

Does gender make a difference? Passage content and comprehension in second language reading

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Abstract

The intermediate level of Spanish language instruction prepares learners for the rigorous reading of authentic texts utilized in the advanced literature course. This study examined the effects of readers' gender and passage content on second language (L2) reading comprehension with participants from this transitional level of instruction. Seventy-eight participants read two different authentic passages commonly used at this level. Two different measures were used to assess comprehension: a written recall and multiple choice questions. Findings reveal significant interactions between readers' gender and passage content with comprehension on both assessment tasks. The results of the study provide evidence that subject matter familiarity has a facilitating effect on second language (L2) reading comprehension by gender at the intermediate level of Spanish language instruction.

Keywords: gender, passage content, comprehension, intermediate level, Spanish, recall, multiple choice, topic familiarity

Introduction

Students who are studying Spanish as a second language at the university level in the United States begin reading lengthy, authentic texts at the intermediate level of instruction. At most universities, this "bridge" level is labeled the intermediate level because it consists of the courses taught between the basic language courses and the literature courses, and usually includes the prerequisite courses for a major or minor in Spanish that focus on grammar, conversation, culture and composition. Many language departments throughout the United States are currently re-examining the intermediate level curriculum (Rava, 2001) because professors contend that students are not prepared to read the authentic texts utilized in the advanced literature courses. The instructional practices in the literature courses should shift from plot level discussions to text analysis and interpretation. Instead of spending class time analyzing the literary works written by native Spanish speakers, literature professors find themselves deconstructing the plot. It is in the intermediate level courses where students should become equipped with the skills necessary to read extensive, L2 authentic texts. Moreover, the higher the level of instruction, the wider the gap becomes between male and female students. Females outnumber males four to one in the

literatures courses (Chavez, 2001). The significance of readers' gender, passage content, and comprehension at this critical level of language instruction warrants further investigation.

In a review of second language reading research that examines passage content as a key variable in comprehension, Brantmeier (2001) asserts that it is difficult to make generalizations for the intermediate level because the database consists of studies conducted with participants from many different levels of instruction both within and outside the United States (Bügel & Buunk, 1996; Carrell, 1981; Carrell, 1987; Johnson, 1981; Steffensen, Joag-dev, & Anderson, 1979). The participants differ in terms of age, gender, and language background, and researchers utilize different tools to measure comprehension. Because an objective of the intermediate level is to prepare students to read the literary works in the advanced literature courses, it is crucial for L2 reading researchers to conduct experiments at this bridge level.

By examining the relationship between readers' gender, passage content, and comprehension, the present study helps to fill this lacuna in the database of L2 reading research and will help us better understand the ways in which these mechanisms affect one another at the intermediate level of Spanish language instruction. It will also aid instructors in both the selection of course materials and in the development of pre-reading activities. Furthermore, this study will assist test-constructors in the design of existing standardized instruments.

Review of Research

Passage Content

Content schema is knowledge relative to the content domain of the reading passage that the reader brings to a text. In examining the effects of content schemata in the second language reading process, researchers often manipulate the passage content and have subjects process each different passage. The subjects might answer basic comprehension questions or inferential questions, write recalls or summaries, perform oral think-aloud recalls and more. Any differences in these measures of comprehension are connected to the direct manipulation of content and the reader's existing knowledge of that content.

Most of the research on content schemata has focused on the acquisition of English as a second language (ESL), and researchers often utilize two groups of participants: native English speakers and international students. With two passages about an Indian wedding and an American wedding, Steffensen, Joag-dev, and Anderson (1979) reported that participants read the native culture content-oriented passage faster and recalled a larger amount of information from the native passage. They concluded that differences in existing knowledge about the content of text materials may be an important source of individual differences in reading comprehension. With Iranian students studying ESL in the United States and a group of American students, Johnson (1981), manipulated passage content (authentic folktales) while maintaining constant passage form, or organizational structure of the texts, to determine whether the level of language complexity of the text had a greater influence on reading comprehension than the cultural origin of the text. The results showed that members of each cultural group comprehended more of the content from the culturally familiar text than did non-members of the cultural group.

Carrell (1981) examined the comprehension of advanced ESL Japanese and Chinese subjects using folktales from different cultural orientations. Her findings showed that the cultural origin of the text affected the subject's recall of information from the texts, as well as the subjects' judgments of the level of difficulty of the texts. With students of Muslim background and of Roman Catholic background, Carrell (1987) utilized historical biographies of little-known personages from both religious denominations to explore the interaction of form and content knowledge as they influence comprehension. She concluded that when both content and rhetorical form are variables in ESL reading comprehension, content is generally more important than form.

Each of the studies reviewed manipulated the content of the passage in order to illustrate that reading is a content specific activity. These studies provided empirical support for the hypothesis that content schemata, as seen as culturally familiar and unfamiliar content, influence first and second language reading comprehension.

Some research on the effects of topic knowledge in listening have revealed similar results to the L2 reading studies. With Australian English native listeners and nonnative listeners, Tyler (2001) suggests that nonnatives rely more than natives on topic knowledge in listening comprehension. In another study on L2 listening, Bacon (1992) examined the relationship among gender, comprehension, processing strategies, and cognitive affective response with students studying Spanish. She found that men and women reported using different listening strategies, yet she found no major differences in the listening comprehension levels of males and females with different topics.

Male or Female Content-Oriented Passages

Utilizing different content passages with readers from different groups within the same country adds intriguing dimension to the research on content schema. Most investigations of this nature have been done with readings in the subject's native language, and the different groups consisted of men and women.

Hyde and Linn (1988) contended that the lower scores of women in the United States on the language part of the American Scholastic Aptitude Test (SAT) were mainly attributed to changes in the content of the readings of the test. This claim was in line with research that supported the assertion that in college-level achievement tests successful reading is related to the passage topic from which exam questions are developed. In a study on gender differences in achievement test performance at the college level, Doolittle & Welch (1989) found notable gender differences for items associated with specific passages, reporting that females scored higher than males with humanities-oriented reading passages, but lower than males with science-oriented passages.

The native language reading research with readers from different groups with the same national identity paralleled a similar study in L2 reading. In a study on gender differences in L2 reading comprehension in the Netherlands, Bügel and Buunk (1996) found that the topic of text is an important factor explaining gender-based differences among scores obtained on the reading part of the national foreign language examination. Males scored significantly better on the multiple

choice comprehension items for essays about laser thermometers, volcanoes, cars, and football players. Females achieved significantly higher scores on the comprehension tests for essays on text topics such as midwives, a sad story, and a housewife's dilemma.

Young and Oxford (1997) investigated the disparities among native English speaking men and women while reading two Spanish texts and one English text. The different passages were taken from textbooks used at the course levels of the participants, and included topics such as economics, the presence of foreign cultures in work, leisure, and history. With regard to the recall scores, no significant differences by gender were reported for all three text topics, and furthermore, there were no reported differences by gender in the familiarity ratings with passage topics or background knowledge of any of the passages. The contrasting findings in studies that have examined gender and passage content suggest need for further investigations of this nature.

Comprehension

Many L2 reading investigations have investigated reading strategies, but the fact that students may process a text similarly or differently does not necessarily mean that their interpretations of the text are identical. In other words, students may interact with the text in similar ways but comprehend differently, or interact differently but comprehend at the same level. The common vein in a review of definitions of comprehension is that new information anchors to the old, pre-existing information, becoming part of the learner's permanent cognitive domain (Bernhardt, 1991; Hammadou, 1991; Lee and VanPatten, 1995). Wolf (1993: 473) reader and text variables involved in comprehension, and she echoed Bernhardt's claim that there is not "one true comprehension," but a "range" of comprehension.

Traditionally, L2 reading researchers utilize one or two measures of comprehension that consist of free recall, summaries, multiple choice, true/false, close-deletion items, open-ended questions, and sentence completions. It is important to note, however, that different comprehension assessment tasks may not be testing the same ability. To measure reading comprehension Block (1986) utilized verbal retellings for which students were asked to give an oral report of everything they remembered about the passages they had read. After retelling the passages, Block also asked the participants to answer a written multiple choice test. Anderson (1991) echoed Block's comprehension measures, but he reversed the order, asking students to answer written multiple choice questions and then give verbal reports of comprehension. In a study with native language and foreign language passages Sarig (1987) measured comprehension orally by instructing participants to give a verbal report of main ideas and the overall message of the passages. Barnett (1988) used multiple written measures of comprehension where students read a story and then wrote what they remembered of it. Students also read a story and chose the most appropriate continuation of the story. Carrell (1989) used written multiple-choice questions to assess comprehension.

As demonstrated by the previous studies, the instruments utilized to measure L2 reading comprehension vary in number and design. Bernhardt (1991) carefully reviewed the standard reading assessment tasks (cloze test, multiple choice questions, and direct questions) that are utilized in L2 studies, and she offered an alternative to these tasks: the immediate written recall. Bernhardt recommended that the recall be written in the native language of the participants, a

suggestion made by prior researchers but often left unheeded. To account for the disparities in testing instruments, the present study includes two different measures of comprehension: the written recall (an alternative suggested by Bernhardt) and multiple choice items (a traditional task familiar to students).

Research Questions

The present study was undertaken in order to examine the interaction effects of readers' gender and passage content on L2 readers' comprehension at the intermediate level of Spanish language instruction. The following research questions guide the study:

1. Are there gender differences in learners' topic familiarity?
2. Are there gender differences in learners' second language reading comprehension?
3. Does the gender-oriented passage content of the second language reading text affect learners' comprehension?

Methodology

Participants

A total of 78 subjects (29 men and 49 women) in an intermediate level course at a large, Midwestern university agreed to participate in the study. The desired statistical analyses postulated a balance of males and females; however finding a balance of women and men in the intermediate and advanced courses was impossible, as the ratio of females to males was three to one. All subjects were enrolled in a fifth-semester Introduction to Hispanic Culture class. According to the course syllabus, the "Introduction to Hispanic Culture" class functions as a bridge between the intermediate and advanced levels of Spanish and counts toward a major or minor in Spanish. It is an intensive introduction to Hispanic culture through reading, writing, listening, audio-visual, and conversational materials, with opportunities to analyze and discuss diverse cultural aspects of the Hispanic world. This course also serves to review and expand upon all Spanish grammar elements studied in first and second year courses. Students are expected to know all verb forms, as well as the basic rules that apply to nouns, pronouns, adjectives and articles. The course is conducted entirely in Spanish, and the course readings consist of encyclopedia-like passages about Spanish-speaking countries, as well as short stories written by Hispanic authors. By the time the students have completed this course, they have a broad overview of the histories and cultures which make the Spanish-speaking world what it is today. One goal of the course is to prepare learners for the level of reading, writing, and speaking necessary to be successful in the advanced language, literature, and civilization courses.

In order to ensure that students shared similar characteristics, such as type of reading instruction received and language skills learned, only those students who had previously taken Spanish 250, second-year Spanish, at the university were included in this study. To further ensure

homogeneity of subjects, only students whose native language was English were included. Furthermore, only those students who completed all tasks on both days were included in the study.

Reading Passages

The two reading passages were selected after carefully looking at different literary texts that are used at the intermediate level. Most texts used at this level incorporate short stories by male and female authors, and works by Elena Poniatowska and Julio Cortázar are often incorporated in syllabi. For this study, the passage from the short story "La casita de sololoi," by Poniatowska, was taken from a volume of short stories entitled *La pluma mágica*. Cortázar's passage was taken from his short story "La noche de Mantequilla," which is in a book of short stories entitled *Los relatos: Ahí y ahora*. The Cortázar passage was chosen because it centered around male spectators at a boxing match, and all of the characters are men. The Poniatowska passage was selected because it focused on a frustrated mother and wife who visits her college roommate, and all the characters are women. Both short stories are often used in anthologies for the same level of instruction: the intermediate level. The passages were not examined for text difficulty levels because the study does not make comparisons of comprehension scores between the two passages, rather it examines the differences in comprehension by gender within each passage. The stories were not used in their entirety. Each vignette contained approximately 600 words and consisted of about one-and-one-half pages of text. The passages were retyped and formatted so that glosses could be supplied to aid the reading process. To determine which words needed to be glossed, both passages were given to students in an introduction to literature course to identify words that caused them difficulty. Instructors and supervisors for the course were also consulted about the glossed words. In the end, each passage contained the same number of glossed words. The titles of both passages contained misleading and ambiguous terms, so a description of key concepts in the title was included more than half of a page length above the title of the passage.

Comprehension Assessment Tasks

Because research studies have concluded that the method of assessing reading comprehension influences how readers perform on a test of reading comprehension (Shohamy, 1984; Lee, 1986a; Wolf, 1993), reader's performance across two different reading comprehension assessment tasks was used: the written recall and multiple choice questions. Both of these tasks were completed in the learner's native language, English (Bernhardt, 1983; Lee, 1986a; and Wolf, 1993).

Written Recall

The written recall protocol requires readers, without looking back at the passage, to recall and write down as much as they can of what they have just read. Bernhardt (1991) asserted that generating a recall does not influence a reader's understanding of the text. Contending that when multiple choice or open-ended questions are administered, additional interaction takes place among texts, reader, questioner, and among the questions themselves, she claimed, "A free recall measure provides a purer measure of comprehension, uncomplicated by linguistic performance and tester interference" (p. 200). Berkemeyer (1989) commented that the immediate recall

protocol requires the reader to comprehend the passage well enough to be able to recall it in a coherent and logical manner.

The focus on quantity of correct information recalled with the written task has been used widely (Barnett, 1986; Carrell, 1983; Lee, 1986a; 1986b; among others), and therefore is utilized in the present study. In this study the written instructions on the recall page told the learner to try to recall main ideas, as well as details, and it also indicated that the emphasis was on quantity of ideas recalled. The written recall measure was administered before the multiple choice questions so that students were not able to gain any passage related information from the multiple choice questions. Students were instructed not to look back at any previous pages while reading and completing all tasks.

Multiple Choice Questions

Multiple choice questions are a common means of assessing learners' reading comprehension because the task is familiar to subjects and is easy for researchers to score (Wolf 1993). Bernhardt (1991) maintained, however, that multiple choice tests are problematic because they are often not passage-dependent, that is, the reader does not always need to read a passage in order to choose the correct answer. To control for these problems, Wolf (1991) wrote multiple-choice questions that met the following criteria: (1) that all items be passage dependent, and (2) that some of the items require the reader to make inferences. Furthermore, all the distractors in the multiple choice questions had to be plausible in order to prohibit participants from immediately disregarding responses. These guidelines were strictly adhered to while creating the multiple choice items for the present study. In addition, a third criterion was developed by the researcher of the present study: the test-takers were not able to determine correct responses by looking at the other questions on the page. For each of the 10 multiple choice questions three possible responses were created: one correct response and two distractors.

Topic Familiarity

To measure self-reported degree of topic familiarity, a 5-point Likert scale that ranged from "I was really familiar with this topic" to "I was not familiar with this topic at all" was utilized. The 5-point scale was used to encourage more precision in rating. The participants answered the topic familiarity question after completing all comprehension assessment tasks.

Procedures

All subjects read both passages and completed all measurements for both passages on two different days. In all sections, on both days, subjects received a packet containing the following: a consent form, a 600-word reading passage, a recall comprehension task page, a multiple-choice comprehension test, and a topic familiarity question (see Appendix A for the reading passages and multiple choice questions). For methodological purposes, the order of presentation of the male content passage and the female content passage were counterbalanced (Johnson, 1981; Steffenson, 1979). Because gender is a very important variable in this study, the order of presentation was also counterbalanced according to the readers' gender. All subjects completed

all tasks on both days. Before beginning the experiment, subjects were asked first to sign the formal consent form stating that they agreed to participate in the study by allowing the described exercises to be used for research. Subjects were then told that they would read a passage in Spanish, and that once they read it and began the following sections that they were not allowed to look back at the passage.

The experiment was conducted in the subjects' regular classrooms during regular class time. All subjects were tested during the fifth week of classes during the second semester. The experiment days were written in the syllabus as normal "lectura" days. The researcher was present at all data-collection sessions in order to give the same instructions to all subjects in the study. During the experiment, the researcher ensured that none of the participants looked back at the reading passage while completing the assessment tasks. The regular course instructors remained in the room during the study.

Data Analysis

The written recall task was scored using Riley and Lee's (1996) criteria to identify each "unit of analysis," which can be an idea, proposition, or a constituent structure. In other words, both literal and inferred idea units were counted. Both the researcher and a rater separately identified the idea units recalled correctly on each written recall, and then these units were compared to the text to ensure that the information in the written recall appeared in or was implied in the reading passage. The researcher and rater compared results, and the percent of scoring agreement between the two raters was 96%. The total number of units recalled correctly was identified as one dependent variable used to measure comprehension. The range of scores for correctly identified idea units for the male-oriented passage was a minimum score of 2 and a maximum score of 17. For the female-oriented passage the minimum score was 3 and maximum score was 23. The multiple choice questions were scored according to the total number of correct responses out of the ten questions.

Results

The independent variables were: (1) passage content (boxing and housewife) and (2) readers' gender. The two sets of dependent variables were: (1) comprehension (measured with the written recall protocol and multiple choice comprehension questions) and (2) topic familiarity.

For research question one, data were submitted to the Kruskal-Wallis non-parametric procedure because the topic familiarity scores were ranked levels. In order to compare several means simultaneously and to assess interaction effects, for research questions two and three, data were submitted to a two-way Analysis of Variance (ANOVA). The ANOVA procedure showed the between-subject main effects and the within-subject main effects. The alpha level was set at .05.

Topic Familiarity

For both passages read, subjects reported their degree of familiarity with the passage topic (really familiar to not familiar at all). The lower the mean score the more familiar the subjects were with the passage topic. The male participants were more familiar with the passage on boxing ($M = 3.00$, $SD = 1.07$) than the females were ($M = 3.79$, $SD = 0.80$), and the female participants were more familiar with the passage about the frustrated housewife ($M = 2.82$, $SD = 0.78$) than the males were ($M = 3.51$, $SD = 1.02$). The results of the Kruskal Wallis test indicated that there was a significant difference in self-reported topic familiarity ratings with male and female learners for both of the texts ($p < .05$).

As shown in Figure 1., 73% of the males and 42% of the females reported some degree of familiarity with the topic of boxing. None of the females indicated that they were 'really familiar' with the topic of boxing, and only 1% of them reported being 'familiar with most' of the passage topic. Precisely 27% of the males and 57% of the females indicated that they were 'not familiar at all' or 'not familiar with very much' the topic about boxing.

The percentages of topic familiarity ratings by gender for the passage about the frustrated housewife are graphically displayed in Figure 2. Exactly 83% of the females and 51% of the males reported some degree of familiarity with the topic of a frustrated housewife. None of the males indicated being 'really familiar' with the topic. More specifically, 15% of the females and 49% of the males reported that they were 'not familiar at all' with or 'not familiar with very much' of topic about a frustrated housewife.

Comprehension

Results of the ANOVAs showed no significant difference between mean scores for males and females on overall comprehension of the passages. There was no difference in performance by gender across passages.

Sample means and standard deviations for the main effect of passage content on both comprehension tasks were calculated. Sample means indicate better overall performance on the passage concerning a housewife (Recall $M = 9.38$, $SD = 4.48$; Multiple Choice $M = 8.21$, $SD = 1.50$) than on the passage about boxing (Recall $M = 6.58$, $SD = 3.35$; Multiple Choice $M = 6.18$, $SD = 1.49$). The results of the ANOVAs demonstrated a significant main effect of passage content on recall ($F(1,76) = 22.76$, $p = .00$) and multiple choice ($F(1,76) = 64.73$, $p = .00$).¹

The results of the ANOVAs yielded significant interactions between independent variables readers' gender and the boxing passage content as they affect dependent variables recall ($F(1,76) = 8.26$, $p = .01$, $\eta = .10$) and multiple choice questions ($F(1, 76) = 4.20$, $p = .04$, $\eta = .05$). Likewise, the results of the ANOVAs yielded significant interactions between readers' gender and housewife passage content as they affect recall ($F(1,76) = 15.90$, $p = .00$, $\eta = .18$) and multiple choice ($F(1,76) = 8.67$, $p = .00$, $\eta = .10$). Sample means for the interaction of readers' gender and passage content with both comprehension tasks are graphically displayed in Figures 3 and 4. As illustrated on the figures, for the Cortázar passage on boxing males scored higher on

the recall task ($M = 7.93$, $SD = 2.83$) than the females ($M = 5.78$, $SD = 3.40$) as well as on the multiple choice questions (males $M = 6.62$, $SD = 1.35$; females $M = 5.92$, $SD = 1.53$). For the Poniatowska passage on the frustrated housewife females scored higher on the recall task ($M = 10.85$, $SD = 4.47$) than males ($M = 7.00$, $SD = 3.38$) and on the multiple choice questions (females $M = 8.57$, $SD = 1.12$; males $M = 7.59$, $SD = 1.84$). Figures 5 and 6 graphically display the interaction effects of reader's gender and passage content with comprehension. Performance by males and females on comprehension tasks was significantly affected by passage content and readers' gender.²

Discussion

Research Question Number 1: Are there gender differences in learners' topic familiarity?

Instructors know that students have been enculturated in society through a particular set of circumstances and experiences that forms part of their existing cognitive domain. The results of the present study clearly demonstrate that male and female learners at this level of instruction are not familiar with the subject matter of the texts. It is obvious that these gender differences in self-reported topic familiarity are due to differential gender-related experiences. It would be a serious mistake for instructors to assume that gender differences in topic familiarity have disappeared and that the Spanish language is the barrier to comprehending authentic texts. The findings of the present investigation parallel prior ESL studies on reading comprehension where cultural background knowledge was more significant than syntactic complexity (Floyd & Carrell, 1987; Johnson, 1981). Course instructors at the intermediate level of Spanish cannot change the gender or the background of the learners, but they can provide in-class activities that inform readers of new information they are required to process in the text. The instructor can explain and clarify cultural as well as linguistic meanings that are relevant to the reading experience before the learner takes the reading materials home to read. Although an instructor cannot teach all the possible instances in which gender-related differences in subject matter may affect comprehension, some of the appropriate cultural schemata that the student lacks can be effectively taught. With ESL students at the intermediate level, Floyd and Carrell (1987) found that knowledge relevant to reading comprehension that is taught in the classroom will have positive effects on reading comprehension. Instructors should not only anchor new information to the existing information, but they should also fill in the gaps if subject matter is actually non-existent information. Because reading assignments are generally done outside the classroom, equipping students with the necessary information before they begin reading may make the experience less frustrating at this level and consequently may help prepare independent L2 readers for the literature courses. A future study might also investigate whether familiarity of subject matter compensates for inferior linguistic proficiency at this level of instruction.

Research Question Number 2: Do gender differences account for differences in second language reading comprehension?

The results revealed no significant differences between males and females in the written recall and multiple choice comprehension scores across passages. This question explored gender differences in the performance on comprehension tasks for all passages utilized in this study, and

the two different passages were selected based on gender orientation of the topic. The ANOVA summed scores on both passages, thereby balancing out differences, which were revealed in the interaction. So, when examining comprehension across multiple passages, males had no advantage over females, and females had no advantage over males.

Another possible explanation for the lack of gender differences in overall reading comprehension scores is that no gender-neutral text was used in this study. Bügel and Buunk (1996) included a gender-neutral passage in their L2 study, and they found that males performed significantly better than the females on the gender-neutral text. This finding contrasts previous research which suggests that females are better second language learners than males (Huebner, 1995). A future L2 reading investigation might include a gender-neutral text.

Research Question Number 3: Does the gender-oriented passage content of a second language reading text affect the learners' comprehension?

In the present study male and female performance on comprehension tasks was significantly affected by passage content. Topic knowledge affects second language reading comprehension by gender at the intermediate level of Spanish instruction. Results indicated significant interactions between gender and recall and gender and multiple choice items for passage about boxing as well as for the passage about the housewife. Male subjects recalled significantly more idea units and scored higher on the multiple choice items for the Cortázar passage than for the Poniatowska passage, and females recalled significantly more idea units and scored higher on multiple choice items for the Poniatowska passage than for the Cortázar passage. It is clear that subject matter influenced one gender to be more successful than the other.

The results of the present study contribute to the growing concern over biases in standardized tests. Rosser (1987) argued that women's lower scores on college admissions tests are due to sex bias in topic selection. Studies on standardized examinations like the SAT and ACT reported notable gender differences with specific passages in the learners' native language (Doolittle & Welch 1989; Hyde & Lynn 1988), and research on gender differences on the reading part of the national foreign language examination in the Netherlands suggested that the topic of the text is a significant variable that explains these differences (Bügel & Buunk 1996). Similar to the present study, Bügel and Buunk found that females achieved higher scores for a list of text topics that included a housewife's dilemma, and males scored higher on text topics that included sports. Hyde and Lynn (1988) have attributed male learners' success on comprehension tasks on the SAT to the content of the readings of the test. Males scored higher on the reading part of the exam, and Hyde and Lynn claimed that it is because females have had less exposure to the male-oriented text topics. In the present study, higher scores by males on the recall and multiple choice items can be attributed to the same factor. Males reported being more familiar than females with the topic of boxing, and females indicated being more familiar than males with the text topic of a frustrated housewife. It is clear that topic familiarity affected reading comprehension.

These results also contribute to the skepticism about bias in gender roles in second language textbooks. Second language textbook writers are faced with a conflicting dilemma: accounting for topic familiarity issues while simultaneously avoiding the perpetuation of gender stereotypes. Research on gender representation or misrepresentation in textbooks has revealed poor portrayal

of female characters not only in terms of stereotyping and derogatory treatment, but also with regard to exposure (Bruce, 1986; Florent & Walter, 1989; Florent et al., 1994, to name a few). Furthermore, it must be said that utilizing authentic materials from the target language and culture that do not include gender stereotyping is improbable.

A close examination of the results of the present study reveals that males performed better on the passage about boxing than on the passage about the housewife when the dependent variable was written recall, but males performed worse on the boxing passage than on the housewife passage when the dependent variable was multiple choice questions. (See the two left columns in Figures 3 and 4.) The same results are not true for the female participants. This may suggest that at this level of instruction males perform better on written recall than on multiple choice questions for texts topics that they are familiar with. Wolf (1991) reported that different comprehension assessment tasks require different kinds of processes. The findings of the present study may also imply that both topic familiarity and comprehension assessment task affect the comprehension of males at the intermediate level of instruction. More studies on gender differences in performance with varied comprehension assessment tasks should be undertaken before any generalizations can be made.

Summary and Conclusions

Reading is an active process that involves complex, interacting variables. This investigation serves to provide the foundation for further discussion of the corresponding implications for instruction and program evaluation of the intermediate level. The results of the present study indicated that two important interacting factors in the L2 reading process of university students of intermediate Spanish are the readers' gender and passage content. Male and female readers were able to make connections to familiar passage content, and therefore were able to understand and comprehend better as they read.

Given the role of readers' gender and gender-oriented passage content in second language reading, the following suggestions for reading instruction are offered. Suggesting applications to pedagogy based on research that did not directly test the effects of instruction can be misleading and therefore must be prefaced with caveats: 1) these suggestions need to be investigated in classroom-based research; and 2) these suggestions are by no means complete.

Selection of reading materials is important. Selecting authentic texts for the intermediate levels of instruction should not simply be a matter of examining text difficulty aspects that are based on linguistic features. Familiarity or unfamiliarity of subject matter should also be considered, however selecting texts on topics which are equally familiar or unfamiliar to male and female readers is difficult. The results of the present study suggest including a balance of reading materials, both male-oriented and female-oriented, in the intermediate level Spanish class. Research has shown that the majority of students in intermediate and advanced courses of Spanish are female. Chavez (2001) found that in Spanish and French courses female students outnumber males at all levels with the numeric gap widening at the more advanced course levels. The instructor needs to keep this in mind when selecting reading materials. Of course this does not mean that male-oriented texts should be excluded. Rather, it means that when instructors

select reading materials, they should consider the gender of the reader. Instructors should provide relevant information to the students so that they better comprehend the texts. It is of utmost importance for instructors to remember that it may not be the Spanish language (i.e., a linguistic factor) that impedes successful reading comprehension. Rather, it may be the unfamiliar content of the text.

To ensure homogeneity with the participants of the present study, no scores of native-Spanish speakers from Spanish speaking countries or the United States were included. With the increasing population of native-Spanish speakers studying Spanish in a formal classroom setting, a future study might include them in the sample. Are native male and female readers of Spanish familiar with the same topics? How would the gender-oriented passage topic affect their comprehension?

Researchers have argued whether males and females should be examined as dichotomous constructs. Some also claim that viewing men and women as homogeneous groups can be dangerous. Cameron (1994), for example, suggested that the variation within gender groupings is "as significant as the degree of variation between them" (p. 388). However, an examination of the diversity among the male and female groups in the present study revealed that the degree of variation was not large. Would a larger group sample show greater variation among gender groups? This question could be answered in future studies.

Overall, the results show that at the intermediate level of instruction it may not only be the Spanish language that hinders successful L2 reading comprehension of authentic texts, but rather it may be the topic of the text. Passage content clearly influences how well male and female readers process meaning of "real" texts at this stage of acquisition. Future studies should examine the effects on comprehension by gender and familiarity with other text topics common to the literary canon, such as violence and humor. Finally, including the reader's experience in the pre-reading process at this level is crucial so that students are prepared to read independently in literature courses.

Notes

1. A one-way ANOVA and a bivariate regression model with a dichotomous independent variable are precisely the same (King, 1986). The only substantive difference is that in the ANOVA case one only reports whether there exists a significant difference or not, and therefore to answer the research questions in the present study the ANOVA was calculated. In a bivariate regression the magnitude of the difference is reported, but in the present study the reported sample means by group (i.e., gender) reveal the magnitude, and the ANOVA shows whether the difference is significant or not.
2. When comparing the two passages, the Cortázar passage yielded lower comprehension scores on both multiple choice and recall, independent of gender. Text difficulty could be a limitation to the extent that it would be an intervening variable, or a variable that was not included in the present study. The author chose not to control for text difficulty because the study does not make

comparisons of recall comprehension scores between the two passages, rather it examines the differences in recall comprehension scores by gender within each passage. Furthermore, to maintain authenticity, the researcher did not simplify the Cortázar text.

Acknowledgement

The author wishes to express sincere gratitude to Dr. James F. Lee for his guidance and support for this study.

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Appendix A Data Collection Packet

In order to understand the following passage, you need to know that José "Mantequilla" Nápoles is the name of a Mexican boxer.

La noche de Mantequilla

<p><i>ropes; whip</i> <i>quarrel</i></p>	<p>En la tercera vuelta Mantequilla salió con todo y entonces lo esperable, pensó Estévez. Monz'n contra las cuerdas°, un uno-dos de látigo°, el clinch fulminante para salir de las cuerdas, una agarrada° mano a mano hasta el final del round. Sacaron cigarrillos al mismo tiempo, los intercambiaron sonriendo, el encendedor° de Walter llegó antes. Cuando sonó el gong, Estévez miró a Walter que sacaba otra vez los cigarrillos.</p>
<p><i>lighter</i></p>	
<p><i>fans; cheered</i></p>	<p>Era difícil hablarse en el griterío, el público sabía que el round siguiente podía ser el decisivo, los hinchas° de Nápoles lo alentaban° casi como despidiéndolo, pensó Estévez con una simpatía que ya no iba en contra de su deseo ahora que Monzón buscaba la pelea y la encontraba y a lo largo de veinte interminables segundos entrando en la cara y el cuerpo mientras Mantequilla apuraba° el clinch como quien se tira al agua, cerrando los ojos. No va a aguantar° más, pensó Estévez, y con esfuerzo sacó la vista del ring para mirar la cartera de tela° en el tablón, habría que hacerlo justo en el descanso cuando todos se sentaran, exactamente en ese momento porque después volverían a pararse y otra vez la cartera sola en el tablón, dos izquierdas seguidas en la cara de Nápoles que volvía a buscar el clinch, Monzón fuera de distancia, esperando apenas para volver con un gancho° exactísimo en plena cara, ahora las piernas, había que mirar sobre todo las piernas, Estévez ducho° en eso veía a Mantequilla pesado, tirándose adelante sin ese ajuste tan suyo mientras los pies de Monzón resbalaban° de lado o hacía atrás, la cadencia perfecta para que esa última derecha calzara° con todo en pleno estómago, muchos no oyeron el gong en el clamoreo histórico pero Walter y Estévez sí, Walter se sentó primero enderezando° la cartera sin mirarla y Estévez, siguiéndolo más despacio, hizo resbalar el paquete en una fracción de segundo y volvió a levantar la mano vacía para gesticular su entusiasmo en las narices del tipo de pantalón azul que no parecía muy al tanto de lo que estaba sucediendo.</p>
<p><i>finished</i> <i>endure</i> <i>towel</i></p>	
<p><i>hook</i> <i>expert</i></p>	<p>-Eso es un campe'n -le dijo Estévez sin forzar la voz porque de todos modos el otro no lo escucharía en ese clamoreo-. Carlitos, carajo°.</p>
<p><i>slipped</i> <i>carried</i> <i>putting</i></p>	
<p><i>who cares</i></p>	
<p><i>canvas</i></p>	<p>Miró a Walter que fumaba tranquilo, el hombre empezaba a resignarse, qué se le va a hacer, si no se puede no se puede. Todo el mundo parado en la espera de la campana del séptimo round, un brusco silencio incrédulo y después el alarido unanime al ver la toalla en la lona°, Nápoles siempre en su rincón y Monzón avanzando con los guantes en alto, más campe'n que nunca, saludando antes de perderse en el torbellino de los abrazos y los flashes. Era un final sin belleza pero indiscutible, Mantequilla abandonada para no ser el punching-ball de Monzón, toda esperanza perdida ahora que se levantaba para acercarse al vencedor y alzar</p>

los guantes hasta su cara, casi una caricia mientras Monzón le ponía los suyos en los hombros y otra vez se separaban, ahora sí para siempre, pensó Estévez, ahora para ya no encontrarse nunca más en un ring.

cramped -Fue una linda pelea -le dijo a Walter que se colgaba la cartera del hombro movía los pies como si se hubiera acalambrado°.

-Podría haber durado más -dijo Walter-, seguro que los segundos de Nápoles no lo dejaron salir.

- ¿Para qué? Ya viste como estaba sentido, che, demasiado boxeador para no darse cuenta.

one is like -Sí, pero cuando se es como° él hay que jugarse entero, total nunca se sabe.

Recall:

Without looking back at the passage, recall in English as much as you can of what you have just read. Try to recall main ideas as well as details. The emphasis is on quantity of ideas recalled.

Comprehension Questions for *La Noche de Mantequilla*

1. The passage begins
 - a. in the first round of the boxing match.
 - b. in the third round of the boxing match.
 - c. in the final round of the boxing match.
2. Walter and Estévez are
 - a. the boxers that are competing.
 - b. The spectators at the boxing match.
 - c. The referees at the boxing match.
3. During the boxing match Walter and Estévez
 - a. smoke cigarettes.
 - b. eat popcorn.
 - c. eat hotdogs.
4. During the fight, Estévez thought that
 - a. Mantequilla Nápoles would not endure the fight.
 - b. Mantequilla would knock out Monzón.
 - c. Monzón would knock out Mantequilla.
5. Toward the end of the fight
 - a. Monzón hit Mantequilla with two to the left and a final blow to the right.
 - b. Monzón hit Mantequilla with a final big blow to the left.
 - c. Monzón knocked out Mantequilla.

6. At the end of the boxing match
- the gong was heard loudly and clearly by all the spectators.
 - many spectators did not hear the gong.
 - the gong did not ring.
7. After the match was over
- Monzón saluted the spectators.
 - Monzón fell down from exhaustion.
 - Monzón immediately left the ring.
8. Estévez thought that
- it was a great fight.
 - it was a short fight.
 - the match was a waste of his time.
9. The winner of the boxing match was
- Monzón.
 - Mantequilla Nápoles.
 - Estévez.
10. Walter thought that
- Monzón was not tough enough.
 - the match could have lasted longer.
 - it was a great fight.

Passage Two

In order to understand the following passage you need to know that sololoi refers to Hollywood films and the images they project of the "dream house."

La casita de sololoi

face mask "Yo te había dicho que una vida así no era para ti, una mujer con tu talento, con tu belleza. Bien que me acuerdo cómo te sacabas los primeros lugares en los 'Essay Contests.' Escribías tan bonito. Claro, te veo muy cansada y no es para menos con esa vida de perros que llevas, pero un buen corte de pelo y una mascarilla° teharán sentirte como nueva, el azul siempre te ha sentado, hoy precisamente doy una comida y quiero presentarte a mis amigos, les vas a encantar, ¿te acuerdas de Luis Morales? Él me preguntó por ti mucho tiempo después de que te casaste y va a venir, así es de que tú te quedas aquí, no, no tú aquí te quedas, lástima que mandé el chofer por las flores pero puedes tomar un taxi y y más tarde, cuando me haya *catch up* vestido te alcanzaré° en el salón de belleza. Cógelo Laurita, por favor, ¿qué no somos amigas? Laura yo siempre te quise muchísimo y siempre lamenté tu matrimonio con ese imbécil, pero a partir de hoy vas a sentirte otra, anda Laurita,

por primera vez en tu vida haz algo por ti misma, piensa en lo que eres, en lo que han hecho contigo."

<i>bath tub</i>	Laura se había sentido bien mirando a Silvia al borde de su tina° de mármol.
<i>shiny</i>	Desnuda frente al espejo se cepilló el pelo, sano y brillante. De hecho todo el
<i>finger tip</i>	baño era un anuncio; enorme, satinado° como las hojas del Vogue, las cremas aplíquese en pequeños toquecitos con la yema° de los dedos en movimientos siempre ascendentes, almendras dulces, conservan la humedad natural de la piel.
<i>whirlwind</i>	Su amiga, en un torbellino° un sin fin de palabras verdadero rocío de la mañana, toallitas limpiadoras, suavizantes, la tomó de la mano y la guió a la recámara y
<i>foam</i>	siguió girando frente a ella envuelta a la romana en su gran toalla espumosa°,
<i>soap</i>	suplemento íntimo, benzal° para la higiene femenina, cuídese, consiéntase, introdúzcase, lo que sólo nosotras sabemos: las sales, la toalla de mayor
<i>robe; tray</i>	absorbencia. Y una bata° hecha bola, la charola° del desayuno, el periódico abierto en la sección de Sociales. ¿Por qué en su propia casa estaban siempre
<i>drawer; closet</i>	abiertos los cajones°, los roperos° también, mostrando ropa colgada quién sabe
<i>haphazardly</i>	cómo, zapatos apilados al aventón°? En casa de Silvia, todo era etéreo, bajaba del cielo.
<i>leveled</i>	Llamó al primer taxi, automáticamente dio la dirección de su casa y al bajar le
<i>scattered</i>	dejó al chofer hasta el último centavo que había en el monedero. Como siempre,
<i>ankle</i>	la puerta de la casa estaba emparejada° y Laura tropezó con el triciclo de una de las niñas, le parecieron muchos los juguetes esparcidos° en la sala, muchos y muy grandes, un campo de juguetes, de caminar entre ellos le llegarían al tobillo°.
<i>rubber</i>	Empezó a subir y bajar la escalera tratando de encontrarle su lugar a cada cosa. ¿Cómo pueden amontonarse en tan poco espacio tantos objetos sin uso, tanta materia muerta? Mañana habría que aerear los colchones, acomodar los zapatos, cuántos; de fútbol, tenis, botas de hule°, sandalias, hacer una lista, el miércoles limpiaría los roperos, sólo limpiar los trasteros de la cocina le llevaría un día entero, el jueves la llamada biblioteca en que ella alguna vez pretendió escribir e
<i>mend</i>	instalaron la televisión porque en esa pieza se veía mejor, otro día entero para remendar° suéteres, poner elástico a los calzones, coser botones, sí, remendar° esos calcetines caídos en torno a los tobillos, el viernes para...

Recall:

Without looking back at the passage, recall in English as much as you can of what you have just read. Try to recall main ideas as well as details. The emphasis is on quantity of ideas recalled.

Comprehension Questions for *La casita de sololoi*

1. Before Laura got married she
 - a. was a good typist.
 - b. was a good writer.
 - c. was a good teacher.

2. Silva recommends that Laura
 - a. divorce her husband.
 - b. go to college.
 - c. get a hair cut and facial.

3. Laura is feeling
 - a. satisfied with her life.
 - b. indifferent about her life.
 - c. frustrated with her life.

4. Silvia describes Laura's husband as
 - a. a wonderful husband.
 - b. a hard worker.
 - c. an imbecile.

5. Silvia's bathroom is
 - a. tiny and quite empty.
 - b. large and full of feminine products.
 - c. large with no feminine products.

6. Laura says that her house always has
 - a. open drawers and closets.
 - b. open windows.
 - c. an open refrigerator door.

7. When Laura walked into her own home she
 - a. tripped over her child's tricycle.
 - b. tripped over a dresser drawer.
 - c. tripped over a basketball.

8. Immediately after Laura arrived home she
 - a. went up and down the stairs to put things away.
 - b. sat on the couch and cried.
 - c. talked to her husband.

9. Tomorrow Laura is going to
- go to get her hair done.
 - straighten up all the shoes.
 - return to Silvia's house.
10. After arriving home Laura
- listed all the household chores that she is going to do during the following week.
 - cooked dinner for her family.
 - watched T.V. with her family.

Figure 1: Percent of Mean Scores for Degree of Boxing Topic Familiarity by Gender

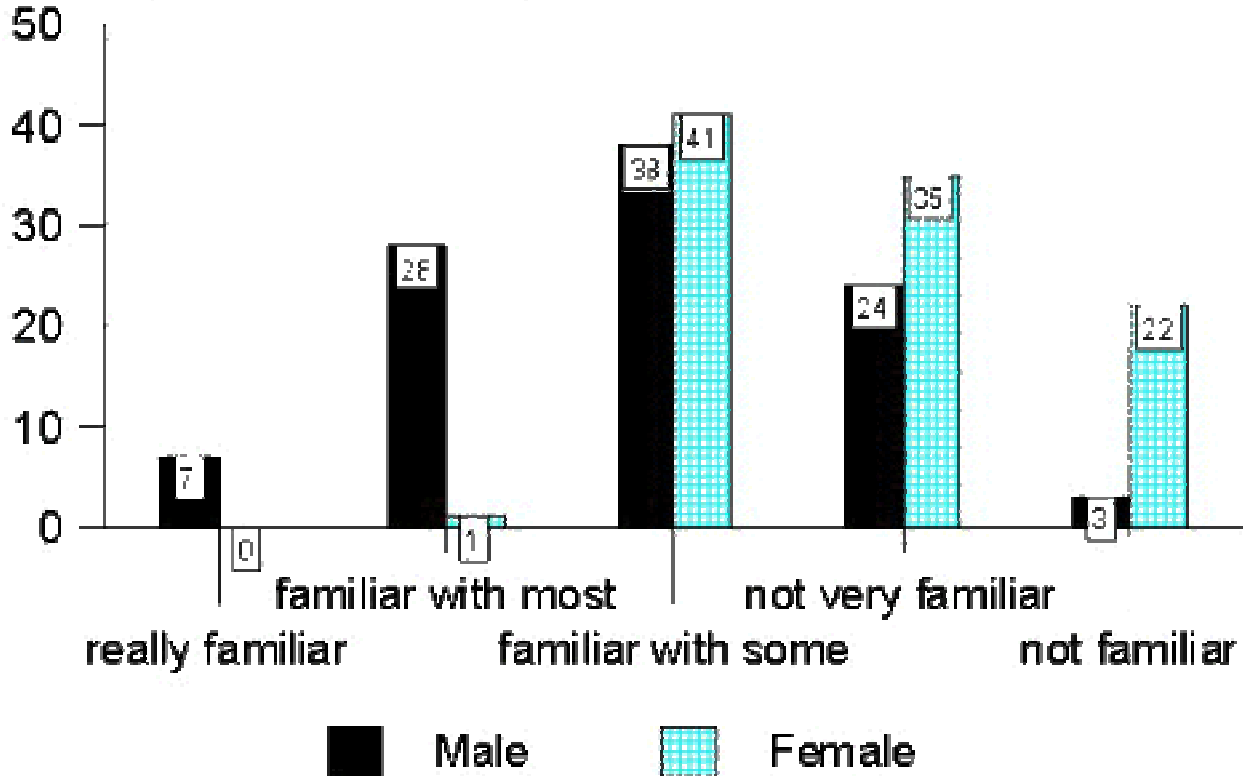


Figure 2: Percent of Mean Scores for Degree of Housewife Topic Familiarity by Gender

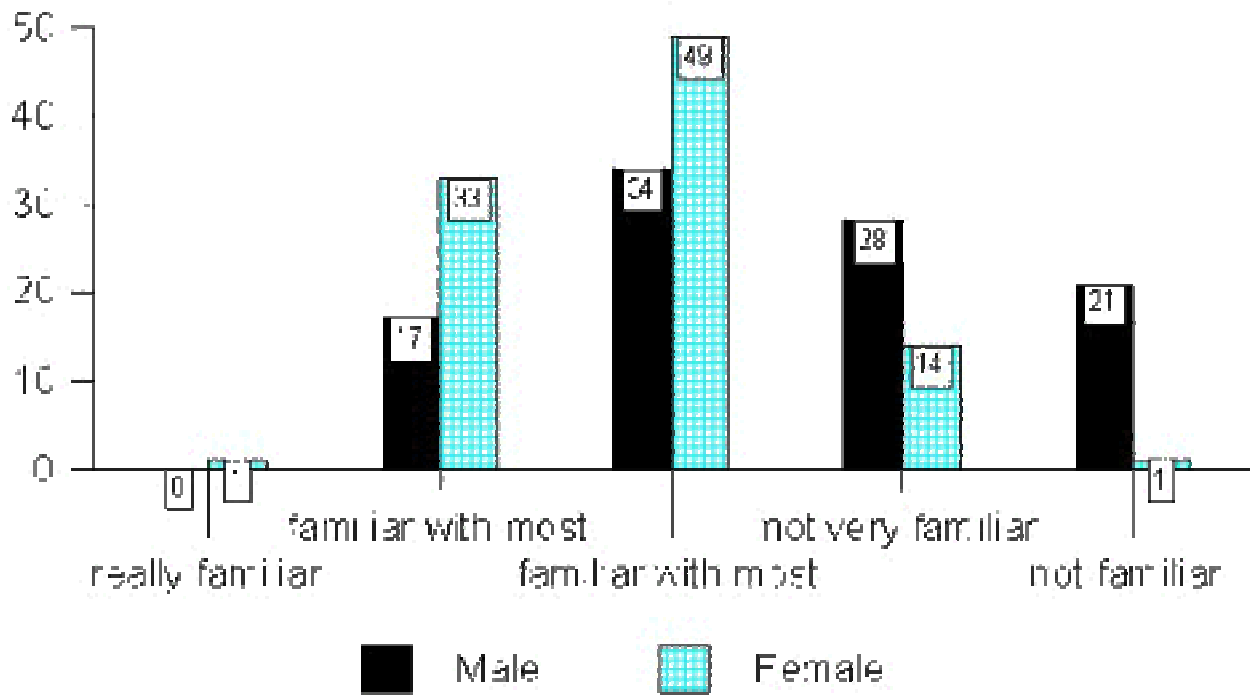


Figure 3: Gender x Passage Content for Recall

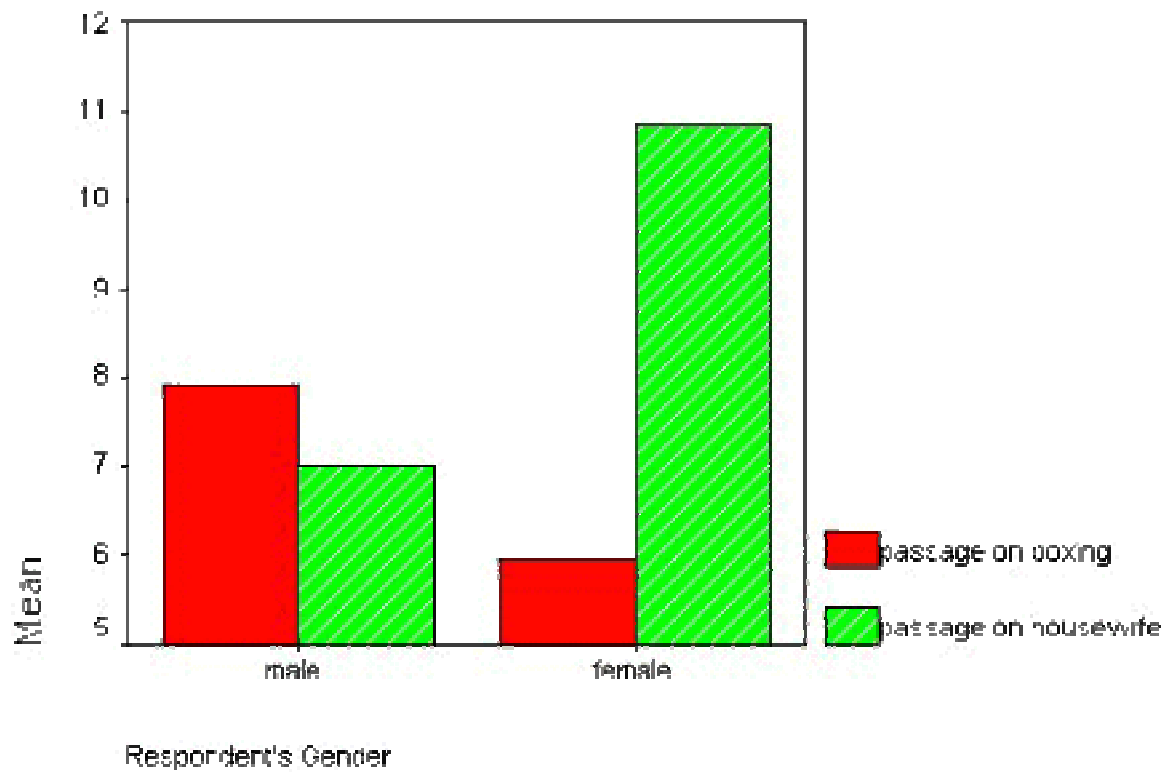


Figure 4: Gender x Passage Content for Multiple Choice

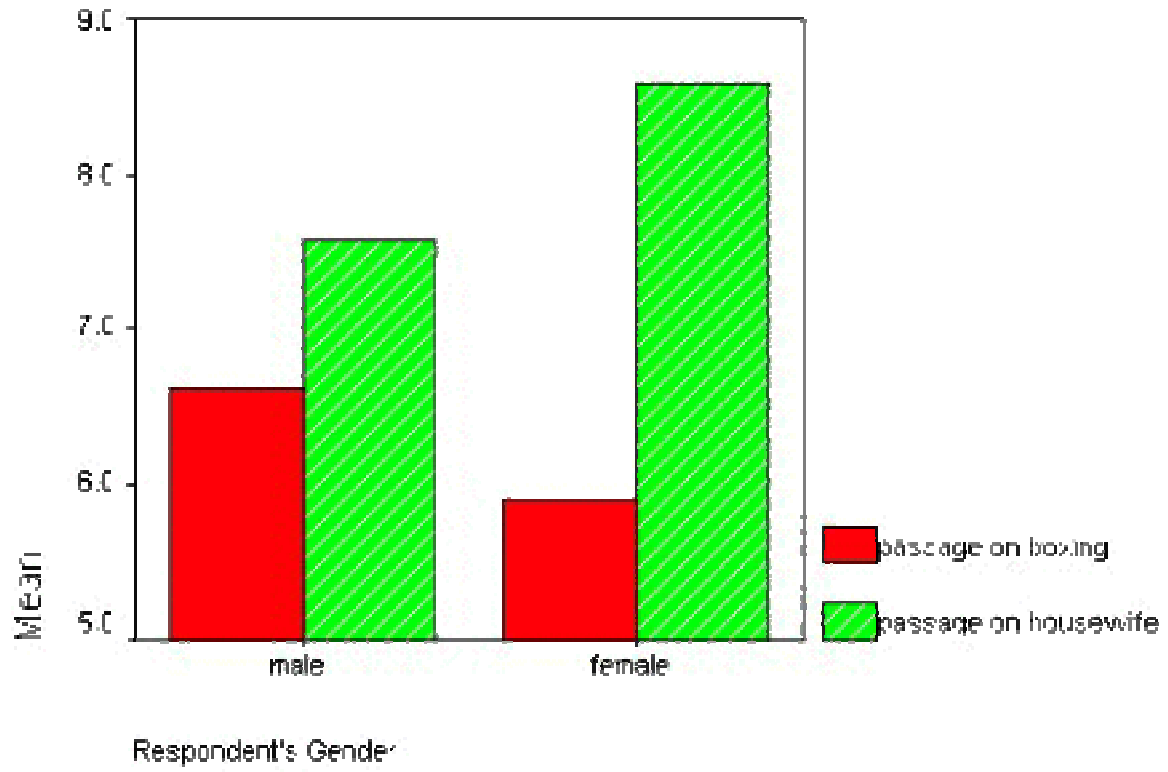


Figure 5: Interaction of Gender and Passage Content on Recall

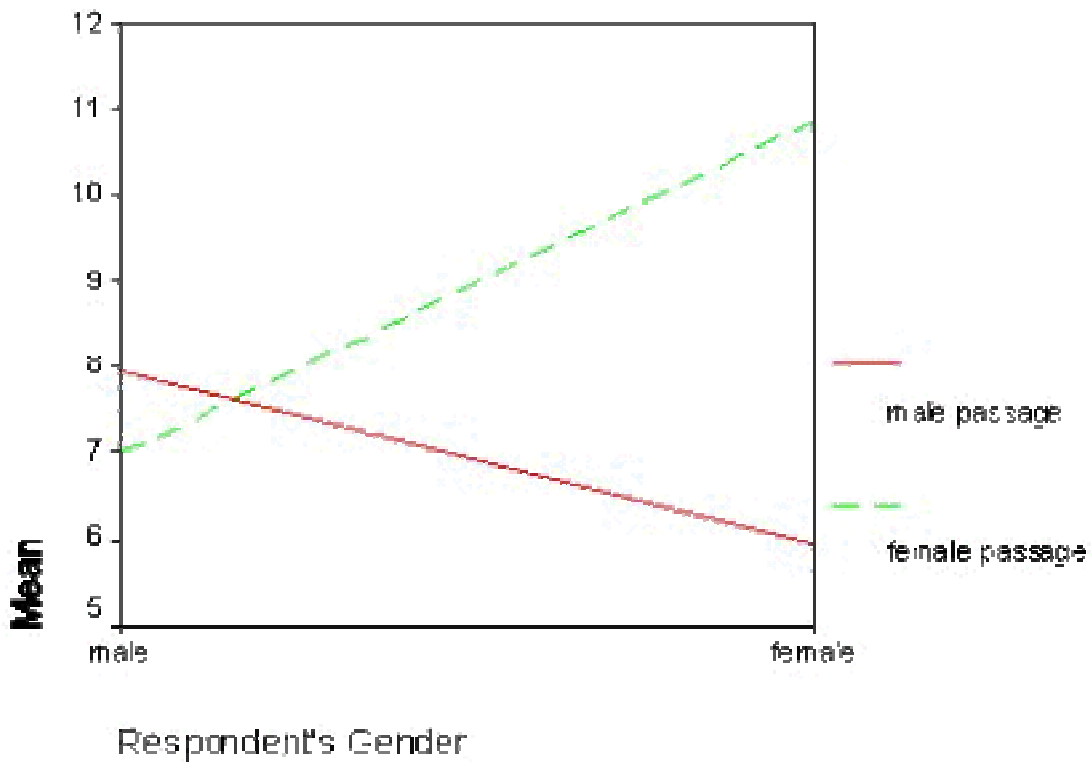
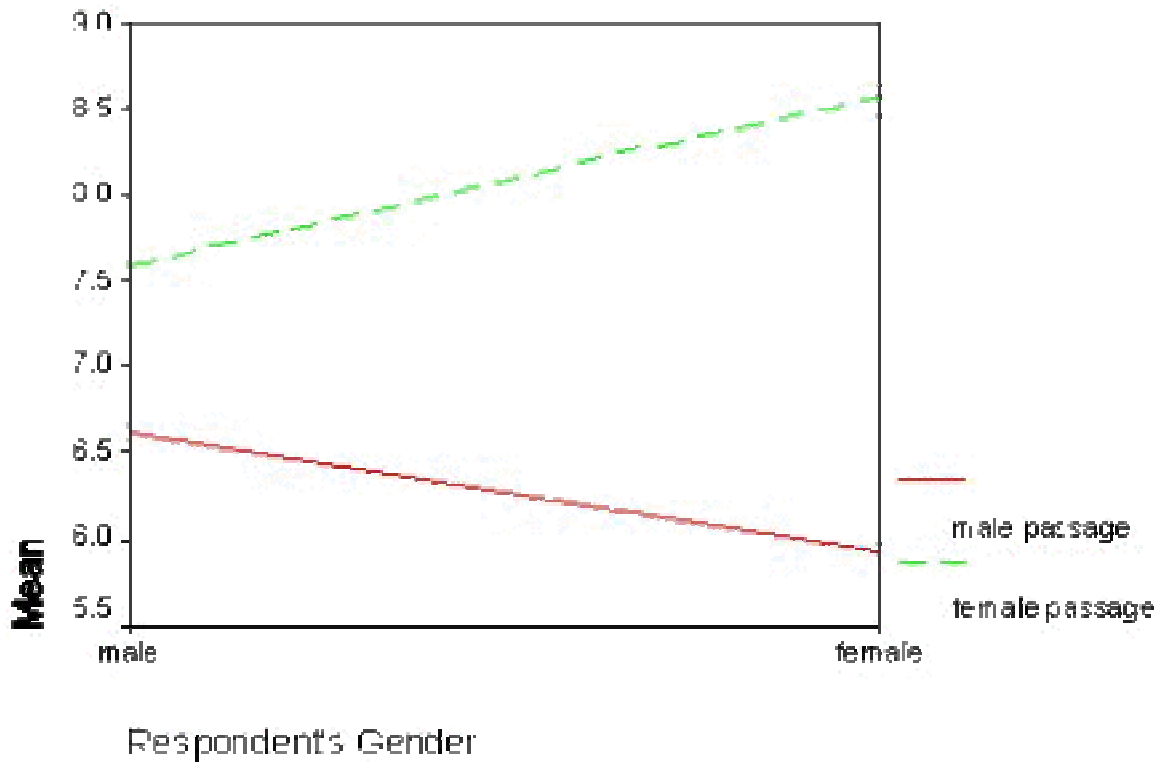


Figure 6: Interaction of Gender and Passage Content on Multiple Choice



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