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THE EFFECT OF TEACHER INTERVENTION, ROLE MODELING, AND A
GENDER-BALANCED BULLETIN BOARD DESIGN ON 10TH-GRADE
MALE STUDENTS' WRITING APPREHENSION

by
Laurie Bartolomeo

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Science in Teaching Degree
of
The Graduate School
at
Rowan University
June 27, 2002

Approved by _____
Professor

Date Approved June 25, 2002

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ABSTRACT

Laurie Bartolomeo

The Effect of Teacher Intervention, Role Modeling, and a
Gender-Balanced Bulletin Board Design on 10th-Grade
Male Students' Writing Apprehension
2002

Dr. Donna W. Jorgensen
Master of Science in Teaching Degree

The first goal of this study was to identify any preexisting differences in the levels of writing apprehension between males and females in a sample of 85 10th-grade high-school students enrolled in English classes available during a spring 2002 student teaching placement. An adapted form of John A. Daly and Michael D. Miller's (1975) Likert-scaled Writing Apprehension Measure was used to assess the participants' levels of apprehension. Results of the first survey revealed that male participants did display a higher level of writing apprehension but the difference did not reach a level of statistical significance ($p < .05$). The second phase of the study involved a 4-month treatment period that included teacher intervention, role modeling, and a gender-balanced bulletin board design in attempt to make a positive change in the male students' levels of writing apprehension. The same survey was administered to 36 males and 36 females following treatment to determine if any change occurred. A two-way analysis of variance (ANOVA) revealed there was no statistically significant effect of treatment on either the male or female participants ($p < .05$); however, a decrease in the levels of writing

apprehension was seen in the means of the scores across all groups.

MINI-ABSTRACT

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ACKNOWLEDGEMENTS

I would like to acknowledge the contributions of Dr. Donna W. Jorgensen, my advisor for this thesis, for her tireless efforts and dedication to excellence that motivated me throughout this process to produce my best possible work.

I would also like to acknowledge and thank Karen Jorgensen for her statistical expertise that helped ensure the accuracy of this document, as well as her generous and patient nature when helping me with my data analysis.

I would also like to acknowledge the following people, without whose contributions this study would not have been possible: Kathleen Biedka, James Coyle, Angelo DiPilla, Dr. David Kapel, and A.J. LeViere.

I would also like to express my deepest gratitude to my husband, Nicholas Bartolomeo, and my mother, Linda Nelson, for their unconditional love and support that carried me throughout this entire program.

TABLE OF CONTENTS

I. CHAPTER 1: INTRODUCTION	1
Statement of the problem	3
Research questions/hypotheses	4
Definitions of terms	7
II. CHAPTER 2: REVIEW OF RELATED LITERATURE	10
III. CHAPTER 3: METHODS	17
Participants	17
Instruments	18
Procedures	21
Experimental design/data analysis	23
IV. CHAPTER 4: RESULTS	27
V. CHAPTER 5: DISCUSSION	42
Limitations	48
Suggestions for further research	51
VI. REFERENCES	53
VII. APPENDIXES	
Appendix A: Writing Apprehension Survey	56
Appendix B: Daly and Miller's (1975) Writing Apprehension Measure	59
Appendix C: Multigenre Research Paper Questionnaire	61
Appendix D: Selected Journal Topics	63
Appendix E: Gender-balanced Bulletin Board Photo	65
Appendix F: Letter to Visiting Role Models	67

LIST OF TABLES AND FIGURES

Figure 1. Nonequivalent Control Group Design	24
Figure 2. Preexisting Differences in Writing Apprehension	28
Figure 3. Differences in Writing Apprehension Following Treatment	30
Table 1. Analysis of Variance for Treatment Effects	31
Table 2. Mean Scores Pre- and Post-treatment for Item 28	34
Figure 4. Male vs. Female Mean Scores for Item 27	35
Figure 5. Male vs. Female Mean Scores for Item 29	36
Table 3. Multigenre Questionnaire: Item-by-item Frequencies and Percentages	38

Chapter 1: Introduction

One popular issue in education today is that of gender equality in the classroom. Although there has been an overwhelming amount of emphasis on the underachievement of females in mathematics and science in the past, finally, attention is being given to the fact that males are likewise not performing as well as females in language-related subjects, such as reading and writing (Barrs, 2000). While the evidence of lower scores for males in the areas of literacy can be found in related literature, possible theories for this discrepancy in achievement are varied.

One theoretical explanation for these gender inequities in achievement is based on Bandura's (1986) social cognitive theory which states that children's beliefs about what they can accomplish in a certain area directly influence their actual performance regardless of their physical capabilities or skills. Research (Ma & Willms, 1999; Cummings, 1994) has shown that self-concept may play a role in success with advanced mathematics. The concept of "learned helplessness" supports the idea that many students drop out of certain subjects when they reach the advanced level due to the development of anxiety, or a fear of failure, rather than a lack of intellectual ability (Ma & Willms, 1999). Likewise, some researchers (Pajares, Miller & Johnson, 1999; Gambell & Hunter, 1999) have found that students' confidence in their writing skills is also related to their success with the language arts curriculum.

According to researchers, a pattern of apprehension towards writing can develop early in students and lead to consistent underperformance in writing tasks (Daly

& Miller, 1975). Logically, if students experience some form of anxiety in relation to writing, they are likely to perform poorly in environments that require writing, such as the English classroom. Because of this avoidance of writing, these students would not be expected to perform well on certain writing tasks as a result of a lack of practice. Students who are apprehensive about writing may also be expected to refuse advanced courses in writing and eventually shy away from activities or occupations that require a large amount of writing (Daly & Miller, 1975). Each of these factors could be responsible for the current trend of the underperformance of males in writing.

Other explanations for differences in success with the language arts curriculum between genders focus on a more brain-based difference between males and females (Gurian, 2001). Research has shown that the male brain may be physically more adept at dealing with mathematical computations because it can hold more visual images and retrieve memorized information more easily. However, the female brain may be more proficient when dealing with literal concepts. Because the area of the brain that is responsible for verbal development has been shown to develop earlier in females than in males, females often get a head start in verbal functioning compared to males (Grossman & Grossman, 1994). This earlier development can lead to later success with, and higher confidence levels toward, complex literacy tasks.

Much research is available on the methods that teachers can use to help equate the experiences of both males and females in the classroom. Some methods for teachers to promote students' development of self-confidence in certain subjects include the following: generating awareness of gender bias among the students, counteracting these gender stereotypes, and using role modeling to counteract students' stereotypical beliefs

about gender roles (Sanders, Koch & Urso, 1997). One theorist claims that males learn to “do gender,” as they interact with texts (Young, 2001). According to Young, males practice masculinity in everyday literacy tasks such as speaking, listening, reading, and writing. For many males, apprehension towards expression in certain literacy tasks arises because of the social pressures that they face and their preconceived idea of what is masculine. Young attempted to reconstruct this apprehension by challenging certain attitudes concerning stereotypical beliefs about what is masculine and what is feminine and suggesting gender-neutral texts for use in the English classroom.

Statement of the problem

The purpose of the study outlined here was twofold. The first objective was to investigate whether or not a difference actually existed between the apprehension levels of male and female 10th-grade English students toward writing. This first phase of the study attempted to determine whether or not a difference existed between the apprehension levels of males and females in the available 10th-grade English classrooms through the students’ completion of a Likert-scaled survey. This survey measured the participants’ responses to statements concerning their perceptions of their abilities in writing and confidence with certain writing tasks. The statements on this scale dealt with items that measured students’ feelings about the academic quality and grading of their writing, their personal feelings toward and enjoyment of writing, and their perception of their writing ability and confidence in completing writing tasks. The survey also asked students to examine their attitudes towards creative vs. expository writing, as well as their

beliefs about gender and writing. The purpose of this initial stage was to identify a probable outcome of the treatment phase of the study.

The second phase of this study, the treatment phase, involved making a significant change on the male participants' level of apprehension towards writing. Subsequently, the effect of the following practices on existing differences in apprehension was examined: role modeling, teacher intervention (meaning the counteraction of gender stereotypes through teacher-student discussion and specific writing experiences), and a gender-balanced bulletin board design.

This research investigated the following questions:

Research questions/hypotheses

- What, if any, is the difference in writing apprehension between males and females?

H₁: There are differences in writing apprehension levels between males and females, indicating a significantly higher level of apprehension toward writing in males than in females.

H₀: There is no significant difference in writing apprehension levels between males and females: males and females display similar levels of apprehension toward writing.

- Does the use of role modeling, teacher intervention, and a gender-balanced bulletin board design have any significant effect on male students' apprehension toward writing tasks?

H₁: The use of role modeling, teacher intervention, and a gender-balanced bulletin board design will have a significant effect on male students' apprehension toward writing tasks.

H₀: The use of role modeling, teacher intervention, and a gender-balanced bulletin board design will have no significant effect on male students' apprehension toward writing tasks.

- What, if any, subsequent effects on females' apprehension toward writing tasks are achieved through role modeling, teaching intervention, and a gender-balanced bulletin board design?

H₁: Role modeling, teaching intervention, and a gender-balanced bulletin board design will also have a significant effect on female students' apprehension toward writing tasks.

H₀: Role modeling, teaching intervention, and a gender-balanced bulletin board design will have no significant effect on female students' apprehension toward writing tasks.

Due to national tests showing a difference between males' and females' scores in the area of writing, as well as the prevalence of research indicating the relationship between apprehension and achievement, it was hypothesized that tests measuring 10th-grade male students' attitudes toward writing would indicate a significantly higher degree of apprehension than that of 10th-grade female students. Subsequently, it was predicted that the use of appropriate role modeling, teacher intervention, including

discussion on gender bias, and the creation of a gender-balanced bulletin board would produce a significant change in the males' level of apprehension toward writing. It was also predicted that a "spill-over" effect would occur and that the female participants' levels of apprehension toward writing in the treatment group would also be positively influenced.

Definitions of terms

Writing Apprehension

The term writing apprehension is used throughout this study and refers to general anxiety towards encoding written communication. The survey used in this study measures the degree of agreement or disagreement with 26 statements that deal with tendencies to avoid writing, attitudes toward writing and the grading of writing in school, feelings experienced during writing, and confidence levels related to past experiences with writing (Daly & Miller, 1975). The survey also includes 4 statements that measure students' feelings about gender and writing, as well as attitudes towards creative vs. expository writing.

Teacher Intervention

As one of the treatment variables in the second phase of this study, teacher intervention means the counteraction of gender stereotypes through teacher-student discussion and specific writing experiences. The specific teacher intervention in this study refers to discussions between teacher and students based on two journal topics dealing with gender and writing. Students were asked to write on the selected topics for 10 minutes each and then participate in teacher-led discussions concerning their responses. Throughout these discussions, the teacher encouraged students to see writing as both a male and female activity and expressed the fact that gender does not hinder a person's writing ability.

Modeling

Modeling is a process by which responses are acquired through observing the behavior of someone else (the model). In this study, three male poets enrolled in a creative writing graduate program at a nearby university were invited to visit the classrooms that made up the treatment group to discuss the idea that writing is for males as well as females. The speakers shared some of their poetry and their feelings about overcoming gender stereotypes within the field of creative writing.

Gender-balanced Bulletin Board Design

A gender-balanced bulletin board design simply refers to a bulletin board that represents both genders equally. This type of bulletin board design was achieved in this study by displaying the students' papers from certain writing assignments. Regardless of grade, all student samples were displayed so that the numbers of both male and female authors were honored equally.

Creative vs. Expository Writing

The distinction between creative and expository writing is important when interpreting the data of this study. Creative writing refers to writing that is narrative in nature, such as short stories, poetry, and narrative prose. Expository writing is less narrative in nature and is usually written in third person point of view and includes essays, traditional research papers, and short answer essays. Participants in this study were aware of the distinction.

Multigenre Research Paper

The multigenre research paper used with participants and discussed in this study was based on the design outlined in Tom Romano's Blending Genre, Altering Style: Writing Multigenre Papers (2000). Multigenre research papers are different from "traditional" research papers in that they require less expository writing and allow for more creativity. The papers are written as a collection of different genres such as poetry, prose, magazine/newspaper articles, stream of consciousness, dialogue, etc. These genres combine fact with emotion and result in a compelling depiction of the subject matter that allows for the author's feelings and attitudes toward the subject to be included with the research.

Chapter 2: Review of Related Literature

Although the gender gap in education may be narrowing, research still shows that females typically achieve at lower levels than males in the areas of mathematics and science. This difference in achievement, and the subsequent decisions of females to not enroll in, or drop out of, advanced mathematics courses (Ma & Willms, 1999) has contributed to the underrepresentation of females in the fields of mathematics and science. In fact, the US Department of Education (2000) reports that only 3% of high school graduating females intend to pursue an undergraduate degree in engineering. And, most recent data from the Bureau of Labor and Statistics (US Department of Labor, 2001) shows that only 9% of those employed in the field of engineering are females, and just 29% of mathematical and computer scientists are females.

Reasons why females lose interest in, or drop out of math studies are varied. Some researchers claim that females experience a drop in self-esteem and succumb to the forces of socialization that encourage the belief that “math is not for girls” (Schwartz & Hanson, 1992). Another factor is the possibility that females are not introduced to the many career possibilities involving mathematics and are not exposed to women role models with successful careers in math. Teachers also play an important role because they tend to offer more encouragement to students in certain subject areas when they believe the students have stronger abilities in that subject (Ma & Willms, 1999).

Conversely, research has also shown the prevalence of women in the areas of the humanities and literacy, or reading and writing (Mickelson, 1992; Peterson, 2000). In

recent, large-scale examinations of US school children (US Department of Education, 2000), females consistently outperformed males in the areas of reading and writing. The 2000 National Assessment of Educational Progress (NAEP) reported that the percentage of fourth-grade female students reading “at or above proficient” levels was greater than that of males. The NAEP for writing also showed a higher percentage of females outperforming males (US Department of Education, 1998). Across Grades 4, 8, and 12, between 29% and 36% of females students were “at or above proficient” in writing as opposed to between 14% and 17% of male students.

When considering intended preferences for undergraduate degrees, women outnumber men in majors concerning social sciences and liberal arts (US Department of Education, 2000). Women were also more than twice as likely (11% vs. 4%) to enter the field of education. On college entrance applications, women reported a higher high school grade point average than males in both English and social sciences/history, and females also took a slightly higher average number of years of coursework in English (3.9 vs. 3.8) and social sciences/history (3.4 vs. 3.3) than did males (US Department of Education, 2000).

The trend does not seem limited to the US. One major Canadian literacy study (Gambell & Hunter, 2000) showed a gender difference favoring females in literacy achievement. In this study, 55% of 13-year old girls reached the upper performance levels on a five-point criterion scale used to measure reading, while only 33.7% of boys did. Similar results were seen in the writing portion of the test where 73% of the girls and only 59% of the boys performed at top levels. Much research has been conducted in an attempt to determine the cause for these gender gaps in achievement.

Some researchers apply biological explanations for gender differences in achievement. Gurian (2001) approaches the issue from a brain-based perspective. He states that the male brain can hold more visual images and retrieve memorized information more easily, allowing for the quicker, more deductive decisions required in mathematics. However, the female brain requires a greater amount of substantial information in order to make a decision; thus, females tend to be more literal-oriented learners.

Grossman and Grossman (1994) suggest that the difference is in learning styles — females are more likely to delay making conclusions until they feel they have enough information to solve a problem. This may account for Bielinski and Davidson's (2001) findings that while females outperform males on relatively easy math problems, males will outperform females on more difficult math problems. Grossman and Grossman (1994) have also presented evidence that the differences may be a result of the fact that females experience earlier development in the portion of the brain responsible for verbal functioning, thus, they may get a head start that improves their literacy skills.

Others, including Pajares, Miller, and Johnson (1999) and Ma and Willms (1999), cite Bandura's social cognitive theory as a potential explanation for gender differences in particular areas of achievement. Both maintain that children develop certain beliefs about their abilities through their environment that lead to a lack of confidence in their skills and interfere with their academic performances. Ma and Willms reported that females might develop "mathematics anxiety" because of an overt fear of failure and that "many females believe that if they achieve good grades, particularly in mathematics and science, they will be less popular with their peers" (p. 367).

Pajares, Miller, and Johnson (1999) state that males may experience a lack of confidence in reading and writing as a result of their self-concepts concerning their abilities in these areas. They report a relationship between writing apprehension and the underperformance of males on writing assessments. In one study, they reported that writing self-efficacy, perceived usefulness, and previous writing achievement had an effect on the writing performance of undergraduates (Pajares, Miller & Johnson, 1999). According to Bandura's social cognitive theory, beliefs about what students perceive as "useful" are related to decisions they make about the tasks or courses in which they will participate (Pajares, Miller & Johnson, 1999). When self-efficacy beliefs are controlled, it is possible that the influence of apprehension will lessen or even disappear. This same study suggested that gender stereotypes might help explain student differences in literacy performance.

These outcomes are similar to those reported by Cummings (1994) who examined students' personal views on gender differences in literacy. The largest category of responses from students related gender differences to "the way things are" and indicated that they felt that writing was a more "natural" activity for girls than for boys. In another study (Peterson, 2000), eighth grade students were asked to read stories written by their peers and identify the gender of the writer. Results showed that the students' assessments of each writer's ability level revealed an underlying belief among the students that girls are better writers than boys.

Peterson (2000), however, also found that because girls may be more likely to conform to the rhetorical conventions by which writing is evaluated, girls tend to have greater success on large-scale, standardized writing assessments. Newkirk (2000) seems

to support this theory of bias in assessment by stating that the creativity contained in males' writing is often overlooked in favor of females' compliance with particular writing conventions. In fact, some suggest that holistic grading techniques, such as those used with standard writing assessments, favor "cosmetic" qualities such as organization and grammar, while they ignore qualities such as creativity and higher-level thinking (Gambell & Hunter, 2000).

One author claims that the reasons for the gap in performance between males and females in writing may be due to the perception that males' style of writing is not the style that is preferred in the schools (Newkirk, 2000). This difference could be seen as early as first grade when a group of male students were asked to imagine themselves as an animal in a story they would write. While most boys chose animals that were dangerous and wild, most girls tended to choose domesticated animals. Newkirk also reported that males rank humor as more important in writing than do females. The author's conclusion was that most traditional writing curriculums ignore the preferred styles of males.

Other factors that may affect gender differences in reading and writing include societal role expectations and socialization processes (Newkirk, 2000). Gambell and Hunter (1999) have found that the idea that writing is a female activity is a societal belief that is established in students not only in the school but also in the home before they even reach the classroom. They suggest that females may outperform males in literacy tasks because they are mimicking the roles they experienced in their home. Gambell and Hunter (2000) report that the majority of homes in the US assign women the responsibility for their child's success in literacy. Thus, most daughters identified with

their mothers' success in literacy and developed their skills as a result of their mothers' experiences with the written language. Grossman and Grossman (1994) state, "children will not only copy adult behavior, they will also change their attitudes, self-concept, and choice of academic subjects to conform to their parents' and teachers' gender expectations, even when objective evidence would lead them to think differently about themselves" (p. 66).

These biases continue into the classroom. Gambell and Hunter (2000) reported the possibility that a predominance of female teachers in the classroom may reinforce these tendencies. They claim that while male emotions are suppressed in the classroom, "female emotions are explored and expressed through literacy" (p. 698). Gambell and Hunter (2000) have also shown that teachers respond more favorably to writing by students of the same gender. Teachers favored the writing of girls over boys, stating, among other things, that it is more "reader-friendly," more "sophisticated," and "better rounded in its characterization" (p. 698). This factor may be compounded by the fact that there are currently more female than male teachers in the schools (US Department of Labor, 2001).

What can educators do to help counteract the prevalence of gender bias in literacy? Barrs (2000) suggests making thinking and feeling more available to boys in the classroom and having students read material that does not further their perceptions of gender stereotypes. Another researcher suggests teacher intervention – that teachers should promote writing not only as a desirable activity for males, but also one in which males' competencies match those of girls (Peterson, 2000). A manual detailing instructional activities that promote gender equity in the classroom (Sanders, Koch &

Urso, 1997) suggests such activities as rejecting biased material, utilizing guest speakers as role models, and developing a sense of competence in underachieving students.

Despite the continued debate over whether gender inequities are the result of biological or environmental factors, specific intervention by classroom teachers may help to counteract gender stereotypes and equalize the experiences of both males and females across content areas. This study attempted to achieve this equalization of the male/female experience with writing through the implementation of role modeling, teacher intervention, and a gender-balanced bulletin board design.

Chapter 3: Methods

The study outlined here was designed to make a positive impact on 10th-grade male students' levels of apprehension toward writing. The first phase of the study involved the administration of a Likert-scaled survey that measured the participants' existing levels of apprehension and compared males' and females' levels of writing apprehension. This phase of the study was used as a predictor of the outcome of the treatment. Treatment included the use of teacher intervention, role modeling, and a gender-balanced bulletin board to promote the idea that success with, and enjoyment of writing should not be limited to females. The same Likert-scaled survey was administered following the treatment to determine what, if any, change occurred in the writing apprehension levels of the students.

A subset of students also completed a questionnaire that asked them to identify different genres of writing as either masculine or feminine. The questionnaire also asked the students to indicate the genders of the people they chose as topics for their multigenre research papers. Additional qualitative data was collected by the researcher in the form of field notes on the question and answer portions of the presentations made by the visiting role models and the student-teacher discussions concerning issues of gender and writing.

Participants

The participants in this study were 85 public high school 10th-grade students enrolled in either college-preparatory or general level English classes. The

socioeconomic status of the Southern New Jersey district that the school served was largely lower middle to middle class, and the students were predominantly white. All participants were taught by this researcher during the student teaching Spring 2002 semester placement. Participants were enrolled in the English classes of the student teacher's cooperating teacher and constituted a population of convenience for this study. While all classes were 10th-grade (English II), two of the classes were at the college-preparatory level and two were at the general education level. This convenience sampling is a potential threat to the external validity of the study. Four classrooms of 85 students (n = 44 females; n = 41 males) were involved in the study. All 85 students participated in the initial phase of the study by completing the Likert-scaled survey to assess their existing level of writing apprehension.

For the second, treatment phase of the study, two classrooms of 46 students (n = 22 females; n = 24 males) were assigned to receive treatment and two classrooms of 39 students (n = 22 females; n = 17 males) served as the control group for the study. The classrooms assigned to receive treatment were again assigned out of convenience to the researcher. The classes that received treatment were chosen because they were held during a time that was convenient to the role models visiting the classrooms. In an attempt to equalize the groups, both the treatment group and the control group consisted of one college-preparatory level class and one general education level class.

Instruments

Participants were tested for writing apprehension using an adapted version (see Appendix A) of John A. Daly and Michael D. Miller's Writing Apprehension

Measure that first appeared in the March 1975 issue of *The Journal of Psychology* (see Appendix B for original survey). This Likert-scaled survey was used to measure general anxiety about writing. Content validity for the items that appeared in the Writing Apprehension Measure was secured by the Education Testing Service (ETS) and the authors of the survey. The authors conducted an examination of the generalizability of the survey with different groups of individuals and investigated the relationship between participants' scores on the survey and a number of psychological traits (Daly & Miller, 1975). The order of items on the survey was assigned randomly to prevent response bias. Adaptations to items were approved by a university expert in the field of English and a tenured teacher of 10th-grade English.

With this instrument, each participant in the study responded by indicating the degree of his or her agreement or disagreement with 26 items dealing with tendencies to avoid writing, attitudes toward written communication, and feelings experienced during writing. For each item, participants indicated whether they strongly agree (SA), agree (A), are undecided (U), disagree (D), or strongly disagree (SD) with each statement. Point values were assigned to each response and each score was determined by summing the points for each statement. A point value system (SA = 5, A = 4, U = 3, D = 2, SD = 1) was assigned to all statements; therefore, a high overall score for each item indicated a high degree of agreement with that statement. For purposes of data analysis, some items were reverse scored.

Items included in the survey dealt with such issues as anxiety about the academic quality and teacher evaluation of the writing, attitudes about the enjoyment, validity, and usefulness of writing, and personal perceptions of writing ability and confidence in

writing. In addition to the 26 items dealing with writing apprehension, four items were included that provided insight into the participants' beliefs about the relationship between gender and writing and their preferences toward either creative or expository writing. For each participant, a total score was calculated from the responses to the first 26 items. Possible total scores ranged from 26 to 130; a low total score indicated a high degree of writing apprehension and a high total score indicated a low degree of writing apprehension. The four items dealing with gender and writing and creative vs. expository writing were evaluated based on the mean and standard deviation of scores of male and female responses. Each participant completed an identical survey following the treatment phase of the study. The test-retest design of the study indicated an acceptable degree of reliability for the purposes of this study.

An additional questionnaire (see Appendix C) was administered to the students enrolled in the college-preparatory level classes only (21 participants in the control group {n = 12 females; n = 9 males} and 23 participants in the treatment group {n = 9 females; n = 14 males}). The purpose of this questionnaire was to measure students' perceptions of certain writing genres as either masculine or feminine. Participants were given a list of 24 different genres and asked to indicate whether the genre seemed (M) masculine or (F) feminine based on which sex would be most likely to write in that genre. This questionnaire also asked students to identify the gender of the historical/influential figure each had chosen to research for the multigenre research paper assignment. The questionnaire was administered to just a subset of the population because only the college-preparatory classes received instruction on the variety of genres in preparation for writing multigenre research papers.

Qualitative data collected during the discussion/intervention stage of this study was recorded by researcher in her role as student teacher. Students responded to two journal topics (see Appendix D) concerning their beliefs about gender and writing and participated in a teacher-led discussion concerning their responses to these topics. As a participant observer, the researcher recorded relevant responses to journal topics and comments made during teacher-student discussions. The presentation made by three male poets enrolled in a nearby university was audiotaped for purposes of later transcription by the researcher. Notes/observations made by the researcher were analyzed to determine differences in male and female participants' feelings toward writing and their beliefs about their competencies as writers.

Procedures

This study was conducted during the 2002 Spring semester in four 10th-grade English classrooms. All participants were taught by this researcher during her student teaching placement. Participants were enrolled in the English classes of the student teacher's cooperating teacher and constituted a population of convenience for this study. Prior to treatment, all 85 participants completed a Likert-scaled survey that evaluated their apprehension towards writing. Treatment began two weeks following the administration of the survey and lasted for three months. Both the control group and the treatment group completed an identical survey following treatment.

The first phase of treatment involved the student teacher's use of appropriate role models to visit the classroom and discuss their experiences with writing and the challenges they faced when entering the field of writing. Three male poets enrolled in a

creative writing graduate program at a local university visited both classrooms that made up the treatment group of students. In a 40-minute presentation to each class, each of the poets read two to three pieces of his work for the students and gave a brief explanation as to why he became interested in the field of writing and his thoughts on why males should consider writing as a valid occupation. The poets also conducted an activity with the students in which they composed a short poem utilizing the class as a whole for input. Their presentation was followed by a brief question and answer session with the students.

Students in the treatment group also participated in teacher-led discussions that were based on their responses to selected journal topics concerning their beliefs about gender and its significance to success with writing. Students were given one journal topic approximately one month into treatment and a second journal topic approximately two months into treatment. Each time a topic was given, students had 10 minutes to respond to the topic in their daily journals. It should be noted that participation was voluntary; not all students participated in responding to the journal topics or the discussions that followed. The discussions began with students sharing their answers to the journal topics aloud and the student teacher probing the class for comments. Each discussion lasted a total of 10 to 15 minutes. It is also possible that the internal validity of the study was jeopardized with these discussions as the students in the treatment group were sensitized to the nature of the study. Another possible threat to the validity of the study is the possibility that students in the control group were alerted to the topics discussed with the treatment group without the awareness of the researcher.

The physical layout of the classroom was also altered slightly to incorporate a gender-balanced bulletin board on which papers representing an equal number of male

and female sample works were displayed (see Appendix E). The bulletin board was created approximately 6 weeks following the onset of treatment and stayed up until the last week of the student teaching assignment.

During the last week of the treatment period, a subset of participants responded to a questionnaire concerning the multigenre research paper project. This questionnaire was given after extensive instruction on various genres and asked the students to identify each genre listed as either masculine or feminine. Their instruction for this task was to indicate if males or females were more likely to write in each particular genre. Students were also asked to identify the gender of the individual they chose as topics for their papers. This questionnaire was given exclusively to the participants enrolled in the college-preparatory level classes, as these were the students who received the advanced instruction on the various genre forms. Also during the last week of the semester, the same Likert-scaled survey was administered to students to determine if any change in the males' or females' level of apprehension toward writing occurred. Thirteen students (6.5% of the population) did not participate in the completion of the second survey following treatment because they dropped out of the study due to out-of-school suspensions/absenteeism.

Experimental design/data analysis

The first phase of this study uses a basic causal-comparative design to compare the scores of both male and female students on the Likert-scaled writing apprehension survey. This was necessary to determine an existing relationship between gender and writing apprehension. A potential pretest-treatment interaction may be a threat to the

external validity of this study as the content of the initial survey may have sensitized the students to the nature of the treatment. The second, treatment phase utilized a quasi-experimental design (see Figure 1). This was chosen because it was not possible to randomly assign individuals to treatment because the treatment had to be conducted in a whole-class atmosphere and required the use of convenience sampling available to the researcher during the student teaching placement. Mortality was a factor in this study, as 13 students (6.5% of the population) dropped out of the second phase of the study due to out-of-school suspensions/absenteeism.

Groups	Pretest	Treatment	Posttest
1 (n = 46)	Likert Writing Apprehension survey, O_1	Modeling, teacher intervention/discussion, classroom design, X_1	Likert Writing Apprehension survey, O_2
2 (n = 39)	Likert Writing Apprehension survey, O_3	Traditional instruction, X_2	Likert Writing Apprehension survey, O_4

Figure 1. Nonequivalent Control Group Design

In the first phase of this study, male and female answers to the Likert-scaled survey response items were summed; all positive statements on the survey were reverse scored and a total score was found for each participant that represented his or her level of writing apprehension. A *t* test was then used to determine whether the preexisting levels

of writing apprehension of the females and males were significantly different from one another.

The next phase of the analysis involved determining the effect of the treatment on all participants. Again using total scores on the survey that was administered after treatment, a two-way analysis of variance, or ANOVA, determined whether or not a significant change occurred in the writing apprehension levels of both males and females. The purpose of this test was to determine whether or not male and female participants responded differently to treatment. In order for statistical significance to be achieved, the researcher looked for a p value of $< .05$. The means of the participants' total scores were also analyzed for educational importance across all groups of participants. For the additional 4 items on the survey that dealt with gender and writing and creative vs. expository writing, the means and standard deviations for the male and female participants were compared.

Responses to the multigenre research paper questionnaire were also analyzed to determine if any of the genres were seen primarily as masculine or feminine. Responses indicating whether each genre was "masculine" or "feminine" were totaled and a percentage of participants reporting "masculine" and a percentage of participants reporting "feminine" were found for each genre. The multigenre questionnaire also included an item that asked students to indicate the gender of the person they chose as a topic for their paper. A two-tailed Pearson r correlation was used to determine whether or not a correlation between gender and response could be seen in the participants' topic choices. Again, the researcher looked for a p value of $< .05$ to determine statistical significance of a potential correlation.

Qualitative data collected by the researcher in her role as participant observer was analyzed and specific comments made by students during teacher-student discussions, as well as the presentation made by the role models, were recorded. The comments that appear in this report were deemed significant by the researcher as to the purposes of this study. Comments made by students may provide some insight into the outcome of this study and in determining reasons for some of the responses to items on the survey.

Chapter 4: Results

The initial stage of the analysis was to determine whether or not a difference between male and female levels of writing apprehension existed prior to treatment. Data used for this analysis included the total scores of all 85 participants who took the Likert-scaled survey prior to treatment. Total scores for each participant were calculated by summing the responses to each of the 26 items dealing with apprehension. All positive statements were reverse scored and a total score ranging from 26 to 130 was found for each participant. A high total score on this initial survey indicated a low level of apprehension and a low total score indicated a high level of apprehension.

The first set of data reported here deals with the researcher's first question:

- What, if any, is the difference in writing apprehension between males and females?

It was important to determine if, in fact, any preexisting differences between male and female writing apprehension levels existed before an effect of treatment could be properly analyzed.

A *t* test was used to test the significance of the difference between the means of the total scores of the male ($n = 41$) and female ($n = 44$) participants prior to treatment. As hypothesized, it was found that the male participants did display a higher level of writing apprehension ($M = 87.02$, $SD = 16.27$) than did the females ($M = 88.07$, $SD = 19.35$); however, the difference in writing apprehension between genders was not statistically significant, $t (-.268; -.270)$, $F (.828)$, $p = .789$ (two-tailed) (see Figure 2).

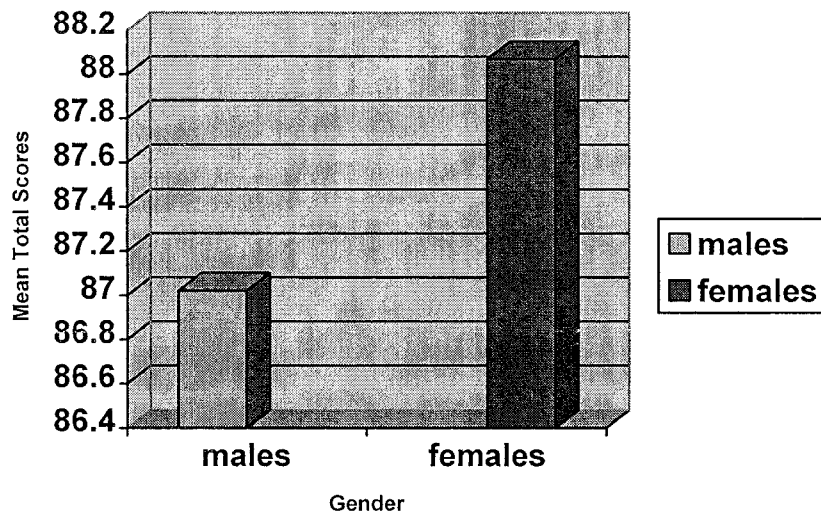


Figure 2. Preexisting Differences in Writing Apprehension

As a result of these findings, the hypothesis discussed in Chapter 1 is rejected:

- H_1 : There are differences in writing apprehension levels between males and females, indicating a significantly higher level of apprehension toward writing in males than in females.

Thus, the null hypothesis applied to this research question:

- H_0 : There is no significant difference in writing apprehension levels between males and females: males and females display similar levels of apprehension toward writing.

Although there was no statistically significant difference in the writing apprehension levels of the students participating in this study, the researcher believes the difference in levels is educationally important and would have been greater if not for special limitations involving the history of instruction received by the population. Prior to the arrival of the researcher, the regular classroom teacher had already used role models to

speak to the students about the fact that males can write as well as females. She had also spent a large amount of instructional time on creative writing and on providing many of the male students with positive reinforcement concerning their writing abilities.

The second phase of the study and its results are outlined here and deal with the researcher's question concerning the effect of treatment:

- Does the use of role modeling, teacher intervention, and a gender-balanced bulletin board design have any significant effect on male students' apprehension toward writing tasks?

Due to a 6.5% mortality rate, only 72 of the participants completed the second survey to determine the effects of treatment; however, the distribution of males and females taking the second survey were equal ($n = 36$ males; $n = 36$ females). When comparing the means and standard deviations on the total scores calculated for the second survey, a consistent trend in higher scores (or lower levels of apprehension) can be seen across all groups. The means and standard deviations of scores were as follows: males in the control group ($M = 91.06$, $SD = 8.14$, $n = 16$), males in the treatment group ($M = 96.6$, $SD = 18.06$, $n = 20$), females in the control group ($M = 91.73$, $SD = 19.78$, $n = 19$) and females in the treatment group ($M = 88.94$, $SD = 20.14$, $n = 17$), with the greatest difference in scores occurring in the male treatment group of students (see Figure 3).

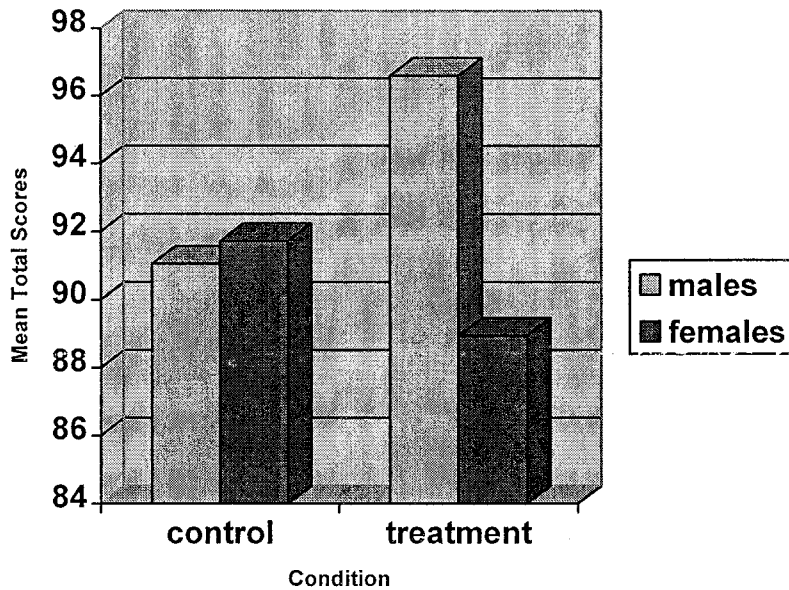


Figure 3. Differences in Writing Apprehension Following Treatment

In determining what statistical analysis to use to find significance of these differences, a *t* test was performed to detect the presence of any preexisting differences between the treatment and control groups used for this study. No significant difference was found between these groups; therefore, a two-way analysis of variance (ANOVA) was used to analyze the effect of treatment on male and female participants. A two-way ANOVA made it possible for the researcher to examine participants' responses for differences based on gender and treatment for both the control and treatment groups. Although the means of the total scores on the survey following treatment did increase for all groups, there was no statistical significance in the differences among means. While the scores for the male participants in the treatment group did increase, there was no statistically significant effect of the treatment on the males' levels of writing apprehension $F(1.017), df(1); p = .317$ (see Table 1).

Table 1.

Analysis of Variance for Treatment Effects

Source	<i>df</i>	<i>F</i>	<i>MS</i>	<i>p</i>
Between subjects				
Gender (G)	1	.715	217.825	.401
Condition (C)	1	.110	33.568	.741
G X C	1	1.017	310.858	.317
within-group error	68		(304.858)	

Note. Values enclosed in parentheses represent mean square errors.

As a result of these findings, the hypothesis for this research question is rejected:

- H₁: The use of role modeling, teacher intervention, and a gender-balanced bulletin board design will have a significant effect on male students' apprehension toward writing tasks.

Thus, the null hypothesis applies to this research question:

- H₀: The use of role modeling, teacher intervention, and a gender-balanced bulletin board design will have no significant effect on male students' apprehension toward writing tasks.

The third question this research attempted to answer was:

- What, if any, subsequent effects on females' apprehension toward writing tasks are achieved through role modeling, teaching intervention, and a gender-balanced bulletin board design?

When comparing the means of the female participants across both the treatment and control groups, it is apparent that the females also achieved higher scores on the writing apprehension measure following the treatment and therefore experienced a decrease in writing apprehension. This increase can be seen in both the control and treatment groups; however, these differences in scores were again not statistically significant, and there was no significant difference in the female scores compared to the male scores following treatment $F (.715), df(1); p = .401$). Therefore, the hypothesis for this research question was also rejected:

- H_1 : Role modeling, teaching intervention, and a gender-balanced bulletin board design will also have a significant effect on female students' apprehension toward writing tasks.

The following null hypothesis was accepted:

- H_0 : Role modeling, teaching intervention, and a gender-balanced bulletin board design will have no significant effect on female students' apprehension toward writing tasks.

Although there was no statistically significant difference in scores across genders and treatment groups, the positive changes that did occur in writing apprehension were considered educationally important to the researcher and warrant further study. One possible reason for the results of the statistical analysis could have been the relatively low number of participants in both the treatment ($n = 37$) and control ($n = 35$) groups. Other limitations such as carry over between the treatment and control groups and the instruction the participants received just prior to the onset of the treatment could also have factored into the results of the study.

The four additional items included in the survey by the researcher concerning the students' feelings about writing and gender and their preferences towards either creative or expository writing were also analyzed for significance to the research questions. Each participant indicated his or her degree of agreement to each statement on a scale of 1 to 5, with a score of 1 indicating the highest level of agreement with that statement. Therefore, a high mean score would indicate a high degree of disagreement with the statement. Whereas, a low mean score would indicate a high degree of agreement with the statement.

Item 28 (Writing is more of a girl activity than a boy activity) on the survey dealt directly with the participants' perceptions of writing as either a girl activity or a boy activity. The following table shows the mean scores for item 28 for both males and females in the control and treatment groups both prior to and after treatment (see Table 2). The means of scores for participants across all groups increased; therefore, the level of agreement with the statement that writing is more of a girl activity than a boy activity decreased. Although the change in means did not reach the level of statistical significance, it should be considered educationally important and indicates the probability that the participants were sensitized to the nature of the treatment.

Table 2.

Mean Scores Pre- and Post-treatment for Item 28

	<u>Gender</u>	<u>Pre-treatment</u>	<u>Post-treatment</u>
<u>Males</u>	Control	3.6471 (n = 17)	4.4375 (n = 16)
	Treatment	4.0417 (n = 24)	4.5500 (n = 20)
<u>Females</u>	Control	4.1364 (n = 22)	4.5263 (n = 19)
	Treatment	3.8182 (n = 22)	4.6471 (n = 17)

Items 27 (I am better at creative writing than formal essay writing) and 29 (I would do better if my writing were graded only on my ideas) of the survey dealt directly with the students' feelings about their competencies in creative writing vs. expository writing. These statements were added to the survey to determine if a difference existed in how males and females view their strengths in writing. Related literature indicates that males may be more comfortable with creative writing because they are not restricted to the rhetorical conventions that are more prevalent in expository writing, whereas females may have more success with these conventions and with expository writing tasks such as essays or formal research papers. Because this was not a particular focus of treatment, scores were analyzed based on male and female responses to the first survey, without regard to treatment or control groups. Mean scores indicated

that more males felt they were better at creative writing than formal essay writing ($M = 2.22$, $SD = 1.10$) than did females ($M = 2.59$, $SD = 1.32$) (see Figure 4).

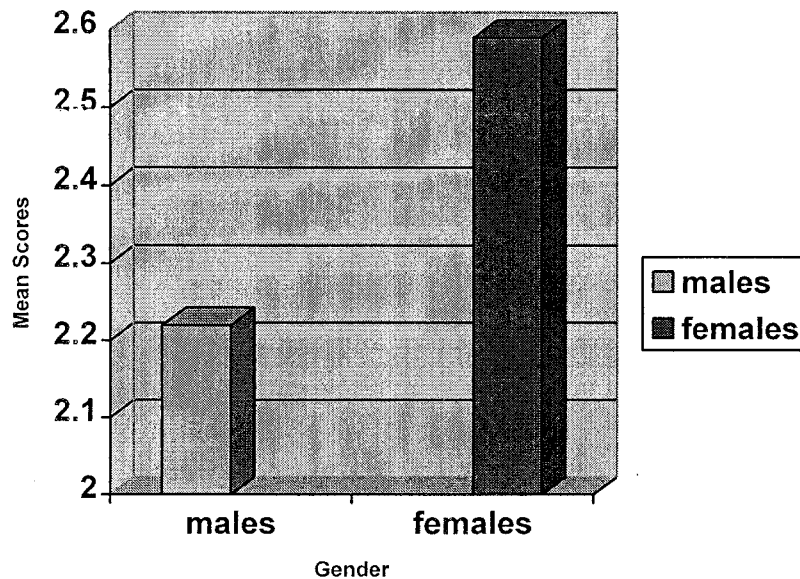


Figure 4. Male vs. Female Mean Scores for Item 27

Also, males displayed a higher level of agreement with the statement that they would do better if they were graded only on their ideas ($M = 2.51$, $SD = 1.00$) than did females ($M = 2.72$, $SD = 1.30$) (see Figure 5). These scores may support the theory that males may be underperforming on writing tasks compared to females because they do not conform to the particular writing conventions that are traditionally followed in most language arts curriculums. Males may also have their own style of writing that is different from the style of writing that is preferred in the schools, and they may feel more comfortable with writing tasks that are more creative in nature. However, females may be

more likely to conform to the writing conventions that are required for success in expository writing and therefore may be more successful with more formal writing tasks (Peterson, 2000).

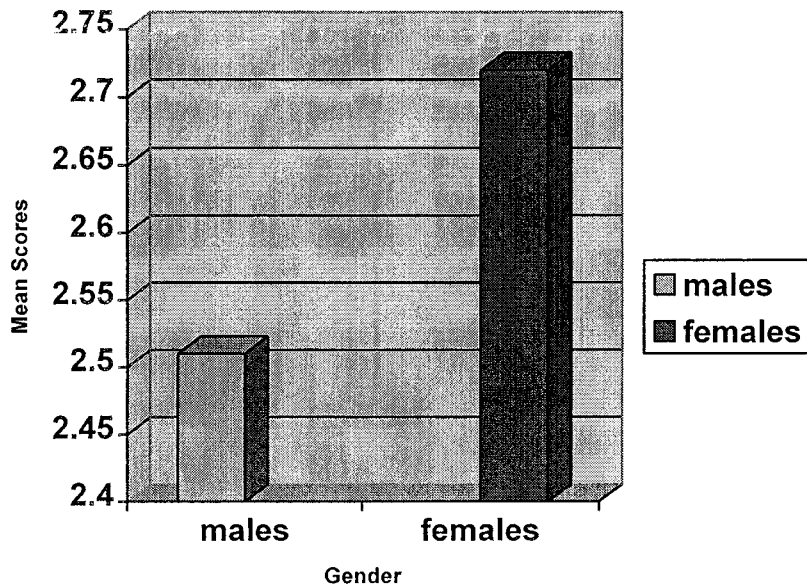


Figure 5. Male vs. Female Mean Scores for Item 29

Results of the multigenre questionnaire were also analyzed for insights as to the reasons for differences in male and female experiences with writing. This questionnaire was administered to the 44 students enrolled in the college-preparatory level classes only (21 participants in the control group {n = 12 females; n = 9 males} and 23 participants in the treatment group {n = 9 females; n = 14 males}). The purpose of this questionnaire was to measure students' perceptions of certain writing genres as either masculine or

feminine. It also asked students to identify the gender of the historical/influential figure each had chosen to research for the multigenre research paper assignment.

Table 3 lists each genre included on the questionnaire, as well as the number of students who identified each genre as masculine or feminine. As seen in the table, several genres were clearly viewed by the students as having either masculine or feminine qualities. Genres associated with feelings, or with domestic subjects such as the family, received a higher percentage of scores indicating that they were “feminine” genres (poetry 88.6%; diary entries 97.7%; letters 77.3%, family trees 72.7%; postcards 70.5%). However, genres that were more technical in nature, required less actual writing, or were associated with traditionally masculine activities were seen by a higher percentage of the students as “masculine” (dialogue 70.5%; newspaper/magazine articles 79.5%; newscasts/sportscasts 93.2%; encyclopedia articles 72.7%; cartoons/drawings/paintings 81.8%; job applications/resumes 75.0%; wills 72.7%).

The genres that were seen by males as largely “feminine” such as diary entries, letters, and postcards may represent activities that are more personal in nature and require the writer to communicate feelings. However, the genres seen by the males as “masculine” such as newspaper/magazine articles, newscasts/sportscasts, encyclopedia articles, and job applications/resumes are more likely to be seen by the males as useful because they represent more technical types of writing that may be utilized in a specific profession.

Possible explanations for participant responses may be attributed to theories that students are more comfortable with literacy tasks that allow them to conform to societal expectations concerning gender roles (Newkirk, 2000).

Table 3.

Multigenre Questionnaire: Item-by-item Frequencies and Percentages

<u>Genre</u>	<u>Masculine</u>	<u>Feminine</u>
Narrative Prose	28 (63.6%)	16 (36.4%)
Poetry	5 (11.4%)	39 (88.6%)
Dialogue	31 (70.5%)	13 (29.5%)
Newspaper Article/Magazine Article	35 (79.5%)	9 (20.5%)
Diary Entries	1 (2.3%)	43 (97.7%)
Letter	10 (22.7%)	34 (77.3%)
Birth Announcement/Obituary	26 (59.1%)	18 (40.9%)
Birth/Death Certificate	36 (81.8%)	8 (18.2%)
Interviews	27 (61.4%)	17 (38.6%)
Newscast/Sportscast	41 (93.2%)	3 (6.8%)
Stream of Consciousness	20 (45.5%)	24 (54.5%)
Encyclopedia Article	32 (72.7%)	12 (27.3%)
Lists	24 (54.5%)	20 (45.5%)
Cartoon/Drawing/Painting	36 (81.8%)	8 (18.2%)
Song Lyrics	25 (56.8%)	19 (43.2%)
One-Act Play	15 (34.1%)	29 (65.9%)
Advertisements	29 (65.9%)	15 (34.1%)
Awards	30 (68.2%)	14 (31.8%)
Campaign Speeches and Other Speeches	29 (65.9%)	15 (34.1%)
Eulogy	25 (56.8%)	19 (43.2%)
Family Tree	12 (27.3%)	32 (72.7%)
Job application/Resume	33 (75.0%)	11 (25.0%)
Postcard	13 (29.5%)	31 (70.5%)
Will	32 (72.7%)	12 (27.3%)

n = 44; 23 males, 21 females

The multigenre questionnaire also required each participant to identify the gender of the person that he or she chose as a topic for the paper. Out of the 44 students who completed the survey, 8 of the females chose to do their papers on males, while none of the males chose to do their papers on females. In order to investigate the strength of the relationship between gender and topic choice, the researcher conducted a correlational analysis. A two-tailed Pearson r test revealed a perfect correlation of 1.00 between gender and response to the topic choice item for the male participants ($p < .01$). These results suggest that the male participants who took this questionnaire were more comfortable choosing a person of the same gender to research for this assignment.

Additional, qualitative data was collected by the researcher in her role as participant observer in this study. Three male poets enrolled in a graduate program at a nearby university visited the classrooms that made up the treatment group for the study. In a 40-minute presentation to each class, the poets shared some of their poetry with the students and discussed their feelings about what it is like to be males in the field of creative writing. For the majority of the presentation, the students were quietly listening to the speakers; however, a 10-minute question and answer session allowed each of them the opportunity to speak. In the first classroom, consisting of all college-preparatory level students, most students were reluctant to speak. However, one male student asked, "How much money can you make as a writer?" When one of the speakers commented that writing is not necessarily the most profitable profession and that most people enter the field out of a love of writing, rather than a quest for money, this student answered, "then forget it." Other comments were elicited by the speakers when they asked the class if any of them like to write. Only three hands went up, one of which was a male student. The

male student was encouraged to speak and he explained that he is a musician and likes to write songs. The female students did not offer any comments.

The second classroom consisted of all general-level students and included a much shorter question and answer question session because the presentation lasted slightly longer. When asked if they liked to write, approximately half the class, or 8 students, raised their hands. One female student expressed that she likes to write poetry all the time. No male students spoke out, although many were eagerly nodding their heads when the speakers asked, “So, you guys like to write poetry, too?”

The next step of treatment involved student responses to journal topics concerning gender and writing. The first journal topic was give to the treatment classrooms approximately one month into treatment. Students were given the topic, “Do you think that girls are better writers than boys?” and asked to write for 10 minutes in their daily journals. The researcher then asked students to share their responses to the topic aloud. All students who volunteered answers were confident that girls are definitely not better writers than boys and that a person's writing ability had nothing to do with gender, but rather their education and natural ability. When probed further by the teacher, some students did express that girls may tend to enjoy writing more and therefore may be likely to write more often. However, several girls objected to this statement, claiming that they disliked writing just as much as the boys.

The second journal topic was given to students approximately two months into treatment and appeared as: “Recent national standardized tests show that girls tend to do better than boys on the writing portion of the tests. Why do you think this might be?” Initial comments from students could be classified as general disbelief and a desire for

more facts. The students wanted to know more about the test results and exactly how big of a difference there was between male and female scores. One female student commented that girls follow the rules more than boys. When the researcher asked the class why that might be, some answers included “because girls worry more about their grades” and “girls know what to write in order to get a good grade.” Other interesting comments made by several of the male students reflected the fact that they felt that boys did not take the standardized tests as seriously as girls, and that girls may put more effort into doing well on these tests.

Some of these comments may support the theory that females may be outperforming males based on their abilities to comply with the rhetorical conventions promoted on standardized tests. It may also be possible that females are more inclined to receive better scores because their writing contains the elements that are included in the rubrics designed to score the writing portions of these tests. These comments, as well as results of the second survey, also indicate that males may prefer writing that is more creative in nature and allows them to express their ideas without the “rules” that are involved with expository writing tasks.

Chapter 5: Discussion

Indications in the literature are that there does exist a difference between males and females with regard to their abilities in writing. Since writing is an important skill, knowing how students (both male and female) feel about their competencies in writing is critical. Once the teacher knows how the students feel, he or she can make an effort to design instruction that will minimize apprehension that exists and capitalize on positive feelings.

The first goal of this study was to identify any differences between male and female levels of writing apprehension using an adapted form of Daly and Miller's (1975) Writing Apprehension Measure. This first phase of the study revealed that the male participants did in fact display a higher level of writing apprehension but that the difference did not reach a level necessary to be considered statistically significant ($p > .05$). The fact that the difference in apprehension levels was not significant was somewhat puzzling considering the existence of previous research that indicates that males typically display a different attitude, or level of apprehension, towards writing (Pajares, Miller, & Johnson 1999; Cummings, 1994).

One possible reason for the lack of statistical significance might be the relatively small sample used in this study. For this first phase of research, only 41 males and 44 females completed the initial survey used to determine writing apprehension levels. Other possible explanations concern the history of the type of instruction these classrooms received prior to treatment and the general make-up of the classes that included many

talented male writers. Because of the nature of the student teaching assignment, the sample of students who participated in this study was chosen from a population of convenience. Considering these limitations, the researcher believes that the difference found between the males' and females' levels of writing apprehension is educationally important and would have been greater had it been possible to test a larger sample and had the selection of the sample been completely random.

The next goal of the study was to determine the effect of treatment on a subset of the sample. Two 10th-grade English classrooms, one college-preparatory level class and one general level class, were assigned to receive treatment that included the use of role modeling, teacher intervention, and a gender-balanced bulletin board design. Although only 72 participants completed the second survey administered after treatment (representing a 6.5% mortality rate), this group contained an equal number of male (n = 36) and female (n = 36) participants. Also, the total scores on the initial surveys taken by the students who dropped out indicated a relatively even mix of both high-apprehension and low-apprehension students (80, 118, 97, 75, 93, 87, 84, 75, 94, 57, 127, 113, 70). Therefore, the mortality of the study was not considered to be a confounding factor on the outcome of the treatment.

In order to strengthen the statistical analysis of this second set of scores, a *t* test was performed to find any preexisting differences between the initial scores of the participants in the treatment and control groups. Because no significant difference was found between the groups, a simple two-way ANOVA was used to analyze the effect of treatment on the total scores from the second survey. Although the ANOVA showed there was no significant effect of treatment on either the male or female students, total

scores on the second survey did go up across all groups. Therefore, a decrease in the levels of writing apprehension could be seen in the means of the total scores of all groups of participants on the second survey. Furthermore, it is important to note that the group of students most closely approaching significance and experiencing the greatest decrease in writing apprehension were the male students in the treatment group ($M = 96.6$, $SD = 18.06$, $n = 20$).

The researcher also observed positive changes in individual students, especially male students, concerning their attitudes toward writing by the end of the treatment period. Many of these observations were made through personal interactions with the students and were not necessarily reflected in the students' scores. One male student in the treatment group, who displayed just a 3-point increase in score on the second survey, made the comment that he was extremely *excited* to begin writing his multigenre research paper because he thought it would be a lot of *fun*. Another male student in the treatment group indicated that his degree of confidence in writing had gone up as a result of his success with the multigenre research paper.

Despite the lack of statistically significant findings, the researcher believes that any improvement in the students' levels of writing apprehension should be considered a positive outcome of treatment. There are several explanations as to why the differences were not statistically significant. Again, the sample numbers for the groups were relatively low, and perhaps the same degree of change seen in the scores of students in a larger sample would reach a level that could be defined as statistically significant. Also, these students experienced unique instruction, which could have been a serious limitation to this study, prior to the arrival of the researcher in her role as a student teacher in the

spring semester. This occurred without the researcher knowing that any type of instruction related to the research hypothesis would be given and may have been a factor in the participants' relatively low level of apprehension at the start of the study.

These findings also suggest that more needs to be done, and over a greater period of time, in order to lower students' levels of writing apprehension. The fact that some positive change did occur suggests that the researcher was using effective methods of treatment; however, in order to make a significant change, the treatment may have had to last for more than 4 months and include more frequent and intense interventions by the teacher. The use of additional components in the treatment protocol, as well as a higher degree of control over the classroom environment, may also help increase the statistical significance of the change.

Another possible interpretation of these findings is that the prevalence of lower writing scores of male students in the schools and on national standardized tests is not necessarily a result of a high level of writing apprehension but in fact may be a manifestation of a number of theories presented in related literature. One such theory is the idea that males perform at a lower level than females on standardized writing tests because of the methods currently used to score these tests (Gambell and Hunter 2000; Peterson, 2000). This theory may be supported by this study's findings concerning Items 27 and 29 of the Likert-scaled survey. These items dealt with the students' feelings about their competencies in creative writing vs. expository writing (Item 27. I am better at creative writing than formal essay writing. Item 29. I would do better if my writing were graded only on my ideas). The mean scores on item 27 showed that more males felt they were better at creative writing than formal essay writing ($M = 2.22$, $SD = 1.10$) than did

the female students ($M = 2.59$, $SD = 1.32$). This could suggest that males might avoid formal essay writing experiences due to a fear of not being able to conform to current rhetorical conventions and therefore receiving a substandard grade. Mean scores on item 29 on the survey also indicated that the male students prefer more to be graded only on their ideas ($M = 2.51$, $SD = 1.00$) compared to females ($M = 2.72$, $SD = 1.30$), which may also lead one to believe they have a fear of current grading processes. These findings may support Newkirk's (2000) theories that males are not necessarily less competent writers than females, but instead just possess a different style of writing that does not conform to the style of writing that is preferred in the schools and on standardized tests.

Several comments made during the teacher-student discussion phase of treatment may also support the theory that girls are better able to conform to traditional writing assessment methods, such as a holistic rubric. When asked why they thought girls performed better than boys on standardized tests for writing, comments included things like, "because girls worry more about their grades" and particularly, "girls know what to write in order to get a good grade." It may be important for future curriculums to look at ways to offer alternative activities to males in order to expose them more to writing. It is possible that educators need to look at tasks that are more suited to males' abilities and appeal more to their strengths. Also, it may be important that when evaluating writing, such things as creativity and humor should not be overlooked in favor of compliance with specific standards concerning the "cosmetics" of writing, such as grammar and organization.

Other theories for the trend of males' underperformance in writing focus on our society's beliefs about gender and writing and the effects of the socialization process on

males' future experiences with writing (Gambell and Hunter, 1999). Supporters of these theories propose the idea that males may instinctively feel less competent in their writing skills because of what they've learned in the home about writing being more of a feminine activity than a masculine one. If this is true, males may avoid certain writing tasks because they do not experience the same encouragement and positive reinforcement for their success in writing as female students may receive. Therefore, regardless of their abilities or previous successful experiences, they may become less interested in writing because of society's expectations of them as males. These theories may be supported by this study with some of the results found with the administration of the multigenre questionnaire.

The purpose of this questionnaire was to determine the students' perceptions of different genres of writing as either masculine or feminine. Results of the questionnaire indicated that several genres are seen by a large percentage of male students as primarily feminine, such as poetry (88.6%), diary entries (88.6%), letters (77.3%), and postcards (70.5%). Because these genres also represent activities that are more personal and are usually practiced at home, it may be possible that males are not gaining as much experience with writing as females on a regular basis. It may also be possible that males view the usefulness of writing differently than females. If females are seen as more likely to write to express emotion, which would be indicated by their likeliness to write poetry and diary entries, males may be more apt to write only when it serves them a specific tangible purpose, such as to earn a living. This can be seen in the large percentages of males who saw the more technical genres as being masculine, such as

newspaper/magazine articles (79.5%), newscasts/sportscasts (93.2%), encyclopedia articles (72.7%), and job applications/resumes (75.0%).

Support for this theory can also be seen in one male student's question to the male poets who visited the classrooms when he asked, "How much money can you make as a writer?" By asking this question, this student indicated the possibility that males may exclude writing as a valid profession because they are worried that it will not provide the means necessary for traditionally male-dominated roles like supporting a family. This student also did not seem to understand the poet's explanation of writing simply for the joy of writing. Thus, there may be a possibility that this student, as well as other male students, is already linking his classroom experiences with what he will do in the future to earn an income.

One other significant observation made with the results of the multigenre questionnaire was the perfect correlation (1.00) that was found between gender and topic choice for the multigenre research paper for the male students. When given the choice of any historical/political figure to research, every male student chose to do his paper on a male figure. While reasons for this finding are unknown, the researcher believes that the males were either reluctant to choose a female because it would be outside their perceptions of what is expected of them by their peers, or simply because of the fact that they may not have been exposed enough to the accomplishments of females in the past.

Limitations

Although the purpose of this study was to determine the differences between male and female levels of writing apprehension and subsequently to make a positive change on

the male students' apprehension towards writing, reasons for the nonsignificant findings may be due to several limitations of the study. As discussed previously, one limitation of the study was the relatively low number of participants available to the researcher in her student teaching placement. A total of 85 students participated in the initial stage of the study, while only 72 students completed the survey administered after treatment. Because there was indeed a small difference detected between males' and females' levels of apprehension, it is predicted that the difference would be larger and would reach significance if the survey were administered to a larger sample. Also, a positive change did occur in changing the male students' levels of apprehension; however, again, the change did not reach the desired level of significance for this study. Perhaps with a larger sample size, as well as a longer and more intense treatment period, these changes would have been more significant. Also, considering the nature of the student teaching placement, the researcher had less control over the selection of, and timing of material than she would have if the classes had been her own. The researcher does feel that the results indicate the methods were appropriate and represent an educationally important avenue that may be pursued in further research where it would be possible to extend treatment for a longer period of time and have more control over the classroom atmosphere.

Another confounding factor in this research is the unique experiences had by the students prior to the arrival of the researcher in the spring semester. During the fall semester of the same year, the regular teacher of these classes had invited two male writers to visit the classroom to discuss the topic, "Why Men Can Write, Too." Therefore, all participants in this study had already experienced the use of male role

models prior to the administration of the first survey that was to determine preexisting levels of writing apprehension. The students also received a tremendous amount of instruction in creative writing, with a concentrated focus on poetry and short story writing. Also, most of the male students had already received much positive feedback on their writing and several were encouraged to submit their writing to the school's creative writing publication. Although these factors are encouraging and are in direct accordance with this research, the researcher feels that they may have been limiting as far as gaining an accurate measure of initial writing apprehension prior to the onset of the treatment. There is a possibility that because treatment in a sense had already begun before the arrival of the researcher, the males' initial writing apprehension scores might already have been skewed to show lower levels of writing apprehension.

The researcher's inability to completely separate the treatment and control groups of students may have also been a limitation to the second phase of this study. While an effort was made to keep methods of treatment focused solely on the classes assigned to the treatment group, some spill over into other classes may have occurred without the knowledge of the researcher. This may be especially true for the control classroom consisting of college-preparatory level students, as they also received the same instruction concerning the different genres of writing as the treatment classroom did. Another limitation that should be noted here is that of the researcher's inability to keep the gender-balanced bulletin board design unique to the treatment classes. Because this treatment involved the alteration of the physical layout of the classroom, it was not possible to remove the bulletin board each time the classes changed. However, there was

no specific instrument designed to assess the effect of the bulletin board and the influence of this limitation on the outcome of the second survey was most likely minimal.

Suggestions for further research

Because of the lack of statistical significance in these findings, the researcher feels the biggest areas in need of further research include the investigation of alternative theories as to the underperformance of males vs. females in writing. Additional brain-based research may reveal a natural, physical tendency for females to outperform males in certain literacy tasks. Additional research in this area may also lead to answers concerning females' lower degrees of success compared to males in the areas of mathematics and science. Also, the effects of the socialization process on males' attitudes towards writing should be investigated. If apprehension levels are not influenced by experiences the student has in the classroom, there is a possibility that males may already have different feelings about writing as a result of what they learned in the home.

The other theory that may warrant the most investigation is that of our current methods for assessing both classroom assignments and standardized tests, such as holistic writing rubrics. Past research has found that because girls may be more likely to conform to the rhetorical conventions by which writing is evaluated, girls tend to have greater success on large-scale, standardized writing assessments (Peterson, 2000). If this is validated, additional research could examine alternative assessment measures that would allow for differences in the writing styles and strengths of male students. Additionally, the theory that teachers tend to favor writing that is produced by students of the same gender (Gambell & Hunter, 2000) could be a contributing factor in males' lower levels of

success with writing. Further studies may in fact support the theory that the imbalance of female teachers in the schools has led to a preference for a more feminine style of writing.

Another avenue for further research may be an extension of this study to include reading as one of the dependent variables. Since large-scale examinations of US school children (US Department of Education, 2000) have also shown that females consistently outperformed males in the area of reading, additional research into the reasons for this difference in reading levels should also be investigated. There may also be some common factor that is important to students' experiences with both reading and writing that a joint study that investigated these variables together might uncover.

There are a vast number of possibilities for research concerning the equalization of gender experiences in the classroom. Also, a need for research concerning females' underperformance vs. males in the subject areas of mathematics and science might still exist. Possibly similar methods discussed here could be used conversely with female students, such as the use of women role models to expose female students to possibilities in the varied fields associated with mathematics. Also, any additional treatments that may help make it more socially acceptable for women to pursue these avenues would also be warranted. In addition to research that investigates gender inequities and the possible biological or environmental explanations behind them, any teacher research that involves specific interventions by classroom teachers, curriculum specialists, and administrators may help to equalize the experiences of both males and females across all content areas in the future.

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APPENDIX A
Writing Apprehension Survey

Name _____

Age _____ Grade _____

Sex: M F

Directions: Below are a series of statements about writing. There are no right or wrong answers to these statements. Please indicate the degree to which each statement applies to you by circling whether you (1) **strongly agree**; (2) **agree**; (3) **are uncertain**; (4) **disagree**; or (5) **strongly disagree**. While some of the statements may seem repetitious, take your time and try to be as honest as possible.

Thank you for your cooperation in taking this survey.

	SA	A	UN	D	SD
1. I avoid writing.	1	2	3	4	5
2. I have no fear of my writing being graded.	1	2	3	4	5
3. I look forward to writing down my ideas.	1	2	3	4	5
4. I am afraid of writing essays when I know they will be graded.	1	2	3	4	5
5. Taking a writing course is a very frustrating experience.	1	2	3	4	5
6. Handing in an essay makes me feel good.	1	2	3	4	5
7. My mind seems to go blank when I start to work on an essay.	1	2	3	4	5
8. Expressing ideas through writing seems to be a waste of time.	1	2	3	4	5
9. I would enjoy submitting my writing to a magazine contest.	1	2	3	4	5
10. I like to write my ideas down.	1	2	3	4	5
11. I feel confident in my ability to clearly express my ideas in writing.	1	2	3	4	5
12. I like to have my friends read what I have written.	1	2	3	4	5
13. I am nervous about writing.	1	2	3	4	5
14. People seem to enjoy what I write.	1	2	3	4	5
15. I enjoy writing.	1	2	3	4	5
16. I never seem to be able to clearly write down my ideas.	1	2	3	4	5
17. Writing is a lot of fun.	1	2	3	4	5
18. I expect to do poorly on written assignments before I even start them.	1	2	3	4	5
19. I like seeing my thoughts on paper.	1	2	3	4	5
20. Discussing my writing with others is an enjoyable experience.	1	2	3	4	5
21. I have a terrible time organizing my ideas in an essay.	1	2	3	4	5
22. When I hand in an essay, I know I'm going to do poorly.	1	2	3	4	5

Adapted from John A. Daly and Michael D. Miller's Writing Apprehension Measure that appeared in "The Development of a Measure of Writing Apprehension," *Journal of Psychology*, March 1975.

23.	It's easy for me to write good essays.	1	2	3	4	5
24.	I don't think I write as well as other people.	1	2	3	4	5
25.	I don't like my writing to be graded.	1	2	3	4	5
26.	I'm no good at writing.	1	2	3	4	5
27.	I am better at creative writing than formal essay writing.	1	2	3	4	5
28.	Writing is more of a girl activity than a boy activity.	1	2	3	4	5
29.	I would do better if my writing were graded only on my ideas.	1	2	3	4	5
30.	I have difficulty putting emotions and feelings down on paper.	1	2	3	4	5

Adapted from John A. Daly and Michael D. Miller's Writing Apprehension Measure that appeared in "The Development of a Measure of Writing Apprehension," *Journal of Psychology*, March 1975.

APPENDIX B

Daly and Miller's (1975) Writing Apprehension Measure

Directions: Below are a series of statements about writing. There are no right or wrong answers to these statements. Please indicate the degree to which each statement applies to you by circling whether you (1) strongly agree, (2) agree, (3) are uncertain, (4) disagree, or (5) strongly disagree with the statement. While some of these statements may seem repetitious, take your time and try to be as honest as possible. Thank you for your cooperation in this matter.

	SA	A	UN	D	SD
1. I avoid writing	1	2	3	4	5
2. I have no fear of my writing being evaluated.	1	2	3	4	5
3. I look forward to writing down my ideas.	1	2	3	4	5
4. I am afraid of writing essays when I know they will be evaluated.	1	2	3	4	5
5. Taking a composition course is a very frightening experience.	1	2	3	4	5
6. Handing in a composition makes me feel good.	1	2	3	4	5
7. My mind seems to go blank when I start to work on a composition	1	2	3	4	5
8. Expressing ideas through writing seems to be a waste of time.	1	2	3	4	5
9. I would enjoy submitting my writing to magazines for evaluation and publication.	1	2	3	4	5
10. I like to write my ideas down.	1	2	3	4	5
11. I feel confident in my ability to clearly express my ideas in writing.	1	2	3	4	5
12. I like to have my friends read what I have written	1	2	3	4	5
13. I'm nervous about writing.	1	2	3	4	5
14. People seem to enjoy what I write.	1	2	3	4	5
15. I enjoy writing.	1	2	3	4	5
16. I never seem to be able to clearly write down my ideas.	1	2	3	4	5
17. Writing is a lot of fun.	1	2	3	4	5
18. I expect to do poorly in composition classes even before I enter them	1	2	3	4	5
19. I like seeing my thoughts on paper.	1	2	3	4	5
20. Discussing my writing with others is an enjoyable experience.	1	2	3	4	5
21. I have a terrible time organizing my ideas in a composition course.	1	2	3	4	5
22. When I hand in a composition I know I'm going to do poorly.	1	2	3	4	5
23. It's easy for me to write good compositions.	1	2	3	4	5
24. I don't think I write as well as most other people.	1	2	3	4	5
25. I don't like my compositions to be evaluated.	1	2	3	4	5
26. I'm no good at writing.	1	2	3	4	5

APPENDIX C

Multigenre Research Paper Questionnaire

Name _____

Period _____

Ms. Bartolomeo

Multigenre Research Paper – Questionnaire

1. What is the sex of the person you chose to do your paper on? Male Female
(Please circle one.)
2. What “gender” would you assign to each of the following genres? To answer this, ask yourself if the genre seems masculine or feminine. Or, are males or females most likely to write in this genre? Please check either male or female for each genre.

Genre	M	F
Narrative Prose		
Poetry		
Dialogue		
Newspaper/Magazine Article		
Diary Entries		
Letter		
Birth Announcement/Obituary		
Birth/Death Certificate		
Interviews		
Newscast/Sportscast		
Stream of Consciousness		
Encyclopedia Article		
Lists		
Cartoon/Drawing/Painting		
Song Lyrics		
One-Act Play		
Advertisements		
Awards		
Campaign Speeches and Other Speeches		
Eulogy		
Family Tree		
Job application/Resume		
Postcard		
Will		

APPENDIX D

Selected Journal Topics

Journal Topic #1:

Do you think that girls are better writers than boys? Why or why not?

Journal Topic #2:

Recent national standardized tests show that girls tend to do better than boys on the writing portion of the tests. Why do you think this might be? Explain in a paragraph.

APPENDIX E

Gender-balanced Bulletin Board Photo



APPENDIX F

Letter to Visiting Role Models

Dear _____,

I am _____ student teacher, and I am writing to see if you are still available to visit our classroom next week. I also wanted to tell you a little more about my thesis and what I had envisioned for your visit.

My thesis concerns adolescent males' attitudes toward writing, which most research indicates are typically lower than females'. Through classroom discussion and guest speaker appearances, I am hoping to show a positive change in the males' feelings about writing. I think they will really respond to your visit, and hopefully, it will make them see that poetry is for men just as much as it is for women.

I was hoping you could come on Friday, February 22. Because I can only do this with two classes, there are really only two time slots that would work. Either 9:00 – 10:45 AM or 12:00 – 2:10 PM. Would either of these times work for all three of you? The total time spent with each class would be 35 minutes – however you wanted to fill that time would be up to you. Maybe you could read some of your poetry to them and also talk a little about the fact that guys write poetry, too?

Please let _____ know on Monday if either of these times is good for you. I know that you are all very busy and I would really appreciate it if you are able to do this. I also think the kids will absolutely love it. If you need any more information, or directions to the school, please email me at _____. Thanks again.

Sincerely,

Laurie Bartolomeo

PS If you can make it, please fill out the hoagie forms so we can treat you to lunch!