra parte
15. del mundo.
16. Han intentado plantarla,
17. pero...,  
18. no hubo caso.
19. Se ve
20. que Dios eligió
21. este lugar,
22. y nos regaló
23. el mate
24. un regalo especial
25. sólo para nosotros.
26. como
27. un yuyo verde,
28. como
29. un té fuerte,
30. fuerte,
31. y es toda
32. una ceremonia
33. prepararlo,
34. y tomarlo.
35. Se toma
36. generalmente
37. en un zapallo chiquito,
38. en una calabacita
39. que se deja secar,
y después
hay que curarla.
La curas
con yerba.
Se deja
muchos días,
y todo.
Hay también
mates de madera.
Hay mates de plata
que se usaban mucho
en el siglo pasado,
y mates
que son
unas simples calabazas,
una simple
y humilde calabaza.
Y, si no,
los porteños,
que son
los que viven
en Buenos Aires,
que no tienen
mucho idea
de mate,
lo toman
en una latita,
pero
es horrible
el mate
en latita.
Bueno,
y para preparar
el mate
tienes que poner
la yerba,
que es como
el té ese:
bien,
bien fuerte.
Es toda verde.
Después,
una bombilla,
que es una pajita
de metal,
y el agua
tiene que estar justo antes de hervir, porque si llega a hervir tienes que tirarla porque ya no sirve. Se te fue el arte y... tú pones un poquito de agua en el mate y tienes que chupar de la bombilla. Y... el mate está hecho para ser compartido, o sea que tú tomas tu mate y se lo pasas a otra persona, y no tienes que limpiar la bombilla. La otra persona tiene que tomar del mismo lugar que tomaste tú. es medio asqueroso, pero a mí no me hace asco porque estoy acostumbrada a eso.
El mate
2. crece nada más
3. en el noroeste
4. de Argentina,
5. sur de Brasil,
6. y parte
7. de Paraguay.
8. No crece
9. en ninguna
10. otra parte
11. del mundo.
12. Han intentado plantarla,
13. pero...
14. no hubo caso.
15. Se ve
16. que Dios eligió
17. este lugar,
18. y nos regaló
19. el mate:
20. un regalo especial
21. sólo para nosotros.
22. Es como
23. un té fuerte,
24. fuerte,
25. y es toda
26. una ceremonia
27. prepararlo,
28. y tomarlo.
29. Se toma
30. generalmente
31. en un zapallo chiquito
32. que se deja secar,
33. y después
34. hay que curarlo.
35. Lo curas
36. con yerba
37. por muchos días,
38. y todo.
39. Hay también
40. matede madera;
41. y de plata,
42. que se usaban mucho
43. en el siglo
44. y mates
45. que son
46. unas simples calabazas.
47. Y, si no,
48. los porteños,
49. que no tienen
50. mucha idea
51. de mate,
52. lo toman
53. en una latita,
54. pero
55. es horrible
56. el mate así.
57. Bueno,
58. y para preparar
59. el mate
60. tienes que poner
61. la yerba,
62. que es bien,
63. bien fuerte,
64. y verde.
65. Después
66. usas una bombilla,
67. y el agua,
68. que tiene que estar
69. justo antes de hervir,
70. porque
71. si llega a hervir
72. tienes que tirarla
73. porque
74. ya no sirve.
75. Se te fue
76. el arte
77. del mate.
78. Y... tú pones
79. un poquito
80. de agua
81. en el mate
82. y tienes que chupar
83. de la bombilla.
84. Y..., el mate
85. está hecho
86. para ser compartido,
87. y no tienes que limpiar
88. la bombilla.
89. La otra persona
90. tiene que tomar
91. del mismo lugar
92. que tomaste tú.
93. Es medio asqueroso,
94. pero
95. a mí no me hace asco
96. porque
97. estoy acostumbrada.
APPENDIX DD
EL MATE(simplificado)

1. El mate
2. crece sólo
3. en el noroeste
4. de Argentina,
5. sur de Brasil,
6. y parte
7. de Paraguay.
8. No crece
9. en otra parte
10. del mundo.
11. Han intentado plantarlo,
12. pero..., no hubo caso.
13. Dios eligió
14. este lugar
15. y nos regaló
16. el mate.
17. Es un regalo especial
18. sólo para nosotros.
19. Es como
20. un té fuerte.
21. Es toda
22. una ceremonia
23. prepararlo,
24. tomarlo.
25. Lo toman
26. generalmente
27. en un zapallo chiquito.
28. Lo dejan a secar,
29. y después
30. lo curan.
31. Hay también
32. matices de madera.
33. Lo de plata
34. que son
35. los usaban mucho
36. en el siglo pasado.
37. Hay mates
38. con yerba
39. por muchos días.
40. Hay mates
41. que son
42. unas simples calabazas.
43. Los porteños
44. no tienen
45. mucha idea
46. de mate.
47. Lo toman
48. en una latita.
49. Es horrible
50. el mate así.
51. Para preparar
52. el mate,
53. tienes que poner
54. la yerba.
55. Es verde
56. y fuerte.
57. Después
58. usas una bombilla.
59. El agua
60. tiene que estar
61. justo antes de hervir.
62. Sí llega a hervir
63. tienes que tirarla
64. porque
65. ya no sirve.
66. Se te fue
67. el arte
68. del mate.
69. Tú pones
70. un poquito
71. de agua
72. en el mate
73. y tienes que chupar
74. de la bombilla.
75. El mate
76. es compartido
77. y no tienes que limpiar
78. la bombilla.
79 La otra persona
80. tiene que tomar
81. del mismo lugar
82. que tomaste tú.
83. Es medio asqueroso,
84. pero
85. a mí no me hace asco.
86. Estoy acostumbrada.
APPENDIX EE

EL JUEGO DE PELOTA (elaborado)

1. Este deporte,
2. el juego
3. de pelota,
4. se jugó
5. en la parte central
6. del continente
7. de América Central,
8. y en México.
9. El juego
10. de pelota
11. lo jugaron
12. los Toltecas
13. en primera instancia,
14. y luego
15. los Mayas.
16. Los Toltecas
17. y los Mayas
18. fueron unas civilizaciones
19. indias
20. precolombinas.
21. Este juego
22. se jugaba
23. en una cancha,
24. o sea
25. un campo
26. de juego,
27. que tenía
28. unas dimensiones
29. de treinta
30. por ochenta,
31. con dos muros,
32. o paredes
33. paralelas
34. de aproximadamente
35. ocho metros
36. de alto.
37. En la parte central,
38. los muros
39. tenían
40. dos anillos
41. circulares
42. verticales
43. a una altura
44. de seis metros
45. de alto.
46. El objetivo
47. de este juego
48. era tratar de,
49. o intentar
50. introducir
51. en los anillos
52. una pelota
53. de caucho,
54. o bola
55. de goma
56. endurecida,
57. para lo cual
58. tenían prohibido,
59. o sea
60. no podían
61. usar las manos.
62. La pelota,
63. o bola
64. de goma,
65. tenía que ser
66. golpeada,
67. o sea,
68. impulsada
69. con las caderas.
70. Si la pelota,
71. al caer
72. en el suelo,
73. el piso
74. de la cancha,
75. se moría;
76. es decir,
77. no volvía
78. al aire;
79. también
80. los contrincantes,
81. o jugadores,
82. morían.
83. Este juego
84. era una ceremonia
85. también
porque
había una relación
y agradar
a sus dioses.
Antes de
llevar a cabo,
o iniciar,
este juego
o ceremonia,
os jugadores
tenían que pasar
un proceso
de purificación,
o sea
de limpieza,
lo cual
inclusa
tomar baños
en un Temazcal,
a forma
de baño turco
o ruso,
y pasaban horas
practicando,
practicando
y practicando.
Este juego,
tenía varios niveles
de seriedad.
Cuando los contrincantes,
uno de los grupos
de jugadores,
perdían,
podían perder
sus pertenencias,
las cosas
que poseían,
or perder
su ropa.

Pero
había momentos
en que el juego
era sumamente importante,
y para esto
tenían que hacerse
132. sacrificios previos
133. antes del partido
134. y, los jugadores
135. también
136. podían perder
137. la vida,
138. es decir
139. morían.
EL JUEGO DE PELOTA (intacto)

1. Este juego
d2. de pelota
d3. se jugó
d4. en la parte central
d5. del continente,
d6. y en México.
d7. Lo jugaron
d8. los Toltecas
d9. en primera instancia,
d10. y luego
d11. los Mayas.
d12. Este juego
d13. se jugaba
d14. en una cancha
d15. que tenía
d16. unas dimensiones
d17. de treinta metros
d18. por ochenta,
d19. con dos muros
d20. paralelos
d21. de aproximadamente
d22. ocho metros
d23. de alto,
d24. En la parte central,
d25. dos anillos
d26. a una altura
d27. de seis metros.
d28. El objetivo
d29. de este juego
d30. era tratar de
d31. introducir
d32. en los anillos
d33. una pelota
d34. de caucho
d35. endurecida,
d36. para lo cual
d37. tenían prohibido
d38. usar las manos.
d39. La pelota
tenía que ser
golpeada
con las caderas.
Si la pelota,
al caer
en el suelo,
se moría,
también
los contrincantes
morían.
Este juego
era una ceremonia
también
porque
había una relación
entre jugar
y agradar
tu sus dioses.
Antes de
llevar a cabo
este juego,
los jugadores
tenían que pasar
un proceso
de purificación,
o cual
tenía
tomar baños
en un Temazcal,
y pasaban horas
practicando,
practicando
y practicando.
Este juego
tenía varios niveles
de seriedad.
Cuando los contrincantes
perdían,
podían perder
sus pertenencias
o perder
su ropa.
Pero
había momentos
en que el juego
era sumamente importante,
86. y para esto
87. tenían que hacerse
88. sacrificios previos,
89. y los jugadores
90. también
91. perdían la vida.
APPENDIX GG

EL JUEGO DE PELOTA (simplificado)

1. Este juego
2. de pelota
3. lo jugaron
4. los Toltecas
5. y los mayas
6. en la parte central
7. del continente,
8. y en México.
9. Este juego
10. lo jugaban
11. en una cancha.
12. Esta tenía
13. unas dimensiones
14. de treinta metros
15. por ochenta.
16. Tenía dos muros
17. paralelos
18. de aproximadamente
19. ocho metros
20. de alto.
21. En la parte central
22. tenía
23. dos anillos
24. a una altura
25. de seis metros.
26. El objetivo
27. de este juego
28. era tratar de
29. introducir
30. una pelota
31. de caucho
32. endurecida
33. en los anillos.
34. Tenían prohibido
35. usar las manos.
36. Golpeaban
37. la pelota
38. con las caderas.
39. Si la pelota
caía al suelo,
y se moría,
también
los contrincantes
morían.
Este juego
era una ceremonia
también.
Había una relación
entre jugar
y agradar
da sus dioses.
Antes de jugar,
los jugadores
pasaban un proceso
de purificación.
Esto incluía
tomar baños
en un Temazcal.
Pasaban horas
practicando,
practicando
y practicando.
Este juego
tenía varios niveles
de seriedad.
Cuando
los contrincantes perdían,
podían perder
sus pertenencias,
o perder
su ropa.
Había momentos
en el juego
que eran sumamente importantes.
Hacían sacrificios
previos.
En estas ocasiones,
los jugadores
podían perder
la vida
también.
APPENDIX HH

LA VUELTA A COLOMBIA (elaborado)

1. La vuelta
2. a Colombia,
3. un importante
4. torneo ciclístico
5. anual
6. es un evento
7. deportivo
8. que involucra
9. a todas
10. las regiones,
11. o departamentos,
12. del país.
13. Aquí tenemos
14. uno de los deportes
15. más tradicionales
16. en Colombia,
17. que es el ciclismo.
18. Entonces,
19. esta vuelta ciclista
20. a Colombia
21. tiene obstáculos magníficos,
22. porque
23. el objetivo es
24. que se trata
25. de atravesar
26. las montañas,
27. la cordillera
28. de los Andes,
29. los valles,
30. las montañas
31. y la selva,
32. en una competencia
33. de verdaderos héroes.
34. Cada región
35. del país
36. lanza
37. su más famoso ciclista,
38. atleta del ciclismo,
39. y lo apoya,
40. y lo entusiasma,
41. y la gente sale
42. a los caminos,
43. las carreteras
44. para aplaudir
45. y saludar
46. a sus héroes
47. del ciclismo.
48. Este evento
49. trae mucho entusiasmo.
50. La radio
51. y la televisión...
52. y los periódicos
53. informan
54. sobre este evento
55. o acontecimiento,
56. y hay rivales
57. tradicionales
58. dentro del país.
59. El acontecimiento,
60. esta carrera ciclística,
61. trasciende las fronteras
62. de Colombia
63. porque
64. siempre
65. se manda
66. representantes de...
67. ciclistas
68. a otros lugares
69. o regiones
70. del mundo:
71. España,
72. Guatemala,
73. a Francia,
74. donde está
75. la famosa carrera
76. la vuelta a Francia,
77. y también
78. a Italia.
79. Ahí siempre
80. los ciclistas
81. colombianos
82. tienen triunfos,
83. o sea
84. ganan,
85. en las carreras.
86. Es una tradición bonita
87. porque
88. es un deporte
89. de familia.
90. Todos los domingos,
91. si tú vas
92. a Bogotá,
93. la gente sale
94. a andar,
95. o montar
96. en bicicleta.
97. Bogotá es una ciudad
98. de ocho millones
99. de habitantes
100. o personas,
101. y las grandes avenidas
102. se cierran
103. para que
104. las familias
105. salgan
106. a montar
107. en bicicleta:
108. los padres,
109. mamá,
110. papá,
111. y niños.
112. Los papás
113. o padres
114. entrenan
115. a sus niñitos
116. desde pequeños
117. para que sean
118. los grandes héroes
119. del futuro
120. en este evento,
121. o carrera ciclística.
122. Es bueno
123. porque
124. el deporte
125. es saludable.
126. Trae entusiasmo,
127. unión
128. entre la gente
129. y yo creo
130. que es bueno
131. que el mundo
se entere
de que esto
nos quita
un poquito
la tristeza
que nos da
cuando hablamos
de las cosas
de Colombia
en estos días
APPENDIX II

LA VUELTA A COLOMBIA (intacto)

1. La vuelta
2. a Colombia
3. es un evento
depor civo
5. que involucra
6. a todas
7. las regiones
8. del país.
9. Aquí tenemos
10. uno de los deportes
11. más tradicionales
12. en Colombia,
13. que es el ciclismo.
14. Entonces,
15. esta vuelta
16. a Colombia
17. tiene obstáculos magníficos
18. porque
19. se trata
de atravesar
21. la cordillera
22. de los Andes,
23. los valles,
24. las montañas,
y la selva,
en una competencia
de verdaderos héroes.
28. Cada región
29. del país
30. lanza
31. su más famoso
ciclista,
y lo apoya,
y lo entusiasma,
y la gente
36. sale
37. a los caminos,
38. las carreteras
39. para aplaudir
y saludar
a sus héroes
del ciclismo.
Entonces,
este evento
trae mucho entusiasmo,
lá radio
y la televisión...
Los periódicos
informan sobre
este acontecimiento,
y hay rivales
tradicionales
dentro del país.
El acontecimiento
trasciende
las fronteras
de Colombia
porque
siempre
se manda
representantes de...
ciclistas
a otras regiones
del mundo,
España,
Guatemala,
a Francia,
donde está
la famosa carrera,
y también
a Italia.
Ahí siempre
los ciclistas
colombianos
tienen triunfos
en estas carreras.
Es una tradición,
y es una tradición
bonita
porque
es un deporte
de familia.
Todos los domingos,
sí tú vas
a Bogotá,
la gente sale a montar en bicicleta. Es una ciudad de ocho millones de habitantes, y las grandes avenidas se cierran para que las familias salgan a montar en bicicleta; mamás, papás, y niños. Los papás entrenan a sus niñitos desde pequeños para que sean los grandes héroes del futuro. En este evento. Es bueno. El deporte es saludable. Trae entusiasmo, unión entre la gente. Y yo creo que es bueno que el mundo se entere de que esto nos quita un poquito la tristeza que nos da cuando hablamos de las cosas de Colombia. En estos días.
APPENDIX JJ

LA VUELTA A COLOMBIA (simplificado)

1. La vuelta
2. a Colombia
3. es un evento
4. deportivo
5. que involucra a
6. todas las regiones
7. del país.
8. El ciclismo
9. es uno
10. de los deportes
11. más tradicionales
12. en Colombia.
13. Esta vuelta
14. a Colombia
15. tiene obstáculos magníficos.
16. Se trata
17. de atravesar
18. la cordillera
19. de los Andes,
20. los valles,
21. las montañas
22. y la selva.
23. en una competencia
24. de verdaderos héroes.
25. cada región
26. del país
27. lanza
28. su más famoso
29. ciclista,
30. y lo apoya,
31. y lo entusiasma.
32. La gente
33. sale
34. a los caminos
35. y las carreteras.
36. Aplauden
37. y saldan
38. a sus héroes
39. del ciclismo.
Este evento trae mucho entusiasmo. La radio, la televisión y los periódicos informan sobre este acontecimiento. Hay rivales tradicionales dentro del país. El acontecimiento transcende las fronteras de Colombia. Siempre mandan representantes de... ciclistas a otras regiones del mundo: a España, a Guatemala, a Francia donde está la famosa carrera y también a Italia. Los ciclistas colombianos siempre tienen triunfos en las carreras. Es una tradición bonita. Es un deporte de familia. Bogotá es una ciudad de ocho millones de habitantes. Todos los domingos, la gente sale a montar en bicicleta. Las grandes avenidas se cierran. Las familias
86. salen  
87. a montar  
88. en bicicleta.  
89. Salen  
90. Mamá,  
91. papá,  
92. y niños.  
93. Los papás  
94. entrenan  
95. a sus niñitos  
96. desde pequeños  
97. para ser  
98. los grandes héroes  
99. del futuro  
100. en este evento.  
101. Esto es bueno.  
102. El deporte  
103. es saludable.  
104. Trae entusiasmo  
105. y unión  
106. entre la gente.  
107. Yo creo  
108. que es bueno  
109. que el mundo  
110. se entere  
111. de que esto  
112. nos quita  
113. un poco  
114. la tristeza  
115. que nos da  
116. cuando hablamos  
117. de las cosas  
118. de Colombia  
119. en estos días.
APPENDIX KK

EL MATE (ELABORATED)

Account of all propositions understood by subjects:

1. El mate 3 = 30%
2. es una planta 4 = 40%
3. que crece 3 = 30%
4. nada más 1 = 10%
5. en el noroeste 2 = 20%
6. de Argentina 9 = 90%
7. sur de Brasil 1 = 10%
8. y parte 1 = 10%
9. de Paraguay 5 = 50%
10. No crece 3 = 30%
11. en ninguna 3 = 30%
12. otra parte 3 = 30%
13. del mundo 2 = 20%
14. un té fuerte 1 = 10%
15. fuerte 1 = 10%
16. una ceremonia 1 = 10%
17. prepararlo 3 = 30%
18. y tomarlo 1 = 10%
19. mates de madera 1 = 10%
49. Hay mates de plata 1 = 10%
53. que son 1 = 10%
54. unas simples calabazas 1 = 10%
62. en Buenos Aires 2 = 20%
73. y para preparar 1 = 10%
78. el té ese 1 = 10%
83. una bombilla 1 = 10%
100. en el mate 1 = 10%
105. para ser compartido 1 = 10%
107. tú tomas 1 = 10%
110. a otra persona 2 = 20%
111. y no tienes que limpiar 1 = 10%
113. la otra persona 2 = 20%
114. tiene que tomar 2 = 20%
115. del mismo lugar 2 = 20%
116. que tomaste tú 2 = 20%
117. es medio asqueroso 1 = 10%
118. pero 1 = 10%
119. a mí no me hace asco 1 = 10%
120. porque 1 = 10%
121. estoy acostumbrado 1 = 10%
122. a eso 1 = 10%
APPENDIX LL

EL MATE (INTACT)

Account of all propositions understood by subjects:

1. El mate 1 = 10%
4. de Argentina 6 = 60%
5. sur de Brasil 2 = 20%
6. y parte 1 = 10%
7. de Paraguay 4 = 40%
11. del mundo 2 = 20%
20. un regalo especial 1 = 10%
21. sólo para nosotros 1 = 10%
28. y tomarlo 1 = 10%
63. bien fuerte 1 = 10%
78. Y...tú pones 1 = 10%
80. de agua 2 = 20%
### APPENDIX MM

#### EL MATE (SIMPLIFIED)

Account of all propositions understood by subjects:

<table>
<thead>
<tr>
<th>Proposition</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>El mate</td>
<td>2</td>
</tr>
<tr>
<td>de Argentina</td>
<td>9</td>
</tr>
<tr>
<td>sur de Brasil</td>
<td>1</td>
</tr>
<tr>
<td>de Paraguay</td>
<td>5</td>
</tr>
<tr>
<td>en otra parte</td>
<td>1</td>
</tr>
<tr>
<td>del mundo</td>
<td>1</td>
</tr>
<tr>
<td>Dios eligió</td>
<td>1</td>
</tr>
<tr>
<td>prepararlo</td>
<td>3</td>
</tr>
<tr>
<td>y tomarlo</td>
<td>1</td>
</tr>
<tr>
<td>en el siglo pasado</td>
<td>1</td>
</tr>
<tr>
<td>y fuerte</td>
<td>3</td>
</tr>
<tr>
<td>El agua</td>
<td>6</td>
</tr>
<tr>
<td>Tú pones</td>
<td>1</td>
</tr>
<tr>
<td>de agua</td>
<td>1</td>
</tr>
</tbody>
</table>
**APPENDIX NN**

**EL JUEGO DE PELOTA (elaborated)**

Account of all propositions understood by subjects:

<table>
<thead>
<tr>
<th>Proposition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. el juego</td>
<td>30%</td>
</tr>
<tr>
<td>3. de pelota</td>
<td>30%</td>
</tr>
<tr>
<td>4. se jugó</td>
<td>30%</td>
</tr>
<tr>
<td>7. de América Central</td>
<td>90%</td>
</tr>
<tr>
<td>8. y en México</td>
<td>100%</td>
</tr>
<tr>
<td>11. lo jugaron</td>
<td>20%</td>
</tr>
<tr>
<td>12. los Toltecas</td>
<td>20%</td>
</tr>
<tr>
<td>13. en primera instancia</td>
<td>70%</td>
</tr>
<tr>
<td>15. los Mayas</td>
<td>10%</td>
</tr>
<tr>
<td>19. indias</td>
<td>20%</td>
</tr>
<tr>
<td>22. se jugaba</td>
<td>10%</td>
</tr>
<tr>
<td>23. en una cancha</td>
<td>20%</td>
</tr>
<tr>
<td>29. de treinta</td>
<td>10%</td>
</tr>
<tr>
<td>32. o paredes</td>
<td>10%</td>
</tr>
<tr>
<td>40. dos anillos</td>
<td>10%</td>
</tr>
<tr>
<td>46. El objetivo</td>
<td>10%</td>
</tr>
<tr>
<td>47. de este juego</td>
<td>10%</td>
</tr>
<tr>
<td>48. era tratar de</td>
<td>10%</td>
</tr>
<tr>
<td>50. introducir</td>
<td>10%</td>
</tr>
</tbody>
</table>

250
51. en los anillos
52. una pelota
60. no podían usar
61. las manos
62. la pelota
70. Si la pelota
75. se moría
81. o jugadores
82. morían
83. Este juego
84. era una ceremonia
85. también
97. los jugadores
99. un proceso
100. de purificación
102. de limpieza
105. tomar baños
110. y pasaban horas
111. practicando
118. uno de los grupos
120. perdían
126. su ropa
130. era sumamente importante
134. y los jugadores  
136. podían  
137. la vida  
139. morían

2 = 20%
2 = 20%
2 = 20%
4 = 40%
APPENDIX 00

EL JUEGO DE PELOTA (INTACTO)

Account of all propositions understood by subjects:

1. Este juego 2 = 20%
2. de pelota 2 = 20%
5. del continente 2 = 20%
6. y en México 7 = 70%
7. lo jugaron 1 = 10%
11. los Mayas 3 = 30%
13. se jugaba 2 = 20%
14. en una cancha 1 = 10%
18. por ochenta 2 = 20%
37. tenían prohibido 1 = 10%
39. las manos 2 = 20%
39. La pelota 1 = 10%
41. golpeada 1 = 10%
62. los jugadores 2 = 20%
71. practicando 9 = 90%
82. su ropa 2 = 20%
86. era sumamente importante 2 = 20%
APPENDIX PP

EL JUEGO DE PELOTA (SIMPLIFIED)

Account of all propositions understood by subjects:

1. Este juego 7 = 70%
2. de pelota 6 = 60%
3. lo jugaron 4 = 40%
4. Los Toltecas 3 = 30%
5. y los Mayas 7 = 70%
6. en la parte central 6 = 60%
7. del continente 2 = 20%
8. y en México 10 = 100%
11. en una cancha 1 = 10%
13. unas dimensiones 1 = 10%
14. de treinta metros 2 = 20%
15. por ochenta 1 = 10%
16. tenía dos muros 1 = 10%
17. paralelos 1 = 10%
19. ocho metros 3 = 30%
20. de alto 1 = 10%
21. En la parte central 1 = 10%
23. dos anillos 1 = 10%
25. de seis metros 2 = 20%
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>31. <strong>en los anillos</strong></td>
<td>1 = 10%</td>
<td></td>
</tr>
<tr>
<td>33. <strong>las manos</strong></td>
<td>2 = 20%</td>
<td></td>
</tr>
<tr>
<td>39. <strong>y se moría</strong></td>
<td>1 = 10%</td>
<td></td>
</tr>
<tr>
<td>40. <strong>también</strong></td>
<td>1 = 10%</td>
<td></td>
</tr>
<tr>
<td>44. <strong>era una ceremonia</strong></td>
<td>2 = 20%</td>
<td></td>
</tr>
<tr>
<td>50. <strong>a sus dioses</strong></td>
<td>1 = 10%</td>
<td></td>
</tr>
<tr>
<td>51. <strong>Antes de jugar</strong></td>
<td>2 = 20%</td>
<td></td>
</tr>
<tr>
<td>52. <strong>los jugadores</strong></td>
<td>2 = 20%</td>
<td></td>
</tr>
<tr>
<td>53. <strong>pasaban un proceso</strong></td>
<td>2 = 20%</td>
<td></td>
</tr>
<tr>
<td>54. <strong>de purificación</strong></td>
<td>1 = 10%</td>
<td></td>
</tr>
<tr>
<td>55. <strong>Esto incluía</strong></td>
<td>1 = 10%</td>
<td></td>
</tr>
<tr>
<td>56. <strong>tomar baños</strong></td>
<td>6 = 60%</td>
<td></td>
</tr>
<tr>
<td>61. <strong>y practicando</strong></td>
<td>5 = 50%</td>
<td></td>
</tr>
<tr>
<td>66. <strong>los contrincantes</strong></td>
<td>2 = 20%</td>
<td></td>
</tr>
<tr>
<td>68. <strong>podían perder</strong></td>
<td>1 = 10%</td>
<td></td>
</tr>
<tr>
<td>70. <strong>su ropa</strong></td>
<td>4 = 40%</td>
<td></td>
</tr>
</tbody>
</table>
**APPENDIX QQ**

**LA VUELTA A COLOMBIA (ELABORATED)**

Account of all propositions understood by subjects:

1. La vuelta 1 = 10%
2. a Colombia 10 = 100%
3. un importante 2 = 20%
6. es un evento 1 = 10%
12. del país 1 = 10%
14. uno de los deportes 1 = 10%
15. más tradicionales 1 = 10%
17. que es el ciclismo 3 = 30%
26. las montañas 7 = 70%
28. de los andes 1 = 10%
29. los valles 2 = 20%
31. y la selva 1 = 10%
37. su más famoso ciclista 1 = 10%
41. y la gente sale 2 = 20%
47. del ciclismo 1 = 10%
50. la radio 3 = 30%
51. y la televisión 5 = 50%
52. y los periódicos 3 = 30%
53. informan 1 = 10%

256
68. a otros lugares 1 = 10%
70. del mundo 1 = 10%
71. España 6 = 60%
72. Guatemala 2 = 20%
73. a Francia 4 = 40%
76. la vuelta a Francia 2 = 20%
78. a Italia 7 = 70%
80. los ciclistas 1 = 10%
88. es un deporte 1 = 10%
89. de familia 1 = 10%
90. Todos los domingos 5 = 50%
93. La gente sale 6 = 60%
94. a andar 6 = 60%
96. en bicicleta 6 = 60%
97. Bogotá 3 = 30%
98. de ocho millones 2 = 20%
99. de habitantes 2 = 20%
104. las familias 8 = 80%
105. salgan 4 = 40%
106. a montar 6 = 60%
107. en bicicleta 6 = 60%
108. los padres 1 = 10%
109. mamá 1 = 10%
110. papá 1 = 10%
111. y niños 2 = 20%
112. Los papás 1 = 10%
114. entrenan 1 = 10%
115. a sus niñitos 1 = 10%
116. desde pequeños 1 = 10%
124. el deporte 1 = 10%
APPENDIX RR
LA VUELTA A COLOMBIA (INTACTO)

Account of all propositions understood by subjects:

2. a Colombia 10 =100%

11. más tradicionales 2 = 20%

13. que es el ciclismo 1 = 10%

22. de los andes 1 = 10%

23. los valles 2 = 20%

24. las montañas 7 = 70%

35. y la gente 3 = 30%

47. y la televisión 2 = 20%

49. informan sobre 1 = 10%

65. a España 1 = 10%

66. Guatemala 1 = 10%

67. a Francia 3 = 30%

71. a Italia 1 = 10%

77. Es una tradición 1 = 10%

85. a Bogotá 1 = 10%

96. las familias 5 = 50%

98. a montar 4 = 40%

99. en bicicleta 6 = 60%

100. mamá 6 = 60%

259
101. papá 6 = 60%
102. y niños 6 = 60%
103. Los papás 1 = 10%
105. a sus niñitos 1 = 10%
111. Es bueno 1 = 10%
113. es saludable 1 = 10%
APPENDIX SS

LA VUELTA A COLOMBIA (SIMPLIFIED)

Account of all propositions understood by subjects:

2. a Colombia  
   10 = 100%

3. es un evento  
   1 = 10%

4. deportivo  
   1 = 10%

19. de los andes  
   1 = 10%

20. los valles  
   3 = 30%

21. las montañas  
   6 = 60%

22. y la selva  
   2 = 20%

26. del país  
   1 = 10%

42. la radio  
   5 = 50%

43. la televisión  
   7 = 70%

44. y los periódicos  
   1 = 10%

45. informan sobre  
   1 = 10%

46. este acontecimiento  
   1 = 10%

59. a españa  
   3 = 30%

61. a Francia  
   3 = 30%

65. a Italia  
   3 = 30%

73. Es un deporte  
   1 = 10%

74. de familia  
   1 = 10%

75. Bogotá  
   2 = 20%

261
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>79. Todos los domingos</td>
<td>2 = 20%</td>
</tr>
<tr>
<td>80. la gente</td>
<td>3 = 30%</td>
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<tr>
<td>81. sale a montar</td>
<td>2 = 20%</td>
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<tr>
<td>82. en bicicleta</td>
<td>2 = 20%</td>
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<tr>
<td>85. Las familias</td>
<td>7 = 70%</td>
</tr>
<tr>
<td>86. salen</td>
<td>3 = 30%</td>
</tr>
<tr>
<td>87. a montar</td>
<td>4 = 40%</td>
</tr>
<tr>
<td>88. en bicicleta</td>
<td>4 = 40%</td>
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<tr>
<td>90. Mamá</td>
<td>7 = 70%</td>
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<tr>
<td>91. Papá</td>
<td>8 = 80%</td>
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<td>92. y niños</td>
<td>6 = 60%</td>
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<td>2 = 20%</td>
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<tr>
<td>95. a sus niñitos</td>
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<tr>
<td>96. desde pequeños</td>
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</tr>
<tr>
<td>102. El deporte</td>
<td>1 = 10%</td>
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APPENDIX TT

Raw Scores by Text and Complexity

EM.e (El mate; elaborado)

1 03
2 08
3 03
4 28
5 10
6 01
7 03
8 03
9 12
10 04

EM.i (El mate; intacto)

1 01
2 02
3 02
4 01
5 02
6 00
7 00
8 02
9 10
10 03

EM.s (El mate; simplificado)

1 04
2 03
3 03
4 02
5 03
6 07
7 02
8 02
9 03
10 06

263
VC.e  (La vuelta a Colombia; elaborado)

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<td>13</td>
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<tr>
<td>10</td>
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VC.i  (La vuelta a Colombia; intacto)

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<td>10</td>
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VC.s  (La vuelta a Colombia; simplificado)

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<td>04</td>
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<td>9</td>
<td>08</td>
</tr>
<tr>
<td>10</td>
<td>11</td>
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</table>
JP.e  (El juego de pelota; elaborado)

1  08
2  13
3  18
4  01
5  03
6  15
7  20
8  08
9  07
10 10

JP.i  (El juego de pelota; intacto)

1  05
2  03
3  04
4  05
5  03
6  06
7  04
8  06
9  03
10  01

JP.s  (El juego de pelota; simplificado)

1  05
2  07
3  11
4  08
5  06
6  08
7  05
8  04
9  25
10 13
APPENDIX UU

Analyses of Variance by Complexities

1. ANOVA of Complexity 1 (elaborated) on the Three Texts

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<tr>
<th>Source</th>
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<th>MS</th>
<th>F-value</th>
<th>P &gt; F</th>
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<tbody>
<tr>
<td>Model</td>
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<td>192.80</td>
<td>96.40</td>
<td>1.84</td>
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<td>27</td>
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<td>Cor. Tot.</td>
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2. ANOVA of Complexity 2 (intact) on the Three Texts

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<tr>
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3. ANOVA of Complexity 3 (simplified) on the Three Texts

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APPENDIX VV

Analyses of Variance by Texts

1. ANOVA of Text 1 (El mate) on the Three Complexities

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<td>0.0705</td>
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2. ANOVA of Text 2 (La vuelta a Colombia) on the Three Complexities

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<th>F-value</th>
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3. ANOVA of Text 3 (El juego de pelota) on the Three Complexities

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APPENDIX WW

Student Questionnaire

(This student questionnaire was used in the pilot study as well as in the final experiment.)

1. Are you a native speaker of English.
   Yes              No

2. Please rate the text you have just heard as follows:
   5  4  3  2  1

   5 = Very Difficult
   4 = Difficult
   3 = Fair
   2 = Easy
   1 = Very Easy

3. Please write any comments about the task you have just done.