

A COMPARATIVE STUDY OF GENDER DIFFERENCES IN  
ENGLISH FOREIGN LANGUAGE PROFICIENCY AMONG TURKISH  
UNIVERSITY PREPARATORY SCHOOL LEARNERS

A THESIS

SUBMITTED TO THE FACULTY OF HUMANITIES AND LETTERS  
AND THE INSTITUTE OF ECONOMICS AND SOCIAL SCIENCES  
OF BILKENT UNIVERSITY

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF MASTER OF ARTS  
IN THE TEACHING OF ENGLISH AS A FOREIGN LANGUAGE

BY  
ŞADIYE BENÇETOĞULLARI  
AUGUST 1993

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*Sadiye Behcetogullari*  
tarafından beğışlanmıřtır.

BY

SADIYE BEHCETOGULLARI

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## ABSTRACT

Title: A comparative study of gender differences in English foreign language proficiency among Turkish university preparatory school learners

Author: Sadiye Behcetogullari

Thesis Chairperson: Dr. Dan J. Tannacito, Bilkent University, MA TEFL Program

Thesis Committee Members: Dr. Linda Laube, Ms. Patricia Brenner, Bilkent University, MA TEFL Program

The purpose of this study was to investigate if female university preparatory school EFL learners have a significant quantitative advantage over males in general English foreign language proficiency, English reading comprehension, and written English usage, and if male university preparatory school EFL learners have a significant quantitative advantage over females in English listening comprehension. Another purpose of this study was to explore if these expected significant gender differences would be found at different proficiency levels.

Five hypotheses were tested using a total of 1737 student tests from the July COPE examination of BUSEL at Bilkent University.

The first hypothesis was that there is a statistically significant quantitative difference in favor of females in general EFL proficiency of Turkish university preparatory school learners. The mean scores of female students ( $M= 87.12$ ) were higher than male students ( $M= 86.38$ ) in general English foreign language proficiency, however, the difference was not statistically significant when  $t$ -test was performed to compare the mean scores statistically ( $t$ -observed= 0.027 and  $t$ -critical= 1.658) Therefore, this hypothesis was rejected.

The second hypothesis was that there is a statistically significant quantitative difference in favor of females in English reading comprehension among Turkish university preparatory school learners. This hypothesis was also rejected. The male students had slightly higher mean score ( $M= 20.40$ ) than the female students ( $M= 20.35$ ). However, this difference was not statistically significant when the mean scores were compared with  $t$ -test analysis ( $t$ -observed= 0.007 and  $t$ -critical= 1.658).

The third hypothesis was that there is a statistically significant quantitative difference in favor of males in English listening comprehension among Turkish university preparatory school learners. The

male students achieved higher mean scores ( $M= 14.80$ ) than the female students ( $M= 14.23$ ). However,  $t$ -test analysis revealed no statistically significant difference ( $t$ -observed=  $0.135$  and  $t$ -critical=  $1.658$ ), which rejects this hypothesis.

The fourth hypothesis was that there is a statistically significant quantitative difference in favor of females in written English usage among Turkish university preparatory school learners. Although female students had higher mean scores ( $M= 48.00$ ) than the male students ( $M= 46.66$ ), this difference was not statistically significant ( $t$ -observed=  $0.002$  and  $t$ -critical=  $1.658$ ). Therefore, this hypothesis had to be rejected.

The final hypothesis was that there would be the same expected significant differences at each proficiency level. This hypothesis was partially accepted. No statistically significant gender difference was found in general EFL proficiency ( $p= 0.64$  at the intermediate level;  $p= 0.52$  at the upper-intermediate level; and  $p= 0.14$  at the advanced level), and written English usage ( $p= 0.53$  at the intermediate level;  $p= 0.81$  at the upper-intermediate level; and  $p= 0.74$  at the advanced level) at three different proficiency levels. But in English reading comprehension, a significant difference ( $p < .10$ ) was found at the intermediate level: male students were significantly better than female students. However, we hypothesized that the gender difference would be in favor of females not males. Finally, in English listening comprehension, a statistically significant difference in favor of males was found at three different proficiency levels ( $p < .001$  at the intermediate level;  $p < .05$  at the upper-intermediate level; and  $p < .001$  at the advanced level) as hypothesized.

BILKENT UNIVERSITY  
INSTITUTE OF ECONOMICS AND SOCIAL SCIENCES  
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AUGUST 31, 1993

The examining committee appointed by the  
Institute of Economics and Social Sciences for the  
thesis examination of the MA TEFL student

Sadiye Behcetogullari

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has read the thesis of the student.  
The committee has decided that the thesis  
of the student is satisfactory.

Thesis Title : A comparative study of gender differences  
in English foreign language proficiency of  
Turkish university preparatory school learners

Thesis Advisor : Dr. Dan J. Tannacito  
Bilkent University, MA TEFL Program

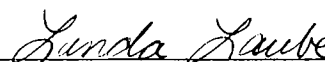
Committee Members : Dr. Linda Laube  
Bilkent University, MA TEFL Program

Ms. Patricia Brenner  
Bilkent University, MA TEFL Program

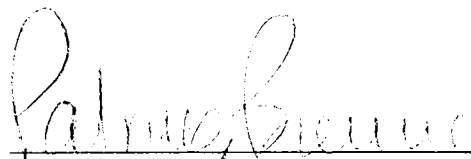
We certify that we have read this thesis and that in our combined opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts.



Dan J. Tannacito  
(Advisor)



Linda Laube  
(Committee Member)



Patricia Brenner  
(Committee Member)

Approved for the  
Institute of Economics and Social Sciences



Ali Karaosmanoğlu  
Director  
Institute of Economics and Social Sciences

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To Kemal  
for his support

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## CHAPTER 1 INTRODUCTION

## Background of Problem

Foreign language learning is a complex phenomenon and there are a number of factors that influence learners' language learning process. While most people acquire a basic and similar competence in their first language, there is great variability in the level of proficiency of second language learners (Hansen & Stansfield, 1981).

Researchers, during the past few decades, are trying to discover the reasons or explanations for why some learners are more successful than others. The factors that have been offered to explain individual variability include those of age, personality, sex, learning style, motivation, attitude, cognitive style, prior experience, and even the birth order of learners. Since learners are influenced by one or more of these factors, the manner and the speed with which they acquire a second language differ from other learners who have different learning styles, who are at a different age, who have different sex, or who employ different learning strategies.

Contrary to what we know about the individual variability of language learning, the criteria that has long been used to group EFL students for learning is by testing their proficiency levels. EFL students are assigned to different levels according to the results they get from either placement tests or proficiency tests. These tests, which disregard individual differences or learner characteristics, test students' knowledge on one or more aspects of language in a limited time. Learners' proficiency levels during the acquisition process differ from one another depending on their sex, cognitive styles, learning styles, and so forth. Therefore, it is not an ideal way to group students without taking into account the learner and the learning process.

The sex, or gender of learners, among other factors, influences some of these differences among second language learners. The sex of learners is influential not only in the production of an L2, but also in other aspects such as the learners' motivation, attitude towards learning a second language, social behavior, and also in general language ability. If sex is influential in the acquisition of a second language, teachers and

researchers should pay attention to this variable, and should attempt to add to the body of research more explanations on differential success, which may then explain what enhances or hinders the process of second language learning.

#### Purpose of Study

Studies on language and gender (Bacon & Finneman, 1992; Gardner & Lambert, 1972; Ehrman & Oxford, 1988; Markham, 1988) have shown that gender, as well as other factors such as age, learning style, and cognitive style, influence learning a second language. What and how much influence gender has on the acquisition of L2 is a current interest of researchers. Although there are some studies which discovered female superiority in first language learning, there is only one study (i.e., Boyle, 1987) which showed female superiority in EFL general language ability and male superiority in EFL listening vocabulary.

The most compelling reason to carry out this research was to investigate if there is female superiority in EFL language proficiency and male superiority in EFL listening. Therefore, the main purpose of this study was to find out if female university preparatory school EFL learners have a significant quantitative advantage over males in general English foreign language proficiency, English reading comprehension, and written English usage. A further aim was to investigate if there was a significant quantitative difference in favor of male university preparatory school EFL learners in English listening comprehension. Another purpose of this study was to find out if these expected significant differences would also be found at each proficiency level.

By making foreign/second language instructors aware of the differences that exist, this study may help instructors promote the learning of faster students and compensate for slower ones. Moreover, it may have an indirect role in making learners aware of such differences, and thus give them direction. In addition, materials designers can develop the materials according to perceived needs. For example, materials designers can develop materials paying attention to sex differences so that both gender can make use of the materials according to their weaknesses or

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strengths. It can be of more general benefit to teacher training as well. Teacher trainers can help their trainees by making them aware of such differences.

#### Problem Statement and Research Questions

The problem investigated was whether learner gender is associated with significant proficiency differences. First, we studied whether a significant quantitative difference existed in favor of females in general English foreign language proficiency, English reading comprehension, and written English usage among Turkish university preparatory school learners. Second, we studied if there was a significant quantitative difference in favor of males in English listening comprehension of Turkish university preparatory school learners. Third, we studied whether these expected differences between females and males would be found at each proficiency level.

In this study "gender difference" means significant statistical quantitative difference in favor of males or females in some measurable aspects of language, such as reading and comprehending, listening and comprehending, and so forth.

Therefore, the questions in this research were the following:

(a) Is there a significant quantitative difference between females and males in general English foreign language proficiency of Turkish university preparatory school learners? For this first research question, the assumption was that females are superior to males in general language proficiency because females, according to previous research, engage in different social behaviors than do males (Bacon & Finneman, 1992), and females have more positive attitudes toward speakers of the target language (Gardner & Lambert, 1972). These positive attitudes of females, and their participation in different social behaviors help females to improve their general language proficiency.

(b) Is there a significant quantitative difference between males and females in English reading comprehension of Turkish university preparatory school learners? It was again assumed that females are significantly

better than males in EFL reading. This expectation was based on the findings of Gass & Varonis (1986) who found that women obtain more comprehensible input in L2 than men. Also, this expectation was based on an L1 study carried out by Lewis & Hoover, (1983) who found that females are superior to males in reading comprehension.

(c) Is there a significant difference between gender and EFL listening comprehension of Turkish university preparatory school learners? This question was based on the findings of Boyle's study (1987), in which males were significantly better than females in EFL listening comprehension area.

(d) Is there a significant difference between gender and written English usage of Turkish university preparatory school learners? Based on the findings of an L1 study carried out by Lewis & Hoover (1983), it was assumed that females are significantly superior to males in the written English usage area.

(e) Is there a significant difference between gender at different proficiency levels (i.e., intermediate, upper-intermediate, advanced). It was assumed that gender difference would exist at each proficiency level.

In this study the following were hypothesized:

(a) There is a statistically significant quantitative difference in favor of females in English foreign general language proficiency of Turkish university preparatory school learners.

(b) There is a statistically significant quantitative difference in favor of females in EFL reading comprehension among Turkish university preparatory school learners.

(c) There is a statistically significant quantitative difference in favor of males in EFL listening comprehension among Turkish university preparatory school learners.

(d) There is a statistically significant quantitative difference in favor of females in written English usage among Turkish university preparatory school learners.

(e) There is a significant gender difference in favor of females in general English foreign language proficiency among Turkish university preparatory school learners at each proficiency level (i.e., intermediate,

upper-intermediate, and advanced).

(f) There is a significant gender difference in favor of females in English reading comprehension among Turkish university preparatory school learners at each proficiency level.

(g) There is a significant gender difference in favor of males in English listening comprehension among Turkish university preparatory school learners at each proficiency level.

(h) There is a significant gender difference in favor of females in written English usage among Turkish university preparatory school learners at each proficiency level.

#### Conceptual Definitions of Terms

General English language proficiency in this study refers to the ability of learners to apply acquired knowledge to perform communication tasks. In other words, as Cohen (1980) states, general language proficiency is "linguistic knowledge or competence students have in a language" (p. 8). Therefore, the meaning of general language proficiency in this study is the linguistic ability of learners within a language-use situation.

#### Levels

Students' levels are determined according to the results of the BUSEL Placement Test given at the beginning of the academic year. The BUSEL Placement Test is prepared by the members of the school's testing unit.

#### Intermediate level.

Intermediate level refers to students' proficiency level that is adequate to follow the Headway Intermediate coursebook, which aims to develop effective and confident communication in English. It develops the learner's oral and aural skills with extensive practice in communicative settings. It also systematically develops the learner's reading and writing skills. Students at this level are given opportunities to learn and practice language forms and their uses to develop both their receptive and productive skills. At this level, core vocabulary and grammar are revised, and new structures are learnt. They are also expected to speak comprehensibly, and understand people with different accents.



#### Upper-Intermediate level.

These students are at a proficiency level that enables them to follow the Focus on First Certificate coursebook, which provides balanced coverage of all the skills, and helps students to break through the difficult 'intermediate plateau'. Students at this level revise, consolidate, and extend major structural or grammatical areas in English. Furthermore, they are provided with situations to progress in vocabulary building. They also practice summary and extended writing, and focus on style, register, and appropriateness. They are usually provided with four language skills equally.

#### Advanced level.

Advanced level students are those who have mastered most of the linguistic and communicative aspects of language, and who are ready to focus on study skills and develop all around ability in language as well as ESP.

### Limitations/Delimitations of the Study

#### Limitations

The data for this study was collected at Bilkent University School of English Language (BUSEL). The results of the COPE (Certificate of Proficiency in English) exam, which is a proficiency exam at Bilkent University, was used as the primary source of data. A limitation of the study was that the COPE exam has not yet been formally validated. Therefore, its validity and reliability is open to question. Consequently, the results of this exam that were used in the study might not reflect a valid measurement of students' language proficiency in EFL.

#### Delimitation

A delimitation of this study was the use of Turkish university preparatory school learners as the population. In another study, Boyle (1987) investigated the impact of gender differences on some aspects of language proficiency with Chinese subjects. The aim of delimiting the population to Turkish learners in this study was to see whether or not significant gender differences existed among another single, homogeneous cultural group, and specifically, among Turkish EFL preparatory school

learners. Thus, in the present study, we attempted to investigate gender differences of learners' language performance in an EFL context.

## CHAPTER 2 REVIEW OF THE LITERATURE

### Introduction

The variable of gender is influential both in the process of language learning and also in the learning outcome. It is widely surmised that gender plays a definite role both in the way learners acquire a foreign/second language and also in the way they create their social situations for language learning opportunities. Furthermore, gender-related factors seem to influence learners' language learning outcomes. When learners' language proficiency is tested, the results indicate that males' and females' performance on these tests differ (Boyle, 1987). The causes of these differences are as important as their existence. However, what lies ahead is the interpretation of their effect on materials and instruction so that individual differences are appraised.

Individual differences undeniably exist among second/foreign language learners. It is very important to provide a central place for individual variables among learners in order to promote second/foreign language acquisition. Among these variables are gender, age, learning style, cognitive style, and personality. These variables or factors, among others, have been proffered to explain differential success or individual differences among second/foreign language learners.

In this chapter, factors which account for individual differences will be briefly reviewed, and the effect of gender on second/foreign language learning will be focused on.

### Theoretical Assumptions

While most people acquire a basic and similar competence in their first language, second language learners, as Hansen & Stansfield (1981) state, display great variability in the level of proficiency they attain in a new tongue. That is, there is much broader range of language proficiency achieved among second/foreign language learners. Some students are more successful than others in learning a second/foreign language. The variability is due to individual differences which are related to a multiplicity of factors. Among these factors are gender, age, personality, cognitive style, learning style, and learning strategies.

Researchers have attempted to reveal important learner differences, and indicate appropriate individualized educational techniques that can promote a greater degree of language learning success among more people (Hansen & Stansfield, 1981, p. 349). Some explanations have been put forward for these individual differences (Larsen-Freeman & Long, 1991).

These include the social-psychological explanation. According to Larsen-Freeman & Long, the argument concerning social-psychological factor is that adults might be more inhibited, and resist the socialization. Also, an adult learner may prefer to speak accented L2 speech which identifies him as a speaker of a particular first language. This explanation can also be valid for the gender variable. Females and males might differ in the way they socialize. Psychologists, who have been interested in the relationship of sex to behavior and cognition, have found significant sex-related differences in social behavior, cognitive activity, and general verbal ability (Bacon & Finneman, 1992, p. 472). According to Bacon & Finneman (1992), females engage in different social behaviors than do males, generally and when using language. Bardwick (1971) stated that "girls need continuing social approval, which is consistent with cultural patterning. This need manifests itself in a more highly social behavior in females than in males" (p. 92). Therefore, this social-psychological explanation can hold for gender variable as well.

Another explanation is the cognitive explanation. The argument is that child SLA and adult SLA might involve different processes. Children utilize a LAD (Language Acquisition Device), and adults use their general problem-solving abilities. As for gender, females and males might have different cognitive styles which may cause them to go about acquisition differently, or use some learning mechanisms and processes alternately. For instance, Bardwick (1971) distinguished between the "male mind" (oriented to separation), and the "female mind" (oriented to relatedness).

The third explanation is input explanation. Younger learners are said to receive better (i.e., less complex) input than adults. Studies reveal that females use opportunities to obtain more comprehensible input, whereas males use opportunities to produce more comprehensible output (Gass & Varonis, 1986). These findings indicate that females and males differ in

the way they produce input and output, so input can be a legitimate explanation for gender difference as well as age difference.

The last explanation is the neurological explanation. The explanation is related to the lateralization process during puberty. Prior to puberty, it is argued that a critical period exists during which the brain is more plastic and allows the transfer of function from one hemisphere to the other. This process is called lateralization. We can suppose that the lateralization process might not be the same for males and females, and therefore, this can influence the difference between genders.

As well as the above mentioned differences, there are learning style differences among language learners. It has been demonstrated that learners have the following basic perceptual learning channels (Reid, 1978; Reinert, 1976): (a) visual learning, (b) auditory learning, (c) kinesthetic learning, and (d) tactile learning. It would be interesting to find out if females or males have more common perceptual learning channels depending on their gender. There are also personality differences. The effect of personality on language learning has been studied a number of times. Personality is important because personality traits make a difference in how people learn and what they learn (Myres & Myres, 1980,). Females are reported to have better verbal ability than males. This might be because of their personality as they talk and socialize more than males. However, it has been found that males listen and debate more than females. These factors might be due to the difference between their personalities. As Moody (1988) states

For language teachers this means that different students perceive the world and interpret it in basically different ways. As a result, different students given the same presentation may respond very differently, and these ways of responding may be fundamentally unchangeable. For this reason, one cannot expect a student to adapt to the instructor. Rather, the instructor must design approaches that will take advantage of the student's unique talents. (p. 389)

Attitude and motivation have also been shown to be related to gender in the L2 context. Gardner & Lambert (1972) found that females were more motivated than were male language learners. It was also found that females

have more positive attitudes toward speakers of the target language. Muchnick & Wolfe (1982) quoted in Bacon & Finneman (1992) reported similar sex differences about the motivation and attitude of female and male learners. Females are reported to have higher levels of motivation, and more positive attitudes toward speakers of the target language than the males.

Sex-related differences associated with social and cognitive strategies employed in L2 learning context have been found. Ehrman & Oxford (1988) who studied 1,200 university foreign language learners found significant relationships between sex, practice, and learning strategies. Their hypothesis that females report greater strategy use than males was very strongly supported by the findings. The females showed a significant advantage for four SILL (Strategy Inventory for Language Learning) factors: general strategies, authentic language use, searching for and communicating meaning, and self-management strategies. They found that female subjects used three out of five identified learner strategies significantly more than did males.

#### The Effect of Gender on the Comprehension and Production of L2

Apparently, gender plays an important role in the way learners socially structure their learning situations, and thus create learning/practice opportunities (Bacon & Finneman, 1992). A study of ESL learners suggest that males tend to be better at debating or stating opinion, whereas females tend to facilitate verbal exchange (Gass & Varonis, 1986). According to Gass & Varonis (1986), men use opportunities to produce more comprehensible output; women to obtain more comprehensible input. This L2 interaction-based study has helped to illuminate the impact of interlocutor's gender on the learner. It revealed that learner pairing with interlocutors of the same or opposite gender conditioned both the frequency of opportunities and the degree of success that male learners achieved in modifying their production compared to female learners. However, learners interacted with NNSs of the opposite gender and not with NSs. But the sampling in this study was insufficient to make gender-based generalizations about language learning.

A study carried out by Pica, Holliday, Lewis, Berducci, & Newman (1991) sought to describe gender-related influences on learner-interlocutor interaction, and to test predictions about these processes. Based on the results of previous research on learner gender as a factor in social interaction (e.g. Gass & Varonis, 1986; Pica et al., 1989), they predicted that greater amounts of negotiated interaction would occur in cross-gender dyads of male native speakers (NSs)-female nonnative speakers (NNSs), and female NSs-male NNSs than in same gender dyads of male NSs-male NNSs and female NSs-female NNSs. They also predicted that female NNSs would produce more signals than male NNSs. They further hypothesized that male NNSs would be given more NS signals than female NNSs and that male NNSs would produce more modification of their speech in response to NS signals than would female NNSs.

The results of this study did not show a clear-cut role for NNS gender as a discriminating factor in the frequency of negotiated interaction and its associated opportunities for the comprehension of input, feedback on production, and modification of output. However, in most of the results that had implications for facilitating NNSs negotiation, comprehension, and modified production, female NSs appeared to play a more critical role than the other interlocutor in the study. This indicates that although the gender of the interlocutor is not the most important factor in the quantity of negotiation, it is still valuable to bear in mind that female NSs gave and received more signals than male NSs.

In the study carried out by Bacon and Finneman (1992), females reported significantly higher levels of motivation, strategy use, comprehension, positive affect, willingness to confront, and exposure to authentic input. Bacon and Finneman state

the picture that emerged was one in which women reported (a) a higher level of motivation, and strategy use in language learning; (b) greater use of global, but less use than did men of analytic strategies in dealing with authentic input; and (c) a higher level of social interaction with Spanish. (p. 490)

However, they believe that their study had limitations or weaknesses. They state

. . . research using a self-report instrument has limitations. One may question whether learners responded in the way they really believed, or in what they perceived to be a socially appropriate way. Although the large sample size dispels some of that concern, additional observational and experimental research will help clarify and test the relationships reported here. (p. 491)

Markham (1988), in his study, examined the influence of speaker's gender and the perceived expertness of a speaker on the recall of orally presented material. Several other studies have also reported that listeners often attend to male speakers more carefully even when the presentations are identical (Gordon & Hall, 1974; Gruber & Gaebelin, 1979; Sewell, 1985). The results of Markham's study reveal that student proficiency and passage condition were significantly related to recall with no interaction effects. Both advanced and intermediate subjects recalled considerably more idea units from a presentation of an expository passage by the male speaker without an introduction (nonexpert) than from the presentation by the female nonexpert. The advanced group recalled more idea units from the male expert's presentation than from the female expert's. The gender of the listeners was also explored as a variable in the study. Although no statistically significant difference was found, the means revealed that female subjects who listened to the male speaker scored higher than female subjects who listened to the female speaker. The male subjects exhibited the same tendency, but the difference was not as great.

In a study where participants listened and recognized vocabulary, Boyle (1987) found male Chinese students of English in an ESL context to be superior to females on a vocabulary recognition task. Females were superior in all other language tasks measured, namely meaning through stress/intonation, stress, vocabulary recall, reading vocabulary, dictation, listening conversation, listening passage, and syntax cloze.

For male superiority in this particular area of language ability



Brimer (1969) suggests that since girls are better than boys in expressing themselves in their native language, and boys spend more time than girls listening, they may become more proficient in listening.

According to Boyle, the male superiority for this task in L1 transfers to L2 as well.

Sherman (1978), summarized in Boyle (1987), has another explanation for the male superiority in listening. She states that in the very early stages of communication between mother and child, mothers respond more to male infants' vocalization than to females. Boys, therefore, have more very early practice in listening than do girls, and may become more proficient in it, but this explanation would hold only for child first-language acquisition.

Carroll (1969), on the other hand, suggests that boys in a male culture have a wider life-experience, and may interact verbally over a wider range of subjects. This, he thinks, may be a reason for male's better recognition of vocabulary. Kramarae (1981) supports Carroll, and states that women experience life differently than do men, and because much of language is geared to men's experience rather than to women's, some words come to be not only unspoken, but even unthought by women.

Another study carried out by Bacon (1992) investigated affective differences between males and females. Bacon found that men were significantly more confident of their performance on a listening-comprehension test despite the fact that there was no difference in the level of comprehension by women and men. Bacon also found that men were more willing to admit to using translation strategies than were women. In addition, men, according to Bacon, used more bottom-up strategies than did women. Women, on the other hand, reported monitoring their comprehension more than did men.

Table 1 summarizes the studies carried out in L2 on the effect of gender on language learning.

Table 1

The Results of Studies on the Effect of Gender on the Comprehension and Production of L2

STUDY	RESULT(S)
Gass & Varonis (1986)	Males use opportunities to produce more comprehensible output Females use opportunities to obtain more comprehensible input
Boyle (1987)	Males superior to females in listening vocabulary Females superior to males in general language ability (i.e., meaning through stress/intonation, stress, vocabulary recall, reading vocabulary, dictation, listening conversation, and listening passage, and syntax cloze)
Markham (1988)	No interaction effects, but students' proficiency level and the passage are significantly related to recall. Still, the means revealed that female learners recalled more from the male speaker than from the female speaker
Pica et al (1989)	No clear-cut role for NNS gender; however, female NSs played a more critical role than the other interlocutor
Bacon (1992)	Males more confident of their performance on a listening comprehension test than females No difference in the level of comprehension by males and females
Bacon & Finneman (1992)	Females reported to have a higher level of motivation, strategy use in language learning, greater use of global strategies, and a higher level of social interaction Males reported greater use of analytical strategies

As can be seen from Table 1, studies in L2 have interesting findings related to gender. Females seem to have higher level of motivation and strategy use while learning a foreign/second language, to use opportunities to obtain more comprehensible input, and use more global strategies. On the other hand, males use opportunities to produce more comprehensible output, and use more analytic strategies. Also males are reported to be superior to females in vocabulary recognition, and females are better than males in general language ability. In one study, males are found to be more confident of their performance in a listening comprehension test but are not significantly better than females at comprehending the listening passage.

### Gender-related studies in L1

Gender-related studies in L1 have very interesting and useful findings. Maccoby and Jacklin's book, The Psychology of Sex Differences (1974), stimulated research activity on sex differences in a wide array of fields. Reviews of sex difference research conducted since 1974 confirm Maccoby and Jacklin's basic conclusion: Boys tend to score higher than girls on mathematics tests while girls tend to score higher than boys on measures of verbal ability.

The studies done in the first language reveal that females are superior to males not only in verbal ability but also in the language usage area (Lewis & Hoover, 1983); in reading comprehension (Gramenz, Jolly & Pickens, 1986); in essay writing (Oscarson, 1990); and in mechanics, i.e., spelling, and punctuation (Martin & Hoover, 1987). Females were also superior to males in receptive and productive verbal tasks, in comprehension of difficult materials, and in creative writing (Maccoby & Jacklin, 1974).

Sherman (1978), as quoted by Boyle (1987), in carrying out a survey to reexamine the evidence of previous studies, stated

One can conclude from this resurvey that girls probably have a head-start in verbal skills and certainly girls and women more than hold their own in all aspects of the verbal area including verbal reasoning and vocabulary, as well as verbal fluency. (p. 274)

However, as summarized by Boyle (1987, p. 274), Briere (1978) -- a second language researcher -- claims this is a self-fulfilling prophecy. He thinks that teachers who feel that girls are better than boys in language will spend more time with girls, and thus girls will probably live up to teachers' expectations or will benefit from extra instruction and help.

One of the most extensive longitudinal studies of gender differences in L1 achievement was carried out by Martin and Hoover (1987). They found that females consistently had higher average scores in spelling, capitalization, punctuation, written language usage, reference materials,

mathematical computation, and reading comprehension. Males, on the other hand, showed higher achievement on the visual materials, mathematics concepts, and mathematics problem solving tests.

Becker & Forsyth (1990) found that the standardized differences between means in vocabulary show a fairly constant but small advantage for males starting at grade 5, and except for grade 10, extending through grade 12. The standardized differences between female and male means in the written language usage area indicate a difference in favor of females in all grades. In reading, the standardized differences between female and male means indicate an advantage in favor of females. The standardized differences between female and male means in the mathematics problem-solving area show a small male advantage for grades 3 through 8. Moreover, a substantial increase is encountered at grade 9.

The results for these content areas suggest some degree of similarity with the Martin and Hoover language study. Females, for instance, generally scored higher than males in reading and in written language usage. Males generally scored higher than females in mathematical problem-solving. However, unlike the Martin and Hoover study, the results from Becker & Forsyth showed that males consistently scored higher than females in vocabulary.

The findings of the study carried out by Gramenz, Jolly, & Pickens (1986), show female superiority in word study skills at each grade level. In reading comprehension, girls again scored significantly higher than boys at all grade levels.

In Table 2, the studies carried out in L1 with their findings are summarized.

Table 2

The Results of Gender-related Studies in L1

STUDY	RESULT
Maccoby & Jacklin (1974)	Females are significantly superior to males in receptive and productive tasks, in comprehension of difficult materials and in creative writing
Lewis & Hoover (1983)	Females are significantly superior in written language usage
Gramenz, Jolly, & Pickens (1986)	Females are significantly better in reading comprehension, and word study skills
Martin & Hoover (1987)	Females are significantly superior to males in mechanics, in spelling, capitalization, punctuation, written language usage, reference materials, mathematical computation, and reading comprehension Males superior to females on the visual materials, mathematics concepts, and mathematics problem solving
Becker & Forsyth (1990)	Females superior to males in language, in reading comprehension Males superior in vocabulary, and mathematics problem-solving
Oscarson (1990)	Females are significantly superior to males in essay writing

As Table 2 illustrates, studies carried out in L1 have shown female superiority in written language usage, reading comprehension, word study skills, essay writing, mechanics, receptive and productive tasks, comprehension of difficult materials, creative writing, reference materials, mathematical computation; and males are better than females in visual materials, mathematics problem solving, and vocabulary.

Methodology of the Previous Research

The previous research related to gender difference in second language learning employed experimental or correlational methodology.

Bacon & Finneman (1992) employed a correlational methodology to examine differences in the self-reports of men and women regarding their attitudes, beliefs, strategies, and experience in language learning. Although a large sample size (N= 938) participated in the study, we may question whether students responded in the way they believed, or what they

thought to be socially appropriate.

In Markham's exploratory study (1988), experimental design was used to establish the existence or nonexistence of sex bias as a factor in ESL student listening recall and to examine the influence of the perceived expertness of the speaker as a factor in ESL student listening recall.

Boyle (1987) examined sex differences in listening vocabulary using a correlational methodology. He used 12 tests to find out if there was any gender difference in favor of males in listening vocabulary. The subjects were intact groups, not volunteers. Although he started with a larger sample, the eventual sample size was (N= 490) moderate.

In the present comparative study, a large sample size (N= 1737) was used to investigate gender differences in general EFL proficiency, English reading comprehension, English listening comprehension, and written English usage in a culturally homogeneous EFL context.

#### Conclusion

The variable of gender has been the interest of both psychologists and first/second language researchers. Psychologists have investigated the relationship of sex to behavior and cognition, and found sex-related differences in social behavior, cognitive activity, and general verbal ability. It has been found that females engage in different social behaviors than do males; males are considered superior in visual-spatial tasks, and in analytic abilities with respect to cognition; and females show superiority in verbal ability with respect to general language ability (Bacon & Finneman, 1992).

First and second language researchers have also been interested in the role of gender in language learning, and found significant sex differences in several areas due to attitudinal, motivational, social, cognitive, and biological factors. Gender-related studies done both in first and second language learning reveal that females are generally better language learners than males in their self-concept as learners, and their attitudes to language learning (Gardner & Lambert, 1972; Bacon, 1992). However, significant differences have been found in favor of males in actual learning outcomes (Boyle, 1987; Markham, 1988).

In an attempt to contribute to the body of research, this study aimed to investigate sex-related differences in language proficiency in a different context, namely Turkish university preparatory school context.

## CHAPTER 3 RESEARCH METHODOLOGY

## Introduction

The purpose of this study was to investigate whether there is a significant quantitative difference in favor of males or females in general English foreign language proficiency, English reading comprehension, English listening comprehension, and written English usage.

The methodology employed in this study was comparative. That is, the performance of two groups (i.e., males and females) of learners were compared to find out which group had an advantage over the other in the above mentioned areas. The independent variable was gender, which had three levels. These levels were the learners' proficiency levels (i.e. intermediate, upper-intermediate and advanced). The dependent variables were the following: English reading comprehension, English listening comprehension, written English usage, and general English foreign language proficiency. The hypotheses were that there is a significant quantitative difference in favor of females in English reading comprehension, in written English usage, and in general English foreign language proficiency, but significant quantitative difference in favor of males in English listening comprehension. It was further hypothesized that these differences between males and females would be found at each proficiency level.

To test these hypotheses, the Certificate of Proficiency in English (COPE) exam was used as the instrument to measure the dependent variables. This exam is known by the researcher of this study, who is working at Bilkent University, School of English Language as a Testing Coordinator. The post she is holding gives her the responsibility to write and administer progress tests as well as to moderate the marking of these tests. She is also one of the members of the COPE-production team, and has been a rater of the writing component of the COPE exam since 1990. Her other responsibility includes the production, marking and administration of the Bilkent Placement Test.

This chapter will describe the research methods employed in this study, including the procedures and the processes of selecting the participants, the instruments used for the collection of data, the data, and the kind of analysis employed.



### Design

A comparative design was used in this study. The variables such as gender, their English reading, English listening, written English usage and general English foreign language proficiency scores were examined to understand whether there was any gender difference in learners' English foreign language proficiency. For example, the first research question was "Is there a gender difference in English foreign general language proficiency of Turkish university preparatory school learners?". For this hypothesis, the independent variable of gender and the dependent variable of general language proficiency were studied. Here the aim was not to determine that one variable causes another, but rather to find out if there was any difference between the variables. Furthermore, as Hatch and Lazaraton (1991) believe, we should not expect to have rich insights about individual language learners since the number used in such studies is large (N= 1737).

### Sources of Data: Participants

This study was carried out at Bilkent University in Ankara, Turkey. Bilkent University is a private English-medium university, with a population of about 8000 students. The students in its various departments are required to achieve a certain level of proficiency in English prior to starting full-time academic study.

Those students who are not ready to attend full-time due to deficiency in their English language ability are required to enroll in an intensive preparatory program, BUSEL (N= 2400). At the end of each academic year (July) students who studied at the Bilkent University School of English Language (BUSEL) sit for an English proficiency exam (COPE). Students who pass this examination are found to be proficient enough to enroll as freshman students in their major departments.

At the beginning of each academic year (September), another version of the COPE proficiency exam is administered for both the new students and the students who failed the proficiency examination in July. Those who pass this exam go to their major departments; those who fail are given the Bilkent Placement Test. Their placement levels are determined by this

means as beginner, elementary (preparatory program), intermediate, upper-intermediate, or advanced (preessional program) according to the scores they achieve on this test. Students who get 0-5% study at the beginner level, those who get 6-20% study at the elementary level, students who get 21-40% go to the intermediate courses, those who get 41-60% take up the upper-intermediate courses, and students who get 61% and above go to advanced classes.

The participants in this study were all students from BUSEL who studied during the academic year of 1991-1992 (N= 1737). The participants were all from the preessional program (i.e., at intermediate, upper-intermediate, advanced levels). They were between the ages of 17-23. In order to achieve reliability, all the students from the preessional program who took the July COPE exam in 1992 participated in the study. Table 3 shows the gender distribution and the levels of the participants:

Table 3  
Number and Percentages of Participants According to their Gender and Levels

	Intermediate		Upper-Intermed.		Advanced		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Male	362	38.9	342	36.7	227	24.4	931	53.6
Female	286	35.5	286	35.5	234	29.0	806	46.4
Total	648	37.3	628	36.2	461	26.5	1737	100

Out of 1737 subjects, 931 (53.6%) were male and 806 (46.4%) were female. Six-hundred and forty eight (37.3 %) of the subjects were at intermediate level, 628 (36.2%) were at upper-intermediate level, and 461 (26.5%) were at advanced level. At the intermediate level, there were 362 (38.9%) male, and 286 (35.5%) female subjects. At the upper-intermediate level, 342 (36.7%) were male, and 286 (35.5%) were female, and at the advanced level, 227 (24.4%) were male, and 234 (29.0%) were female.

The results of this study were intended to generalize to all university preparatory school learners in Turkey whose major studies will be in English. Therefore, we can say that the population is all Turkish university preparatory school learners in Turkey. A stratified sampling, (i.e., a probability sampling procedure) was used to select the student tests for this study. The stratified sampling of the student tests involved taking into account the levels of the students at BUSEL and selecting only the tests of the students who were at the preessional program (i.e., intermediate, upper-intermediate, and advanced level). No further sampling took place and all the tests of preessional program students were used in the study. It was thought that the larger the sample size, the more reliable and generalizable the results would be.

#### Materials

The test material used as the measure of the dependent variables in this study was the BUSEL proficiency exam (COPE) prepared and administered by the BUSEL Testing Unit under the auspices of the University of Cambridge Local Examination Syndicate (UCLES). As it is defined in the COPE Handbook (November, 1991), the COPE exam is an intermediate level proficiency exam. Jake Allsop, the supervisor from the University of Cambridge Local Examination Syndicate, in an interview with this researcher discussed the level of COPE as "The target or the level that was set was exactly the equivalent to the Cambridge First Certificate in English Examination" (personal communication, March, 1993). He said that while setting the level, the level that UCLES required was far above the level of previous BUSEL proficiency tests, so the level set was a compromise between the level that UCLES required and the level of previous proficiency tests.

#### Sections of the COPE Exam

The COPE exam consists of the following three papers (i.e., a test part completed by a student).

- |                     |                                  |
|---------------------|----------------------------------|
| Paper 1 (60 points) | Paper 1A: Reading Paper          |
|                     | Paper 1B: ESP Paper.             |
| Paper 2 (25 points) | Listening Paper                  |
| Paper 3 (90 points) | Use of English and Writing Paper |

Paper 1A is divided into 2 sections. Section 1 is a test of lexis in context. It has 25 gapped sentences with multiple-choice answers. Each item is worth one point. An example of a multiple-choice item on the test of lexis is the following:

If we want to reduce petrol consumption, we must design more \_\_\_\_\_ car engines.  
a)productive b)powerful c)efficient d)resistant

In Section 2, there are three reading passages, typically 350-450 words in length, with a total of 15 multiple-choice comprehension questions. One point is given for each item. A typical example on the test of reading comprehension is the following:

What does the writer feel about the changes he mentions?  
a) pleased b) worried c) angry d) surprised

Paper 2 consists of 3 listening passages. This listening paper is worth a total of 25 points: The question format for Listening 1 is true or false. Students are asked to listen to a conversation and decide whether the ten statements are true or false as in the following example:

The speaker attended a training course. T F

The format of Listening 2 is sentence completion or short answers. Students listen to a lecture and are required to complete sentences or answer questions. This section is also worth ten points. An example of an item in this section of the test is the following item:

What is the speaker's job? \_\_\_\_\_

Listening 3 is worth five points and it uses a multiple-choice format. Students listen to short snippets and make some inferences by paying attention to the relationship of the speakers through the tone, intonation, register the speakers use. An example of an item on this part of the listening test is the following:

What is the relationship between the two speakers?  
a)friends b)family c)neighbors d)work colleagues

The written English usage section of Paper 3 consists of four questions with a total of fifty points and two additional questions, question 5 and 6 to test students' writing ability. Question 5 and 6 are worth a total of forty points, each carrying twenty points weight. Question 1 is a cloze passage. The cloze text is approximately 250 words in length. There are 20 rational blanks. Students supply the missing

words using only the context to help them. Equivalent word answers, that is, correct and appropriate words rather than exact word answers are accepted. This section is worth twenty points.

Question 2 is a "Transformation Exercise" and is worth twenty points. Students are required to rewrite sentences using a different grammatical construction, but maintaining the meaning of the original sentence as in the following example:

I haven't seen Jill for two months.  
The last time \_\_\_\_\_.

Question 3 is testing students' knowledge of lexical sets, which is worth five points. Students complete 5 gapped sentences on a similar topic as in the following example:

MONEY  
I forgot to bring my purse, so could I \_\_\_\_\_ some money from you?

Question 4 is testing students' knowledge of morphology or word formation. This exercise is also worth 5 points. Students complete 5 gapped sentences using a different grammatical form of a word supplied in brackets. An example of a word formation item on the test is the following:

"Just go away!" he said to me in a most \_\_\_\_\_ manner.  
[FRIEND]

Question 5 and 6 of Paper 3 are the Writing Section of the paper. Question 5 is guided writing and students are asked to supply one half of the dialogue in order to complete the dialogue. An example of a question 5 on the test is the following:

A: I have a conference in Istanbul this weekend.  
B: \_\_\_\_\_.  
A: No I'll try and get back on Sunday evening.  
B: \_\_\_\_\_.  
A: On Friday evening, straight after work.

Question 6 is extended writing and students are given certain prompts for a guided composition as in the following example:

You have seen a fire in the library. Write a report to the police mentioning all the things below.  
-- When it happened  
-- Who gave the alarm  
-- Action taken to put out the fire  
-- The damage done

Except for paper 1, which is optically marked, the scoring of the exam is done by the teachers working at BUSEL. A team of about ten/fifteen

teachers is assigned for sections of the exam to be scored. Before they start scoring, they are trained by a testing unit member. The writing part of the paper is always marked by the same group. The number of this group is never more than ten teachers. The same raters have been used since 1990 when COPE was first introduced. This group is trained by a member of University of Cambridge Local Examination Syndicate to rate the papers holistically. A moderator is assigned to spot-check the papers of the raters and solve any problems of discrepancy. A team is also formed to do the calculations and double-check the additions of the marks from different papers.

#### Validity and Reliability of COPE

The COPE exam is currently under development and has not yet been formally validated. Its use is limited to BUSEL at the present time. It has not yet been internationally recognized like the First Certificate in English (FCE) or the TOEFL.

Although the exam has not yet been formally validated, there are informal reasons for test administrators to consider it a valid test. Allsop discusses the validity of the COPE as "assuming that whatever it's measuring, it's measuring reasonably accurately" (personal communication, March, 1993). To the question whether the test is measuring the right things, he said "On the evidence and information that we had when we put the examination together, the answer would be 'yes'" (personal communication, March, 1993). However, he admits that, some aspects of language, content and skill, which should have been in the exam have been neglected. He believes that there is certainly a need for a fourth paper, an extended writing sample, and an oral paper in order to make the exam valid. He says, "it's testing what it ought to test to reflect the language needs in the faculties and there's no doubt at all that oral skills are more important than we thought they were from that survey four years ago and ideally there should also be an oral component" (personal communication, March, 1993).

According to Allsop, the reliability of COPE is "the accuracy with which the exam measures whatever it measures." However, he admits that "there has been virtually no work done on establishing the reliability of

the COPE examination." He bases his belief that the exam is highly reliable on the following: "First of all, it is effectively an FCE clone although there are differences which are adaptations to this particular environment." He says that since it is sufficiently close to the FCE, the known reliability of FCE can be borrowed, and because it's a clone, he believes it is reasonable to assume it is as reliable as FCE.

Secondly, Allsop considers the COPE exam reliable with reference to the item-analysis done by in-house researchers at BUSEL. He says:

We have got some information largely done by people in-house on things like the quality of at least a proportion of the items by item-analysis, and clearly that is one of the elements in reliability; good items better reliability, bad items poorer reliability, so to the extent that we know retrospectively about the quality of items, the indications are that it is in that sense a well-constructed exam, so again by sort of inference, you can say that it's probably reliable (personal communication, March, 1993).

Thirdly, the reliability of the exam should be considered as how accurately the exam measures whatever it measures. Allsop reports that students who are at higher levels are passing the exam while those who are at lower levels are failing it, suggesting an appropriate discrimination. He says that these are inferential and indirect measures of reliability. Formal means of establishing reliability -- by measuring parallel tests, giving the same test twice to the same people, intervals, split half tests -- have not been carried out.

Allsop concludes his interview about the COPE exam by indicating that "the examination is given the sort of stamp or the seal by one of the most respected examining bodies in the world, namely UCLES. . . . [which] cannot afford to put its stamp on anything that isn't of its own standard" (personal communication, March, 1993).

#### Procedures for Data Collection

The first step in the data collection procedure was to acquire the consent of the manager of BUSEL to use the results of the July, 1992 COPE exam. This was solicited formally in writing and obtained (See Appendix

A). The test results for all students were maintained by the BUSEL Testing Unit. The results of all the students at preessional program were selected and loaded by the researcher into a statistical program on a micro-computer.

A record was created for each student, which included information about each student's ID number, gender, proficiency level, reading comprehension score, listening comprehension score, written English usage score, and general language proficiency score. After loading the data in the computer, a panel of four judges examined the compiled data and compared it to the original source in order to check for and eliminate errors.

#### Description of Data Analysis Conducted

When we have two groups and when we want to know whether the means of these two groups truly differ, we employ  $t$ -tests. Therefore, a  $t$ -test was the measurement procedure used in the study. The data analysis consisted of two stages.

In the first stage, the overall mean scores of general English foreign language proficiency, English reading comprehension, written English usage, and English listening comprehension of each gender were calculated and four  $t$ -tests were computed to compare the mean scores of two groups (i.e., females and males) in these test sections.

In the second stage, the mean scores of general English foreign language proficiency, English reading comprehension, written English usage, and English listening comprehension test sections of females and males at each program level were calculated and their mean scores were compared through 12  $t$ -tests (tests / levels) to find out if gender differences existed at each proficiency level.

$T$ -tests were performed for the normally distributed interval data in order to decide whether significant quantitative differences in general English foreign language proficiency, English reading comprehension, English listening comprehension, and written English usage were in favor of females or males. The  $t$ -test analysis gave us  $t$ -values, (i.e.,  $t$ -observed, and  $t$ -critical) and the  $p$ -value, which indicate whether there were any statistically significant results. The  $p$ -value that was considered



significant was .10. There are 10 chances in 100 of being wrong when accepting the hypothesis. The usual educational convention suggests this level be set at .05, but we saw no risk in considering p-value at .10 not only because we had a large sample of 1737, but also because such significance is valuable in educational research. If it were a study for medical purposes, it would not be wise to set probability level at .10 because medical research requires more sensitivity and less probability of being wrong for health care.

### Conclusion

In this chapter, I have attempted to describe the research methodology used in this study. The comparative methodology employed in this study with a large sample size is expected to lead to meaningful results. However, the value of this study depends crucially on the constructs that are defined and measured. Students' levels which are determined by the Bilkent Placement Test, and their scores from the COPE exam whose validity and reliability has yet to be proven, places some limitations on this study. Other factors, such as insights about individual language learners, have not been taken into account while conducting the research. If the hypotheses studied are upheld, qualitative approaches will be needed to explore and provide more information about individual as well as gender differences.

## CHAPTER 4 RESULTS AND DISCUSSION

## Introduction

The purpose of this study was to find out if females have a significant quantitative advantage over males in general English foreign language proficiency, in English reading comprehension, and in written English usage. It was hypothesized that a statistically significant quantitative difference would be in favor of females in these language areas. On the other hand, it was hypothesized that males have a significant quantitative advantage over females in listening comprehension only. Finally, we hypothesized that there would be a statistically significant gender difference between females and males at each proficiency level.

In this chapter, analysis of the data are presented.

## Hypothesis 1

It was hypothesized that there is a statistically significant quantitative difference in favor of females in general English foreign language proficiency of Turkish university preparatory school learners. To determine whether there was any difference between males and females, the mean scores were calculated (Table 4).

Table 4

Means, Standard Deviations and T-values of General English Foreign Language Proficiency Scores of Females and Males

	MEAN	SD	T-obsv	T-crit
FEMALES (N = 806)	87.12	27.15	0.03	1.66
MALES (N = 931)	86.38	27.61		

From a simple inspection of the difference between males and females, the mean scores show that females are superior to males in general English foreign language proficiency. However, in order to confirm this result

statistically, the comparison of means of general language proficiency scores of males and females was done by using a  $t$ -test analysis.

The results of the t-test analysis showed that there was no significant difference between general English foreign language proficiency scores of males and females. Although female students achieved a slightly higher score ( $M= 87.12$ ) than male students ( $M= 86.38$ ) in general English foreign language proficiency, the difference is not statistically significant. As reported, the obtained  $t$ -observed value is lower than the  $t$ -critical value, and therefore, the difference cannot be accepted as significant.

#### Hypothesis 2

It was hypothesized that there is a statistically significant quantitative difference in favor of females in English reading comprehension among Turkish university preparatory school learners. To determine male and female students' performance on reading comprehension, their mean scores on this section of the test were calculated (Table 5).

Table 5

Means, Standard Deviations and T-values of English Reading Comprehension Scores of Females and Males

	MEAN	SD	$T$ -obsv	$T$ -crit
FEMALES	20.35	6.36	0.01	1.66
MALES	20.40	6.94		

The data show that male students performed better ( $M= 20.40$ ) than the female students ( $M= 20.35$ ). However, when the  $t$ -test was run in order to find out whether there was a significant difference between the means, it was found that the difference was not statistically significant (Table 5).

As Table 5 illustrates,  $T$ -observed value is lower than  $T$ -critical value, and therefore, the difference between males and females on English reading comprehension is not statistically significant.

## Hypothesis 3

It was hypothesized that there is a statistically significant quantitative difference in favor of males in listening comprehension among Turkish university preparatory school learners. Mean scores of listening comprehension were calculated in order to see whether there was any difference between males and females in this area (Table 6).

Table 6

Means, Standard Deviations and T-values of English Listening Comprehension Scores of Females and Males

	MEAN	SD	<u>T-obsv</u>	<u>T-crit</u>
FEMALES	14.23	4.29	0.13	1.66
MALES	14.80	4.50		

Table 6 shows that male students achieved higher scores ( $M= 14.80$ ) than female students ( $M= 14.23$ ). In order to find out whether this difference in favor of males was statistically significant or not, the comparison of means of English listening comprehension for females and males was done by using a t-test analysis. As can be seen from Table 6, t-observed value is lower than t-critical value, and therefore, the difference between females and males on English listening comprehension is not statistically significant.

## Hypothesis 4

It was hypothesized that there is a statistically significant quantitative difference in favor of females in written English usage among Turkish university preparatory school learners. The mean scores of written English usage of female and male students were calculated to see if there was any difference (Table 7).

Table 7

Means, Standard Deviations and T-values of Written English Usage Scores of Females and Males

	MEAN	SD	<u>T</u> -obsv	<u>T</u> -crit
FEMALES	48.00	17.58		
			0.002	1.66
MALES	46.66	17.85		

As Table 7 illustrates, females had a higher mean score ( $M= 48.00$ ) than males ( $M= 46.66$ ) in written English usage. However, in order to find out whether this difference was statistically significant, t-test analysis was carried out (Table 7). The difference in written English usage is not statistically significant even though females had a higher mean score. Because the t-observed value is lower than t-critical value, the difference cannot be accepted as significant.

#### Hypothesis 5

It was also hypothesized that there would be a statistically significant gender difference in favor of females in general English foreign language proficiency at each proficiency level. In order to test this hypothesis, the mean scores of females and males for general English foreign language proficiency at three different levels were calculated. Table 8 gives the mean scores, standard deviations and t-values of female and male students in general English language proficiency at three levels (i.e., intermediate, upper-intermediate, and advanced).

Table 8

Mean Scores, Standard Deviations and T-values of Females and Males in General English Language Proficiency at Three Levels

	FEMALES				MALES	
	MEAN	SD	<u>T</u> -obsv	<u>T</u> -crit	MEAN	SD
INT	62.08	20.74	0.48	1.66	62.88	21.64
UP-INT	92.60	18.36	0.66	1.66	93.56	18.21
ADV	111.02	15.10	1.46	1.66	113.04	14.60

As Table 8 illustrates, males at the intermediate level have a higher general English foreign language proficiency score (M= 62.88) than females at the intermediate level (M= 62.08). Similarly, males at the upper-intermediate level have a higher general English foreign language proficiency score (M= 93.56) than females at the upper-intermediate level (M= 92.60). The situation is not different at the advanced level. Males at the advanced level have a higher general English foreign language proficiency mean score (M= 113.04) than females at the same level (M= 111.02).

Although we observed higher mean score in favor of males in general English language proficiency, t-tests were performed to assess the significance of the observed difference in means between males and females at different levels. The results of this analysis together with the t-values are also given in Table 8.

After analysis of t-test was conducted, the results indicated no statistically significant difference at each level between genders. There was no gender difference in the general English foreign language proficiency of students at intermediate, upper-intermediate, and advanced levels. This means the hypothesis was rejected.

## Hypothesis 6

It was hypothesized that there would be a statistically significant gender difference in favor of females in English reading comprehension at each proficiency level.

Similarly, female and male students' mean scores in English reading comprehension at each level were calculated in order to see if there was any difference. Table 9 shows the mean scores, standard deviations and  $t$ -values of female and male students' performance in English reading comprehension at three levels.

Table 9

Mean Scores, Standard Deviations and T-values of Females and Males in English Reading Comprehension at Three Levels

	FEMALES				MALES	
	MEAN	SD	$T$ -obsv	$T$ -crit	MEAN	SD
INT	15.15	4.39	1.72*	1.66	15.90	6.24
UP-INT	21.36	5.08	0.16	1.66	21.43	5.43
ADV	25.48	4.87	1.16	1.66	26.02	5.04

\*  $p < .10$

It can be observed from Table 9 that reading mean score of male students is higher ( $M = 15.90$ ) than the female students ( $M = 15.15$ ) at the intermediate level. Similarly, reading mean score of male students is slightly higher ( $M = 21.43$ ) than the female students ( $M = 21.36$ ) at the upper-intermediate level. Also, at the advanced level, reading mean score of male students is higher ( $M = 26.02$ ) than the female students ( $M = 25.48$ ).

To see if these differences were statistically significant  $t$ -tests were conducted. The results of a  $t$ -test analysis indicated a statistically significant difference ( $p < .10$ ) at the intermediate level only. The  $t$ -

observed value is higher than the  $t$ -critical value, showing that the difference is significant. This difference in English reading comprehension was in favor of males which means that our hypothesis that female students are better than male students in reading comprehension is rejected. At the upper-intermediate level and the advanced level, the analysis revealed no statistically significant difference between genders.

#### Hypothesis 7

It was hypothesized that there would be a statistically significant gender difference in favor of males in English listening comprehension at each proficiency level.

In order to find out whether there was any difference at three different levels in English listening comprehension, the mean scores of female students and male students on listening comprehension at intermediate, upper-intermediate, and advanced levels were calculated. Table 10 gives listening mean scores and standard deviations of each gender at three different levels as well as the  $t$  and  $p$ -values.

Table 10

Mean Scores, Standard Deviations and T-values of Females and Males in English Listening Comprehension at Three Levels

	FEMALES				MALES	
	MEAN	SD	$T$ -obsv	$T$ -crit	MEAN	SD
INT	10.76	2.94	4.05*	1.66	11.71	2.99
UP-INT	14.88	3.62	1.88**	1.66	15.40	3.36
ADV	17.66	3.15	4.14***	1.66	18.80	2.78

\*  $p < .001$

\*\*  $p < .05$

\*\*\*  $p < .001$

The listening mean scores of male students at all three levels are higher than listening mean scores of female students. Indeed, at the



intermediate level, the listening mean score of male students ( $M= 11.71$ ) is much higher than the listening mean score of female students ( $M= 10.76$ ). At the upper-intermediate level, male students have a higher ( $M= 15.40$ ) listening mean score than female students ( $M= 14.88$ ). At the advanced level, the results are similar: males have a mean score of 18.80, and females have a mean score of 17.66. To confirm these comparisons statistically,  $t$ -test analysis was done. The results of  $t$ -test analysis confirmed that there were significant differences between males and females in English listening comprehension at all levels (i.e., intermediate, upper-intermediate, and advanced levels). This difference was in favor of males as was hypothesized. Therefore, the hypothesis that Turkish males are superior to Turkish females in English listening comprehension at the preparatory school level was statistically confirmed with significant results. At the intermediate level the  $t$ -observed value is higher than  $t$ -critical value and the  $p$ -value is quite low ( $p <.001$ ). At the upper-intermediate level, the difference is also statistically significant, the  $t$ -observed is higher than  $t$ -critical and the  $p$ -value is also low ( $p <.05$ ). At the advanced level, the  $t$ -observed is higher than  $t$ -critical and  $p$ -value is very low ( $p <.001$ ). The hypothesis that there would be statistically significant gender difference in English listening comprehension at each proficiency level is accepted.

#### Hypothesis 8

The last hypothesis was that there would be a statistically significant gender difference in favor of females in written English usage at each proficiency level.

The last analysis performed in order to find out if there was any gender difference at three different levels was in written English usage. Again, the mean scores and standard deviations were compared for any difference (Table 11).

Table 11

Mean Scores, Standard Deviations and T-values of Females and Males in Written English Usage at Three Levels

	FEMALES				MALES	
	MEAN	SD	<u>T</u> -obsv	<u>T</u> -crit	MEAN	SD
INT	32.60	15.25	0.73	1.66	31.73	15.08
UP-INT	51.52	12.19	0.23	1.66	51.74	11.74
ADV	62.50	9.19	0.34	1.66	62.79	9.05

As Table 11 illustrates, the written English usage mean score of female students (M= 32.60) is higher than male students (M= 31.73) at the intermediate level. However, at the upper-intermediate level, the written English usage mean score of males (M= 51.74) is slightly higher than the written English usage mean score of females (M= 51.52). Similarly, at the advanced level, males have a slightly higher mean score (M= 62.79) than females (M= 62.50) on written English usage. T-tests were conducted to see if these differences were statistically significant. As Table 11 illustrates, the results of t-test analysis indicated no statistically significant difference. That is, at all the three levels the t-observed values were lower than the t-critical values. Therefore, the gender difference in written English usage at three proficiency levels was not statistically significant.

#### Interpretation and Discussion

The data analysis performed in order to test the hypotheses in this study can be summarized as follows: The findings for the first hypothesis of the research suggest that there is no statistically significant quantitative gender difference in favor of females in general English foreign language proficiency. Therefore, the first hypothesis is rejected. The second aspect of the study focused on whether there is a statistically

significant gender difference in favor of females in English reading comprehension. The data obtained from this study show that females are not significantly better than males in English reading comprehension. Again, male students performed better, but not significantly better than female students. The second hypothesis is also rejected.

The third aspect of the study explored the hypothesis that male students have a significant quantitative advantage over female students in English listening comprehension. The data indicated males were not significantly superior to females in English listening comprehension despite the fact that males had a higher mean score. Since the difference was not statistically significant, this hypothesis was also rejected.

The fourth aspect of the study was whether there is a statistically significant gender difference in favor of females in written English usage. The results of the study indicated that females had a higher mean score than males. However, the difference was not statistically significant.

Finally, the last four aspects of the study investigated the question of whether there is a statistically significant gender difference in these areas at each proficiency level (i.e., intermediate, upper-intermediate, advanced). The findings of this part of the research suggest that there is no statistically significant gender difference in general English foreign language proficiency at three levels.

In English reading comprehension, a statistically significant difference was found in favor of males at the intermediate level. This finding suggests the rejection of our hypothesis, in which gender difference was expected to be found in favor of females. At the upper-intermediate, and advanced levels, no statistically significant difference was found. In written English usage, at all three levels, no statistically significant gender difference was found.

The only hypothesis that met the researcher's expectations was the superiority of male students in the listening comprehension at each proficiency level of learners. In English listening comprehension, statistically significant gender difference was found in favor of males as hypothesized. Males at three levels outperformed females in this area; therefore, our hypothesis is accepted.

In general, the findings for these hypotheses in this study were contrary to the expectations of the researcher. The researcher based her expectations first on the findings of L1 studies where females have been reported to be significantly superior to males in general language proficiency (Maccoby & Jacklin, 1974; Lewis & Hoover, 1983; Martin & Hoover, 1987; Gramenz, Jolly, & Pickens, 1986; Becker & Forsyth, 1990; Oscarson, 1990). However, the findings of this study contradicted these L1 studies and did not reveal significant female superiority over males. There can be a number of reasons for these unexpected results. This result might imply that learning a foreign language is not similar to learning the first language for boys and girls. The fact that females are significantly better than males in L1 general language ability does not mean that they are significantly better than males in EFL general language ability. For this reason, the processes for first language acquisition and foreign language learning are different, and therefore, should be treated separately even though there might be some similarities.

The researcher's second basis for her expectation was the L2 studies. The studies carried out in L2 did not report any significant female superiority except for Boyle (1987). Boyle's study found significant female superiority in general language ability but significant male superiority in listening vocabulary. Other studies carried out in L2 reported that females have a higher level of motivation, strategy use in language learning, and more positive attitudes towards the speakers of the target language. The researcher thought that if females have all these positive factors in learning a foreign language, then their general language ability should be better. However, the findings did not support this expectation. It is not easy to say that motivation, or higher level of strategy use do not promote language learning. However, as the results of this study indicate, male students are as successful as female students. The reason can be as follows: First, students at BUSEL have instrumental motivation. Their primary goal is to pass the proficiency exam (COPE) in order to go to their major departments. Therefore, no matter what their gender is, their motivation is most probably the same. That is, their motivation might have overridden the gender variable. For this reason, in

an EFL setting where students do not have integrative but instrumental motivation, their success may be similar. If this study was carried out in an ESL setting, the results might have been different.

The inconsistent findings of this study may be due to some unforeseen details. Students at BUSEL have different abilities and capabilities depending on their major departments and faculties. It is known that students who will attend engineering faculty are much smarter and more successful academically than those who will attend tourism, or bureau management departments. Hence, these students at different departments and faculties should have been treated within their faculties. The findings of this study might have been influenced by this variability.

Finally, other factors which have not been controlled by the researcher might have influenced the results. Students with different cognitive styles, learning styles, personalities, and so forth show varying success. These factors alone or in combination may have caused such unexpected results.

## CHAPTER 5 CONCLUSION

## Summary of the Study

The main concern of this study was to investigate whether there was a significant gender difference in learners' general English foreign language proficiency, English reading comprehension, English listening comprehension, and written English usage. In particular, the purpose was to investigate whether females have a significant advantage over males in general English foreign language proficiency, English reading comprehension, and written English usage, and whether males are significantly better than females in English listening comprehension. Furthermore, this study analyzed whether these significant differences exist at each proficiency level.

The study was carried out at Bilkent University, School of English Language (BUSEL). The participants in the study were from the preessional program of BUSEL with intermediate, upper-intermediate, and advanced levels of proficiency. There was a total of 1737 student tests in the study.

The instrument used in the study was the BUSEL July 1992 COPE exam, which consists of three papers: reading comprehension paper, listening comprehension paper, written English usage and writing paper.

Before the analysis of the data, necessary information, such as learners' ID number, gender, level, and scores, was loaded on a micro-computer. A jury of four judges double-checked the data to eliminate any errors.

The data were analyzed in two stages. First, the mean scores and standard deviations of females and males from these tests were calculated both generally and also by levels. Second,  $t$ -tests were performed to find out if there were any statistically significant results.

There were eight hypotheses related to the study. The first hypothesis stated that there was a statistically significant gender difference in favor of females in general English foreign language proficiency. However, the analysis revealed that there was not any statistically significant gender difference in favor of females in general English foreign language proficiency. Therefore, this hypothesis had to be rejected.

Similarly, the second hypothesis that there is a statistically significant gender difference in favor of females in English reading comprehension was also rejected.

The third hypothesis, which stated significant male advantage in English listening comprehension, was not accepted either.

The fourth hypothesis that there is a statistically significant gender difference in favor of females in written English usage was also rejected.

The fifth hypothesis, which stated that females have a significant advantage over males in general English foreign language proficiency, at each proficiency level, had to be rejected.

The sixth hypothesis that there is a statistically significant gender difference in favor of females in English reading comprehension at each proficiency level was also rejected. In English reading comprehension, a statistically significant gender difference was found at intermediate level. However, the difference at this level was in favor of males not females as we expected. At the other two levels (i.e., upper-intermediate, and advanced levels) no significant result was found.

The seventh hypothesis was that males have a significant advantage over females in English listening comprehension at each proficiency level. For this hypothesis statistically significant gender difference in favor of males at three levels was found. Therefore, this result confirmed the hypothesis that males are significantly better than females in listening comprehension within their proficiency levels.

The last hypothesis that there is a statistically significant gender difference in favor of females in written English usage at each proficiency level was not accepted. No statistically significant result was found in written English usage at three levels.

It can be concluded from all these results that males within their proficiency levels are superior to females in English listening comprehension.

### Assessment of the Study

The results of the study about gender differences in foreign language assessment were disappointing. There were several shortcomings that the researcher thinks have caused these discrepancies.

First, the instrument (i.e., the COPE exam) might have not been as reliable and valid as it was originally thought to be. This could have certainly been foreseen at the beginning of the study. However, due to some constraints, it was not possible to use an internationally recognized test such as TOEFL, or Michigan English Language Proficiency Test. It was not practical to administer and mark TOEFL, or Michigan Test not only due to limited time but also due to the impossibility of administrating such exams for study purposes. Hence, the COPE exam was seen as the most reliable and valid exam that could have been used for the purposes of this study.

Second, Bilkent University is famous for its engineering faculty and bright scholarship students -- about 15 % -- who receive the highest scores in the university entrance examination study at this faculty. These engineering students are predominantly males. Therefore, the high proportion of male students at this faculty might have affected the results of the study in favor of the males' mean scores. This possibility was not foreseen by the researcher while conducting the research. When it was realized, it was not possible to say which students were from engineering faculty and which were from other faculties or departments. In order to overcome this possible problem, all students should have been treated within their faculties or departments.

On the other hand, the number of subjects (N= 1737) used in the study was large, which implies that the results should be valid and reliable. However, when the shortcomings mentioned before are considered, the significance of the sample size may be reduced.

It can be said that the study partially had internal validity because the aims of the researcher were to show that there was a gender difference in foreign language learning. Although the results were not all positive, the researcher tested what needed to be tested. However, the internal



validity of the study was affected in a negative way by the instrument used.

As far as external validity is concerned, it cannot be said that the study had or lacked external validity. This is because when the results of this study are compared with the results of the previous research, there are some discrepancies and only a minor similarity (i.e., the male superiority in English listening comprehension at three levels).

In summary, this investigation's inconclusive findings suggest that a similar study with a different instrument and with consideration of students' departments and faculties could have some merit.

#### Pedagogical Implications

Although the results of this study are inconclusive, some implications can still be drawn from it. Although no statistically significant gender difference in English listening comprehension was found when all the data, regardless of learners' proficiency levels, were analyzed, male students proved to be significantly superior to female students when the data were analyzed within students' proficiency levels. Furthermore, mean scores in English listening comprehension of male students were higher than female students' mean scores when proficiency levels of students were not considered. Although higher mean score do not indicate any statistical significance, the implication which emerged from the findings of this study is that male students are better at English listening comprehension.

The implications of this study for language learning can be summarized as follows. There are several possibilities for applying this result in the classroom. First, it is possible for language teachers to group according to ability, keeping in mind this difference between male students and female students in English listening comprehension at each proficiency level. They can select their instructional techniques and strategies in order to compensate for female students and to foster male students' learning. When a group or class of students is homogeneous in terms of needs, it might be easier and more effective for helping them acquire a foreign language.

They can group students according to their gender, cognitive style, learning style, and so forth. However, a more practical and realistic grouping can be made in the classroom by putting male students in one group and female students in another during a listening comprehension lesson. In this way, male students' strengths can be fostered by giving them more challenging or different tasks, and female students' weaknesses can be compensated with further help, guidance or with more manageable tasks. This might promote their acquisition of a foreign language because their different needs are met and the necessary precautions are taken. On the other hand, grouping students according to their abilities might have some disadvantages in that weaker students do not find opportunities to get help from their stronger peers. For this reason, a heterogeneous group might be more beneficial for students. The teacher being aware of these gender differences and knowing her/his students better than anybody else, can make the decision and group the students according to what she/he feels is most appropriate.

There is one fact that language teachers should be made aware of and this is the view which should shift from a learner-independent view to a learner-dependent view of language. We should not only pay attention to methods of teaching but also to learner characteristics and the possible influence of these learner characteristics on the process of acquiring a second language. As the individual learner is the central contributor in the complex process of learning another language, we should consider the task from the learner's point of view and change the focus of classroom from a teacher-centered one to a learner-centered one. If language learning is itself so complex, the possibilities for individual differences in that process can only be more complex. In order to understand this complex phenomenon and try to promote the acquisition process, the focus should be on learning and the learner.

#### Implications for Further Research

There are several implications of this study for foreign language research and education.

First, further research needs to be done on gender differences with a

different instrument, that is, with an examination whose validity and reliability is established.

Second, a further study should take into account learners' faculties and departments if carried out at Bilkent University. This may provide more reliable and valid results since students are more homogeneous within their faculties or departments, but they are heterogeneous among faculties or departments.

Third, qualitative studies are needed to explore individual insights because quantitative studies by their nature cannot investigate individual insights. With such information, not only the existence or non-existence of gender difference can be investigated, but also some explanations can be found for the difference.

Finally, the gender variable should not be the only focus of investigation. Other factors such as learners' cognitive style, learning style, personality, and learning strategies should also be studied together with the gender variable. In this way, more reliable data can be obtained because if there is difference, what factor or factors foster this difference? Is it only learners' gender, or is it their cognitive style, or is it both or all of these factors? For this reason, a large study could add to the body of research invaluable results and explanations, and could benefit language teachers and EFL research in many ways.

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## APPENDIX A

Informed Consent Form

Dear Mr. \_\_\_\_\_,

I am doing a study on the relation of gender differences to test achievement. As data for the study, I will need to use the July 1992, COPE results. All information will be held strictly confidential. Students' real names will not be used in this study to ensure confidentiality. After I finish working with the text material (COPE results), I will not photocopy them and will retain the data securely for three years. Whereupon they shall be destroyed. If there are any questions about this study, you may contact either the researcher:

Sadiye Behcetogullari

MA TEFL Student

Bilkent University

or the study advisor:

Dr. Dan J. Tannacito, Director

MA TEFL Program

Bilkent University

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(Please return bottom portion of this form to the researcher)

I have read the information on this form and understand that all information will be held in confidence. Therefore, I give permission to the researcher to use the July 1992, COPE results.

Name (please print) \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_