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The effect of interest level in selected text topics on second language reading comprehension

LeLoup, Jean Willis, Ph.D.
The Ohio State University, 1993

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The Effect of Interest Level in Selected Text Topics on Second Language Reading Comprehension

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

By
Jean Willis LeLoup, B.A., M.A., M.Ed.

****

The Ohio State University
1993

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v
# TABLE OF CONTENTS

DEDI CATION ......................................................................................................... ii
ACKNOW LE DMENTS .................................................................................. iii
VITA ....................................................................................................................... v
LIST OF TABLES .............................................................................................. ix
LIST OF FIGURES ............................................................................................. x

I. THE PROBLEM ......................................................................................... 1
   INTRODUCTION ...................................................................................... 1
   STATEMENT OF THE PROBLEM ........................................................ 2
   SIGNIFICANCE OF THE PROBLEM .................................................. 5
       Relation to Background Knowledge ............................................... 6
   PURPOSE OF THE STUDY ..................................................................... 8
   DEFINITION OF TERMS ....................................................................... 8
   ASSUMPTIONS ......................................................................................... 9
   LIMITATIONS ........................................................................................... 10

II. REVIEW OF THE LITERATURE .......................................................... 11
   OVERVIEW ............................................................................................. 11
   L1 RESEARCH PERSPECTIVE .............................................................. 12
       Relation of interest to reading comprehension .............................. 12
       Relation of prior knowledge to reading comprehension .......... 17
   L2 RESEARCH PERSPECTIVE .............................................................. 21
       Relation of prior knowledge to reading comprehension ............ 21
       Relation of interest to L2 performance in all skill areas .......... 27
   CHAPTER SUMMARY ............................................................................. 30

III. DESIGN AND PROCEDURES ................................................................. 32
   POPULATION AND SAMPLE ................................................................ 32
   RESEARCH DESIGN .............................................................................. 33
   VARIABLES ............................................................................................. 33
       Independent Variables .................................................................. 33
       Dependent Variable ...................................................................... 34
INSTRUMENTATION ................................................................. 34
  Background Knowledge Probes ......................................... 34
  Interest Ranking .................................................................. 34
  Interest Rating ....................................................................... 35
  Text Selection ......................................................................... 35
  Recall Protocols ..................................................................... 35
  Personal Data Questionnaire ................................................... 36

PROCEDURES AND DATA COLLECTION ................................................... 36
  Pre-experiment .......................................................................... 36
  Experiment ................................................................................ 37

PILOT STUDY ...................................................................................... 38

DATA ANALYSIS ...................................................................................... 38

IV. RESULTS AND DISCUSSION ............................................................. 40

INTRODUCTION .................................................................................... 40
  Level of Spanish Class .............................................................. 41

OVERVIEW ................................................................................................ 44

DESCRIPTIVE DATA .......................................................................... 44
  Means and Standard Deviations ............................................... 44
  Correlations ................................................................................ 51

INFERENTIAL DATA ............................................................................ 54
  First Research Question ............................................................. 54
  Second Research Question ............................................................ 56
  Third Research Question ............................................................... 58
  Fourth Research Question ............................................................. 65
  Fifth Research Question ............................................................... 65

DISCUSSION ........................................................................................ 66
  Means and Standard Deviations ............................................... 66
  Correlations ................................................................................ 68
  Statistical Analyses: ANCOVA and Hierarchical Regression Models ............................................................... 69

SUMMARY .............................................................................................. 74

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS ...................... 76

OVERVIEW OF THE STUDY ................................................................. 76

SUMMARY OF FINDINGS AND CONCLUSIONS ..................................... 77
  Overview .................................................................................... 77
  Descriptive Data ........................................................................... 78
    Means, standard deviations, and range ....................................... 78
    Correlations ................................................................................. 80
  ANOVA .......................................................................................... 90
  Inferential Data: ANCOVA Analysis and Hierarchical Regression Analyses ............................................................... 91
Overview ................................................................. 91
ANCOVA ............................................................. 91
Hierarchical Regression Analyses ....................... 93
Female Subjects at High Interest Level ................ 93
Female Subjects at Low Interest Level .................. 94
Male Subjects at High Interest Level ..................... 96
Male Subjects at Low Interest Level ....................... 96
Summary .............................................................. 96
CONCLUSIONS AND IMPLICATIONS FOR PEDAGOGY .... 98
RECOMMENDATIONS FOR RESEARCH .................. 102
LIMITATIONS ......................................................... 103
APPENDIX A .......................................................... 105
APPENDIX B .......................................................... 106
APPENDIX E .......................................................... 129
APPENDIX F .......................................................... 130
APPENDIX G .......................................................... 131
APPENDIX H .......................................................... 132
APPENDIX I .......................................................... 133
List of References .................................................... 134
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Means and Standard Deviations of L2 Ability for All Subjects By Level of Spanish Class</td>
<td>43</td>
</tr>
<tr>
<td>Table 2</td>
<td>ANOVA of L2 Ability by Level of Spanish Class</td>
<td>43</td>
</tr>
<tr>
<td>Table 3</td>
<td>Means and Standard Deviations of All Variables for All Subjects By Interest Level</td>
<td>46</td>
</tr>
<tr>
<td>Table 4</td>
<td>Means and Standard Deviations of All Variables for Female Subjects By Interest Level</td>
<td>48</td>
</tr>
<tr>
<td>Table 5</td>
<td>Means and Standard Deviations of All Variables for Male Subjects By Interest Level</td>
<td>50</td>
</tr>
<tr>
<td>Table 6</td>
<td>Correlation Among Variables for All Subjects</td>
<td>53</td>
</tr>
<tr>
<td>Table 7</td>
<td>ANCOVA of Recall Protocol Scores Within Effect: Interest</td>
<td>55</td>
</tr>
<tr>
<td>Table 8</td>
<td>ANCOVA of Recall Protocol Scores Between Effect: Gender</td>
<td>57</td>
</tr>
<tr>
<td>Table 9</td>
<td>Summary of Hierarchical Regression Analysis for Female Subjects at High Interest Level</td>
<td>59</td>
</tr>
<tr>
<td>Table 10</td>
<td>Summary of Hierarchical Regression Analysis for Female Subjects at Low Interest Level</td>
<td>61</td>
</tr>
<tr>
<td>Table 11</td>
<td>Summary of Hierarchical Regression Analysis for Male Subjects at High Interest Level</td>
<td>62</td>
</tr>
<tr>
<td>Table 12</td>
<td>Summary of Hierarchical Regression Analysis for Male Subjects at Low Interest Level</td>
<td>64</td>
</tr>
<tr>
<td>Table 13</td>
<td>Interest Ratings Per Topic, by Pre-and Post-Reading Designation</td>
<td>100</td>
</tr>
<tr>
<td>Table 14</td>
<td>Comparison of Pre- and Post-Ratings and Comprehension Scores</td>
<td>101</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure 1. Effect of Background Knowledge (BK) on Low Interest L2 Reading Comprehension (SL) Moderated by L2 Ability (AB) ................................................... 71
Figure 2. Effect of L2 Ability (AB) on Low Interest L2 Reading Comprehension (SL) Moderated by Background Knowledge (BK) ........................................................ 71
Figure 3. Scatterplot of the Correlation Between the Scores for L2 Ability and Level of Spanish Class ....................................................... 82
Figure 4. Scatterplot of the Correlation Between the Scores for High Interest Reading Comprehension and L2 Ability ........................................................ 83
Figure 5. Scatterplot of the Correlation Between the Scores for Low Interest Reading Comprehension and L2 Ability ........................................................ 84
Figure 6. Scatterplot of the Correlation Between the Scores for High Interest Reading Comprehension and Low Interest Reading Comprehension ....................................... 85
Figure 7. Scatterplot of the Correlation Between the Scores for High Interest Reading Comprehension and Level of Spanish Class ........................................................ 86
Figure 8. Scatterplot of the Correlation Between the Scores for Low Interest Reading Comprehension and Level of Spanish Class ........................................................ 87
Figure 9. Scatterplot of the Correlation Between the Scores for High Interest Reading Comprehension and Background Knowledge ........................................................ 88
Figure 10. Scatterplot of the Correlation Between the Scores for Low Interest Reading Comprehension and Background Knowledge ........................................................ 89
Figure 11. Chart of the Results of the Hierarchical Regression Program for Female Subjects at High Interest Level .................. 95
Figure 12. Chart of the Results of the Hierarchical Regression Program for Female Subjects at Low Interest Level .......... 95
Figure 13. Chart of the Results of the Hierarchical Regression Program for Male Subjects at High Interest Level .......... 97
Figure 14. Chart of the Results of the Hierarchical Regression Program for Male Subjects at Low Interest Level .......... 97
CHAPTER I
THE PROBLEM

Introduction

The idea that interest has an impact on both comprehension and learning is not new. Nearly two centuries ago, Herbart (1806, cited in Schiefefe, 1992) postulated a very close relationship between interest and learning, arguing that interest is the primary force behind recognition of an object, meaningful learning, long-term storage of knowledge, and motivation for continued learning. Dewey (1913) also theorized about the relation among interest, motivation, and learning. Dewey saw interest as a primal factor in human nature, constantly dictating movement in one direction or another, whether subtly or not.

In other words, individuals are not passive beings with no activity or motion but are “always interested in one direction rather than another” (Dewey, 1913, p. 19). Unlike the proverbial inert donkey starving between two bales of hay, individuals act and react, steered in large part by their particular interests. Interest has no existence of its own, separate from individuals. Rather, it is “a phenomenon that emerges from an individual’s interaction with his or her environment” (Krapp, Hidi, & Renninger, 1992, p. 5). As such, interest is only significant in connection with a specific course of action, e.g., learning.
Early in this century, Dewey (1913) postulated differential results stemming from learning that is interest-based as opposed to learning that is based solely on mechanical effort. The notion that interest has an impact on learning is intuitively appealing. Until the last decade, however, research in this area was limited to a smattering of first language (L1) studies, primarily addressing the question of the relationship between interest and learning in terms of reading comprehension. These studies suffered from a number of drawbacks, a primary one being a lack of specificity in the definition of the concept of interest.

Recent research efforts have attempted to delineate the concept of interest that undergirds each particular study. A frequent distinction made is that of individual interest contrasted with situational interest. The former is generally accepted as "the relatively long-term orientation of an individual toward a type of object, an activity, or an area of knowledge" (Schiefele, 1992, p. 154). The latter, on the other hand, can be characterized as a feeling or reaction "generated primarily by certain conditions and/or concrete objects (e.g., texts, film) in the environment" (Krapp, Hidi, Renninger, 1992, p. 8). Individual interest is considered a psychological state within a person (Renninger, 1992; Schiefele, 1992), whereas situational interest is effected by an outside stimulus, e.g., interestingness of a text or seductive detail (Garner, Brown, Sanders, & Menke, 1992; Krapp, Hidi, Renninger, 1992). The conceptualization of interest used in the present study is that of individual interest.

Statement of the Problem
Interest has the potential of having a considerable impact on learning. What that impact is or could be is precisely the matter in question. Interest
may affect the way in which an individual approaches a task or activity. Level of interest may also affect the outcome of a given cognitive task or activity. Also, the effect of interest may be facilitative or deleterious (Hidi, Renninger, & Krapp, 1992).

Because interest is a psychological state, an affective factor peculiar to each person, it "is expected to vary between individuals and as such differentially influence the way in which they act" (Renninger, 1992, p. 363). This is of particular concern when considering design of instruction and implementation of classroom activities. Logic would dictate that tasks should make optimal use of such affective factors in order to maximize learning.

If reading comprehension is the goal, for example, an assumption may be that students will learn more if they are interested in the reading material. The natural presumption that follows is that interesting reading material will equal higher reading comprehension. Closer consideration of what seems like a simple concept, however, reveals a number of obstacles to be overcome. Clearly, any attempt to understand the way in which a reader interacts with a given text needs to examine both text-based features and extratextual components. Delineation of these components in a comprehensive way is beyond the scope of this study.

In addition, because of the multivariate nature of the reading process, it is difficult to isolate and define component parts in order to investigate the influence of each on the total phenomenon. Difficulty of investigation is particularly true with regard to affective factors, such as interest, because their effects can vary greatly among readers. As Shirey (1992) avers: "interest is not a text or task characteristic. It is a factor that the reader
brings to the reading situation (a reader-specific, or internal, characteristic)" (p. 292).

The early studies in L1 acquisition investigating the relation between interest and reading comprehension have suggested that not only does the relationship exist but also that it is enmeshed in a number of other factors. These studies suggest that high interest is associated with superior reading comprehension (Asher, 1979, 1980; Asher & Markell, 1974; Bernstein, 1955; Stanchfield, 1967), that the effects of interest are greater for readers of lower ability levels (Shnayer, 1969; Vaughan, 1975; Walker, Noland, & Greenshields, 1979), and that there appear to be gender-based differences, although the results of these studies are conflicting (Anderson, Shirey, Wilson, & Fielding, 1987; Asher & Markell, 1974; Asher, Hymel, & Wigfield, 1978; Klein, 1969, 1970, 1979).

Although these studies present significant findings, they are problematic in several ways. In a number of them, interest level was assessed after the fact (e.g., Bernstein, 1955; Shnayer, 1967). In some, the subjects were not surveyed as to topic preference (e.g., Klein, 1969; Stanchfield, 1967). It was merely assumed that the topics were interesting or uninteresting to the particular subjects. Indeed, one overall problem, mentioned above, is the lack of a definition or specification of the concept of interest itself.

More recently, L1 researchers have concentrated on the topic of the significance of interest for text comprehension from a variety of perspectives (Hidi & Baird, 1986). Research questions have been narrowed down and specified to differentiate the effects of individual or personal interest and situational interest. The general conclusion is "that both individual and situational interest have a positive influence on text comprehension"
The affective factor of interest, then, seemingly exerts an influence on L1 reading comprehension. Because the second language (L2) reading process is not merely the L1 reading process with different words, the next step is to see whether the relationship between interest and reading comprehension obtains in the L2 arena.

**Significance of the Problem**

Affective factors often figure prominently in discussions of second language acquisition (SLA) (Ellis, 1986; Gardner & Lambert, 1972; Larsen-Freeman & Long, 1992). An exploration of the role of affect in the L2 reading process must consider the reader and his or her background, environment, and individual differences (Bernhardt, 1986; Wallace, 1986). Certainly, one important difference that readers bring to the reading process is the level of interest in the text topic. Clearly, all people do not share the same interests. One person's interest is very likely another person's noninterest (Renninger, 1992). Consider, then, the L2 classroom where all students are learning to read, using the same materials. Their interest level may bear directly on their L2 reading comprehension.

Although several L1 studies have investigated the effect of interest level on reading comprehension, no comparable research has been done in the L2 arena. This is not to say that interest as an important factor in L2 reading comprehension has gone unnoticed. Indeed, it has been suggested that this factor could exercise a powerful influence in SLA. Twenty years ago, Rivers (1972) exhorted professionals in the field to attend to this important element:

Motivation to communicate...will need to be fostered by the intrinsic *interest* [italics added] of the task proposed for the students concerned. Such interest will make the interaction which follows autonomous: a genuine communication from one
person to another, not just another imposed act of pseudo-communication. (p. 78)

Hudson (1982) reiterates the importance of interest in the L2 reading process. He sees one component of the reading process as involving affective features that surround the reader "such as the reason(s) he or she is reading a particular passage, personal interest in the topic [italics added], reactions to the difficulty or ease of comprehending a passage, and interactions with others in the vicinity" (Hudson, 1982, p. 2). In spite of these exhortations, only a few SLA investigators have touched on topic interest as a secondary, albeit important, research finding (Bacon, 1985, 1990; Gatbonton & Tucker, 1971; James, 1986; Mueller, 1980; Tedick, 1988). Their findings suggest that interest is an important variable in SLA and bears further investigation.

Relation to Background Knowledge

It is intuitive that the amount of interest an individual manifests in a particular topic may be substantially determined by another variable: background or prior knowledge. Thus, it is logical to assume that a learner may demonstrate more interest in something about which he or she has a certain amount of previous information. Cognitive psychologists have theorized that differences in experiences and knowledge affect the meaning that individuals construct from any given event. If no pertinent ideational scaffolding is present in the individual's cognitive structure, the event will have little or no meaning. In other words, new information must be linked to "relevant, preexisting aspects of cognitive structure" (Ausubel, Novak, & Hanesian, 1968, p. 68) in order for the learning to be meaningful. Prior or background knowledge furnishes ideational anchorage during each new learning experience, thus enabling new concepts to become meaningful.
Clearly, something with little or no cognitive meaning can hardly be construed as interesting.

Numerous L1 studies indicate the existence of a relationship between prior knowledge and reading comprehension. Prior knowledge appears to be a critical factor in comprehension of text content, organization of recall, and text processing. Langer, in particular, has contributed extensively to the data base with her findings regarding prior knowledge and reading comprehension (e.g., Langer, 1980, 1981, 1982, 1984).

Having established a relationship between interest and reading comprehension, and between prior knowledge and reading comprehension, the question becomes: what is the interaction, if any, between interest and prior knowledge and their contribution to reading comprehension? One inadequacy of previous L1 studies of the relation of interest to reading comprehension is that very few of them control for such relevant variables as background or prior knowledge (Schiefele, 1992). A few studies that have included background knowledge as a variable have produced inconsistent results (e.g., Baldwin, Peleg-Bruckner, & McClintock, 1985; Garner & Gillingham, 1991; Hare & Devine, 1982).

In the L2 reading arena, no research has been done exploring interest in text topic as a primary variable or the link between interest and background knowledge and their concomitant effect on reading comprehension. Typical characteristics of interest as a psychological state are “increased attention, greater concentration, pleasant feelings of applied effort, and increased willingness to learn” (Krapp, Hidi, & Renninger, 1992, p. 9). Evidence of a relationship between and among these variables, then, could have important ramifications for SLA and, in particular, classroom instruction of the L2.
**Purpose of the Study**

The purpose of this study was to investigate the relationship between topic interest and reading comprehension of secondary learners of Spanish. A secondary concern centered on the impact of background knowledge on L2 reading comprehension.

The research questions addressed by the present study are as follows:

1. Is there a difference in L2 reading comprehension depending on level of interest in the text topic?
2. Is there a difference in L2 reading comprehension based on gender?
3. What is the unique contribution to L2 reading comprehension of each of the following:
   a. background knowledge of text topic.
   b. general L2 ability.
4. Does the unique contribution of each independent variable differ by level of interest in the text topic?
5. Do any of the independent variables interact to affect reading comprehension?

Another question addressed by the present study is whether or not the division of levels of Spanish class accurately reflect strata in L2 ability.

**Definition of Terms**

**Authentic Text/Passage:** Unedited material written by native Spanish speakers for native Spanish speakers. The texts are expository passages of approximately 250 words, delineating a series of related ideas or events.

**Background (Prior) Knowledge:** That knowledge of the world in general and the text topic in particular that a reader brings to a passage.
**Background Probe:** A free association measure using passage-specific cues in which the subjects have one minute to write everything they know about the text topic. It is scored using Langer's (1981, 1982) system.

**L2 General Ability:** The subjects' proficiency in the L2 as determined by their score on a test of general language ability in Spanish, modeled on a criterion-referenced test administered district-wide at the end of the school year, semester tests given in Spanish levels II-V, and grammar and vocabulary found in the texts used at each specific level of Spanish.

**Level of Spanish Class:** The denomination of Spanish class as indicated by course number (II-V).

**Pausal Unit:** A segment of text whose boundaries are delineated by being "acceptable for pausing to catch a breath, give emphasis to a story, or to enhance meaning" (Johnson, 1970, p. 13).

**Reading Comprehension:** The score obtained by a subject on a recall protocol of an authentic Spanish text, generated by analysis of weighted pausal units using Johnson's propositional analysis system (Johnson, 1970).

**Recall Protocol:** A procedure wherein subjects write in their native language everything they can recall about a passage immediately after reading it.

**Assumptions**

The proposed study was based on the following assumptions:

1. The subjects would perform all tasks to the best of their ability.
2. The recall protocol scores would accurately reflect reading comprehension (i.e., propositions recalled equal amount comprehended).
3. Scores on the Spanish test would accurately depict L2 general ability.
4. Texts were equivalent in level of reading difficulty.
5. Learners were literate native speakers of English.
6. The background probe would be a reliable indication of the subjects’ prior knowledge about a text topic.

**Limitations**

1. Subjects may be unfamiliar with the recall protocol procedure.
2. Subjects may be unfamiliar with the background probe procedure.
3. This study involved only one L2. Replication using learners of other L2s is recommended.
CHAPTER II

REVIEW OF THE LITERATURE

Overview

The present study sought to determine whether students' interest level in the subject matter has an impact on their reading comprehension in a L2. In addition, the issue of background knowledge is a factor that must be considered in ascertaining the effect of topic interest on reading comprehension. A subsequent question is one of the possibility of differential effects of these variables based on each student's L2 ability. Finally, of concern also is the issue of gender differences and their possible impact on the above-mentioned variables. The study thus examined the difference made by interest level in topic and the unique contribution of each of the following variables to L2 reading comprehension scores: (a) background knowledge of topic, (b) general L2 ability, and (c) gender.

Although several L1 experiments have addressed the notion of interest and its impact on reading comprehension, no studies have been done in the area of L2 reading with interest as a principal variable. A few have touched on interest as a secondary factor and have suggested that this affective factor plays a powerful role in the various L2 skill areas. Many L2 studies have treated background knowledge as a primary factor, establishing its presence
as a determining force, particularly in L2 reading comprehension. The review of literature, therefore, includes both L1 and L2 studies germane to the areas of investigation.

**L1 Research Perspective**

**Relation of interest to reading comprehension**

Several L1 studies have been conducted concerning the relationship between the affective factor of interest and reading comprehension. Bernstein (1955), in a seminal article, suggested that interest might have a strong impact on a pupil's reading comprehension. Her subjects, 100 ninth grade pupils in a large metropolitan junior high school, read a high interest and a low interest story, filled in interest rating scales, and took a comprehension test including objective and free response questions. The students performed significantly better statistically on the test of reading comprehension for the high interest story. Statistical analyses indicated no significant effect for general intelligence or order in which the stories were read (low-high/high-low interest). Bernstein averred that these results supported the hypothesis that high interest was associated with superior reading comprehension.

Stanchfield (1967) found similar results in her study of 400 first grade students and their reading comprehension. The students in the experimental group, reading the high-interest materials, performed considerably better on tests of comprehension than those in the control group. While this study corroborates Bernstein's findings, the problem lies with the assessment of interest being external to the subjects. The concept of interest was predetermined by the experimenter for the subjects and, in both cases,
included the idea of interestingness of text as well as personal interest in the topic.

Estes and Vaughan (1973) investigated the interests and reading comprehension of 46 fourth graders. The subjects' interests were directly assessed by an individual ranking system, thus compensating for the drawback in previous studies of externally determined interest. The difference between high- and low-interest comprehension proved to be statistically significant, supporting the hypothesis that interest is a potent factor in determining reading comprehension.

Asher and his colleagues (Asher, 1979, 1980; Asher, Hymel, & Wigfeld, 1978; Asher & Markell, 1974) have made a considerable contribution to the knowledge base of L1 reading comprehension, interest, and the relationship thereof. In his investigations, Asher (1979, 1980) assessed the interests and related reading comprehension of fifth graders. His evidence points overwhelmingly to an overall effect for interest level in topic as well as secondary differential effects discussed below.

Asher and his colleagues also attempted to control for numerous variables previously disregarded: e.g., gender, race, and contrast effect. Asher (1979) found no significant differences for race in the impact of interest on reading comprehension of 66 fifth-graders, although the black students comprehended less on the whole than their caucasian counterparts. Readings designated by the subjects as high interest were comprehended better than those designated as low interest, across the racial board. Asher, Hymel, & Wigfeld (1978) sought to determine if a shock or contrast effect operated in the interest experiments; i.e., the interest effect on the subjects is caused by the contrast of reading a mixture of materials of such divergent
interest. Their study of 75 fifth-grade subjects showed that the students comprehended more of high- than low-interest material, irrespective of the lack or presence of the contrast phenomenon.

Garner and Gillingham (1991) investigated cognitive interest, topic knowledge, and recall in a study involving 36 undergraduate psychology students. Overall results revealed that superior comprehension of text information was associated with high interest on both recall tasks. In an interesting interaction, moderate topic knowledge was associated with high cognitive interest, which in turn was related to high text recall. A direct relationship between prior knowledge and interest, however, does not always obtain, as seen in Schiefele (1992).

In two studies using a total of 96 first-semester male university students, Schiefele (1992) investigated the variable of interest, along with other factors, on reading comprehension. His findings showed an overall impact of interest on comprehension, as measured by several indicators. High interest facilitated greater reading comprehension at deeper levels, independent of numerous secondary factors such as verbal intelligence, general intelligence, short-term memory (STM) capacity, and prior knowledge. Schiefele concluded that “topic interest is a very influential motivational condition of text comprehension” (p. 166). These studies are particularly noteworthy as they controlled for many variables previously disregarded or frequently excluded in similar research (e.g., general reading ability and background knowledge).

The issue of gender differences is also germane here. In several studies of over 400 third and fourth graders, Anderson, Mason, & Shirey (1984) and Anderson, Shirey, Wilson, & Fielding (1987) found the effects of interest on
L1 reading comprehension to be stronger for boys than for girls. Even under low interest conditions, the girls apparently tried harder to understand the material, whereas the boys simply gave up.

These findings are parallel to those of Asher and his colleague (Asher, 1980; Asher & Markell, 1974), wherein females seemed to persevere through texts of low interest, striving for some semblance of understanding while males merely dismissed the material as uninteresting and put forth little to no effort toward comprehension. Walker, Noland, and Greenshields (1979) reported similar findings in their study of 120 fifth and sixth graders.

A study of 41 seventh and eighth grade high achievers done by Baldwin, Peleg-Bruckner, & McClintock (1985) included gender effects as a secondary variable. Males were found to be more influenced by topic interest than females, an effect noted in previous research but only in conjunction with poor readers. The researchers found it reasonable to make the conclusion "that boys are more sensitive to topic interest than girls" (p. 503), as the combined results of research pointed to a more global effect.

In studies involving fifth and sixth graders, Klein (1969, 1970, 1979) determined that males and females react in distinct ways to the same reading material and that females are more influenced by their interest than males. The findings of these studies argue for sex-appropriate reading material, i.e., topics that are interesting to each gender respectively. The female subjects here appeared to learn as much as the male subjects when reading male-appropriate subject matter whereas the reverse was not true. Also, the females comprehended significantly more when reading female-appropriate material.
A final area of differential effects of interest on L1 reading comprehension is that regarding the impact of this variable observed across ability levels. In an experiment involving 484 sixth graders, Shnayer (1969) found that (a) high interest in stories read resulted in greater comprehension than that resulting from low interest; and (b) high ability students were less affected by the interest factor than were low ability students. Vaughan (1975) found similar results in a study using subjects from three ability groupings (good, average, and poor) across grade levels four, six, eight, and eleven. At all grade levels, the comprehension of less able readers was significantly more affected by the variable of interest than was that of the better readers. In addition, the differences between and among the three groups at each grade level were all statistically significant at the .01 level. Walker et al. (1979) determined that high interest in content had a negligible effect on above average readers but had a greater impact on average and below average readers.

In summary, some L1 research has addressed the question of interest and its relationship to reading comprehension. The majority of studies suggest that high interest is associated with superior reading comprehension (Asher, 1979, 1980; Asher & Markell, 1974; Bernstein, 1955; Stanchfield, 1967). Some researchers have found that the effects of interest are greater for readers of lower ability levels (Shnayer, 1969; Vaughan, 1975; Walker et al., 1979). Others have demonstrated a difference based on gender (Anderson, Shirey, Wilson, & Fielding, 1987; Asher, Hymel, & Wigfield, 1978; Asher & Markell, 1974, Baldwin, Peleg-Bruckner, & McClintock, 1985; Klein, 1969, 1970, 1979; Walker et al., 1979).
The methods employed to measure reading comprehension in these L1 studies frequently offer dubious results. The majority of the studies relied on cloze testing to substantiate differences in comprehension (e.g., Asher et al., 1974, 1978; Asher, 1979, 1980; Klein, 1969; Vaughan, 1975; Walker et al., 1979). Both L1 and L2 researchers have cautioned against the use of cloze testing for determining comprehension (Bernhardt, 1986). Indeed, such tests are overly sensitive to discrete point grammatical competence and, as such, "should not be considered a global measure of comprehension" (Kamil, Smith-Burke, & Rodriguez-Brown, 1986, p. 337).

Walker et al. (1979) called for the Ss to read aloud and then orally answer comprehension questions. It has been shown that oral reading impedes comprehension (Bernhardt, 1983), thus rendering this method of operation of questionable validity. Other areas of concern include the use of readability formulae based on word length to determine text difficulty, the use of a limited number of texts per S, and some use of artificial texts. It can be argued that these issues may have confounded the results of the studies.

The present study has expanded upon previous research by including all of the aforementioned variables (interest, general ability—L2 proficiency in this case, gender) as well as prior knowledge. Interest in text topic was also addressed at the individual personal level, and it was assessed both pre- and post-reading. The method of assessment was the recall protocol, which "provides a purer measure of comprehension, uncomplicated by linguistic performance and tester interference" (Bernhardt, 1991).

Relation of prior knowledge to reading comprehension

The idea that background knowledge is facilitative of reading comprehension has been investigated and documented extensively in both L1
and L2 literature. While the research in general is supportive of this view, some contradictory studies do exist. Background knowledge is apparently not a univariate phenomenon but rather a more complex variable that must also be considered in light of other factors such as gender, intelligence, and affect. Several studies addressing this multifaceted issue are discussed below.

Langer (1980, 1981, 1982, 1984) has been a pioneer in the area of prior knowledge and its relation to L1 reading comprehension. Her instrument for measuring prior knowledge via free association probes has been used successfully in numerous L1 studies (see Langer, 1982 for a comprehensive explanation of the instrument and the scoring system) and was used as the measure of prior knowledge in the present study.

In a study of 35 high school seniors, enrolled in an advanced placement course in English, prior knowledge was found to be highly correlated with organization of recall and overall recall success, both indications of reading comprehension (Langer, 1980). Another study by Langer (1984) using 161 sixth graders as subjects found that background knowledge, as indicated by the passage-specific knowledge measure developed by the researcher, was highly related to passage comprehension. Whereas earlier studies (Langer 1980, 1981) had shown the measure to be predictive of recall, here it was also found to be a reliable predictor of wh-comprehension.

Recht & Leslie (1988) see prior knowledge as creating a scaffolding for information in an individual's memory. Having this cognitive framework in place greatly facilitates reading comprehension. Their study of 64 seventh and eighth graders included independent variables of high and low reading ability and
prior knowledge. Significant main effects obtained for prior knowledge, but no interaction was observed between prior knowledge and ability. They conclude that "knowledge of content domain is a powerful determinant of information recalled, powerful enough for poor readers to compensate for their generally low reading ability" (p. 19).

Fincher-Kiefer, Post, Greene, & Voss (1988) investigated the relation between prior knowledge and reading comprehension in an experiment using 16 subjects, aged 18 to 25 years. They postulate that domain knowledge enables individuals to develop retrieval structures, subsequently used in recall of previously read material. High topic knowledge is therefore associated with greater efficiency in reading comprehension when recall is required because subjects can map input information on already existing knowledge structures. The researchers relate these findings to the models of Kintsch and van Dijk (Kintsch, 1986; Kintsch & van Dijk, 1978; van Dijk & Kintsch, 1983), which postulate macro-, micro-, and situational levels of text reproduction and processing, and a propositional microlevel and a mental model level (Johnson-Laird, 1983). The situational level and the mental model level are essentially analogous, and it is at this level that prior knowledge is most facilitative. Individuals with high background knowledge excel in the ability to develop mental models and those with low background knowledge develop impoverished models at best.

Main effects were indicated for the impact of prior knowledge on reading comprehension by Baldwin et al. (1985). Of interest in this study is the finding that the impact of prior knowledge here was greater for females than for males. Of further note is the relation of interest and prior knowledge as variables influencing reading comprehension. While main effects obtained
for both prior knowledge and interest, no interaction between the two was observed. The two variables proved to be autonomous factors in reading comprehension, with their respective effects on reading comprehension being additive.

The results of the previous study are contradicted by Garner and Gillingham (1991), who found associations between prior knowledge and interest, prior knowledge and recall/comprehension, and interest and comprehension. The researchers averred that their results support Kintsch's (1980) argument that, all other things being equal, cognitive interest in a topic is determined by how much a reader knows about the topic. In this study, moderate topic knowledge was associated with high cognitive interest, which was in turn associated with high recall of text information. Subjects knowing nothing or everything about the topic were not interested and had inferior text recall scores. The amount of prior knowledge, then, seems to have an impact on motivation to comprehend text.

Diametrically opposed to much of the research are the findings of Schiefele (1992). In two multifactor studies, he found that prior knowledge did not correlate with reading comprehension. In addition, he found that “the effects of prior knowledge and intelligence in both studies were relatively independent of the interest effect” (p. 172). These results are most interesting, particularly because the experiments dealt with the concept of personal interest rather than situational interest, and many of the variables included parallel the focus of the present study.

In summary, the L1 research points principally to the impact of prior knowledge on reading comprehension (Baldwin et al., 1985; Fincher-Kiefer, Post, Greene, & Voss, 1988; Garner & Gillingham, 1991; Langer, 1980, 1981,
Differential effects were found based on gender (Baldwin et al., 1985), and interesting interactions were observed between and among variables (Baldwin et al., 1985; Garner & Gillingham, 1991). Contradictory evidence among varying studies (Baldwin et al., 1985; Garner & Gillingham, 1991; Schiefele, 1992) suggests the complexity of the nature of the variables and their respective relationships. The present study sought to untangle the web of contradictions and determine the amount of variance each of these particular variables contributes to L2 reading comprehension as well as how they interact with each other.

L2 Research Perspective

Relation of prior knowledge to reading comprehension

Any discussion of background knowledge and topic familiarity must necessarily include an explanation of schema theory. Much L1 and L2 reading research derives from this theory, and it can be related to the other skill areas as well. Essentially, schema theory emphasizes highly organized, generic knowledge structures made up of "slots" or "placeholders" for each component. A schema contains information regarding the constraints on what goes in the slots and what relationship exists among the slots. The process of filling in the slots is called instantiation.

Schemata can be used in two ways: as a guide for actions and for comprehension. The former involves event schema: a script providing information about stereotypical events or situations (e.g., eating in a restaurant). The latter allows a reader/listener to make inferences and fill in gaps with information not explicitly in a text or a conversation (Kitao, 1987).

Many studies in L2 reading research have dealt with background or prior knowledge and topic familiarity. These studies have investigated both
content and formal or textual schemata. The former deals with knowledge relative to the content domain of the text while the latter addresses knowledge relative to the formal, rhetorical, organizational structures of different types of texts (Carrell, 1987). Inherent in the L2 reading process are problems arising from cross-cultural differences, which have been evidenced in studies of both content and formal schemata.

In an L2 situation, it is highly possible that learners do not have the necessary background knowledge to deal with the task they confront. Another scenario may have learners misunderstanding, not from a lack of background knowledge but rather from incorrect information. Frequently, learners have or bring inappropriate attitudinal and judgmental expectations with them to a specific foreign language learning task. In L2 reading, differences in interpretation may come from the fact that they are socially constructed across cultures. Even as socially constructed knowledge can be stratified within a relatively homogeneous society, this phenomenon is more pronounced in a multicultural situation (St. Clair, 1978).

Gatbonton and Tucker (1971) found that their Ss, 39 Filipino high school students, did not enjoy or appreciate American literature until they had been given a cultural orientation germane to the specific topic. This study provides empirical support for the hypothesis that cultural filtering occurs, which can affect and even inhibit understanding of the L2. In a seminal study in cross-cultural reading perspectives, Steffensen, Joag-Dev, and Anderson (1979) investigated the effects of cultural background knowledge (of Indian and American wedding traditions) on the reading comprehension of 19 Indian adults and 20 American adults, all university students. Based on their
findings, they concluded: “the schemata embodying background about the content of a discourse exert a profound influence on how well the discourse will be comprehended, learned, and remembered” (Steffensen, et al., 1979, p. 19).

A similar finding was made by Johnson (1981). Her Iranian Ss, 46 university students, understood more of a text from Iranian folklore than one from American folklore. While there were other effects for formal schema (discussed below), the main effect was for cultural origin of the story. Cultural background and topic familiarity were the principle determinants of comprehension.

In a study involving 100 ESL high school students, Nunan (1985) examined the effect of content familiarity on the perception of certain textual relationships by L2 learners. His results support the notion that such subject factors as content familiarity and background knowledge have an important effect on levels of comprehension.

Several studies have investigated the feasibility and effect of creating necessary background knowledge the learners may be lacking. Hudson (1982) has averred that problems for L2 readers lie in projecting appropriate schemata for use in comprehending a text. He reasoned that “the high level dominant schemata which L2 readers bring with them from their culture and background are givens” (Hudson, 1982, p. 9). His study induced Ss, 93 ESL students attending an intensive language institute, to produce consistent initial schemata that could override the effects of their L2 linguistic ceiling. Use of picture cues at the beginning and intermediate levels were found to be effective in achieving this objective, but this inducement was not equally effective across all levels of L2 proficiency. Advanced readers showed no
effect for picture cues and preferred to reconcile their comprehension through use of the text rather than externally induced schemata.

A study by Taglieber, Johnson, & Yarbrough (1988) investigated the effects of three prereading activities (pictorial context, vocabulary preteaching, and prequestioning) on the reading comprehension of 40 undergraduate Brazilian EFL students. The results indicated that prereading activities facilitated EFL students’ comprehension, with prequestioning and pictorial context being superior to vocabulary preteaching as having an impact on performance.

Some researchers have investigated the possibility of either utilizing or building upon background knowledge of a topic with which the Ss had some cross-cultural familiarity in order to improve reading comprehension. Johnson (1982) had her Ss, 72 advanced ESL university students, read two passages from L2 culture. One contained information relating to a recent experience with L2 culture and customs (a Halloween celebration), and the other contained culturally related but unfamiliar material (an historical perspective on witches). The Ss showed more comprehension of the familiar material where they had prior experience/knowledge. Another interesting aspect of the study revealed no effects for prior exposure to difficult vocabulary. Thus, it did not support previous findings of a high correlation between vocabulary knowledge and reading comprehension.

Lee (1986) undertook a study to clarify the findings of Carrell's (1983) study that showed no effects on comprehension for background knowledge.
The Ss were 320 university student learners of Spanish. His results directly contradicted the previous findings, a fact he attributes mainly to the language used for recall (L1 vs. L2). Lee (1986) found all three components of background knowledge (context, transparency, and familiarity) to have an effect on his Ss' reading comprehension. The effect, however, was not uniform across all components, and the interaction of same was extremely complex.

Floyd and Carrell (1987) began with the premise that everyone had a general schema for celebrating a national holiday. The additional background knowledge thought necessary for text comprehension was provided by involving the Ss, 20 ESL university students, in a first-hand experience directly related to the topic (July 4th celebration in Boston). Their findings reveal that there is a relationship between the background knowledge a student brings to a text and the ability to comprehend and recall it. They also posit that relevant background knowledge can be taught in class.

Studies concerning formal schemata also show that background/prior knowledge plays a crucial role in reading comprehension. Johnson (1981) found that her English native speaking (NS) Ss better understood the unadapted English text of American folklore better than the adapted, simplified one. She surmised that both syntactic and semantic complexity, as well as cultural origin, affected comprehension. If linguistic and conceptual analyses interact to cause errors in the native language, this may happen to a greater extent in a foreign language.

Carrell (1984, 1987) has studied the effect of formal schema in L2 reading comprehension. Forty ESL university students of mixed ethnic background
participated in the experiment. The Ss read normal or interleaved versions of the same texts. Her findings indicate that background knowledge of formal schema (in particular, story schema) does impact performance. She concludes that L2 “comprehension failure may be due to mismatches between schemata presumed by the text and those possessed by the reader” (Carrell, 1984, p. 105).

A study by Perkins (1987) also deals with the utilization of background knowledge of formal schema, specifically story schema. His Ss were 22 advanced-level ESL university students. Those Ss who successfully activated prior knowledge of story schema were more proficient readers. Perkins attributes this “internalized story structure competence . . . to experience and/or overt classroom instruction” (Perkins, 1987, p. 158). Davis, Lange, and Samuels (1988) support this notion with their study of effects of text structure instruction. Their Ss, 40 undergraduate students of French, recalled significantly more when they had received explicit instruction regarding text structure prior to reading.

While a great deal of L2 research supports the notion of a strong impact of background knowledge on reading comprehension, a unilateral acceptance of this posit cannot be made at the present time. In a study of 23 first-year learners of Spanish, Bernhardt (1991) investigated the relationship between background knowledge and L2 reading comprehension scores. She attempted to predict reading comprehension based on background knowledge scores but was unable to do so. The low correlation yielded by the results indicated no relation either quantitatively or qualitatively between the two variables. The question remains as to precisely what is the nature of the impact background knowledge and just how it functions in the realm of L2 reading. Or, as
Bernhardt (1991) states succinctly, the issue appears to be: "whether background knowledge merely contributes to a description of second language reading or whether it is actually a causal variable" (p. 117).

In summary, background knowledge has been shown to be a powerful factor in L2 reading comprehension and can be observed from several perspectives. An individual's prior knowledge of content has been seen as facilitative (Johnson, 1981, 1982; Lee, 1986; Nunan, 1985; Steffensen et al., 1979). Provision of background knowledge regarding text structure also has a positive impact on reading comprehension (Carrell, 1984, 1987; Davis et al., 1988; Perkins, 1987). Creation of essential background knowledge previously absent in the reader is another area that influences L2 reading performance (Floyd & Carrell, 1987; Hudson, 1982; Taglieber et al., 1988). As in L1 research, contradictory evidence in this L2 area has shown that background knowledge and its possible effects are not simple factors to be analyzed and summarily categorized from a single perspective (see Bernhardt, 1991). Background knowledge may, indeed, be a critical variable in L2 reading comprehension, but its true role therein remains elusive and necessitates further investigation.

The present study sought to ascertain precisely what prior knowledge a subject has and may bring to bear on the processing of text. The relationship of this variable to reading comprehension, as well as to the other independent variables, was investigated.

Relation of interest to L2 performance in all skill areas

Interest in text topic as a major contributing variable in SLA is intuitively appealing but has not been directly addressed by research. A few SLA investigators have touched on topic interest as a secondary, albeit important,
research finding. In fact, interest has been found to be an important factor in L2 performance in all four skill areas: speaking, listening, reading, and writing. Due to the paucity of studies involving interest as a variable on the whole and the absence of those addressing interest as a primary variable in reading comprehension in particular, the impact of this factor will be discussed below in relation to all four skill areas.

Gatbonton and Tucker (1971) discovered that their Ss did not perform well on their L2 reading task partially because they were simply uninterested in it. Their boredom with the task was a consequence of misunderstandings created by their cultural filter. Once this problem was remedied, interest rose, comprehension increased, and performance improved.

Elley & Mangubhai (1983) investigated the impact of reading on second language learning. Their study involved high-interest material; thus, interest was included as a secondary factor. Their Ss, 380 Class 4 and 5 pupils from rural Fijian schools, were assessed as to their progress in reading and listening comprehension. Those Ss exposed to increased reading sessions, utilizing high-interest materials, showed significant gains in the aforementioned language skill areas. The researchers attribute this effect in part to the interest factor related to the texts.

Taglieber et al. (1988) suggested that the prereading activities, which proved successful in increasing reading comprehension, served an additional purpose as motivational devices. These activities created heightened interest that, in turn, had a positive and further impact on the Ss’ performance.

Mueller (1980) performed two experiments using college German students (N=123, N=76) at the United States Air Force Academy. The Ss differed only in their relative language proficiency. He found that providing contextual
cues to his Ss heightened their interest. The increased interest level caused them to pay closer attention to the L2 listening passage and aural comprehension improved. James (1986) underscores the importance of interest in L2 listening comprehension. He suggests that listening for more than three minutes induces sensory overload unless the topic is of high interest or entertainment value to the listener.

Bacon (1985, 1990) investigated L2 speaking proficiency in 187 university learners of Spanish. She found that her Ss tended to express themselves in a more extended way when they chose topics of interest to them. They produced quantitatively more and qualitatively better discourse in the target language (TL) because of their interest in the subject matter. Furthermore, she states that the “subjects appear to have chosen topics that were of interest to them [italics added] regardless of the structure or lack of structure of the topic” (Bacon, 1985, p. 136). Her Ss were most willing to talk about topics in which they had a personal interest because they had thought about these topics, and thus it was easier to express themselves.

Tedick’s (1988) L2 writing research indicates that writer interest in content is an extremely important factor to consider. Although the primary variable of her study was the effect of topic familiarity on writing performance, topic interest proved to be an important secondary consideration. The writing performance of her 105 ESL university student Ss was significantly better when they wrote about field-specific topics, i.e., topics germane to their career interests. Referring to L1 research, she states that “it may be posited . . . that interest [italics added] in the content of the writing stimulus is a more important factor than audience” (Tedick, 1988, pp. 59-60). She further asserts that, although not directly observed as a variable,
personal interest in the topic may have resulted in improved writing performance.

Interest, then, as a primary variable has not been addressed directly by L2 reading research. Clearly, it is a factor that has impact on SLA in general and L2 reading comprehension in particular. Just how much interest figures into the SLA equation is precisely what needs to be investigated. The aim of the present study was to determine, as reasonably as possible, what role the affective factor of interest plays in L2 reading comprehension.

Chapter Summary

The studies reviewed in this chapter comprise an important part of the extant knowledge base on the affective factor of interest and its impact on reading comprehension. Evidence of the importance of interest in LI reading abounds. Because the L2 reading process is not merely the LI reading process with different words, the relationship between interest and reading comprehension needs to be investigated in the L2 arena. In addition, due to the complex nature of the reading process as a whole and of affective factors in particular, multiple variables were considered in the present study. This multivariate approach yielded greater insight into the function of the variables in the L2 reading process and how all these factors interrelate.

The present study improved upon previous research in a number of ways: (a) by including and controlling for multiple germane variables (e.g., gender, general L2 ability, prior knowledge), (b) by addressing the concept of interest on a personal and individual level, (c) by utilizing a respected method of reading comprehension evaluation that is passage dependent and not contaminated by external influences, and (d) by using authentic texts, thus simulating an authentic task. In addition, the subjects formed a
homogeneous pool with respect to background and native language, thus avoiding the confounding variable of mixed ethnicity and improving generalizability. The large number of subjects also allowed for more sophisticated methods of statistical analysis (e.g., multiple regression), which necessitate large numbers to render meaningful and interpretable results.
CHAPTER III
DESIGN AND PROCEDURES

Population and Sample

The population from which the sample for this study was drawn consists
of high school students from a district in a suburb of a large metropolitan
area. The district draws from a predominantly white, middle- to upper-
middle class community. Voluntary desegregation busing from the city proper
provides much of the 25% minority (predominantly black) racial composition.
The high school used in the study is one of four in the district and has a
student population of 1,586 in grades nine through twelve. Fifty-one percent
of the student body is enrolled in a foreign language, although it is not a
requirement for graduation. Students may select among the following
languages: French, German, Japanese, Latin, and Spanish.

This particular foreign language department was selected because of the
researcher's familiarity with the school, the faculty, and the curriculum. The
researcher served as chairperson of the most recent North Central evaluation
of this department. One outcome of the pilot study was a concern and a
desire for optimal cooperation from the faculty involved. This condition was
not entirely met during the pilot study, and the results may have been
confounded as a result.
Students from all Spanish classes, levels II-V, were tested, comprising a possible sample of 276 students. Data were collected to identify those students with considerable additional exposure to Spanish outside the school setting (those who were native speakers, had regular interaction with family members who were native speakers, or had lived in a target language country). Protocols of subjects whose L1 is not English were not used. The final sample consisted of 206 subjects.

**Research Design**

In the present study, a repeated measures analysis of covariance (ANCOVA) design was employed to answer the overall research questions of differences in L2 reading comprehension scores based on interest in text topic and gender. In addition, multiple regression was employed for subsequent analyses to ascertain the amount of unique variance the independent variables contributed to the variance in the dependent variable (Cohen & Cohen, 1983). Reliability of the general Spanish ability test was established using Cronbach’s alpha (the resultant Cronbach’s alpha = .90).

**Variables**

**Independent Variables**

The independent variables were:

1. interest level in text topic, as measured by a self-ranking scale.
2. background knowledge of text topic, as measured by the Langer (1981, 1982) scale for a pre-reading plan.
3. L2 general ability, as measured by a test of Spanish.
4. gender.
Dependent Variable

The dependent variable was L2 reading comprehension. The score generated by the recall protocol provided this measure. Each subject generated two scores by reading and writing a recall protocol for two separate texts.

Instrumentation

Background Knowledge Probes

In order to assess the store of prior knowledge the subjects have about a given text topic, a free association measure was taken. The procedure used was the one developed by Langer (1981, 1982), which has been found to yield scores that “correlate moderately highly with top-level information in texts” (Bernhardt, 1991, p. 98). Subjects were given one minute to free associate in English on a passage cue directly related to the text topic. This procedure was carried out three times per text topic.

Free association measures were scored using Langer’s (1980, 1981, 1982) scale. The researcher scored all of the background knowledge probes, and an independent, trained rater scored a random sample of 25% of the probes. Inter-rater reliability was determined for both the pilot study and the experiment, using the Pearson product moment correlation procedure. Reliability for both the pilot study and the experiment was .90.

Interest Ranking

Subjects were given a form on which they were to rank order general text topics in order of interest from high to low. (See Appendix A for the ranking form.) This form determined the set of two texts each subject subsequently read. Subjects were randomly assigned to a high-low or a low-high interest reading order.
Interest Rating

Subjects were asked to rate their interest in the text read on a Likert Scale. This information was used to corroborate interest ranking and to provide data for further qualitative analysis. Subjects were randomly assigned to a read-rate-write or a read-write-rate condition to minimize confounding of the study. (See Appendix B for the rating form.)

Text Selection

Five authentic, unedited, expository Spanish texts of approximately the same length (about 250 words) and each featuring a different topic were used. The texts were chosen from equivalent sources (e.g., newspapers, magazines) in order to achieve equality of difficulty level. In addition, the texts were rated via a readability formula based on word frequency (Spaulding, 1956). They were also submitted to a panel of experts comprised of native Spanish speakers. Results of the readability formula and the expert evaluations attested to equivalence of difficulty level. All subjects read two different texts because research has shown that reliance on performance based on a single text invites spurious results and can result in erroneous conclusions (Bernhardt, 1991). (See Appendix C for the texts.)

Recall Protocols

Johnson's (1970) weighted propositional analysis system was used to score the recall protocols. A panel of five Spanish/English bilinguals worked independently to divide the texts into pausal units or propositions. The same panel then rated each proposition on a four-point scale of importance. The propositional levels range from a score of four (most important) to a score of one (least important). The passage must contain an equal number of each level of proposition. The raters' individual pausal units and their respective
weightings were averaged to derive the final scoring template for each text. (See Appendix D for the scoring templates corresponding to the texts.)

Subjects wrote their recall protocols in English. Subsequently, the researcher scored all of the protocols, and an independent, trained bilingual scored a random sample of 25% of the protocols. Inter-rater reliability was determined for both the pilot study and the experiment, using the Pearson product moment correlation procedure. Reliability for the pilot study was .95 and .90 for the experiment. Intra-rater reliability was also determined for the experiment and was .92.

**Personal Data Questionnaire**

Each subject filled in a questionnaire detailing gender, Spanish class level, native language, and any extraneous exposure to Spanish. Subjects were also coded to insure the confidentiality of all information and data collected. (See Appendix E for the questionnaire.)

**Procedures and Data Collection**

**Pre-experiment**

Prior to the experiment, the researcher met with the faculty of the Spanish department involved in the study; five members and their respective classes participated. The instructors were told about the purpose of the experiment in which their students would be participating, and the procedures of the experiment were delineated. They received a schedule of visits and events to be led by the researcher. Any questions or concerns the instructors had were addressed at this meeting. The researcher also had an initial meeting with all the classes involved. At this time, she introduced herself, explained her general purpose for being in the classes, and
distributed the permission forms to the students. (See Appendix F for the introductory script.)

During the week before the experiment, the researcher obtained attendance rosters for the classes participating (all Spanish classes, levels II-V). The researcher assigned each subject a code, and random assignment of subjects to each of the aforementioned conditions was made. The permission forms were also collected during this time.

**Experiment**

Data collection took place at three different junctures over a six-week period. First, the subjects were asked to assess all five topics for interest level, rank-ordering them from high to low. Data collected here determined the individual combination of one high-interest and one low-interest text to be read by each subject. The subjects were also asked to fill in the personal data questionnaire, providing the information noted above. (See Appendix G for the questionnaire/ranking script.)

Second, the subjects were asked to engage in free association for one minute on probes relating to the selected topics. A practice exercise in free association was conducted before administering the real passage cues to familiarize the subjects with the procedure. Three free association probes per text topic were collected over a period of one week. Order for topics in the background probes was randomly assigned. (See Appendix H for the background probe script.)

Third, the subjects were asked to read their individually selected texts and to write an immediate L1 (English) recall protocol for each text. The subjects were also asked to fill in the post-rating scale of interest. They were randomly assigned to a post-reading or a post-recall condition for this task.
The protocol data and post-rating scale were collected in one class period (52 minutes) during a subsequent one-week period. (See Appendix I for the recall protocol script.)

Fourth, the subjects all took the Spanish test of general L2 ability. The test was administered during one class period during the last week of data collection.

Pilot Study

A pilot study was conducted in a high school in a suburb of the same metropolitan area in September 1991. The two school districts are very similar in student population characteristics. Fifty-three students enrolled in three Spanish classes (Levels IV-VI) participated, resulting in 36 usable subjects (those with no missing data).

The pilot study provided valuable information regarding experiment procedures and pitfalls. In particular, the pilot study confirmed the amount of time needed to carry out all phases of the experiment. The pilot study also provided excellent feedback related to the administration of the free association measure. Revisions were made accordingly. Analyses conducted on the data from the pilot study indicated no differences between the texts in terms of difficulty, confirming preliminary checks of equivalence.

Data Analysis

After all scoring was done, the data was subjected to the statistical analyses indicated above. The Biomedical Computer Program (BMDP) was used to perform the ANCOVA procedure. The Statistical Analysis System (SAS) was used to perform all multiple regression programs. Using multiple regression procedures necessitates a sufficiently large sample size to keep standard error small and thus to increase the dependability of the results.
(Kerlinger & Pedhazur, 1973). A minimum of 20 subjects per independent variable is suggested (Kamil, Langer, & Shanahan, 1985). This requirement was easily met with the final N of 206. Data for those subjects indicating an L1 other than English were not used. Subjects with additional exposure to or contact with Spanish outside the classroom, according to the personal data questionnaire, were duly noted for later qualitative analysis.
CHAPTER IV
RESULTS AND DISCUSSION

Introduction

The notion that interest is an important factor that influences task performance has long been intuitively accepted. Research in the last decade has concentrated on defining the concept of interest and measuring its effect in relation to various activities. Much L1 research has concentrated on interest and its impact on the reading process, both from a situational and a personal interest perspective. The corollary of background knowledge has proved to be a nettlesome issue, with its effect producing conflicting results. In addition, few studies have included a control for general language ability, which may impact reading comprehension in a significant way. Although a useful empirical base in L1 reading and interest studies exists, parallel studies in the L2 reading arena are conspicuously absent.

The purpose of the present study was to initiate the investigation of interest as an important affective variable in L2 reading comprehension. This study sought to ascertain whether or not interest level in text topic made a significant difference in L2 reading comprehension. Additionally, this study examined interest and L2 reading comprehension in terms of gender differences. The variables of background knowledge and L2 ability were also
included in the study, in an attempt to improve upon previous L1 investigations.

The independent variable of L2 ability was measured using a test of general Spanish ability. The range of potential scores was from 0 to 100. Reliability of this test was established by use of Cronbach's alpha (.90). The variable of background knowledge was measured using Langer's (1981, 1982) method of free association and scale, which has yielded moderately high correlations with top-level text information (Bernhardt, 1991). The final score for background knowledge was derived by taking the mean of all free association probes for each topic. The range of scores was from 0 to 3. The dependent variable, L2 reading comprehension, was measured using the recall protocols generated after reading a high interest and a low interest text. A percentage score was used here with a range of 0 to 100.

Subjects for the present study were 206 secondary learners of Spanish attending a suburban school district of a large midwestern metropolitan area. Subjects were enrolled in one of four levels of Spanish: II-V. A secondary research concern was whether or not this division of levels of Spanish class accurately reflected strata in learners' L2 ability. Some previous L2 reading research involving secondary learners has found that language level divisions can often be collapsed into fewer categories (Allen, Bernhardt, Berry, & Demel, 1988).

Level of Spanish Class

A secondary issue of the study was the accuracy of the division of levels of Spanish class in reflecting strata in L2 ability. Table 1 presents a breakdown by level of Spanish class of the number of subjects, means, standard deviations, and minimum and maximum scores achieved for All Subjects on
the variable of L2 ability. To test the hypothesis of no difference in L2 ability among levels of Spanish class, a fixed-model one-way ANOVA was performed at the .05 level. The omnibus $F$ was observed to be significant, $F (3, 202) = 95.03, p < .0001$. (See Table 2.) Ensuing pairwise mean comparisons using the Bonferroni procedure ($\Psi = 6.5917$ for Minimum Significant Difference) revealed significant differences between means at all levels. The division of levels of Spanish class in this study is an accurate reflection of the L2 ability of the subjects.
Table 1

Means and Standard Deviations of L2 Ability for All Subjects By Level of Spanish Class

<table>
<thead>
<tr>
<th>Level</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Spanish II</td>
<td>105</td>
<td>32.70</td>
<td>6.16</td>
<td>20.00</td>
<td>47.00</td>
</tr>
<tr>
<td>2. Spanish III</td>
<td>58</td>
<td>46.83</td>
<td>9.81</td>
<td>29.00</td>
<td>71.00</td>
</tr>
<tr>
<td>3. Spanish IV</td>
<td>35</td>
<td>53.51</td>
<td>8.83</td>
<td>41.00</td>
<td>74.00</td>
</tr>
<tr>
<td>4. Spanish V</td>
<td>8</td>
<td>65.25</td>
<td>13.30</td>
<td>47.00</td>
<td>86.00</td>
</tr>
</tbody>
</table>

Table 2

ANOVA of L2 Ability by Level of Spanish Class

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
<td>3</td>
<td>19350.6123</td>
<td>95.03*</td>
</tr>
<tr>
<td>Error</td>
<td>202</td>
<td>67.8751</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>205</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .0001
Overview

The purpose of the present chapter is to report the analyses of the data collected to answer the research questions after these data have been subjected to a series of statistical procedures: ANCOVA and hierarchical multiple regression. Both descriptive data and inferential data will be reported and discussed. Only subjects for whom all data points were available were used in the analyses. Therefore, the sample sizes are stable across analyses: females, 99; males, 107. Only subjects whose L1 was English were included in the study.

Descriptive Data

Means and Standard Deviations

Table 3 presents the means standard deviations, and minimum and maximum scores achieved for All Subjects and for all variables by interest level. For the high level of interest (N = 206), the mean score for L2 ability, as measured by the test of general Spanish ability, is 41.48 and the standard deviation is 12.70. Because a percentage score was used for scoring the test, the range of possible scores extends from 0 to 100. The highest score achieved is 86 and the lowest score is 20. The mean for background knowledge is 1.88, with a range extending from 0 to 3, and the standard deviation is .50. The lowest score obtained is .33 and the highest score is 3. The average score for L2 reading comprehension, based on recall protocol scores, is 16.98, and the standard deviation is 9.97. A percentage score was employed, resulting in a range of potential scores from 1 to 100. The highest score achieved is 45.70 and the lowest is 1.4. For the low level of interest (N = 206), the mean for background knowledge is 1.75, with a standard deviation of .61. The lowest score obtained is 0 and the highest score is 3. The average
score for L2 reading comprehension, based on recall protocol scores, is 14.34. The standard deviation is 8.59. The highest score achieved is 49.50 and the lowest is 0.
Table 3

**Means and Standard Deviations of All Variables for All Subjects By Interest Level.**

<table>
<thead>
<tr>
<th>Interest</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. L2 Ability</td>
<td>206</td>
<td>41.48</td>
<td>12.70</td>
<td>20.00</td>
<td>86.00</td>
</tr>
<tr>
<td>2. Background Knowledge</td>
<td>206</td>
<td>1.88</td>
<td>0.50</td>
<td>0.33</td>
<td>3.00</td>
</tr>
<tr>
<td>3. L2 Reading</td>
<td>206</td>
<td>16.98</td>
<td>9.97</td>
<td>1.40</td>
<td>45.70</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. L2 Ability</td>
<td>206</td>
<td>41.48</td>
<td>12.70</td>
<td>20.00</td>
<td>86.00</td>
</tr>
<tr>
<td>2. Background Knowledge</td>
<td>206</td>
<td>1.75</td>
<td>0.61</td>
<td>0.00</td>
<td>3.00</td>
</tr>
<tr>
<td>3. L2 Reading</td>
<td>206</td>
<td>14.34</td>
<td>8.59</td>
<td>0.00</td>
<td>49.50</td>
</tr>
</tbody>
</table>
Table 4 presents the means standard deviations, and minimum and maximum scores achieved by all Female Subjects for all variables by interest level. For the high level of interest for female subjects (N = 99), the mean score for L2 ability is 41.86 and the standard deviation is 13.03. The highest score achieved is 86 and the lowest score is 20. The mean for background knowledge is 1.92, and the standard deviation is .49. The lowest score obtained is .67 and the highest score is 2.67. The average score for L2 reading comprehension is 18.77, and the standard deviation is 11.09. The highest score achieved is 45.70 and the lowest is 1.4. For the low level of interest for Female Subjects, the mean for background knowledge is 1.73, with a standard deviation of .62. The lowest score obtained is 0 and the highest score is 2.67. The average score for L2 reading comprehension, based on recall protocol scores, is 15.98. The standard deviation is 9.59. The highest score attained is 49.50, and the lowest is 1.6.
## Table 4

**Means and Standard Deviations of All Variables for Female Subjects By Interest Level.**

<table>
<thead>
<tr>
<th>Interest</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. L2 Ability</td>
<td>99</td>
<td>41.86</td>
<td>13.03</td>
<td>20.00</td>
<td>86.00</td>
</tr>
<tr>
<td>2. Background Knowledge</td>
<td>99</td>
<td>1.92</td>
<td>0.49</td>
<td>0.67</td>
<td>2.67</td>
</tr>
<tr>
<td>3. L2 Reading</td>
<td>99</td>
<td>18.77</td>
<td>11.09</td>
<td>1.40</td>
<td>45.70</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. L2 Ability</td>
<td>99</td>
<td>41.86</td>
<td>13.03</td>
<td>20.00</td>
<td>86.00</td>
</tr>
<tr>
<td>2. Background Knowledge</td>
<td>99</td>
<td>1.73</td>
<td>0.62</td>
<td>0.00</td>
<td>2.67</td>
</tr>
<tr>
<td>3. L2 Reading</td>
<td>99</td>
<td>15.98</td>
<td>9.59</td>
<td>1.60</td>
<td>49.50</td>
</tr>
</tbody>
</table>
Table 5 presents the means standard deviations, and minimum and maximum scores achieved by all Male Subjects for all variables by interest level. For the high level of interest for male subjects (N = 107), the mean score for L2 ability is 41.12 and the standard deviation is 12.44. The highest score achieved is 72 and the lowest score is 20. The mean for background knowledge is 1.85, and the standard deviation is .52. The lowest score obtained is .33 and the highest score is 3. The average score for L2 reading comprehension is 15.33, and the standard deviation is 8.54. The highest score achieved is 44.30 and the lowest is 1.70. For the low level of interest for male subjects, the mean for background knowledge is 1.76, with a standard deviation of .62. The lowest score attained is 0, and the highest score is 3. The average score for L2 reading comprehension is 12.83. The standard deviation is 7.26. The highest score achieved is 36.80, while the lowest is 0.0.
Table 5

Means and Standard Deviations of All Variables for Male Subjects By Interest Level.

<table>
<thead>
<tr>
<th>Interest</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. L2 Ability</td>
<td>107</td>
<td>41.12</td>
<td>12.44</td>
<td>20.00</td>
<td>72.00</td>
</tr>
<tr>
<td>2. Background</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>107</td>
<td>1.85</td>
<td>0.52</td>
<td>0.33</td>
<td>3.00</td>
</tr>
<tr>
<td>3. L2 Reading</td>
<td>107</td>
<td>15.33</td>
<td>8.54</td>
<td>1.70</td>
<td>44.30</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. L2 Ability</td>
<td>107</td>
<td>41.12</td>
<td>12.44</td>
<td>20.00</td>
<td>72.00</td>
</tr>
<tr>
<td>2. Background</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>107</td>
<td>1.76</td>
<td>0.61</td>
<td>0.00</td>
<td>3.00</td>
</tr>
<tr>
<td>3. L2 Reading</td>
<td>107</td>
<td>12.83</td>
<td>7.26</td>
<td>0.00</td>
<td>36.80</td>
</tr>
</tbody>
</table>
Correlations

Table 6 delineates the correlations between the scores for all quantitative variables for All Subjects. Of the 15 correlations, 6 are significant at the .0001 level: (a) the correlation between level of Spanish class, as indicated by course enrollment, and L2 ability, as measured by the test of general Spanish language ability; (b) the correlation between level of Spanish class and L2 high interest reading comprehension, as measured by the recall protocols; (c) the correlation between L2 high interest reading comprehension, as measured by the recall protocols, and L2 ability, as measured by the test of general Spanish language ability; (d) the correlation between level of Spanish class and L2 low interest reading comprehension, as measured by the recall protocols; (e) the correlation between L2 low interest reading comprehension, as measured by the recall protocols, and L2 ability, as measured by the test of general Spanish language ability; and (f) the correlation between L2 low interest reading comprehension and L2 high interest reading comprehension, both as measured by the recall protocols.

The correlations between the scores for L2 high interest reading comprehension and those for the other quantitative variables are as follows: (a) level of Spanish class, as indicated by course enrollment, .51; (b) L2 ability, as measured by the test of general Spanish language ability, .57; (c) background knowledge for high interest topic, as measured by the Langer scale, .05; (d) L2 low interest reading comprehension, as measured by the recall protocols, .59; and (e) background knowledge for low interest topic, as measured by the Langer scale, .11. The correlations between the scores for L2 low interest reading comprehension and those for the other quantitative variables are as follows: (a) level of Spanish class, as indicated by course
enrollment, .51; (b) L2 ability, as measured by the test of general Spanish language ability, .61; (c) background knowledge for high interest topic, as measured by the Langer scale, .13; (d) L2 high interest reading comprehension, as measured by the recall protocols, .59; and (e) background knowledge for low interest topic, as measured by the Langer scale, .19. The correlations between L2 ability, as measured by the test of general Spanish language ability, and the other quantitative variables are as follows: (a) level of Spanish class, as indicated by course enrollment, .76; (b) background knowledge for high interest topic, as measured by the Langer scale, .03; (c) background knowledge for low interest topic, as measured by the Langer scale, .15.
Table 6

Correlation Among Variables for All Subjects

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. L2 Ability</td>
<td>1.000</td>
<td>.57</td>
<td>.03</td>
<td>.61</td>
<td>.15</td>
<td>.76</td>
</tr>
<tr>
<td></td>
<td>(0.0)</td>
<td>(.0001)</td>
<td>(.6661)</td>
<td>(.0001)</td>
<td>(.0341)</td>
<td>(.0001)</td>
</tr>
<tr>
<td>2. L2 Reading/High</td>
<td>1.000</td>
<td>.05</td>
<td>.59</td>
<td>.11</td>
<td>.51</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0)</td>
<td>(.5065)</td>
<td>(.0001)</td>
<td>(.1162)</td>
<td>(.0001)</td>
<td></td>
</tr>
<tr>
<td>3. Background Knowledge/High</td>
<td>1.000</td>
<td>.13</td>
<td>.13</td>
<td>-.01</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>(0.0)</td>
<td>(.0643)</td>
<td>(.0552)</td>
<td>(.9162)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. L2 Reading/Low</td>
<td>1.000</td>
<td>.19</td>
<td>.51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0)</td>
<td>(.0074)</td>
<td>(.0001)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Background Knowledge/Low</td>
<td>1.000</td>
<td>.09</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0)</td>
<td>(.1841)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Level of Spanish Class</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Level of significance is indicated in parentheses.
Inferential Data

First Research Question

Is there a difference in L2 reading comprehension depending on level of interest in the text topic?

To test the hypothesis of no difference in L2 reading comprehension between interest levels in text topic, a fixed model two-way (2 x 2, interest x gender) repeated measures Analysis of Covariance (ANCOVA) was performed. Table 7 portrays the results of the analysis for All Subjects. To ascertain any difference between L2 reading comprehension attributable to level of interest in the text topic, the effects of L2 ability and background knowledge were covaried out. The resultant omnibus F was observed to be significant, $F(1, 203) = 19.06, p < .0000$. A significant difference in L2 reading comprehension does exist, based on interest level in text topic. The effect size (ES) for this analysis was .28 with a corresponding power level of .95 (alpha = .05; N=206). The R-squared for the interest factor was .09, indicating that the variable interest contributed 9% of the overall variance to the L2 reading comprehension scores for All Subjects.
Table 7

**ANCOVA of Recall Protocol Scores**

**Within Effect: Interest**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates</td>
<td>1</td>
<td>.1153</td>
<td>0.00</td>
</tr>
<tr>
<td>Interest</td>
<td>1</td>
<td>698.3244</td>
<td>19.06*</td>
</tr>
<tr>
<td>Interest x Gender</td>
<td>1</td>
<td>2.2784</td>
<td>0.06</td>
</tr>
<tr>
<td>Error</td>
<td>202</td>
<td>36.6339</td>
<td></td>
</tr>
</tbody>
</table>

Total 205

*p ≤ .0000
Second Research Question

Is there a difference in L2 reading comprehension based on gender?

Table 8 reveals the results of the analysis of the between factor, gender. The same repeated measures ANCOVA (covariates are background knowledge and L2 ability) was used to ascertain any differences in L2 reading comprehension based on gender. The results indicate that a significant difference in L2 reading comprehension does exist between the male and female subjects. The omnibus F proved to be significant, $F(1, 202) = 12.18$, $p < .0006$. The L2 reading comprehension of females ($N=99$) was significantly higher than that of males ($N=107$). The ES for this analysis was .36 with a corresponding power level of .995 (alpha = .05; $N=206$). The R-squared for the gender factor was .06, indicating that the variable interest contributed 6% of the overall variance to the L2 reading comprehension scores for All Subjects.
Table 8

**ANCOVA of Recall Protocol Scores**

**Between Effect: Gender**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates</td>
<td>2</td>
<td>6090.2411</td>
<td>83.33*</td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td>890.1006</td>
<td>12.18**</td>
</tr>
<tr>
<td>Error</td>
<td>202</td>
<td>73.0899</td>
<td></td>
</tr>
</tbody>
</table>

Total 205

*P ≤ .0000  
*P ≤ .0006
**Third Research Question**

What is the unique contribution to L2 reading comprehension of each of the following: (a) background knowledge of text topic, and (b) general L2 ability?

In order to ascertain the unique contribution to L2 reading of the independent variables, a series of hierarchical multiple regression programs were run. In all of the hierarchical regression programs used in the present study, the scores for the independent variables were entered into the statistical model in the following order: (a) L2 ability, (b) background knowledge, (c) interaction variable (L2 ability x background knowledge). The score for L2 ability was a constant across interest levels, whereas the score for background knowledge varied across interest levels. Regression programs were run by interest level and by gender for purposes of comparison.

Table 9 shows the results of the hierarchical regression program for Female Subjects for high interest level. Only the score for L2 ability contributed significantly to the variance of the dependent variable, L2 reading comprehension. L2 ability provided by far the major contribution variance: 37.54%, $F(1, 97) = 58.29$, $p=0.0001$. Neither the remaining variable, background knowledge, nor interaction between the two independent variables (L2 ability x background knowledge) provided a significant contribution to the variance. Background knowledge contributed .17% of the variance, $F(2,96) = .26$, $p=.6126$. The cumulative contribution of L2 ability and background knowledge was 37.71%. The interaction between the two variables contributed .13% of the variance, $F(3,95) = .20$, $p=.6551$. The cumulative contribution of both independent variables and their interaction was 37.83%.
Table 9

Summary of Hierarchical Regression Analysis for Female Subjects at High Interest Level

<table>
<thead>
<tr>
<th>Steps/Variables</th>
<th>R2 Increase</th>
<th>Cumulative R²</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. L2 Ability</td>
<td>.3754</td>
<td>.3754</td>
<td>58.29</td>
<td>.0001</td>
</tr>
<tr>
<td>2. Background Knowledge</td>
<td>.0017</td>
<td>.3771</td>
<td>.26</td>
<td>.6126</td>
</tr>
<tr>
<td>3. L2 Ability x Background Knowledge</td>
<td>.0013</td>
<td>.3783</td>
<td>.20</td>
<td>.6551</td>
</tr>
</tbody>
</table>
Table 10 shows the results of the hierarchical regression program for Female Subjects for low interest level. Both the score for L2 ability and the interaction between the two independent variables (L2 ability x background knowledge) contributed significantly to the variance of the dependent variable, L2 reading comprehension. L2 ability was the chief contributor: 41.19%, $F(1, 97) = 67.93$, $p=.0001$. Background knowledge contributed .34% of the variance, $F(2,96) = .56$, $p=.4554$. The cumulative contribution of L2 ability and background knowledge was 41.53%. The interaction between the two variables contributed 2.39% of the variance, $F(3,95) = 4.04$, $p=.0471$. The cumulative contribution of both independent variables and their interaction was 43.92%.

Table 11 shows the results of the hierarchical regression program for Male Subjects for high interest level. As in the case of the Female Subjects, only the score for L2 ability contributed significantly to the variance of the dependent variable, L2 reading comprehension. L2 ability provided the primary contribution: 27.92%, $F(1, 106) = 40.67$, $p=.0001$. Neither the remaining variable, background knowledge, nor interaction between the two independent variables (L2 ability x background knowledge) provided a significant contribution to the variance. Background knowledge contributed .88% of the variance, $F(2,105) = 1.29$, $p=.2586$. The cumulative contribution of L2 ability and background knowledge was 28.80%. The interaction between the two variables contributed .24% of the variance, $F(3,104) = .35$, $p=.5535$. The cumulative contribution of both independent variables and their interaction was 29.05%.
Table 10

**Summary of Hierarchical Regression Analysis for Female Subjects at Low Interest Level**

<table>
<thead>
<tr>
<th>Steps/Variables</th>
<th>R2 Increase</th>
<th>Cumulative R²</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. L2 Ability</td>
<td>.4119</td>
<td>.4119</td>
<td>67.93</td>
<td>.0001</td>
</tr>
<tr>
<td>2. Background Knowledge</td>
<td>.0034</td>
<td>.4153</td>
<td>.56</td>
<td>.4554</td>
</tr>
<tr>
<td>3. L2 Ability x Background Knowledge</td>
<td>.0239</td>
<td>.4392</td>
<td>4.04</td>
<td>.0471</td>
</tr>
</tbody>
</table>
Table 11

Summary of Hierarchical Regression Analysis for Male Subjects at High Interest Level

<table>
<thead>
<tr>
<th>Steps/Variables</th>
<th>R2 Increase</th>
<th>Cumulative R²</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. L2 Ability</td>
<td>.2792</td>
<td>.2792</td>
<td>40.67</td>
<td>.0001</td>
</tr>
<tr>
<td>2. Background Knowledge</td>
<td>.0088</td>
<td>.2880</td>
<td>1.29</td>
<td>.2586</td>
</tr>
<tr>
<td>3. L2 Ability x Background</td>
<td>.0024</td>
<td>.2905</td>
<td>.35</td>
<td>.5535</td>
</tr>
</tbody>
</table>
Table 12 shows the results of the hierarchical regression program for Male Subjects for low interest level. Both the score for L2 ability and the score for Background Knowledge contributed significantly to the variance of the dependent variable, L2 reading comprehension. L2 ability was the principal contributor: 34.66%, $F(1, 106) = 55.70$, $p=.0001$. Background knowledge contributed 3.37% of the variance, $F(2,105) = 5.65$, $p=.0192$. The cumulative contribution of L2 ability and background knowledge was 38.03%. The interaction between the two variables contributed .01% of the variance, $F(3,104) = .17$, $p=.6850$. The cumulative contribution of both independent variables and their interaction was 38.13%.
Table 12

Summary of Hierarchical Regression Analysis for Male Subjects Low Interest Level

<table>
<thead>
<tr>
<th>Steps/Variables</th>
<th>R2 Increase</th>
<th>Cumulative R²</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. L2 Ability</td>
<td>.3466</td>
<td>.3466</td>
<td>55.70</td>
<td>.0001</td>
</tr>
<tr>
<td>2. Background Knowledge</td>
<td>.0337</td>
<td>.3803</td>
<td>5.65</td>
<td>.0192</td>
</tr>
<tr>
<td>3. L2 Ability x Background Knowledge</td>
<td>.0010</td>
<td>.3813</td>
<td>.17</td>
<td>.6850</td>
</tr>
</tbody>
</table>
Fourth Research Question
Does the unique contribution of each independent variable differ by level of interest in the text topic?

An examination of Tables 9-12 (summary tables for hierarchical regression analyses) reveals that there are differences in the unique contribution of each independent variable by interest levels and by gender. These differences are of varying magnitude and direction, depending primarily on interest level and, in one case, on gender. For both genders, the unique contribution of L2 ability to the variance in L2 reading comprehension is greater at the low than at the high interest level. For Female Subjects, 3.65% more of the variance is explained by this variable at the low interest level, and 6.74% more of the variance is explained by this variable for the Male Subjects.

For the independent variable of background knowledge, the amount of variance explained is also greater at the low interest level. For Female Subjects, the difference in amount of variance contributed is miniscule, but it is, nevertheless, twice as much at the low level as at the high level (.34% vs. .17%). For Male Subjects, background knowledge explains 2.26% more of the variance at the low than at the high interest level. This comparatively larger amount of variance explained is a direct reflection of the significant contribution that this variable makes to the L2 reading scores for males.

Fifth Research Question
Do any of the independent variables interact to affect reading comprehension?

In the overall analysis (using ANCOVA) of differences by interest level in text topic, the interaction between interest level and gender was examined
(see Table 7). No secondary effects of this nature were observed, and the $F$ was not significant: $F (1, 203) = .06, p < .0033$. The significance of the gender variable was consistent across levels of interest; i.e., females had significantly higher L2 reading comprehension scores on recall protocols for both high and low interest texts.

The subsequent breakdown by gender and interest level (in the hierarchical regression analyses) does yield some second order effects for the interaction between L2 ability and background knowledge. The contribution of the interaction variable (L2 ability x background knowledge) contributed differentially across interest levels for both males and females. For females, the interaction variable contributed 2.26% more of the variance at the low than at the high interest level. This interaction was also significant, $F (1, 95) = 4.04, p < .0471$. For the males, the interaction variable contributed .14% more of the variance at the high rather than the low interest level. This contribution was not, however, statistically significant.

**Discussion**

Means and Standard Deviations

An examination of the means, standard deviations, and range of scores for All Subjects as well as for Female Subjects and Male Subjects as individual groups reveals some interesting differences. The initial research question addressed the overall difference in mean scores for L2 reading comprehension for high and low interest topics. This difference of 2.64 points belies the statistical outcome, which resulted in a significant F value. A difference of so few points may not always prove important, and the context must be considered. Despite a rather wide range of scores on both high and low interest texts, the means were relatively low. This outcome may be due, in
part, to the large N (105, nearly half of the sample) of beginning level students with a depressed L2 ability. The ES of .28 for this F value, with a corresponding power of .95 adds to the strength of finding of statistically significant difference and indicates that interest is, indeed, an important variable in L2 reading comprehension.

Of note also is the comparison between genders on L2 reading comprehension scores of high interest topics and low interest topics. Females had a mean L2 reading score that was 3.44 points higher than males for the high interest level. Their mean L2 reading score for the low interest level also surpassed that of the males, in this case by 3.15 points. A slightly greater difference existed, therefore, between the means for the high interest level (.29 points). These observations corroborate the finding of statistical significance of the difference in L2 reading comprehension by females and males across interest levels. The ES of this analysis was .36, with a power of .995, lending more credence to the statistical significance of this finding.

These data are interesting particularly in light of the data for L2 ability. The means and standard deviations for L2 ability are nearly the same for both genders, but females scored significantly higher on the measure for L2 reading comprehension across interest levels. This finding suggests that while the variable of interest does, indeed, impact L2 reading comprehension for both genders, the effects may be even stronger for females at the high interest level and for males at the low interest level. In other words, high interest in text topic may be an even greater facilitator of L2 reading comprehension for females, and low interest in text topic may impede L2 reading comprehension in males to a greater extent than in females.
In terms of background knowledge measured for both interest levels, across the board, subjects exhibited less background knowledge for topics of low interest than for those of high interest. For All Subjects, the difference between background knowledge for high and low interest levels was .13. For males, the difference was .09, while for females this difference was slightly greater, .19. The differences across gender for the same interest level were even less pronounced. The difference in measured background knowledge for males and females at the high interest level was .007, with females having the higher score. The difference in measured background knowledge for males and females at the low interest level was .03, with males having the higher score.

Correlations

The correlations represent relationships between the variables for All Subjects. Several correlations were of note in the present study. The highest correlation obtained was that between L2 ability and level of Spanish class (r=.76). This finding coincides with the results of the ANOVA performed to ascertain the veridity of the division of Spanish classes by level and its ability to reflect accurately L2 ability (see Table 2). The next highest correlations were those between L2 ability and recall protocol score for low interest text topic (r=.61) and recall protocol score for high interest text topic (r=.59). The correlations between level of Spanish class and recall protocol scores for both high and low interest levels were identical: r=.51. All of these correlations parallel each other: L2 ability and level of Spanish class are compatible in the present study and are not contradicted by L2 reading performance.

The correlations that give pause for thought are those between L2 reading comprehension and background knowledge for each respective interest level.
These correlations were notably low: recall protocol scores for high interest level had a correlation with background knowledge on high interest topic of only .05. The correlation between recall protocol scores for low interest level and background knowledge on low interest topic was only slightly higher: $r=.19$. The expectation would be for a higher correlation, if background knowledge had a significant effect on L2 reading comprehension. It may be that background knowledge did not aid in L2 reading comprehension very much or at all, or its effects might have been differential, depending on other variables. An examination of the inferential data, however, will shed some light on these correlations.

**Statistical Analyses: ANCOVA and Hierarchical Regression Models**

The overall finding, through ANCOVA, was of significant differences in L2 reading comprehension based on level of interest in text topic. These differences remained significant even after factoring out the effects of background knowledge and L2 ability. These results suggest that interest level in text topic plays an important role in L2 reading comprehension. The overall contribution to variance by the interest variable was 9% and was the second largest amount of explained variance in L2 reading scores (behind L2 ability).

The gender differences noted by the ANCOVA, despite near equivalence in L2 ability, suggest several possibilities. First, high interest, while facilitative for males, may be more of a motivation for females. Second, while the low interest factor may be somewhat of an impediment to L2 reading comprehension for females, they tend to persevere through the text. Third, the same low interest factor may have more severe consequences for males,
even to the point of overriding their L2 ability. The gender variable contributed approximately 6% of the variance to L2 reading scores.

The hierarchical regression analyses were run to ascertain the amount of variance in L2 reading comprehension scores explained by the two remaining variables respectively (background knowledge and L2 ability) and their interaction. Data for the background knowledge variable and for its interaction with L2 ability provide perhaps the most interesting results. For both females and males at the high interest level, background knowledge appears to play a minimal role. Scores here did not achieve statistical significance, nor did the scores for background knowledge for females at the low interest level. For males, however, the variable background knowledge did achieve statistical significance, contributing 3.37% of the variance to the recall protocol scores for low topic interest text. Nevertheless, interaction of this variable with that of L2 ability for males at low interest level was negligible.

Curiously, while background knowledge for females at the low interest level in and of itself was not significant, its interaction with L2 ability did achieve statistical significance. The graphic representation in Figure 1 of the interaction shows that the effect of background knowledge, when modified by L2 ability, on low interest recall protocol scores was not uniform across its levels (0-4, none to high). Parallel findings (but conversely stated) are that the effect of L2 ability, when modified by background knowledge, on low interest recall protocol scores was not uniform across its range (0-100). These findings are depicted in Figure 2.

Both figures show that for subjects of low L2 ability, as background knowledge increased, their L2 reading comprehension score increased. The
Figure 1. Effect of Background Knowledge (BK) on Low Interest L2 Reading Comprehension (SL) Moderated by L2 Ability (AB)

Figure 2. Effect of L2 Ability (AB) on Low Interest L2 Reading Comprehension (SL) Moderated by Background Knowledge (BK)
highest scores for L2 reading comprehension at the low interest level were for subjects with low background knowledge and high L2 ability. Conversely, the lowest scores for L2 reading comprehension at this interest level were for low background knowledge and low L2 ability. Nevertheless, as background knowledge increased and interacted with L2 ability, the impact on L2 reading comprehension was moderated. L2 reading comprehension scores went down as both background knowledge and L2 ability increased. The lowest recall protocol scores at the high end of the range of L2 ability were for those subjects who also demonstrated high background knowledge. The highest recall protocol scores at the high end of the L2 ability range were for those subjects who had low background knowledge.

These results confirm, at the very least, the thorny problem that background knowledge presents. Background knowledge may be in place for these subjects, but it may be misused. That is, the background knowledge the subjects have may be correct but extraneous to the particular text and may mislead the subjects. This background knowledge may then override L2 ability to the detriment of the subjects' L2 reading comprehension and subsequent score. Correct background knowledge misused or misinterpreted in this manner could be as harmful as fallacious or missing background knowledge. Findings such as these parallel those of Bernhardt (1991) and underscore her objections to a blind adherence to a “background knowledge explains all” posture suggested by much L2 reading research.

Another concern regarding background knowledge is the difficulty of measuring this variable accurately. Both L1 and L2 reading research has employed many different formats of assessing this elusive variable, ranging from recognition to production in terms of task demands (cf. Valencia,
Stallman, Commeyras, Pearson, & Hartman, 1991, for a discussion of this methodology). The format chosen for the present study, the Langer method of free association, was selected because the responses generated by subjects on free association probes are free from contamination from outside input (i.e., responses from other subjects, exposure to new topic material meant solely for recognition purposes, etc.). While this method provides background knowledge data that are unique to each subject, relatively free from external influence, and quite possibly extremely detailed and complex, the assessment scale itself may not be capable of reflecting these subtleties. The four-point range is a rather gross measure of the variable in general and yields a scale with little variance. The resultant scores may not be sufficiently sensitive to produce a true indication of a subject's background knowledge on a particular text topic. In addition, the low correlations between the scores for background knowledge and those for L2 reading comprehension may be a function of the disparate variances between the two scales of measurement (Bernhardt, 1991).

Last, but certainly not least, is a discussion of the undeniable role of general Spanish ability in the performance of the subjects of this study. Undisputed is the finding that L2 ability contributed the vast majority of explained variance in L2 reading comprehension scores at both interest levels for both genders (see Tables 9-12). This contribution ranged from a low of 27.92% of the variance for males' low interest recall protocol scores to a high of 41.19% for females' low interest recall protocol scores. The contribution of L2 ability vastly overwhelmed even the total contribution of all the other variables combined. L2 ability is a powerful factor in L2 reading comprehension, consideration of other variables notwithstanding.
Summary

In summary, there is a significant difference in L2 reading comprehension based on interest level in text topic. This difference is present for both genders and is uniform across levels of interest: high interest in text topic yields significantly higher L2 reading comprehension than low interest in text topic. The amount of variance in L2 reading scores explained by the interest variable for All Subjects is 9%. In addition, the amount of variance explained by gender is 6% for All Subjects. Female Subjects had significantly higher L2 reading comprehension scores than Male Subjects across interest levels.

The amount of variance explained by the remaining two independent variables (background knowledge and L2 ability) and their interaction varies by interest level and by gender. For high interest level for Female Subjects, the greatest amount of variance in recall protocol scores is accounted for by L2 ability, 37.54%. For Male Subjects at the same interest level, L2 ability also accounts for the greatest amount of variance, 27.92%. Background knowledge at this interest level accounts for .17% of the variance in recall protocol scores for females and .88% of the variance in recall protocol scores for males. The interaction of these two variables accounts for .13% of the variance in the females' scores and .24% of the variance in the males' scores. Of these, only the variance accounted for by L2 ability across genders achieved statistical significance.

For low interest level for Female Subjects, the greatest amount of variance in recall protocol scores was also accounted for by L2 ability by a somewhat higher amount, 41.19%. For Male Subjects at the same interest level, L2 ability still accounted for the greatest amount of variance, but by a
considerably greater amount: 34.66%. Background knowledge at this interest level accounts for .34% of the variance in recall protocol scores for females and 3.37% of the variance in recall protocol scores for males. The interaction of these two variables accounts for 2.39% of the variance in the females’ scores and .10% of the variance in the males’ scores. The variance accounted for by L2 ability across genders achieved statistical significance. Variance accounted for by background knowledge for males and by the interaction of background knowledge and L2 ability for females also proved to be statistically significant. The results of this interaction were varied and differential across ranges of the respective variables.
CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Overview of the Study

The present study has focused on establishing the role of interest as an affective factor influencing L2 reading comprehension. The perspective of interest used in this study is that of personal interest, as opposed to situational interest. Personal interest is defined as the predisposition of a subject toward certain particular topics, activities, and/or tasks as maintained over a continued period of time. Situational interest, on the other hand, is of short duration and stems from, in the case of reading comprehension, the peculiarities of the particular text itself. In addition to investigating the overall impact of interest on L2 reading comprehension, gender differences were examined. Other concerns of the study included investigation of the unique contributions that general L2 language ability and background knowledge in text topic made to the scores of L2 reading comprehension. The possible interaction between and among these variables has also been studied. A secondary question of viability of language class divisions as reflective of L2 ability was also addressed.

The subjects included 206 secondary students enrolled in Spanish classes, levels II-V, in a suburban high school of a large metropolitan area school district. The socioeconomic standard of the district was middle to
upper-middle class, and the racial composition was 25% minority. The independent variables were assessed in a variety of ways. Interest in text topic was determined by a self-ranking scale. Spanish language ability was assessed by a test of general L2 language, with a reliability coefficient of .90 (Cronbach's alpha). Background knowledge was measured using Langer's (1980, 1981, 1982) free association rating scale. A total of three probes were made per text topic, and the resultant scores were averaged to provide the measure for each subject. The dependent variable, L2 reading comprehension, was measured using the scores of the recall protocols generated by each subject for their high and low interest text.

The data were subjected to a number of statistical analyses. The overall research question of differences according to interest level was measured by a repeated measures ANCOVA. Gender differences and interaction were also assessed by this method. Additionally, several different programs of hierarchical multiple regression were employed to address the queries regarding L2 ability, background knowledge, their interaction, and the ensuing impact on L2 reading comprehension. Separate programs were run by gender for the results from high and low interest recall protocols and the corresponding background knowledge scores. The secondary issue of relation between L2 ability and division of levels of Spanish class was investigated by means of ANOVA and appropriate follow-up procedures.

Summary of Findings and Conclusions

Overview

This section is divided into the following parts: (a) Descriptive Data, containing information about the means, standard deviations, and correlations calculated in the present study, and the results of the ANOVA on
level of Spanish class, and (b) Inferential Data, including information emanating from the repeated measures ANCOVA and the hierarchical regression programs. Both sections will include a summary of findings and conclusions for the corresponding analyses. A final section delineating overall conclusions and pedagogical implications ensues.

Descriptive Data

Means, standard deviations, and range.

Several interesting findings emerge from an analysis of the means, standard deviations, and minimum and maximum scores. (See Chapter IV, Tables 3-5.) First, although the difference in mean scores overall between high and low interest recall protocol scores, the measure of L2 reading comprehension, was only 2.64 points, it was statistically significant. Interest is apparently a significant factor in L2 reading comprehension.

Dichotomizing the analysis between genders revealed that the means for both female and male subjects were higher for high interest texts than for low interest texts. These effects were uniform across interest levels and showed no secondary effects of interaction between interest and gender. Both females and males comprehended significantly more when reading texts of high personal interest as opposed to texts of low interest. In terms of the range of scores, for male subjects the maximum score for high interest L2 reading comprehension was 7.5 points higher than the maximum score for low interest L2 reading comprehension. The maximum score for high interest L2 reading comprehension for females, however, was 3.8 points lower than the maximum score for low interest L2 reading comprehension, illustrating outlier influence. Nevertheless, maximum scores at both interest levels were higher than those for male subjects, irrespective of interest level.
Across the board, female subjects scored higher than male subjects on the measure of L2 reading comprehension.

Second, these findings are of particular note in light of the data on L2 ability. The difference between female and male subjects on this variable favored the former subject category, but only by .74%. In other words, both female and male subjects in this sample demonstrated approximately the same L2 ability. Yet female subjects comprehended significantly more from the L2 texts, interest level notwithstanding. One possible explanation for this occurrence is that interest, while a definitive factor for both genders in L2 reading comprehension, is a stronger factor for females than for males when reading material is of high personal interest. By the same token, low personal interest in reading material appears to exert more impact on males than on females. While both genders comprehend significantly less in a low interest level condition, females tend to continue to try to glean some information from the text whereas males simply give up.

Third, the results of scores on background knowledge yield some surprising information. For All Subjects as well as for Female Subjects and Male Subjects, the mean for background knowledge is higher for that pertaining to high interest texts than for low interest texts. At first glance, this finding is not unexpected, particularly if one subscribes to the belief that background knowledge has a strong positive impact on reading comprehension and is predictive of recall (Fincher-Kiefer, Post, Greene, & Voss, 1988; Langer, 1980, 1981). The overall means for all three subject conditions (all subjects, females, and males) are all above the midpoint of the background knowledge scale (0-3). A closer examination of the data, however, reveals only slight differences in means across the three conditions.
Further analyses (see subsequent sections on correlations and inferential data) indicate an unexpectedly weak to non-existent relationship between these two supposedly related variables. Also problematic in relation to the findings of previously mentioned L1 and L2 research is the differential (in terms of interest level and gender) contribution or lack thereof to L2 reading comprehension by background knowledge and its interaction with L2 ability. The issue of background knowledge is contentious at best and will be discussed further below.

Correlations.

Correlations were calculated for All Subjects between all independent and dependent variables. (See Chapter IV, Table 6.) In the following discussion, correlations will be designated as high (above approximately .60), medium (from approximately .40 to .60), or low (below .40). These reference points are in accord with guidelines set forth by Kamil, Langer, and Shanahan (1985). For All Subjects, significant correlations resulted in the case of six relationships; all were of either high or medium magnitude. All also involved some denotation of L2 ability: score for L2 ability, L2 reading comprehension scores, or level of Spanish class.

The highest correlation was that between L2 ability and level of Spanish class (see Figure 3). This finding parallels the result of the ANOVA indicating that the respective level denominations for Spanish class were accurate designations of L2 ability. Medium to high correlations appeared between L2 ability and scores on recall protocols across interest levels (see Figures 4 and 5) and between high and low interest scores themselves (see Figure 6). Medium correlations emerged between the scores for recall protocols for both interest levels and level of Spanish class (see Figures 7 and
The results of these correlations are in accord and present no surprises. Subjects with highest ability were those enrolled, for the most part, in upper level Spanish courses and scoring well on measures of L2 reading comprehension.

Of interest in terms of the correlations are those between background knowledge and the scores on recall protocols for each particular interest level. The correlation between background knowledge and L2 reading comprehension score for high interest topic was a mere .05 (see Figure 9). Only slightly higher was the correlation between background knowledge and L2 reading comprehension score for low interest topic: .19 (see Figure 10). These results would seem to belie a strong relationship between background knowledge and L2 reading comprehension, a point made by Schiefele (1992) in his L1 studies. Not only did he not find a correlation between background knowledge and reading comprehension, but these results also proved to be independent of the interest effect. On the strength of correlation results alone, the present study appears to corroborate the findings of no strong relationship between the two variables of background knowledge and L2 reading comprehension, and this condition is also independent of interest level.

A caveat is offered here in terms of the background knowledge variable. Researchers in both L1 and L2 studies have struggled to operationalize successfully the construct of background knowledge in order to measure it adequately. Numerous formats for assessment have been utilized, but little evidence exists that one method is superior to any other in terms of tapping this shadowy factor. The Langer method of free association probes used in this study has the definite advantage of relying solely on data generated by
Figure 3. Scatterplot of the Correlation Between the Scores for L2 Ability and Level of Spanish Class
Figure 4. Scatterplot of the Correlation Between the Scores for High Interest Reading Comprehension and L2 Ability
Figure 5. Scatterplot of the Correlation Between the Scores for Low Interest Reading Comprehension and L2 Ability
Figure 6. Scatterplot of the Correlation Between the Scores for High Interest Reading Comprehension and Low Interest Reading Comprehension
Figure 7. Scatterplot of the Correlation Between the Scores for High Interest Reading Comprehension and Level of Spanish Class
Figure 8. Scatterplot of the Correlation Between the Scores for Low Interest Reading Comprehension and Level of Spanish Class
Figure 9. Scatterplot of the Correlation Between the Scores for High Interest Reading Comprehension and Background Knowledge
Figure 10. Scatterplot of the Correlation Between the Scores for Low Interest Reading Comprehension and Background Knowledge
individual subjects for each particular text topic. One drawback of the method is the limited range of the scale, making comparisons with scales of greater variance difficult at best and unreliable, unpredictable, or meaningless at worst (Bernhardt, 1991). It has also been questioned whether one measure alone is sufficient to provide an accurate assessment of the background knowledge a subject possesses on any given topic (Valencia, et al., 1991).

The data generated by the present analyses suggest that background knowledge does have an impact on L2 reading comprehension. This role, however, is differential across levels of interest and between genders. It also does not appear to be as substantial as much previous L1 and L2 reading research would posit. The findings of the present study present a modified view of the impact of background knowledge, paralleling the emergent database, shared by both L1 and L2, that is not "on the background knowledge band wagon" (cf. Bernhardt, 1991; Schiefele, 1992).

ANOVA

The secondary issue of L2 ability and its relationship to level of Spanish class was investigated through a one-way analysis of variance (see Chapter IV, Table 2). Means of the response measure, the test of general Spanish ability, were statistically significant between all levels. In other words, subject grouping by level of Spanish class was an accurate reflection of their L2 ability. Four distinct levels of Spanish class were tested, and four distinct ability levels emerged. No collapsing across levels was justified. The means for the levels were as follows: Spanish II, 32.70; Spanish III, 46.83; Spanish IV, 53.51; and Spanish V, 65.25. The means of Spanish levels III-V were all above the overall mean of All Subjects for this variable, which was 41.48 (see
Chapter IV, Table 3). This finding is a direct reflection of the large N (105) at the lowest ability level, over half of the total sample (206). Table 1 (Chapter IV) presents the descriptive statistics for All Subjects for L2 ability by level of Spanish class.

Inferential Data: ANCOVA Analysis and Hierarchical Regression Analyses

Overview.

This section is a summary and discussion of the data generated by the analyses of ANCOVA and hierarchical regression models. The sections are as follows: (a) data generated by ANCOVA for All Subjects, (b) data generated by hierarchical regression models for Female Subjects, and (c) data generated by hierarchical regression models for Male Subjects.

ANCOVA

The results of these analyses are straightforward and provide empirical evidence of the impact of interest on L2 reading comprehension. The significant difference between recall protocol scores of high and low interest texts underscores the importance of considering this variable in the overall scheme of L2 reading. The F value from this analysis resulted in an ES of .28, using Equation 2.4 in Rosenthal (1984, p. 21). Cohen (1977) has suggested guidelines for interpreting effect sizes: small values are around 0.10; medium values are about 0.24; and large values are 0.87 and above. The ES for interest is above the medium value and has a corresponding power of .95. These statistics, coupled with an F value significant at p < .0000, indicate that interest is a variable to be considered seriously. Further computation yielded an R-squared of .09 for this effect: 9% of the variance in L2 reading comprehension scores was accounted for by the interest variable. While this variable does not account for the highest
amount of variance, its impact as the second largest amount of variance accounted for is noticeable. Interest is, indeed, a factor that needs to be considered in L2 reading comprehension.

The difference in performance between genders across interest levels is also significant statistically. The $F$ value from this analysis resulted in an ES of .36, using Equation 2.4 in Rosenthal (1984, p. 21). The ES value for gender indicates a large effect and has a corresponding power of .995. Further computation yielded an R-squared of .06 for this effect: 6% of the variance in L2 reading comprehension scores was accounted for by the contribution of the variable of gender. The lack of interaction between gender and interest suggests the above findings of gender differences are stable across levels of interest. In other words, females comprehended statistically more, irrespective of interest level. Given the similarity in L2 ability for both gender groupings, it would appear that, while both males and females are positively influenced by interest in text topic, the latter group is even more strongly motivated, at least at the high interest level. Females performed statistically better at this level, which suggests a stronger motivational impact. Paralleling this effect at low interest levels, albeit conversely, males are adversely influenced, and their noninterest in the text topic appears to override their L2 ability. They yield to their lack of interest in the text topic and make little effort to comprehend. Females, on the other hand, tend to work through the text, relying on their L2 ability to carry them through when their interest wanes.

These results are certainly compatible with many of the gender/interest studies done in the L1 reading camp. Several of these studies have found that females try harder, even in low interest conditions and that males yield
to their lack of interest, put forth little effort, and eventually cede comprehension (Anderson, Mason, & Shirey, 1984; Anderson, Shirey, Wilson, & Fielding, 1987; Asher, 1980; Asher & Markell, 1974; Baldwin, Peleg-Bruckner, & McClintock, 1985; Walker, Noland, & Greenshields, 1979). It seems reasonable to conclude that males and females react in distinct ways to reading material of different interest levels and that these differences vary depending on the interest condition. The findings of the present study parallel those of the aforementioned L1 research, as well as others (cf. Klein, 1969, 1970, 1979) and argue for reading material that is of high personal interest to individuals of both genders.

Hierarchical Regression Analyses

In this section, the data generated from the hierarchical regression models will be summarized and discussed as follows: (a) for Female Subjects at high interest level, (b) for Female Subjects at low interest level, (c) for Male Subjects at high interest level, and (d) for Male Subjects at low interest level.

Female Subjects at High Interest Level.

In the regression analysis using Female Subjects and their scores on the recall protocol generated after reading their text of high interest level, only the variable of L2 ability contributed in a statistically significant way to the variance in reading comprehension scores. The contribution of L2 ability was 37.54% and far outdistanced any other variable in terms of impact on reading comprehension (see Figure 11). The contributions of background knowledge and of the interaction between background knowledge and L2 ability were negligible at best, being .17% and .13% of the variance in reading comprehension scores respectively.
Female Subjects at Low Interest Level

In the regression analysis using Female Subjects and their recall protocol scores generated from low interest texts, L2 ability was once again the dominant contributor to the variance in measures of L2 reading comprehension. For this subject grouping, L2 ability accounted for 41.19% of the variance in the recall protocol scores, which is 3.65% more of the variance than at the high interest level (see Figure 12). The contribution of background knowledge itself at this interest level was negligible again, accounting for .34% of the variance in reading comprehension scores. Its interaction with L2 ability, however, accounted for 2.39% of the variance, a contribution that proved to be statistically significant. The results of this interaction show that background knowledge and L2 ability modified each other's effect on L2 reading comprehension in differential ways, depending on the strength of the variable (see Chapter IV, Figures 1 & 2). For subjects of low L2 ability, L2 reading comprehension increased along with background knowledge. For subjects of high L2 ability, however, L2 reading comprehension decreased as background knowledge increased.

The differential influence of background knowledge here aptly portrays this variable as the conundrum it has proved to be in both L1 and L2 reading research. The idea that background knowledge plays a part in reading comprehension is not in dispute. The point is precisely what that role is, how to pin it down, and how most effectively to utilize it. Perhaps the “tried and true” methods for assessing background knowledge to date are only the former and not the latter. Another possibility is that background knowledge is present, correctly assessed, but misused.
Figure 11. Chart of the Results of the Hierarchical Regression Program for Female Subjects at High Interest Level

Figure 12. Chart of the Results of the Hierarchical Regression Program for Female Subjects at Low Interest Level
Male Subjects at High Interest Level

In the regression analysis using Male Subjects and their scores on the recall protocol generated after reading their text of high interest level, the variable of L2 ability was the only one that contributed in a statistically significant way to the variance in reading comprehension scores. The contribution of L2 ability here was the lowest of the four subject groupings, accounting for 27.92% of the variance in L2 reading comprehension scores (see Figure 13). The variance accounted for by background knowledge was .88%, and that accounted for by the interaction between the two variables was .24%. Both of these contributions to the variance were miniscule and not of statistical significance.

Male Subjects at Low Interest Level

In the regression analysis using Male Subjects and their recall protocol scores generated from low interest texts, L2 ability continued to be the dominant contributor to the variance in measures of L2 reading comprehension. For this subject grouping, L2 ability accounted for 34.66% of the variance in the recall protocol scores, which is 6.74% more of the variance than at the high interest level (see Figure 14). Background knowledge made a statistically significant contribution of 3.37% to the variance of reading comprehension scores. Apparently, when interest is low, males tend to rely more on background knowledge to derive meaning from a text. The interaction of background knowledge and L2 ability accounted for the least amount of variance for any of the four analyses: .10%.

Summary

The overriding conclusion of the above analyses is, not surprisingly, that L2 ability is an extremely important factor in L2 reading comprehension.
Figure 13. Chart of the Results of the Hierarchical Regression Program for Male Subjects at High Interest Level

Figure 14. Chart of the Results of the Hierarchical Regression Program for Male Subjects at Low Interest Level
This variable accounted for more of the variance in recall protocol scores than all other variables combined. Obviously, one cannot read well in a L2 without some L2 ability. The present study focused on other contributors to the difference in reading comprehension scores in an attempt to identify variables of influence in the L2 reading process. The affective factor of interest accounted for the next largest amount of variance of any of the variables investigated. Clearly, interest has an impact on L2 reading comprehension and should be a factor involved in L2 reading instruction. Gender differences, contributing the third largest amount of variance in reading scores, are also factors that need to be considered in the L2 reading process. Finally, background knowledge, while not a major factor in L2 reading comprehension in this study, needs attention if only to minimize detrimental effects at the very least.

**Conclusions and Implications for Pedagogy**

The reading process remains a phenomenon whose exterior is observable, but whose interior can only be hypothesized. Studies such as the present one can, however, contribute to the database in an attempt to substantiate the theoretical reading process. This study has sought to investigate some of the issues believed to be involved in the L2 reading process. Affective factors comprise a segment of variables that may have a great impact on L2 reading comprehension. It is, however, often difficult to operationalize these factors (e.g., interest). Compounding the problem, many of these affective factors as well as others (e.g., background knowledge) frequently elude today's measurement techniques. The complexity of the reading process, however, demands that attention be given to precisely such problems.
The data from this study indicate that interest is indeed a contributing factor to L2 reading comprehension. Little or no interest in text topic negatively affects reading comprehension, and high interest facilitates it. The strong effects observed for L2 ability for all subject groupings underscore the importance of attention to this variable. Background knowledge also appears to be tied to L2 reading comprehension for some subjects, although differentially. It may have a facilitative effect, particularly at low interest and L2 ability levels. It may also impede comprehension if the match between background knowledge and text content is fallacious or if the reader simply does not possess any background knowledge whatsoever on a given topic.

Pedagogical implications are clear. First, it is incumbent upon foreign language teachers to employ individual student interests as often as possible in selection of reading materials. This could easily be done by simple personal surveys in class or by permitting students to choose their own readings from time to time. In the present study, subjects were queried as to their interest level in text topics before and after reading. The pre- and post-reading interest ratings by the subjects show that a majority (62.62%) of the subjects were indeed more interested in the topic, ergo the text, they initially selected as their high interest topic (see Table 13). The same rating results also indicate that, in general, subjects were aware of their individual interests, definitive about stating same, and their L2 reading comprehension aligned with this self-assessment. Nearly three-fourths of the subjects comprehended more of their declared higher interest text (see Table 14). Students do not always need to work on the same materials. A little creative
### Table 13

**Interest Ratings Per Topic, by Pre-and Post-Reading Designation**

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
<th>No. of Ss</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>high</td>
<td>high</td>
<td>129</td>
<td>62.62</td>
</tr>
<tr>
<td></td>
<td>low</td>
<td>low</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td>high</td>
<td>low</td>
<td>50</td>
<td>24.27</td>
</tr>
<tr>
<td></td>
<td>low</td>
<td>high</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3)</td>
<td>high/low</td>
<td>same</td>
<td>27</td>
<td>13.11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td>206</td>
<td>100.00</td>
</tr>
</tbody>
</table>
Table 14

Comparison of Pre- and Post-Ratings and Comprehension Scores

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total alignment:</td>
<td>54.37</td>
</tr>
<tr>
<td>pre- and post-rating and scoring</td>
<td></td>
</tr>
<tr>
<td>2. Pre-and post ratings different but post-rating</td>
<td>19.42</td>
</tr>
<tr>
<td>aligns with scoring</td>
<td></td>
</tr>
<tr>
<td>3. Pre- and post-ratings the same but scoring</td>
<td>17.96</td>
</tr>
<tr>
<td>opposite</td>
<td></td>
</tr>
<tr>
<td>4. Pre-rating and scoring align but post-rating</td>
<td>8.25</td>
</tr>
<tr>
<td>opposite</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note. Conditions 1 & 2 support the hypothesis that level of interest in the text impacts L2 reading comprehension.
planning and the use of individual interests could promote maximum learning in each student.

Second, teachers need to ascertain the level of background knowledge students have about particular topics. This will differ widely among students, and information gaps will necessarily have to be filled. Teachers also need to verify what understanding each student takes away from the text and to clarify any erroneous conclusions stemming from inadequate prior knowledge or from related misconceptions or misuse. In other words, the most logical, effective, and efficient starting point in approaching a text would be the reader (Bernhardt, 1991). Too often the text is the main focus of a lesson, and the reader is lost in the shuffle.

Third, given the strong impact of L2 ability on the reading comprehension scores of the subjects in the present study, it seems appropriate to advocate L2 reading instruction that parallels a development of L2 ability of the kind measured in this study by the general test of Spanish ability, i.e., grammar. A focus on communicative perspectives and global use of a language need not preclude a sound grammatical base. Reading is an active, rather than a passive, activity and one that certainly stems from a communicative intent, both on the part of the writer and the reader.

Recommendations for Research

Clearly, no research effort is exhaustive in and of itself, and further research is needed to confirm, validate, and expand upon the results of the present study. The subjects here were secondary learners of Spanish; replications should be made using subjects of diverse age groups (e.g., children or adults). The same basic design could also be carried out using texts and learners of other languages.
Due to the troublesome nature of the background knowledge variable, future research should focus on refinement of assessment of this factor. Multiple measures of background knowledge using different methodologies could be employed in order to tap this construct as closely as possible.

Much of the variance in L2 recall protocol scores was unaccounted for in all four subject groupings. Future research should consider employing additional independent variables in order to ascertain their contribution to L2 reading comprehension. Measurement of the present variables could also be refined in order to operationalize the variables more efficiently. L2 ability could be broken down into subsections such as vocabulary, grammatical rules, etc. A more detailed assessment of this type might result in more variance accounted for or more succinctly explained, at the very least.

In order to glean as much information as possible about the reading process, it would seem useful to employ as many different techniques as possible to obtain purposeful data. This study attempted to use an eclectic approach, using the recall protocol, background knowledge probes, and a general L2 ability criterion. Future studies should continue to investigate details of the reading process from as many perspectives as possible, using sound and varied methods. Triangulation will yield rich data for analysis, providing further insights into the process of foreign language reading.

Limitations

Several limitations may have influenced the present study. First, the subjects' lack of familiarity with the recall protocol procedure might have had an impact on the results. Second, the measure of background knowledge may not have adequately tapped the construct and thus may have yielded a less than totally accurate assessment of each subject's prior knowledge on any
given topic. Third, the large number of subjects at the low end of the L2 ability range may have skewed the results and needs to be noted for generalizability purposes. Fourth, although a common assumption of all research is that subjects will perform to the best of their ability, the maturation factor of the present subject pool may have impinged on this expectation.
Topical Interest Ranking

Please rank the following topics in order of interest to you. The ranking should be from high to low interest. In other words, the topic that interests you most will be ranked “number 1” and the one that interests you least will be ranked “number 5.”

____ Fashion models
____ Food/cooking
____ Music/jazz
____ Sports/soccer
____ Rural vacations/Spain
APPENDIX B

Code: ______

Interest Rating Scale

(Article name)

Please rate the article you just read on the following scale. Please circle the number that corresponds with your interest level in the article.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>very interesting</td>
<td>not interesting</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please rate the article you just read on the following scale. Place an “X” next to the appropriate statement.

____ very interesting
____ fairly interesting
____ somewhat interesting
____ slightly interesting
____ not at all interesting
APPENDIX C

SPANISH READING PASSAGES
Pelé y la nostalgia futbolera: En la Copa Pelé una constelación de veteranos juega a recrear lo mejor del fútbol mundial

Lo mejor para poder revivir viejas glorias del fútbol es invocar el nombre del mito más grande del deporte. Para ello se creó la Copa Pelé, un torneo bienal en el que juegan los veteranos mayores de 34 años de los seis países que han conquistado la Copa Mundial: Brasil, Italia, Argentina, Alemania, Uruguay e Inglaterra.

La Copa Pelé se inauguró en São Paulo en 1987 con una victoria de Argentina, y volvió a celebrarse en esa ciudad en 1989 con un triunfo de Brasil. Ahora se intenta aumentar su alcance efectuándola en el Estadio Joe Robbie, localizado al norte de Miami, entre el 18 y el 27 de enero.

"La competición es un camino nuevo para los jugadores. Es como haber nacido otra vez", dice el profesor Julio Mazzei, amigo y asesor de Pelé. El profesor Mazzei se ha dedicado del todo a las viejas glorias al asumir la presidencia de la Asociación Internacional de Maestros de Fútbol), organización fundada por los seis países participantes de la Copa Pelé. Junto con Luqui Corporation, una empresa brasileña de televisión y espectáculos, IMSA ha fomentado la Copa Pelé con miras a exportar esta idea. Como lo han comprobado, el béisbol y el golf, deportes que tienen su propio circuito de veteranos, EE UU es un gran mercado para la nostalgia.
**Proyectando Su Imagen**

Cindy Crawford no es solo una modelo, es una industria. A los 24 años, ha acumulado toda una vida de créditos profesionales: vocera de dos importantes compañías (Revlon y JH Collectibles), presentadora de TV (House of Style, de MTV). Más su trabajo a tiempo completo en las revistas y las pasarelas, lo que hace que sus millas como viajera frecuente lleguen a las seis cifras.

Ella se lo toma todo muy, muy seriamente. Sabe que el mejor modo de vender creyones de labios, blusas y perfumes es vendiendo su propia personalidad. No solo es una bella cara en los anuncios de Revlon, es la embajadora de la firma ante el público. Se sienta en las juntas directivas de JH Collectibles y MTV para ofrecer sugerencias—y se actúa según éstas. Todos los demás toman también seriamente a Cindy Crawford. En parte, por su distintiva imagen en la cámara y fuera de ella. Estando todavía en la escuela secundaria cuando empezó su carrera como modelo, recuerda que se vestía como las otras chicas: suéteres marginalmente de moda y Levi’s. Ahora, después de seis años de que la abotonen, la abrochen y le suban el zipper en las ropas más refinadas del mundo, ha desarrollado ideas muy definitivas de la moda.

“Trato de lucir bien combinada la mayor parte del tiempo.” Y en contra de la creencia popular, sus trajes son solo indirectamente suministrados por las potencias de la Séptima Avenida. “Es un mito que los diseñadores nos colmen de regalos,” dice. “Ellos nos pagan y, luego, nosotras vamos de compras como todo el mundo.”
Un Toque De Delicadeza

En pocos artistas como en Chet Baker se encarna la leyenda maldita del músico de jazz. Antes de su trágica muerte en 1988, en misteriosas circunstancias, había gozado de una segunda juventud musical tras un período de silencio y de manifiesta destrucción por su adicción a las drogas. En sus primeros años se había hecho famoso en el grupo de Gerry Mulligan y como líder de sus propios grupos, donde, además de tocar la trompeta, comenzó a cantar con su particular e inconfundible estilo.

De esa segunda juventud musical, desarrollada fundamentalmente en Europa, se conservan numerosas grabaciones. Una de ellas es este L.P., The touch of your lips, registrado en 1979 para el sello danés SteepleChase, y que ahora nos llega a España importado por Nahuel Records. La mayor parte de los temas son baladas y en ellas el tono melódico, romántico, característico de la forma de tocar de Chet Baker consigue transmitir una sensación de cercanía e intimidad, siempre en un ambiente de delicadeza y buen gusto.

En dos de las composiciones—"But not for me" y "The touch of your lips"—escuchamos la voz de Chet Baker: en la primera haciendo uso de la vocalización "scat", con la que dialoga como un instrumento más; en la segunda moviéndose en ese tono medio-bajo cercano al susurro y lleno de sugerencias.

No podemos dejar de hacer mención de sus dos extraordinarios acompañantes: el guitarrista Doug Raney, hijo del también famoso guitarrista Jimmy Raney, y el contrabajo danés Niels-Henning Orsted Pedersen, colaborador con muchos de los grandes del jazz en su ya larga carrera. Ambos constituyen un contrapunto ideal a la trompeta y la voz de Chet Baker.
El Salmón

A algunos les gusta fresco y a otros ahumado. Pero las amas de casa más ocupadas, cómodas e inventivas se limitan a abrir unas latas. Con ellas se pueden hacer muchos sabrosos platos.

Ahora que nadie quiere engordar y que todo el mundo se cuida el colesterol, se come cada vez más pescado. Especialmente usted verá el salmón prestigiendo el menú de todos los restaurantes gourmets. Pero no tiene que “salir” para comerlo; también podrá hacerlo fácilmente en su casa de varias maneras distintas: entero, en filetes o en lonjas, simplemente hervido o en platos importantes, pero que se hacen en realidad en un momento, como “rollitos de corazones de palmito gratinados.” Es un primer plato elegante y fácil de hacer, lindo a la vista y delicioso al paladar.

Además, podrá comprarlo ahumado, ya listo para servir, y en latas, para una ensalada, por ejemplo, que será tan exquisita como una de pollo y que le dará mucho menos trabajo. Podrá servirlo como aperitivo, en hors-d’oeuvre sobre galleticas o tostadas melba, como un fino primer plato tan ligero o tan abundante como quiera, o como plato principal, bien acompañado por vegetales de la estación. Y, si está en plano de cocinar lo menos posible y desea ofrecerles un buffet a un grupo de amigos, préséntelo junto a una gran bandeja de frutas (uvas, fresas, frambuesas) y un jamón entero, que se hace también prácticamente solo. ¿Quién dijo que la alta cocina consistía en cocinar por horas y horas?
Vacaciones en Casas de Campo

Angel Esteban, 23 años, estudiante de Derecho, en junio del pasado año terminó el servicio militar y decidió que bien merecía un descanso. Un pueblecito de Ávila, Burgohondo, a 35 kilómetros de la capital, fue el lugar elegido. Durante tres semanas, Angel recorrió las comarcas de la zona. Pinares, comida sana y abundante, y buen vino de Cebreros. Por la noche, alguna partida de cartas en cualquier bar del pueblo con Antonio, un viejo del lugar con el que hizo amistad y al que acompañaba alguna mañana a pescar trucha.

Los 20 días de descanso de Angel fueron gratificantes para el cuerpo y el espíritu y, además, se ahorró dinero: su alojamiento en una de las viviendas rurales del pueblo le costó escasamente 20 duros diarios, y la comida, un precio similar. El ejemplo de Angel es seguido por muchos cada año: pasar sus vacaciones en casas de labranza. El antiguo Ministerio de Información y Turismo, en colaboración con el Servicio de Extensión Agraria del Ministerio de Agricultura, establecieron este programa de vacaciones en casas rurales y editaron una guía con el propósito de “facilitar la relación directa entre agricultores que ofertan sus casas y las personas que desean pasar en ellas sus vacaciones.” El experimento se realiza sin intermediarios de ningún tipo y es un caso típico de simbiosis social en el que ambas partes salen beneficiadas. Por una parte, la gente de la ciudad obtiene el descanso que la proporciona el medio rural, tranquilidad, alimentos sanos, y aire puro a un precio razonable. Los agricultores, por su parte, consiguen así unos ingresos complementarios que nunca vienen mal.
APPENDIX D

SCORING TEMPLATE FOR SPANISH READING PASSAGES
Pelé y la nostalgia futbolera

| Pelé | y la nostalgia futbolera | en la Copa Pelé | una constelación de veteranos | juega a recrear | lo mejor | del fútbol mundial | lo mejor | para poder revivir | viejas glorias del fútbol | es invocar | el nombre del mito más grande | del deporte | para ello | se creó la Copa Pelé | un torneo bienal | en el que juegan | los veteranos mayores de 34 años | de los seis países | que han conquistado | la Copa Mundial | Brasil | Italia | Argentina | Alemania | Uruguay | e Inglaterra | la Copa Pelé | se inauguró | en São Paulo | en 1987 | con una victoria | de Argentina |
y volvió a celebrarse ____________________________________________ 2
en esa ciudad __________________________________________________ 1
en 1989 _________________________________________________________ 3
con un triunfo de Brasil ___________________________________________ 3
ahora ___________________________________________________________ 1
se intenta aumentar su alcance _____________________________________ 4
efectuándola _____________________________________________________ 2
en el Estadio Joe Robbie _________________________________________ 3
localizado _________________________________________________________ 1
al norte de Miami _________________________________________________ 2
entre el 18 y el 27 de enero _________________________________________ 2
la competición ____________________________________________________ 4
es un camino nuevo _______________________________________________ 4
para los jugadores _______________________________________________ 4
es como haber nacido otra vez ______________________________________ 3
dice el profesor Julio Mazzei _________________________________________ 1
amigo y asesor ____________________________________________________ 2
de Pelé __________________________________________________________ 1
el profesor Mazzei _________________________________________________ 2
se ha dedicado del todo ____________________________________________ 2
a las viejas glorias _________________________________________________ 2
al asumir _________________________________________________________ 1
la presidencia _____________________________________________________ 3
de la Asociación Internacional ______________________________________ 2
de Maestros de Fútbol _______________________________________________ 2
organización fundada _______________________________________________ 2
por los seis países participantes ____________________________________ 2
de la Copa Pele ____________________________________________________ 2
junto con Luqui Corporation _________________________________________ 2
una empresa brasileña _______________________________________________ 1
de televisión y espectáculos _________________________________________ 1
IMSA ha fomentado _________________________________________________ 4
la Copa Pele _________________________________________________________ 3
con miras a exportar ________________________________________________ 4
<table>
<thead>
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<td>esta idea</td>
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<td>como lo han comprobado</td>
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<td>el béisbol y el golf</td>
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<tr>
<td>Proyectando su imagen</td>
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<tr>
<td>Cindy Crawford</td>
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<td>presentadora de TV</td>
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<td>House of Style</td>
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<td>de MTV</td>
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<td>en las revistas</td>
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<td>y las pasarelas</td>
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<td>lo que hace</td>
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<td>como viajera frecuente</td>
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<td>lleguen a las seis cifras</td>
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<td>blusas</td>
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<td>y perfumes</td>
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<td>es vendiendo</td>
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<td>su propia personalidad</td>
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de la firma _____________________________________________________ 2
ante el público ___________________________________________________ 1
se sienta ________________________________________________________ 4
en las juntas directivas __________________________________________ 4
de JH Collectibles ________________________________________________ 2
y MTV _________________________________________________________ 2
para ofrecer sugerencias _________________________________________ 3
y se actúa ________________________________________________________ 3
según éstas _____________________________________________________ 1
todos los demás __________________________________________________ 4
toman también seriamente _______________________________________ 4
a Cindy Crawford _________________________________________________ 4
por su distintiva imagen _________________________________________ 3
en la cámara ____________________________________________________ 3
y fuera de ella ___________________________________________________ 3
estando todavía __________________________________________________ 1
en la escuela secundaria _________________________________________ 4
cuando empezó __________________________________________________ 3
su carrera _______________________________________________________ 4
como modelo ____________________________________________________ 2
recuerda que se vestía ____________________________________________ 2
como las otras chicas ____________________________________________ 4
suéteres marginalmente de moda ____________________________________ 2
y Levi’s _________________________________________________________ 2
ahora ___________________________________________________________ 1
después de seis años _____________________________________________ 1
de que la abotonen ______________________________________________ 1
la abrochen ____________________________________________________ 1
y le suban el zipper ______________________________________________ 1
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<tr>
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Un toque de delicadeza

un toque de delicadeza __________________________________________ 4
en pocos artistas ________________________________________________ 2
cómo en Chet Baker ____________________________________________ 4
se encarna ______________________________________________________ 4
la leyenda maldita ______________________________________________ 3
del músico de jazz ______________________________________________ 4
antes de su trágica muerte ________________________________________ 3
en 1988 _________________________________________________________ 2
en misteriosas circunstancias ______________________________________ 2
había gozado ____________________________________________________ 3
de una segunda juventud musical __________________________________ 4
tras un período de silencio ________________________________________ 3
y de manifiesta destrucción ________________________________________ 2
por su adicción __________________________________________________ 3
a las drogas _____________________________________________________ 2
en sus primeros años _____________________________________________ 1
se había hecho famoso ____________________________________________ 4
en el grupo de Gerry Mulligan ______________________________________ 4
y como líder ____________________________________________________ 4
de sus propios grupos ____________________________________________ 4
donde __________________________________________________________ 1
además de tocar la trompeta ________________________________________ 4
comenzó a cantar ________________________________________________ 4
con su particular __________________________________________________ 2
e inconfundible estilo ____________________________________________ 3
de esa segunda juventud musical __________________________________ 2
desarrollada fundamentalmente en Europa ____________________________ 2
se conservan numerosas grabaciones ________________________________ 3
una de ellas _____________________________________________________ 1
es este L.P. ______________________________________________________ 1
The touch of your lips _____________________________________________ 4
registrado en 1979 ________________________________________________ 1
para el sello danés ________________________________________________ 1
SteepleChase __________________________________________________ 1
y que ahora ________________________________________________ 1
nos llega a España ___________________________________________ 1
importado por Nahuel Records __________________________________ 1
la mayor parte _______________________________________________ 2
de los temas ________________________________________________ 3
son baladas ___________________________________________________ 4
y en ellas ____________________________________________________ 1
el tono melódico ______________________________________________ 4
romántico ____________________________________________________ 4
característico _________________________________________________ 2
de la forma de tocar __________________________________________ 3
de Chet Baker ________________________________________________ 1
consigue transmitir ____________________________________________ 3
una sensación de cercanía _______________________________________ 4
e intimidad ____________________________________________________ 4
siempre en un ambiente ________________________________________ 3
de delicadeza __________________________________________________ 3
y buen gusto __________________________________________________ 3
en dos _______________________________________________________ 1
de las composiciones _________________________________________ 1
“But not for me” ______________________________________________ 3
y “The touch of your lips” ______________________________________ 3
escuchamos la voz _____________________________________________ 4
de Chet Baker ________________________________________________ 4
en la primera ________________________________________________ 2
haciendo uso __________________________________________________ 1
de la vocalización “scat” ______________________________________ 4
con la que dialoga ______________________________________________ 2
como un instrumento más _____________________________________ 3
en la segunda ________________________________________________ 2
moviéndose ___________________________________________________ 1
en ese tono medio-bajo _________________________________________ 3
cercano al susurro _____________________________________________ 2
y lleno de sugerencias
no podemos dejar
de hacer mención
de sus dos extraordinarios acompañantes
el guitarrista Doug Raney
hijo del también famoso guitarrista
Jimmy Raney
y el contrabajo danés
Niels-Henning Orsted Pedersen
colaborador
con muchos
de los grandes del jazz
en su ya larga carrera
ambos constituyen
un contrapunto ideal
a la trompeta
y la voz de Chet Baker
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Value

o en lonjas ______________________________________________________ 1
simplemente hervido _____________________________________________ 1
o en platos importantes __________________________________________ 3
pero que se hacen ______________________________________________ 2
en realidad _____________________________________________________ 1
en un momento __________________________________________________ 3
como rollitos de corazones ________________________________________ 2
de palmito gratinados ___________________________________________ 2
es un primer plato ________________________________________________ 4
elegante __________________________________________________________ 2
y fácil de hacer __________________________________________________ 4
lindo a la vista ___________________________________________________ 2
y delicioso al paladar _____________________________________________ 3
además __________________________________________________________ 1
podrá comprarlo ahumado _________________________________________ 4
ya listo para servir ______________________________________________ 4
y en latas _________________________________________________________ 3
para una ensalada ________________________________________________ 3
por ejemplo _______________________________________________________ 1
que será tan exquisita ____________________________________________ 2
como una de pollo ________________________________________________ 2
y que le dará ____________________________________________________ 2
mucho menos trabajo _____________________________________________ 3
podrá servirlo ____________________________________________________ 3
como aperitivo ____________________________________________________ 4
en hors-d'oeuvre __________________________________________________ 2
sobre galleticas ___________________________________________________ 2
o tostadas melba __________________________________________________ 1
como un fino primer plato _________________________________________ 4
tan ligero _________________________________________________________ 1
o tan abundante __________________________________________________ 2
como quiera ______________________________________________________ 1
o como plato principal ____________________________________________ 4
bien acompañado __________________________________________________ 2
por vegetales

de la estación

y

si está en plano

de cocinar lo menos posible

y desea ofrecerles

un buffet

da un grupo de amigos

preséntelo

junto a una gran bandeja

de frutas

uvas

fresas

frambuesas

y un jamón entero

que se hace también

prácticamente solo

quién dijo

que la alta cocina

consistía en cocinar

por horas y horas
Vacaciones en casas de campo

vacaciones ______________________________________________________ 4
en casas de campo ______________________________________________ 3
Angel Estéban __________________________________________________ 4
23 años _________________________________________________________ 2
estudiante de Derecho ___________________________________________ 1
en junio del pasado año __________________________________________ 2
terminó el servicio militar ________________________________________ 2
y decidió ________________________________________________________ 3
que bien merecía _______________________________________________ 3
un descanso ____________________________________________________ 4
un pueblecito de Ávila ___________________________________________ 2
Burgoondo _____________________________________________________ 1
a 35 kilómetros _________________________________________________ 1
de la capital ___________________________________________________ 1
fue el lugar elegido _____________________________________________ 3
durante tres semanas ___________________________________________ 2
Angel recorría __________________________________________________ 2
las comarcas ____________________________________________________ 2
de la zona _____________________________________________________ 1
pinares _________________________________________________________ 1
comida sana y abundante ________________________________________ 4
y buen vino de Cebreros _________________________________________ 2
por la noche ____________________________________________________ 1
alguna partida de cartas ________________________________________ 4
en cualquier bar del pueblo ______________________________________ 2
con Antonio ____________________________________________________ 3
un viejo del lugar ______________________________________________ 2
con el que hizo amistad _________________________________________ 2
y al que acompañaba ___________________________________________ 2
alguna mañana __________________________________________________ 1
a pescar trucha _________________________________________________ 3
los 20 días ____________________________________________________ 1
de descanso de Angel ___________________________________________ 1
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<td>le costó escasamente</td>
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<td>pasar sus vacaciones en casas de labranza</td>
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<td>el antiguo Ministerio de Información y Turismo</td>
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<td>establecieron este programa de vacaciones en casas rurales</td>
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<td>y editaron una guía de vacaciones directa entre agricultores que ofertan sus casas y las personas</td>
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que desean pasar ________________________________________________ 3
en ellas _________________________________________________________ 1
sus vacaciones _________________________________________________ 3
el experimento _________________________________________________ 3
se realiza ______________________________________________________ 2
sin intermediarios _______________________________________________ 3
de ningún tipo __________________________________________________ 1
y es un caso típico _______________________________________________ 3
de simbiosis social ________________________________________________ 4
en el que ambas partes __________________________________________ 4
salen beneficiadas ________________________________________________ 4
por una parte ____________________________________________________ 1
la gente de la ciudad _____________________________________________ 4
obtiene el descanso ______________________________________________ 4
que la proporciona ________________________________________________ 2
el medio rural ____________________________________________________ 4
tranquilidad ______________________________________________________ 3
alimentos sanos __________________________________________________ 4
y aire puro _______________________________________________________ 4
a un precio razonable ____________________________________________ 3
los agricultores __________________________________________________ 4
por su parte ______________________________________________________ 1
consiguen así __________________________________________________ 3
unos ingresos complementarios ____________________________________ 4
que nunca vienen mal ____________________________________________ 2
APPENDIX E

CODE

PERSONAL DATA QUESTIONNAIRE

Please answer the following questions:

1. What is your native language?

2. How many years of Spanish have you had?

3. Have you studied any other foreign language? If so, which one and how many years?

4. Do you have or have you in the past had any regular contact with Spanish-speaking people (relatives, neighbors, etc.)?

5. Have you spent any time in a Spanish-speaking country? If so, what were the circumstances (where and how long)?

6. Gender: _____Female_____Male
APPENDIX F

Script for Research Project

My name is Jean LeLoup. I am a doctoral student in the Department of Foreign Language Education at The Ohio State University in Columbus, Ohio. I am working on a research project dealing with the reading comprehension of second language learners. I have requested and received permission from Administrator's name, and the School District's name to conduct a study using your class. The study will require that you read two brief passages in Spanish and write about them in English. This study will have no bearing on your grades in this class. To ensure that confidentiality will be maintained, you will have a code number that you will use in lieu of your name on all materials you submit to me.

Participation in this study is voluntary. Because you are high school students, I will need both you and a parent to sign a permission/consent form, stating that you understand the terms of the study and are participating freely. I will give you a letter explaining the study to take home, along with the permission form. Please read these items carefully and then give them to the appropriate person at your home. I must have these items back, signed, before you may participate in the study. Please have them back to Teacher's name by Date.

Thank you very much for your attention. I look forward to working with you soon.
APPENDIX G

Directions for Questionnaire/Topic Ranking

You will each receive a research packet. This packet will contain two activities. The first is a questionnaire page with personal data questions. Please fill these in.

The second is a list of topics. Please rank these topics from high to low according to your interest in them.

Are there any questions?

Thank you for your assistance in this study.
APPENDIX H

Probe Instructions and Sample Probes

Please take out a whole piece of paper but DO NOT put your name on it. In the upper right hand corner, please put the code number you have been given.

You are now going to do some free association. I will give you a topic and a time limit, and you must write in English what you know about the topic. Please write in complete sentences. Please write as much and as quickly as you can because the time limit will be brief. Please number each topic as I give them to you.

The first topic will be a practice exercise. Remember, please write in complete sentences.

Example: In the next minute, please tell me all you can about automobiles.

(Subjects write for one minute. After the time is up, the researcher asks for some example answers.)

What did you write for "cars"? (2-3 subjects respond)

Are there any questions? Let's begin.

Day 1

In the next minute, please tell me all you can about . . . .

1. beauty products
2. healthy food
3. drug abuse by musicians
4. Spanish countryside
5. soccer tournaments
6. humans in space
APPENDIX I

Directions for Recall Task/Interest Rating

You will each receive a research packet. This packet will contain two passages in Spanish and, in varying order following each passage, a blank page for your recall and a rating scale related to each passage. There is also a place on each page for your code number. Please fill this in as you turn each page.

Please listen carefully to the directions and make sure you understand them beforehand as I will not be able to answer any questions once you have started working.

Go through the research packet in order and do the activities in order. Once you have turned a page, fold it behind the others and DO NOT return to it under any circumstances.

Read each passage as many times as you want. When you think you understand as much as you can, turn the page and continue with the activities. For the recall, please write everything you can remember from the passage in English. I repeat, please write everything you can remember from the passage in English.

The rating scale is self-explanatory.

You will have the rest of this class period to complete all tasks with the two passages. You will need to pace yourself accordingly.

Are there any questions?

Thank you for your assistance in this study.
LIST OF REFERENCES


Langer, J. A. (1980). Relation between levels of prior knowledge and the organization of recall. In M. L. Kamil & A. J. Moe (Eds.), *Perspectives on Reading Research and Instruction* (pp. 28-33). Twenty-ninth Yearbook of the National Reading Conference. Clemson, SC: National Reading Conference Inc.


