

Increasing Verbal Participation of Gifted Females Through  
the Utilization of Multiple Intelligence Theory

by  
David E. Walker

An Applied Dissertation Submitted to the  
Fischler School of Education and Human Services  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Education

Nova Southeastern University  
2005

## Narrative Abstract

Gifted females' lack of verbal participation in lessons within their elementary school classrooms was perceived as an obstacle to maximization of their learning potential. The goal of the study was to identify causations of the girls' reticence to demonstrate verbalization skills that were commensurate with those of their male counterparts and to develop strategies to promote increased female verbal participation in classroom discourse. The study utilized multiple intelligence theory as a method for encouraging gifted females to increase their verbal interactions within classroom lessons. All of the gifted learners were observed daily for quantitative data to assess the frequency with which each gender communicated verbally, initiated verbal contact, was offered higher-level query, and engaged in dialogue with teachers. All students were interviewed 4 times during the study. Both teachers of the gifted met weekly to discuss the study's progress, and parents of gifted females were randomly selected for interviews. All of the gifted learners were administered the Bar-On Emotional Quotient-Inventory: Youth Version (Bar-On & Parker, 2000) to collect pre- and posttest data. The pre- and posttest data demonstrated little significant change in female students' emotional quotient above the mean. Tallies on the observational sheets documented an increase in verbal participation by female learners. However, the females' frequencies of self-initiated speaking and responses to higher-level inquiries did not increase to the levels projected by the writer. The recommendation of the writer is the establishment of positive, noncompetitive learning environments that focus on increasing verbal participation by all reticent students. Through utilization of researched strategies, increased discourse was observed in males and females whose taciturn nature had previously been identified by their parents and teachers. (Contains 41 references, six appendices, and six tables)

## Acknowledgments

The writer recognizes the significance of the support by his Committee Chair, Dr. David Weintraub. Dr. Weintraub's expeditious commentary and assistance during this doctoral program were invaluable.

Gratitude must be expressed to the writer's volunteers and students for their valiant cooperative efforts during the execution of the study. Thanks are extended to my colleagues and especially to Nancy Duncan for all of her outstanding collaborative work. Appreciation is extended to the writer's parents, Chester and Jean Walker, for their support and understanding throughout this lengthy process. Their nurturing and encouragement constructed an exemplary foundation for learning.

The writer values the enduring efforts of Helen Timberlake in her dedication to inspiring the completion of this applied dissertation. She bolstered the writer with grace and determination throughout the process.

## Abstract

Increasing Verbal Participation of Gifted Females Through the Utilization of Multiple Intelligence Theory. Walker, David E., 2005: Applied Dissertation, Nova Southeastern University, Fischler School of Education and Human Services. Gender/Equity/Parent Education/Academically Gifted /Teacher Education

Gifted females' lack of verbal participation in lessons within their elementary school classrooms was perceived as an obstacle to maximization of their learning potential. The goal of the study was to identify causations of the girls' reticence to demonstrate verbalization skills that were commensurate with those of their male counterparts and to develop strategies to promote increased female verbal participation in classroom discourse.

The study utilized multiple intelligence theory as a method for encouraging gifted females to increase their verbal interactions within classroom lessons. All of the gifted learners were observed daily for quantitative data to assess the frequency with which each gender communicated verbally, initiated verbal contact, was offered higher-level query, and engaged in dialogue with teachers. All students were interviewed 4 times during the study. Both teachers of the gifted met weekly to discuss the study's progress, and parents of gifted females were randomly selected for interviews.

All of the gifted learners were administered the Bar-On Emotional Quotient-Inventory: Youth Version (Bar-On & Parker, 2000) to collect pre- and posttest data. The pre- and posttest data demonstrated little significant change in female students' emotional quotient above the mean. Tallies on the observational sheets documented an increase in verbal participation by female learners. However, the females' frequencies of self-initiated speaking and responses to higher-level inquiries did not increase to the levels projected by the writer.

The recommendation of the writer is the establishment of positive, noncompetitive learning environments that focus on increasing verbal participation by all reticent students. Through utilization of researched strategies, increased discourse was observed in males and females whose taciturn nature had previously been identified by their parents and teachers.

## Table of Contents

	Page
Chapter 1: Introduction .....	1
Description of the Community.....	1
The Writer’s Work Setting.....	1
The Writer’s Role .....	3
Chapter 2: Study of the Problem.....	5
Problem Statement .....	5
Problem Description .....	5
Problem Documentation .....	5
Causative Analysis.....	6
Relationship of the Problem to the Literature.....	6
Chapter 3: Anticipated Outcomes and Evaluation Instruments .....	22
Goal.....	22
Expected Outcomes .....	22
Measurement of Outcomes .....	22
Mechanism for Recording Unexpected Events.....	23
Chapter 4: Solution Strategies .....	24
Discussion and Evaluation of Solutions .....	24
Description of Selected Solutions .....	39
Calendar Plan .....	40
Chapter 5: Discussion of Conclusions and Implications .....	49
Overview of the Applied Dissertation .....	49
Results of the Data Analysis.....	49
Conclusions Related to the Results.....	55
Limitations of the Applied Dissertation.....	57
Implications for Future Research.....	57
Summary .....	57
References.....	59
Appendixes	
A Classroom Observation Data Collection Sheet.....	63
B Student Interview Form .....	65
C Gender Equity in the Classroom Seminar Sign-In Sheet.....	67
D Gender Equity in the Classroom Seminar Evaluation Sheet .....	69
E Interview Questions for Randomly Selected Parents of Gifted Female Students.....	71
F Gender Equity in the Classroom Brochure.....	73
G Data From Gender Equity in the Classroom Seminar Evaluation Sheets .....	78

Tables

1	Students Called Upon by Teachers.....	50
2	Total Emotional Quotient Using Scores and Frequency Combined Grades 3 and 4.....	51
3	Total Emotional Quotient Using Scores and Frequency Grade 5.....	52
4	Frequency of Higher-Level Questions Directed Toward Students.....	53
5	Frequency of Students Self-Initiating Verbal Skills.....	54
6	Length of Dialogue Between Students and Teachers.....	55

## Chapter 1: Introduction

### *Description of the Community*

The study was conducted in an academic institution in one of the fastest growing areas of the southeastern United States. The community in which the writer's school is located is in transition from a rural, primarily agricultural, residential locus to that of a suburb of a rapidly developing metropolitan center. Pertinent to note is that this community supports two elementary schools, a middle school, a freshman center, and both a technical and an academic high school. The school board's mission "is to prepare individuals for a resilient and growing system working hand-in-hand with the community, is to prepare individuals for successful lifelong learning, productive employment, and responsible citizenry by providing a safe, resource-filled learning environment."

### *The Writer's Work Setting*

The school that was utilized for the study consists of classes for students in prekindergarten through Grade 5 and also serves as a magnet school. Gifted programming is offered in an abbreviated kindergarten through second grade pull-out schedule and in full-time, self-contained classes for third through fifth graders. Ethnicity for the student population in the 2003-2004 school year was 46.5% Caucasian, 37.2% African American, 13.1% Hispanic, 1.7% Asian American, and 1.5% Indian/mixed races. In 1982, the facility was expanded to accommodate 612 students. The student census at the time of this study was 821. Twelve portable classrooms have been added to accommodate the increased enrollment. Approximately 8.5% of the students received breakfast and lunch at a reduced rate, and 39.5% qualified for free breakfast and lunch. Thirty-four percent of the students were transported to school by bus, 11% by day-care

vehicles, 48% by car, and 7% walked to school.

The administration is comprised of a principal, an assistant principal, a curriculum coordinator, a behavioral specialist, a reading coach, and two guidance counselors who share an assistant. The instructional staff includes teachers for the following learning levels: (a) one prekindergarten, (b) five kindergartens, (c) 5 first through third grade, (d) 4 fourth grades, and (e) 5 fifth grades. Exceptional student education includes instructional staffing for (a) two autistic classes, (b) one varying exceptionalities (VE) class that serves students with learning disabilities, (c) two VE-emotionally handicapped classes, (d) three VE-mentally handicapped classes, (e) two and one-half classes for the gifted, (f) two speech classes, and (g) three prekindergartens for handicapped students.

The support staff includes six instructors who teach art, music, library and media sciences, computer skills, advanced mathematics and science, and physical education. Ethnic demographics for the faculty are (a) 41 Caucasians, (b) 11 African Americans, (c) 3 Hispanics, and (d) 2 Indian/mixed races.

For nearly 13 years, the writer has taught in this elementary school's full-time, self-contained, multi-aged classroom for gifted learners in third and fourth grades. He is the teacher in a departmentalized classroom for literature, social studies, and language arts. As an instructor within a program for the gifted, the writer creates differentiated curriculum that is aligned with the state standards. The writer works in conjunction with another teacher who instructs mathematics and science for gifted learners in Grades 3 through 5. The classes for this study were composed of 25 homogeneously grouped third and fourth graders and 15 fifth graders who all met the state criteria of an IQ of 131 or above and qualifying scores on two teacher checklists of required characteristics. Both teachers of these students earned their state's endorsements for instruction of curriculum

for gifted students and speakers of other languages.

The classrooms for the gifted are connected and located in a building that was constructed in 1982. Both classrooms have Internet access and at least four online computers. The classroom for literature and social studies houses more than 1,000 novels and trade books and is used as a supplemental library for the gifted learners. The mathematics and science classroom has abundant space for scientific experiments. Students also have access to the school's science laboratory that is overseen by a National Board Certified Teacher with a master's degree in mathematics and science.

The ethnic diversity of the third- and fourth-grade classroom of the gifted is defined as 19 Caucasians, 3 African Americans, 1 Hispanic, and 2 Asian Americans. The gender statistic of this classroom is 9 boys and 16 girls. The ethnic diversity of the fifth-grade classroom of the gifted is 12 Caucasians, 2 Asian Americans, and 1 Indian. The gender composition of this classroom is 10 boys and 5 girls.

#### *The Writer's Role*

This writer is a teacher of gifted learners in Grades 3 through 5. The writer earned a Master of Science in exceptionalities with a focus on gifted education and has taught for 24 years. The writer has earned certification as a middle childhood generalist from the National Board of Professional Teaching Standards (NBPTS) and serves as a district mentor-teacher for beginning teachers, alternative certification personnel, and NBPTS candidates. As a runner-up for his county's Teacher-of-the-Year, this writer was selected to become a member of the State League of Teachers. This honor requires the writer to provide educational in-service trainings, receive state-of-the-art staff development, and act as a member of a focus group that reports directly to the governor. This writer has qualified for several grants that have enhanced the learning environment of the gifted by

owing for purchase of expensive and necessary technology.

The writer was also one of 80 nationally selected National Board Certified Teachers who participated in Apple Computer's and NBPTS' Digital Edge project. This technology-training program included instruction in the usage of specialized equipment and completion of lessons that were posted to Apple Computer's web site for worldwide teacher training. These professional activities and a special interest in gifted learners have merged to produce the writer's current goal of being instrumental in preparing college students for successful teaching careers.

## Chapter 2: Study of the Problem

### *Problem Statement*

Gifted third- and fourth-grade females were not demonstrating verbalization skills that were commensurate with those of their male counterparts.

### *Problem Description*

Gifted learners in third and fourth grades in the participating school were being taught within a multi-age classroom. Male students were more verbally demonstrative in their classroom and team interactions. Female students participated less frequently in verbalizing their thoughts and perceptions.

The majority of female students continued to be reticent in developing their verbal skills, demonstrated by their lack of interest in debating and participating within discussions. This problem merited study because of the imbalance of verbalization between male and female students. This writer and the other teacher of the gifted developed strategies that encouraged female students to become more involved in verbal interactions within the learning environments of each instructor's classroom.

### *Problem Documentation*

During 13 years of service at this school, the writer had not become aware of any studies or discussions pertaining to representations of possible gender inequity within this learning environment. Adult observers in the classrooms of the gifted in this school reported that male students dominated the frequency and length of all students' verbal participation. Informal attitudinal surveys of the female students demonstrated that they experienced 30% more anxiety when asked to verbally participate during classroom discussions or within team presentations. Only 2 out of 10 gifted females verbally participated without being prompted by their teacher, with the other teacher of the gifted

also observing that only 2 of 10 females demonstrated self-initiated verbalizations in their learning versus 9 of 10 males.

The teachers of the gifted at this school believed that female students were not receiving the support that they needed in order to assert their thoughts verbally as observed by assessing classroom discussions and team presentations. The male students tended to monopolize discussions and were overly gregarious when teams were preparing for a debate. Too frequently, team presentations were dominated by the male students' ideas; even when a team was composed only of females, their presentations were comparatively lacking in advanced content and creativity.

#### *Causative Analysis*

The following possible causes may have led to the problem of gifted females being less verbal than the males. Gifted females (a) felt the pressures of trying to be socially acceptable and tended to camouflage their intelligence behind shy, quiet demeanors; (b) felt intimidated by their male classmates' overt abilities to verbalize their thoughts and ideas; (c) believed that by being quiet, they would not be challenged to defend their thinking; (d) were not being asked to be more assertive by their classmates, teachers, and/or parents; and (e) were not aware of the subtle cues that teachers may have been giving to encourage males to be gregarious and females to be inhibited.

#### *Relationship of the Problem to the Literature*

Frequently, gifted females have a belief system that is skewed with a myriad of factors that hamper their verbal participation within the classroom. They often feel the pressures of trying to be socially acceptable and tend to mask their intelligence. This population feels intimidated by their male classmates' overt abilities to verbalize their thoughts and ideas. All too regularly, gifted females believe that by being quiet, they will

not be challenged to defend their thinking. The learning environment commonly is not requiring gifted females to be more assertive. Gifted females are not aware of the subtle cues that teachers may be giving to encourage the males to be more gregarious and females to be inhibited.

*Gifted females tend to camouflage their intelligence behind shy, quiet demeanors.*

Brown and Gilligan (as cited in Kerr, 1999) believed that as gifted females age, they attempt to hide feelings and opinions that might be considered as hurtful to others. Kerr noted, “By learning to be *nice*, girls gradually lost touch with the own voices” (p. 103). This study intended to remedy this problem from occurring in classrooms for the gifted in the participating school.

Another educational researcher who was interested in high-ability learners’ attributes and foibles was Neihart (1999). He conjectured (a) “The gifted are capable of greater understanding of self and others due to their cognitive capacities and therefore cope better with stress, conflicts and developmental dysynchrony than their peers” (p. 10) and speculated (b) “The gifted are more sensitive to interpersonal conflicts and experience greater degrees of alienation and stress than do their peers as a result of their cognitive capacities” (p. 10). Neihart provided research that aligns the first hypothesis with much more conclusive evidence than does the latter. The author also noted the problem as being two opposing views comprising the historical landscape of giftedness. Neihart’s view promoted that gifted students are just fine while endorsing a seemingly contradictory supposition that states that this special population is more prone to attitudes that cause them to be at risk for social and emotional problems. This latter supposition was one aspect of causation that the writer proposed to investigate within this dissertation.

In a study by Mui, Yeung, Low, and Jin (2000), the general self-preconceptions of gifted learners correlated with their verbal and mathematical self-concepts using an internal/external frame of reference model were examined. The internal frame was defined in Mui et al. as, “The student’s comparison of perceived ability in one domain with perceived ability in another domain” (p. 347). The external frame was defined by “Comparing the student’s own perceived academic ability with the abilities of other students in a specific environment e.g., school, peer group” (p. 347). Mui et al. focused on two opposing hypotheses. Colangelo and Davis (as cited in Mui et al.) found that students who were placed in special classes or programs enjoyed the recognition of their abilities and experienced an enhanced self-esteem as compared to students in the average ability classes. In opposition, Coleman and Fults (as cited in Mui et al.) noted that children may experience a decrease in self-concept due to a homogenous class of talented students. The authors justified their reasoning because these gifted students would no longer experience being the highest achievers in the class.

In summary, gifted students felt stronger about being homogeneously placed; however, some felt less worthy because they were no longer considered to be the highest-ranked students due to the composition of their new class. Neihart (1999) concluded that the gifted are all right, with the caveat being that a specialized population is more susceptible to problems that may lead to at-risk behaviors.

*Gifted females feel uncomfortable when verbalizing their thoughts and ideas.* The following authors espoused differentiated curriculum and child-centric teaching practices to encourage the fruition of the characteristics that are common in gifted learners. Gallagher (2002) presented an historical overview that featured multiple authors’ insights on the direction of gifted education. He questioned whether a single concept of

intelligence was frequently used as the determining factor for identification and admittance into programs for the gifted. He recommended that a reevaluation of the definition of differentiated curriculum be conducted.

*The Plowden Report: Children and Their Primary Schools* (as cited in Kerry, 2002) was aligned with Gallagher's (2002) desire to develop more child-centric practices that would encourage female students to become more actively verbal. This was a document that was compiled by England's Central Advisory Council for Education and submitted to the British government as a framework for the development of a constructivist elementary-level curriculum. (Constructivism is defined as a holistic instructional approach in which teachers nurture students' natural curiosity and encourage autonomy and initiative through educational experiences that utilize cooperative learning, manipulative devices, shared inquiry, creativity, and dialogue.) Initially, the report met with harsh opposition from those educators who supported the popular philosophy of performance-based education. Kerry proposed, "In play, children gradually develop concepts of causal relationships, the power to discriminate, to make judgments, to analyze and synthesize, to imagine and to formulate" (p. 218). According to Kerry, at its original publication, this concept of play was misinterpreted by many as goofing off and not considered pertinent to a proper education. He asserted that this misconception caused significant controversy that was used by conservatives to promote their ideals and to bash the innovations that closely aligned with research of that period, most specifically that of Piaget.

Brighouse (as cited in Kerry, 2002) noted that the Plowden Report became a focal point of political debate and was labeled as a progressive curriculum counter to a back-to-basics conservative agenda. This popular agenda zeroed in on rote memorization,

strict standards, testing, and teacher-to-student dissemination of knowledge. Today, the philosophies embedded in the Plowden Report are aligned with the constructivist approaches that are central to contemporary teaching and strongly associated with the differentiated curriculum frequently found in classrooms for gifted learners.

Although supportive of the Plowden proposition, Johnson (2000) juxtaposed the current educational practices of direct instruction, drill and practice, and focus on low-level thinking skills with Renzulli's Schoolwide Enrichment Model (SEM) and its concentration on developing students' strengths and interests while encouraging the construction of higher-level thinking skills. The utilization of higher-level queries posed by the teachers of the gifted to encourage female discussion and debating skills was an integral portion of the writer's study.

In summation, the previously cited authors presented numerous references to developing a more constructivist approach to teaching the gifted. By connecting with student interest and challenging students' thinking, the researchers believed that students of high ability show potential for becoming more actively engaged in the classroom.

Gifted females believe that by being taciturn, they will not be challenged to defend their thinking. Numerous people espouse theories to further develop the talents of high-ability learners. The following theorists have had a major effect on education as a whole and on the emerging field of gifted education.

Sternberg (2000), one of the leading theorists in the field of gifted education, believed that people are able to realize success by developing their strengths and weaknesses and achieving a balance between the logical, playful, and reasonable portions of themselves. Sternberg (1998) also professed that students rarely discuss or internalize an insight for these most pertinent educational life skills. According to Sternberg (1998),

gifted females must learn to recognize their inhibitions to verbally participate within classroom discussions and team presentations and to adapt and transform into more active participants within the learning process.

Gardner (2000), another major educational theorist and creator of the theory of multiple intelligences advocated the development of metacognitive students who are able to identify and assess key points in differing formats (i.e., linguistically, logically, and artistically). Metacognition is defined as the ability to think about and control one's thinking processes. Gardner (2000) noted that many students are only taught in one manner and that learners barely have a grasp of content because they are unable to explain what has been learned in a different manner. This concern was central to the writer's dissertation in respect to female students restricting themselves to a written format and foregoing the development of their verbal domain. Consequently, the teachers of the gifted infused more opportunities for verbalization within lessons that aligned with Gardner's verbal linguistic and interpersonal intelligences.

Rea (2001) provided a reasonable explanation of the reticence of gifted females to actively participate in discussions and presentations. These students may be displaying a propensity for cold-ordered thinking and lack the creative, interactively playful nature inherent in hot chaotic thinking. Conversely, males showing their lack of maturity and tendency toward machismo demonstrate a more verbal focus and strength as they freely express their hot chaotic thinking.

Further exploring learning, Csikszentmihalyi (1997a) noted the extremes that creative people tend to experience. This author found that most often, creative people have endured lives either filled with support or fraught with difficulty. These extremes are consistent with other research and are recognized as factors when discussing the

development of prominent creative thinkers. Csikszentmihalyi (1997a), like Sternberg (1999), also believed in the negative backlash that frequently accompanies creative contributions.

In summation, the theorists promoted knowing one's strengths and weaknesses, developing reflective thinking as a means of strengthening metacognition, and exploring creativity as a means of igniting verbal discourse and expression. Awareness that creativity may generate a negative response is a significant step toward embracing differences that may free tethered stereotypical perceptions of female students.

*Gifted females are not being asked to be assertive by their classmates, teachers, and/or parents.* Dai (2002) noted that modifications in attitude related to social conditions needed to be explored. Detrimental changes were observed in females when competition was a factor. Girls' self-efficacy declined when failure feedback associated with competitive acts was internalized and perceived as being their actual ability rather than simply the outcome. Dai (2002) indicated, "As an apparent attempt to prevent failure (girls) tend to choose easy tasks over challenging ones" (p. 319).

Another author with longevity in research relative to gender equity in education was Reis (2002), who examined being both female and gifted. The author was astounded by the plethora of factors that negatively influence gifted women, such as the balancing of career aspirations with attainment of a loving relationship and development of a family unit, maintaining femininity in a workplace that seemingly promotes masculinity, developing resilience to expected criticisms, and relinquishing feelings of the need to submerge true ability. Reis also believed that women need to lose their neurotic sense of perfectionism; develop an ability to differentiate between messages from work and home and prioritize effectively; and set attainable expectations and renounce feelings of

self-doubt, self-criticism, and comparison. Lastly, Reis noted that females must learn to incorporate nurturing aspects of religion and abandon the counterproductive elements frequently promoted by several regions, change the loneliness into relationships and friendships, and live a life void of concerns about being overly passive or assertive.

Reis (2002) surveyed a multitude of work and categorized the primary needs of intelligent women. The author placed a stern reminder of how far women need to develop when she mentioned a gifted teenager whom she interviewed 15 years ago. At that time, the girl did not perceive any barriers to success and believed that she could reap the benefits of the women's movement. When the girl was interviewed almost 20 years later, Reis cited the girl as saying, "Oh, today, I am much more realistic about my goals. I try to get through the week and take care of my family. I also am devoted to my husband's dreams" (p. 15). She indicated that many women in their 50s have resolved their work and career issues and have successfully dealt with their children's growth into adulthood and the ensuing changes to home life.

Reis (2002) agreed with Sternberg (2000), Gardner (2000), and Rea (2001) that learning to achieve balance is an ultimate goal. The author surveyed the literature and categorized the various obstacles, both internal and external, that intelligent women must overcome to develop into self-actualized and fully realized beings. She believed that the population being reviewed must act upon these changes for positive results to be accomplished.

*Gifted females are unaware of subtle cues from teachers.* The causative effect of attention received from an instructor is a powerful determinant of learning. Not all teachers are female. The writer believes that many students experience their first male teacher in middle school, if not high school. Hebert (2000) found that male teachers in

training were able to exude empathy to learners of both genders. Hebert quoted Csikszentmihalyi as defining psychological androgyny as “a person’s ability to be at the same time aggressive and nurturant, sensitive and rigid, dominant and submissive, regardless of gender” (p. 37) and further explained this term as descriptive of a person who is capable of doubling his or her responses and able to network with the world in an expanded manner. Although Hebert was discussing his male subjects, this research was significant to the writer’s dissertation because one participating teacher was male and the other was female. Contrary to the findings of Hebert’s study, data from the two educators involved in the writer’s study did not prove causal factors due to teacher gender.

Dai (2002) warned researchers against relying on a male value-driven concept of giftedness because it discourages gifted girls from investigating access to their true potential. Kramer (as cited in Dai) noted that high-ability females were frequently ostracized for being labeled gifted. His findings also elaborated on the societal, peer appreciation of feminine beauty rather than on female intellect and academic success. Dai quoted Winner, Kerr, Nobel, and Reis who also thought “qualities that are often associated with giftedness, such as rage to master, resilience in the face of adversity, and risk taking should be equally important for males and females” (p. 341). Dai cautioned future researchers of the many pitfalls of which to be conscious; the most significant is that relying on a male value-driven concept of giftedness will most certainly discourage gifted girls from investigating access to their potentials.

In reflection about the learning environment of the gifted, male-driven concepts of achievement, success and superior intellect need to be balanced with female concepts that are equal and akin to generating appropriate attention to this segment of the population. A defining question of this study was, Is it possible that male teachers who do not possess

psychological androgyny are inadvertently promoting a stereotype of giftedness that is unattainable by female students?

*Gender inequity within the classroom of the gifted.* American societal tradition had seemingly established gender inequity within educational practice. As this phenomenon was acknowledged, researchers began to develop the following studies that addressed methods to combat its perpetuation. According to Dai (2002),

The social and economic-political status of women has undergone profound changes in the past three decades. These changes have meant not only more educational and career opportunities for girls to develop their talents but also changes in the way that girls and women perceive themselves, their potential, and their gender identity. (p. 334)

These positive steps have had profound effects on the motivation and self-concepts of women and have provided inspiration for girls. Dai believed that so many significant changes have recently occurred regarding gifted girls' educational and career prospects that research has been slow to report these societal changes.

Olszewski-Kubilius and Turner (2002) cited a multitude of causes as having bearing on their study entitled *Gender Differences Among Elementary School-Aged Gifted Students in Achievement, Perceptions of Ability, and Subject Preference*. The authors were concerned that standardized test scores are used for many purposes that affect the gifted learners' admission ability for educational opportunities. They believed that gender differences as they related to these standardized tests impeded the development of gifted pupils' abilities. This observation was especially true as this factor often influenced eligibility requirements for advanced programs, entrance to college, and scholarships. Olszewski-Kubilius and Turner also noted, "Perceptions of ability indirectly

influence students' academic decisions, such as which courses to take or whether to participate in advanced or accelerated programs" (p. 237). Olszewski-Kubilius and Turner bolstered this view by stating,

Perceptions about the amount of effort needed to succeed in an advanced course or likelihood of success (whether or not the perceptions are correct) may deter students from choosing rigorous or accelerated courses, even if they are academically qualified for them. (p. 237)

These perceptions, also supported by others, lay the foundational understanding for girls' timidity and reluctance to explore or to become active learners of advanced mathematics and sciences.

Olszewski-Kubilius and Turner (2002) provided worthwhile evidence that a problem existed regarding females and full development of their mathematical intelligence. Their study clearly focused on several areas that required further research. Olszewski-Kubilius and Turner believed that the causation stemmed from gifted girls' attitudes that math is uninteresting and that their abilities were more suited to reading than mathematics.

In summation, the researchers all believed that a problem exists with gender equity relative to female gifted learners. Dai (2002) was optimistic about the educational and career strides women have already made in the past few years. However, reason for concern still exists, especially in the academic areas involving mathematical thinking. Olszewski-Kubilius and Turner (2002) cautioned educators about relying too much on standardized test scores. Their conclusion was that females perceive that their abilities will not lead them to success in the more advanced courses, and this misperception is deterring them from including these classes.

*Problems related to the transition from elementary to middle school.* The fact that Gentry, Rizza, and Owen (2002) investigated the transition between elementary and middle school is significant because, according to their background research, poor attitudes linked to learning at this stage of students' academic careers frequently led to underachievement, failure, and decisions to leave school. The researchers hoped that this study would influence the changes needed to assist schools in fully realizing their missions of producing self-directed, lifelong learners. This line of investigation led the writer to collect pre- and posttest data on the attitudes and emotions of the gifted students through administration of the Bar-On Emotional Quotient (EQ) Inventory: Youth Version (Bar-On & Parker, 2000). Another significant query of this study was, Are gifted girls experiencing emotional upheavals that are unapparent to their teachers and parents?

*Advocacy and parental involvement.* Karnes, Lewis, and Stephens (1999) investigated advocacy to promote education for gifted learners. Karnes et al. were clearly aware of the widespread and unfounded beliefs about gifted youngsters; they reported that the majority of media coverage specific to gifted education had been negative and often derogatory. These societal-bred attitudes and misconceptions definitely have a causal impact on the full development of the gifted regardless of gender.

That parental involvement is not always a positive factor is significant. According to Reis (2002), "Parents often have strict guidelines about manners for their gifted and talented daughters at home such as not being too aggressive and acting like a young lady" (p. 21). However, she espoused that these traits are in opposition to characteristics frequently linked to prominent and successful older women. The author admonished that this paradox of gifted girls not being allowed to be assertive and aggressive is in direct conflict with the developmental factors needed to encourage females to strive for their

optimal achievement. This research led the writer to include randomly selected conferences with female students' parents. These interviews demonstrated parental perceptions of increased verbal participation by their children.

The writer sought methods to encourage gifted females to fully develop their verbal skills and to alleviate gender biases within the classroom. Causes of reticence seemed to be as simple as having gifted characteristics that focus females into a more introverted world of reading and self-contemplation. Historical perspectives remind educators that the learning environment for the gifted is best when it is hands-on, driven by student interest, and filled with creativity. A warning against stagnant, over-used lessons under the emblem of differentiation was heeded by the writer and the other teacher of the gifted whose goals were to encourage all learners to master their potential.

Theorists also promote creativity and the need for diversity in thinking. Sternberg (2000) tended to stand alone in his desire for the high-ability learner to develop a sense of wisdom that he entitled practical intelligence. During the research, encouraging females to verbalize their thoughts was realized through changing the learning environment into one that was more conducive for discussions, singing, debates, one-on-one peer reflections, humor, and creative expression.

Teacher gender, discussed within this literature review, was also investigated within this writer's study. The learning environments were compared with the same student sample, and needed modifications to teaching techniques were developed and instituted. Teachers and observers closely scrutinized occasions of gender inequity within the learning environment to determine if unintentional causational factors were being generated within the classroom.

Advocacy and parental involvement frequently worked in tandem. The writer

developed a support group of parent volunteers who assisted with the classroom operations. These people were the greatest advocates and learned how to encourage the gifted and their own children to reach their potential.

In summation, educators need to be aware of the tendency for gifted females to conceal their intelligence in an attempt to meet their notion of societal acceptance. This need to camouflage their superior abilities could derive from a heightened sensitivity to interpersonal conflicts. The female students in this study had a distinct advantage of having been placed in homogeneous classrooms with other students who also had been identified as gifted. By being placed in specialized classes, female learners could not only experience academic freedom to explore their true abilities but also have their self-esteem nurtured by fellow students who were coping with similar issues of giftedness.

Gifted females learned to develop verbalization strategies and strengths to confront the overly eager, verbose, high-ability male students. Differentiated curriculum was one method utilized to encourage female students to learn more fluent communication. A constructivist approach to learning that infused cooperation, creativity, inquiry, and discussion into lessons was also a prime consideration for assisting gifted girls to hone their verbalization skills. Although pedagogy must include higher-level queries posed to all of the students, gifted females needed motivation to freely discuss and debate abstract topics. Open-ended questions stimulated these kinds of responses.

Frequently, gifted females believed that if they were quiet, they would not be challenged to defend their thinking. Attitudes for success were developed through a balance between logic and play. Gifted girls needed to develop strategies to combat their verbal inhibitions. These strategies arose from creative pursuits and encouragement of several of the multiple intelligences. A desire for greater creativity could have been

hampered by the fact that females perceive hot chaotic thinking as being less mature and more of an abhorred, male-oriented expression. These female students were also aware of the struggles that many prominent and eminent creative people have had to endure; this realization could have been inhibiting some students' creative flow.

Competition in lessons could also have been a defeating aspect for gifted girls, along with the numerous factors that negatively influence gifted women. Teaching these high-ability learners goal-setting skills that recognize and combat the various obstacles that society uses to impede female progress and developing tenacious characteristics that produce fully functioning, self-actualized human beings is a worthy aspiration.

A male-driven concept of giftedness was one of the most powerful deterrents blocking female verbalization and success. Females who are labeled gifted are often unpopular. When faced with the dilemma of choosing between being popular or intellectually superior, gifted girls almost always select societal preferences that perpetuate the stereotype. Seemingly, to counteract this perception, more female-centric curriculum needs to be introduced and promoted within classrooms for the gifted.

Gender inequities exist in all classrooms, and the learning environments for the gifted are not an exception. Although great strides have been made in the promotion of women in society, changes in education and career development have been slow to transform. The most advanced courses in high school and the demanding college entrance requirement may be deterrents to gifted females who are intimidated by the course contents and academic rigors that they perceive as unfeminine. The perception that these students do not believe that their abilities will spur them to academic and professional success is egregious.

The fifth-grade students, although not the focus sample of the study, were

prepared for their transition from elementary school to middle school. The teachers of the gifted were aware of this difficult adjustment and assisted the students in developing positive attitudes and realizations of their strengths as lifelong learners. The results of the pre- and posttest of the Bar-On EQ Inventory: Youth Version assisted the teachers of the gifted in discerning the students' EQ at the beginning and end of the study.

Advocacy and parental involvement assist the programs for the gifted in a myriad of ways. Parents are the first to address unfounded stereotypes of this specialized population. However, important to note is that parent involvement is not always a positive factor. Frequently, parents are overly aggressive in their pursuit of developing a socially appropriate young lady who possesses traits that are not always conducive to nurturing optimal achievement.

Reticent gifted females have numerous obstacles to overcome. They need to be provided with workable strategies that will thwart their innate desires to conceal their intelligence behind stereotypical facades. This population must be encouraged to verbalize their thoughts and to encourage the success of true collaborative learning. The myth that to remain silent allows one to be unchallenged to defend his or her thinking must be eradicated from students' mindsets. Attitudes of teachers, parents, and classmates play a significant role in developing a more assertive voice in gifted females. The problem of gender inequity, whether it occurs within the classroom or at home, requires the committed involvement of all who interact with gifted females.

### Chapter 3: Anticipated Outcomes and Evaluation Instruments

#### *Goal*

Gifted third- and fourth-grade female students would demonstrate verbalization skills that were commensurate with those of their male counterparts.

#### *Expected Outcomes*

The following outcomes were planned for this applied dissertation:

1. In the combination third- and fourth-grade classes, the frequency and length of verbal participation by gifted females will increase from 6 of 16 to 13 of 16 students.
2. A pre- and posttest utilizing the Bar-On EQ Inventory: Youth Version will demonstrate a reduction of anxiety levels from 13 of 16 to 4 of 16 gifted female students relative to verbal participation in the combination third- and fourth-grade classroom.
3. Gifted females will experience a decrease to 7 of 16 lower-level questions with little or no feedback and an increase to 13 of 16 open-ended, higher-level questions.
4. Ten of 16 gifted females in the third- and fourth-grade combination class will increase their verbal participation without being prompted by their teachers.
5. Based on a daily tallying system, verbal participation by gifted females will show an increase in verbalization from 2 of 16 to 7 of 16 students.

#### *Measurement of Outcomes*

The outcomes were measured by the following:

1. At least once a day, trained teachers' assistants tallied the frequency and length of female verbal participation within the two classrooms for the gifted. Weekly, the two teachers of these students assessed and addressed this data.
2. A pre- and posttest utilizing the Bar-On EQ Inventory: Youth Version demonstrated a lowering of anxiety levels of female gifted learners to 4 of 16. The writer

created tables of these results.

3. Daily, a teachers' assistant recorded samples of the types of questions being asked and responses given by both teachers of the gifted. These data were assessed weekly by these teachers and consistently demonstrated progress being made by continuing documentation and modifications.

4. The findings of increased verbal participation by female students were overtly demonstrated by females raising their hands during the learning process. A daily tallying system reflected these qualitative statistics. Each week, the teachers of the gifted discussed the collected data and developed solution strategies to encourage additional female students to become verbally participatory.

5. Daily tally sheet data acted as the recording device. Teachers of the gifted assessed these data weekly and instituted changes aligned with the data that had been previously collected and discussed.

#### *Mechanism for Recording Unexpected Events*

Any unforeseen occurrences were assessed, summarized, and E-mailed to the writer's committee chair. A log was kept from the beginning to the conclusion of the action research process and was written with accurate details. Utilizing the log, the writer incorporated any unexpected events into the appendix of the dissertation and compiled a reflective statement disclosing the handling and effects of each situation on the validity of the research's results.

## Chapter 4: Solution Strategies

The gifted third- and fourth-grade females were not demonstrating verbalization skills commensurate with those of their male counterparts. Fortunately, researchers had authored a plethora of scholarly articles that were beneficial in addressing the perceived problem. Possible solution strategies that the writer considered were (a) usage of creative and language arts activities for reduction of the anxiety levels of gifted female students in Grades 3 through 5, (b) employment of multiple intelligences and other theories to encourage verbal discourse by gifted females within the learning environment, (c) development of leadership skills to encourage females to increase their verbalization, and (d) creation of new parental/guardian-involvement programs to nurture female students' verbal participation.

### *Discussion and Evaluation of Solutions*

#### *Usage of creative and language arts activities for reduction of the anxiety levels.*

Utilizing data collected from a pre- and posttest administration of the Bar-On EQ Inventory: Youth Version, the teachers of the gifted assessed and addressed the anxiety experienced by gifted female students as they were expected to verbally participate in classroom lessons. Begin and Gagne (1994) suggested that persons who were considering conducting studies in the field of gifted education should use a proven psychometric attitude scale. These authors' advice influenced the writer's choice of the Bar-On EQ Inventory: Youth Version because of its scaled-scores reflecting students' attitudes in their classrooms and other learning environments.

Creativity is an attribute possessed by many gifted females. Development of this characteristic through appropriate curriculum is a challenge to teachers of the gifted. Kirshenbaum (1998) is an educational theorist whose creativity templates proved useful

in nurturing this ability. According to Kirshenbaum, the nine dimensions of creative activity are (a) contact sensation seeking, curious, sensitive, preference for novelty, memory for details, open to experience; (b) conscience flexible thinker, inquisitive, prefers complexity, reflective, recognizes patterns and problems; (c) interest task commitment, persistent, flow, self-motivated to develop mastery; (d) fantasy imaginative, sense of humor, playful, spontaneous, refers to fantasies in speech or drawing; (e) incubation multitasking, creative/artistic hobbies; (f) creative contact insightful, belief in paranormal activity, visionary; (g) inspiration seeks creative stimulation and new ideas; (h) production prolific, stays focused for long time, personal style; and (i) verification high personal standards, communicates and assesses results. Celebrating the expression of creativity by gifted female learners and encouraging them to discuss their processes and eventual artistic and literary products resulted in a heightened enjoyment of their own abilities and, thus, a desire to verbally share more of themselves with fellow students and teachers.

As a prolific researcher, Csikszentmihalyi (1997b) proposed solution strategies for gifted female learners when he discussed his optimal experience theory of flow. He hypothesized that children exposed to the involvement, excitement, and enjoyment of the flow theory within their schools will experience less anxiety and boredom which, in turn, will translate into happier and more productive learners. He prescribed the fusion of enjoyment with learning as a moment-by-moment experience, not one tied to such a long-term goal that it cannot be fathomed. He also promoted the belief that every student should be taught to monitor personal performance and to seek an appropriate level of challenge within a permissive and nurturing learning environment such as that provided in classrooms for the gifted. The author was opposed to constant direct instruction via the

lectern, theorizing that teachers need to facilitate learning by moving student groups and encouraging the natural development of inquiry and discovery. He strongly believed that classroom interruptions must be curtailed because they distract from the intense learning associated with the flow experience.

Finally, Csikszentmihalyi (1997b) prescribed a healthy dose of control and freedom that he perceived is more often realized in a Montessori system than in public schools. He concluded that a paramount goal for educators is the inspiration of students to seek lifelong learning through motivation and freedom of choice. The author expected that educators would expand his flow theory into a method that would enhance scholarship through a healthy addiction that developed into cravings for challenges to expand one's skills. Csikszentmihalyi presented heady educational admonitions, but his theories of encouragement of experiences that provide less anxiety because of their personal involvement were the strategies that gifted females required in gaining confidence to willingly become involved in class assignments that culminated in creative arts projects and related presentations.

Although the gifted female students in the writer's classroom were not on a parallel with the academically underprepared students of James's (2002) study, this researcher provided solution strategies that encouraged all students to improve their thinking and perception skills to enhance and extend learning. The author focused on her practice of encouraging metaphoric thinking within the art classes that she instructed. Her purpose in this methodology was to develop thinking beyond the mundane, encourage creative insight, and foster a deeper understanding of art and self. Lakoff and Johnson (as cited in James) mentioned that, frequently, students have a fear of metaphor because they are uncomfortable with making mistakes, showing their emotions in a setting with peers,

or facing the unknown. This same perfectionism was a major factor that had to be dealt with when teaching gifted female learners. This characteristic appeared when these students stifled their own creative thinking by refusing to think outside the box because of fear that they might be viewed as lacking in ability or intellect.

James (2002) suggested remedying this uncomfortable situation by having students construct personal analogies that foster imagination through connections with characters, objects, or famous people. The author also promoted the holistic approach of pairing students and having them share their writing one on one, which added a personal touch and helped retain a sense of intimacy that the arts frequently express. The addition of reflective discussion before final project development cemented learning and allowed students to listen to emerging patterns as told to them by peers and to express, yet again, deep personal understandings and realizations that were gleaned from these intense learning experiences. These types of lessons changed the participating students' perceptions regarding their thought processes and sensitivity towards the arts and life.

Because of having a minor in art, the writer often encouraged students to express themselves with creative, concrete products. Artistic works, coupled with written explanation of personal thoughts and motivation, were a means of instilling a confidence that promoted comfort in the verbal participation of gifted females.

Two authors investigated how children can be taught to deal with the complexity and abstraction of contradictions. Peng and Nisbett (1999) conducted five response studies that compared the evaluation styles of Chinese and American students when confronted with the concept of contradictions within their classroom instruction. The authors defined the term dialectics as a strategy in which to think that a contradiction can be accepted. They investigated how Chinese educators constructed their lessons to focus

on contradictions “through what might be a compromise approach, showing tolerance of contradiction by finding a *middle way* by which truth can be found in the two competing propositions” (p. 742). Peng and Nisbett thought “Westerners respond to propositions that have the appearance of contradiction by differentiation--deciding which of the two propositions is correct” (p. 742). Incorporating this approach to thinking in lesson plans provided a catalyst for female students. Asking them to attempt to consider contradictory information frequently inspired them to ask questions, make observations, and draw conclusions from assignments that involved reading and compiling essays describing their experiences with this concept.

Instilling feminist content into the curriculum for the gifted was the intent of White (2002a). Within his article, he focused on the feminist philosopher Gloria Watkins, whose nom de plume was bell hooks, written in lower-case letters similar to the style of e. e. cummings. White (2002a) encouraged discussion of the unique thoughts of Gloria Watkins/bell hooks among gifted learners. Oppression was investigated as being indistinguishable in deciding which is worse, sexism or racism.

White (2002a) stated that bell hooks wished her readers to realize that to “think in terms of compatibility rather than opposition” (p. 43) is more important. Changes focusing on the power of education to disseminate the antioppression movement were delineated in the article. Alterations to basic curriculum were promoted to instill subject matter worthy of classroom discussion and debate among children of higher-thinking abilities. Viewpoints that questioned the fabric of capitalist society were offered, and imperialism, materialism, and citizenship were also investigated. Teaching students to think about moral dilemmas was a start to developing thoughtful, caring adults of both genders. Discussing sexism and racism in lessons for gifted learners instigated verbal

participation by female students because of the controversial content and its often personal nature.

Both White (2002a, 2002b) and Yulina (1998) led educators to realize that studying philosophy should not be relegated to college classrooms but also considered as a significant part of the curriculum for elementary-level advanced learners. White (2002a, 2002b) believed that including philosophical discussions, dialogues, and debates within programs for the gifted not only encourages advanced material to be pondered but also exposes these bright minds to contemplation of the varying philosophies of the world's cultures.

In concordance with White (2002b), students explored shared inquiry weekly in Junior Great Book assignments that encouraged dialogue, development of listening skills, and documentation of thoughts. Through studying Heidegger's philosophies, White (2002b) intended to engender higher-level thinking skills and to challenge this special population to expand their cognitive processes through discourse. White (2002a) used the study of philosophy to provide appropriate subject matter for gifted learners, both male and female, because it demands creative interpretation, utilization of advanced thinking, and communication skills. Students in the writer's classroom were exposed to a variety of feminist philosophies through reading of the biographies of prominent women and presenting student-composed monologues. Gifted girls were able to relate to these women and became inspired to voice their own opinions.

Sisk (2000) was an author who examined the development of creativity through futures study. She focused on change theory and its importance and relevance to classroom instruction of gifted learners. Writing in three parts, the author included an historical perspective, rationalized the necessity of this type of thinking for high-ability

learners, and discussed numerous strategies for developing futuristic thinking lessons. Instruction for gifted learners should incorporate these innovative strategies. Utilization of some of the methodologies resulted in reflective writing and an eruption of female verbal participation that consisted in leading to solution of this current academic travesty.

Continuing with the theme of creativity, Sternberg (1999) proposed a theory that facilitates scholars to move out of themselves and into evaluating the works of other talented individuals. The emphasis of his innovative model is identification of creative contributions rather than concentration on the creator him or herself. The major strengths of Sternberg's propulsion theory came from the fact that he was willing to illuminate such a complex area of intelligence. Known for theories dealing with leadership and successful intelligence, he created a triarchic theory that represents analytical, creative, and practical intelligences in synergy. This model explores the multilayered aspects of creative contributions and highlights differences that the author believed exist within creative people. Sternberg (1999) explained the concept of propulsion when he stated, "A creative contribution represents an attempt to propel the field from wherever the field is in the multidimensional space to wherever the creator believes the field should go" (p. 87). Once gifted females experienced their own creativity, they were ready to enjoy the creations of others. Through appreciation of the contributions of acknowledged creative persons, gifted females became energized to create artistic and literary projects and to verbally relate their experiences with the many facets of creativity.

In promoting the tenets of his multiple intelligences theory, Gardner (1999) proposed a multifaceted approach to a well-rounded education as he explored the field of music education, utilizing music as a specific intelligence. Aligning with Gardner (1999), the writer emphasized music as an important aspect of his curriculum. As a music

educator for over 10 years, the writer continued to incorporate vocalizations into his lessons. Frequently, females were encouraged to sing, and these activities were devices that not only motivated their verbal participation in the learning environment but also decreased stress and anxiety levels.

In summation, the teachers of the gifted were in agreement with Kirschenbaum (1998). By promoting creativity, the writer and his colleague developed greater verbalization through imaginative lessons, mock simulations, and creative problem-solving activities. In accordance with Csikszentmihalyi (1997b), the writer and his colleague incorporated numerous student-driven presentations. Initiating both a team and an individualized configuration, lessons included many shared inquiries that featured projects, discussions, and debates.

Utilizing the research by James (2002), the writer and his colleague expanded thinking skills through creative problem-solving techniques and simulations. Numerous writing prompts were developed to promote reflective thinking and to encourage students to discover the yet-unrecognized patterns in their own thinking.

Peng and Nisbett (1999) stated familiarity with dialectics will assist all learners in appreciation of the wisdom borne from the opposing thoughts presented in folk tales and proverbs. Students in the study benefited from the dialectic skills learned as they experienced creative resolutions to societal contradictions through discussions and written descriptions of literature.

According to Sisk (2000), the hypothesis regarding the study of futurism is as follows: "Teaching thinking with a futures perspective will necessitate that students learn skills such as relational thinking, creative/productive thinking, and critical thinking to anticipate and plan for the future" (p. 30). Once the decision has been made to be change

agents, students must be schooled in thinking and communication skills in order to facilitate the process to its finale. Within this dialogue of futurism, motivated gifted females became willing to record and then to verbalize their thoughts, first about the content of their lessons and, then, their projected goals and aspirations.

United with the precepts of Sternberg's (1999) propulsion theory, the writer and his colleague perceived creativity as being the soul of programs for the gifted. Creative endeavors were included in this study as motivational devices to encourage female students to become more verbal in their interactions with their teachers and fellow students.

The teachers of the gifted aligned with Gardner (1999) to develop strategies to assist gifted females in realizing their potential through the introduction of more stimulating activities that involved verbal skills such as singing, role-playing, and rapping. Utilizing his experiences as an educator of fine arts, the writer continued to incorporate music into academic lessons. Frequently, females were encouraged to sing, and this activity acted as a device to inspire increased verbalization among all of the students. The writer believes that this phenomenon can be explained by the rarity of inclusion of music in the core subject classrooms and that the novelty of this art form is enticing and fulfills a basic cultural need in students.

*Employment of multiple intelligences and other theories to encourage verbal discourse by gifted females.* Altering and enhancing teaching methodologies with a focus on assuring gender equity in the students' classroom was examined and implemented by the teachers of the gifted. Gardner (2000) desired for educators to go beyond the realm in which they were taught. He challenged them to expand their toolboxes to include more than a video/cassette recorder and an overhead projector.

A researcher who has analyzed Gardner's multiple intelligence theory was Fasko (2001). He investigated several national educational programs that incorporated multiple intelligence. His citing of these various programs provided the reader with insights into the inner workings of authentic classroom environments and gave credence to multiple intelligence in action. Fasko cited a significant quote from Willard-Holt and Holt as follows: "Learning environments that value all intelligences will enhance the talents of all the students" (p. 129). This statement charged the writer to further assess the intelligences possessed by his gifted female students and to involve these areas in promotion of their increased verbal participation.

Several other researchers promoted utilizing a variety of instructional strategies within the learning environments for the gifted. The philosophy of utilizing multicomponent strategies was motivational and conducive to encouraging all of the gifted learners, and especially the females, to achieve their educational potential.

Utilizing philosophy as the foundation for an instructional multicomponent strategy was Yulina (1998), whose novel approaches to education within the classroom have been developed through the work of Professor Matthew Lipman, the originator of the Philosophy for Children movement. Yulina quoted Lipman who stated, "The goal of this educational method is to produce thinking, reasonable, and creative individuals" (p. 9).

Yulina (1998) promoted the instructional strategy of utilizing philosophy as a vehicle to teach reasonable, critical, and skillful thinking. The careful and thoughtful inclusion of select philosophies was incorporated into instruction. The outcome of Lipman's program was to produce reasonable students who were capable of creating substantial judgments that led to wisdom. Although students are rarely introduced to

philosophical tenets in the elementary grades, the possibility of inspiring gifted females to respond verbally to this curriculum enhancement was exciting and worthy of initiation.

Learning to assess one's own thought pattern is an exhilarating endeavor. Gifted third- and fourth-grade females were intellectually mature enough to be informed of the concept of metacognition. Knowledge of this process, with its far-reaching impact on all of life's learning, was yet another encouragement for these gifted learners to allow themselves greater verbal participation in their academics. Dai and Feldhusen (1999), proffering that "Gifted students can also benefit from awareness of their own thinking styles" (p. 307), investigated the internal and external validity of the complex, 13 thinking styles and sample items in the Thinking Styles Inventory developed by Sternberg and Wagner. They relayed significant information regarding gifted education when they stated that the optimal learning environment for the gifted is one in which assignments and projects match the students' aptitude and schema. These authors concluded their article by promoting the inclusion of metacognition (thinking about one's own thinking) as part of the curriculum for high-ability learners. As previously stated, female students were encouraged to write to prompts that developed their reflective thinking skills. That in reality is metacognition.

Encouragement of gifted female students to increase their verbal participation was accomplished by following one of the learning formats of Renzulli. His SEM, as described by Johnsen (1999), divides the learning for gifted students into three types. Within Type I learning, a gifted learner first shows his or her exceptional ability or abilities. Type I enrichment leads into Type II enriched learning. Type II extends learning with the added intensity of skills development that may include creativity, problem solving, thinking, metacognition, communication, and research. Type III enrichment

recognizes the need for curriculum compacting to facilitate advanced students in accelerating their learning. Type III learning focuses on students creating advanced products that incorporate a myriad of skills previously learned within Type I and II experiences. Students who engage in Type III activities often utilize independent study and create challenging, complex, and worthwhile products that are presented to various audiences, such as other classes, Parent Teacher Organization meetings, and newspapers.

Johnson (2000) quoted Renzulli as stating, "Schoolwide enrichment is the antithesis of remedial education and direct instruction because it focuses on students strengths and interests" (p. 49). The benefits of total talent portfolios, curriculum modification techniques, and enrichment learning and teaching are recommended. Following Renzulli's directives in SEM, and especially highlighting the presentation of projects to others, resulted in the confidence building that appeared to be a necessary catalyst to stimulate increased verbal participation by gifted female students.

In summation, the teachers of the gifted attempted to motivate the female students by introducing more of the theory of multiple intelligences. Introduction and exploration of select philosophies as perpetuated by Yulina (1998) were used to inspire dialogue by female students. Teachers of the gifted promoted the concept of metacognition, yet revealing another strategy for encouraging gifted girls to speak with confidence. Through metacognition, these females methodically thought about their minds' productions, reaching a point at which they are comfortable in verbalizing the thoughts that had formed.

The writer and his colleague utilized numerous Type II and Type III activities associated with Renzulli's SEM theory. These exercises fostered female students' independence and verbalization skills.

*Development of leadership skills to encourage females to increase verbalization.*

The teachers of the gifted were instrumental in providing a base for their students' growth into responsible persons who will someday facilitate others in collaboration. As society's guidelines broaden and females continue to become the leaders of the world's businesses and institutions, development of the potential of gifted female students becomes more acute. Gardner (1998) was convinced that leaders who are often gifted in oral language have strong interpersonal skills and possess intense intrapersonal senses. He concluded his generic qualities of a leader by promoting one of his newer intelligences, the existentialist. In this state, a leader best assists others by helping them to understand their situations, focus on their life objectives, and work toward fulfilling their overall goals. A proponent of diversity, Gardner (1998) thought that the best teams with which to work are those constructed with differing intelligences, thoughts, abilities, and visions. Gifted girls will comprise many of the future's teams. Adhering to Gardner's (1998) observations, the possible giftedness in oral presentation and relationship skills of gifted females in the study had to be scrutinized, assessed, and encouraged into fruition by both teachers of the gifted.

Educators Hetzel and Barr (2000) continued the discussion of leadership by reviewing the research of top names in gifted education. They compiled a series of short, summarizing statements that assist educators and parents in better understanding the nature and needs of gifted learners. In their Integrated Intelligence Model, they promoted the interconnectedness of the three predominant theories of intelligence. In this amalgamation, the authors melded the concepts of IQ, behaviorist theory, and multiple intelligences to propel curriculum and instruction for gifted learners. Additionally, they encouraged the fusion of creativity with leadership skills, balanced with strong attention

to the development of the social and emotional domains. Within the study, the participants developed their leadership skills while working cooperatively in pairs and on teams to create culminating products and presentations.

A proponent of maximizing the leadership ability of all females was Reis (2002). She stressed that “The exploration and discussion of the personality issues and personal choices facing talented girls and women should be encouraged” (p. 26). Continuing, she observed “What one young girl regards as an impossible obstacle may be regarded as an intriguing challenge by another. How the same obstacles differentially affect girls and women provides the fascination of researching their accomplishments” (p. 26). Within her studies, Reis always celebrated the realization of full potential in her female subjects. This study planned to parallel Reis's vision of honoring gifted girls' growth in verbalization skills.

In summation, Gardner's (1998) attention to the development of leadership skills and Hetzel and Barr's (2000) promotion of the social and emotional domains were contributing factors to the writer's plan to administer the Bar-On EQ Inventory: Youth Version. As previously discussed, the writer and the other teacher of the gifted are afforded freedom in constructing a differentiated curriculum that matches the needs of the students whom these instructors teach. Within the writer's applied dissertation were numerous connections to the factors illuminated by the cited researchers.

Encouragement to observe female students' quest for self-actualization was found in the following quote from Reis (2002): “Exploring how and when they develop these characteristics will help all of us to guide gifted females in their journeys at all stages in their lives” (p. 27). The search for their self-actualization was key to the writer's educational philosophies for teaching gifted female learners and most certainly affected

the manner in which this study was conducted. A strong focus of the instruction was attention to the development of leadership skills in this segment of the population.

*The creation of new parental/guardian involvement programs.* The problem of gender inequity was first investigated through student interviews. Data collected from these sessions were evaluated in teacher discussion groups. The writer then implemented parent, guardian, and teacher training seminars focused on the topic of gender inequity within the classroom. Gagne (1999) wrote that professionals must begin an interactive process of communication. The purpose of this dialogue is to achieve consensus on foundational language and to identify appropriate criteria for the field of gifted education. Once achieved, this commonality of definitions is used as a blueprint for the development and improvement of research projects to further the progress of addressing the needs of gifted learners.

Gifted education as an instructional alternative will cease to exist if society continues to belittle its purpose. Karnes et al. (1999) solidified their case for promoting parental/guardian advocacy for programming for the gifted when they stated, “Building a strong knowledge base among the various constituencies in society about why gifted education is a reasonable and necessary component of the American educational system is the preventative component of public relations” (p. 16). The authors recommended that teachers and parents work together to develop promotional statements, press releases, and interviews that properly inform the public of the current and eventual societal benefits of differentiated programming for high-ability learners. Parent/teacher training was an integral portion of this study for this very reason.

Callahan and Moon (2001) advocated for acknowledgement of gifted learners from low-socioeconomic backgrounds, reporting on the efficacy of specific interventions,

such as "multicultural curricula, parental involvement, and mentoring, on academic achievement of primary-grade students from these environments" (p. 305). Callahan and Moon authors professed that

Teachers must be afforded high-quality staff development to aid them in (a) creating environments that support and nurture these (gifted) children rather than ignoring or complicating their already challenging circumstances and (b) involving parents of these students more directly in the educational endeavors of the school system. (pp. 318-319)

In summation, attending to the recommendations of Callahan and Moon (2001) and Karnes et al. (1999), the writer's classroom utilized many parent volunteers. These persons assisted the teachers of the gifted in clerical duties and freed the instructors to conduct their primary function of teaching the gifted.

To fulfill the role of advocate for awareness of gender inequity issues affecting students, the writer created, published, and disseminated an educational brochure to all of the schools within his county. This brochure was also distributed through a statewide organization that promotes exceptional teaching practice.

#### *Description of Selected Solutions*

The writer considered utilizing all of the listed solutions strategies. However, considered to be of most benefit to the study's purpose were usage of creative and language arts activities for reduction of the anxiety levels of gifted female students in Grades 3 through 5 and employment of multiple intelligences and other theories to encourage verbal discourse within the learning environment. These solution strategies were selected to provide the writer and his students with a broad spectrum of lesson plans and researched methodologies.

The writer believes that multicomponent strategies worked to persuade gifted female students to participate verbally. The research on usage of creative and language arts to lessen anxiety and to motivate participation was convincing. Inclusion of literature authored by females provided gifted girls with knowledge of strong, forceful women's philosophies and lifestyles. These literary works and biographies of eminent women inspired and motivated the writer's female students to release their own voices.

Employment of multiple intelligences and other theories provided female students with opportunities to experience learning styles with which they were unfamiliar. Their areas of intellectual strength were identified and enhanced. Their successes encouraged them to further explore their potential and engendered confidence for greater involvement in their academics.

The writer believes that opportunities exist within classrooms for the gifted to develop leadership characteristics. Because of this probability, the focus of the study remained on creation of motivational lessons. Differentiated learning and verbalization by gifted female students were promoted through research gleaned from the literature review.

The writer has utilized parent/guardian volunteers in the learning environment for several years. Creating a new parent/guardian involvement program would have been redundant and would not have enhanced the learning environment or encouraged gifted females to increase their verbal participation.

#### *Calendar Plan*

Instruction within the writer's classroom included literature, social studies incorporating state history, spelling, and language arts emphasizing writing. Within the other classroom, the teacher of the gifted instructed all mathematics and science lessons,

with all fifth-grade gifted learners receiving instruction in language arts with emphasis on grammar. Randomly selected daily observations occurred within both classrooms for the gifted. These observations tallied the frequency of the following:

1. Each teacher's asking of higher-level questions to each gender.
2. Each gender's verbal participation within discussions and team presentations.
3. Each teacher's provision of in-depth feedback to students' queries (see Appendix A).

Permission to utilize the students within this research project was obtained from the students' parent(s) or legal guardians by completion of informed consent forms signed by both parent(s) guardian(s) of the participating students and the students themselves.

*Week 1.* The writer introduced the teachers' assistants to the various categories of the daily observation sheets and trained these people in tallying information annotating students' verbal interactions and teachers' usage of higher-level questioning and feedback. The writer administered pretests of the Bar-On EQ Inventory: Youth Version to the sample population in the third-fourth combination class and in the fifth-grade class. The writer conducted a meeting with the other teacher of the gifted, compared the observed, tabulated data of both classrooms, and discussed modifications to teaching methodologies. An agenda of this meeting and its results was entered into the writer's reflective log. Subsequent meetings between the writer and his colleague were noted and summarized in the log.

*Week 2.* The writer continued with the training of the daily classroom observers and reviewed procedures as necessary. The writer incorporated a variety of lessons that required the students to utilize their creativity and multiple intelligences. These lessons incorporated singing, team building, and artistic expression. The writer conducted a

weekly meeting with the other teacher of the gifted to discuss impressions of the observed comparative verbal participation and to develop strategies to motivate female learners into being more assertive and verbally precocious.

*Week 3.* The writer developed summary sheets for the daily observational data. Collected data were divided into categories for male and female interactions, including students' self-activated verbal participation, higher- and lower-level questioning, and length of teacher feedback following students' responses. With the intent of having the students become familiar with positive presentation of women in literature, the writer encouraged students to read novels that depicted strong female characters. Later, the students shared their impressions of these characters' fortitude and accomplishments.

The writer began interviews with all gifted students to ascertain their levels of comfort in verbal participation, confidence within the program for gifted learners, and awareness of inequities between females and males in verbalization within classroom lessons (see Appendix B). The writer conducted a weekly meeting with the other teacher of the gifted to discuss the data collected and summarized on the daily observational form.

*Week 4.* The writer prepared a workshop for interested faculty members and parents regarding gender equity issues within the classroom. The writer incorporated the content of famous females' biographies and autobiographies into whole-class discussions of the contributions to society by these women. The writer prepared an analysis utilizing pretest data collected during the first 4 weeks of the study. The writer conducted a weekly meeting with the other teacher of the gifted, reviewed observational tally sheet data, and discussed progress after a month's experiences.

*Week 5.* The writer reviewed daily tallying procedures for the observers,

clarifying any misconceptions. The writer conducted a discussion about creative thinking and the abstract concepts of flow. Students worked in pairs to create a symbol or a finger play that represented creativity culminating with the idea of flow.

The writer scheduled an evening workshop for parents and interested faculty to learn about strategies to assure gender equity within the classroom. He also developed handouts and planned activities for the event.

The writer requested assistance from the school psychologist to interpret and incorporate statistical information collected from the pretest data of the Bar-On EQ Inventory: Youth Version. The writer conducted a weekly meeting with the other teacher of the gifted, reviewed the tallied data and progress of the research, and discussed any problems that occurred.

*Week 6.* The writer created an advertisement for the Gender Equity in the Classroom seminar, submitted it to students' parents and faculty members, and posted it on the school-wide calendar. The writer and his colleague were videotaped during instruction to provide themselves with evidence of increased female verbal participation and improved questioning and feedback responses to the girls. The writer taught the students Kirschenbaum's (1998) nine dimensions of creative activity and required each individual to demonstrate one of the dimensions through representation of one or two multiple intelligences.

The writer conducted a weekly meeting with the other teacher of the gifted, reviewed the classroom observation data, and discussed strengths and weaknesses in their videotaped lessons. In accordance with the writer's research protocol, these videotapes were destroyed after being reviewed and discussed.

*Week 7.* The writer conducted an evening seminar entitled Gender Equity in the

Classroom (see Appendixes C and D). The writer introduced the concept of futures study and had teams create role-plays that demonstrated their ability to project themselves into situations in the future.

The writer interviewed all gifted students for a second time to ascertain their levels of comfort in verbal participation, confidence within the program for gifted learners, and awareness of inequities between females and males in verbalization within classroom lessons. The writer conducted a weekly meeting with the other teacher of the gifted, discussed the results of the workshop's evaluation sheets, reviewed the daily tally sheets, and planned future lessons that incorporated student-team presentations.

*Week 8.* The writer asked the students to select a famous person of their gender and research that person's life on the Internet. The final project was a monologue of the famous person describing his/her life and the accomplishment(s) that made him/her legendary. The writer conducted a weekly meeting with the other teacher of the gifted, discussed the results from the second interviews, reviewed classroom daily tally sheets, and planned lesson times for student-team presentations.

*Week 9.* The writer prepared an informational brochure for beginning teachers to inform them of possible gender equity issues in the classroom. The writer demonstrated reflective thinking and described to the students the concept of metacognition. Students then wrote a summary of their experience with thinking about their own thinking. The writer conducted a weekly meeting with the other teacher of the gifted, discussed the female-versus-male verbal participation, and reviewed results of the classroom daily tally sheets.

*Week 10.* The writer secured permission from the director of the state league of teachers' organization to distribute the informational brochures statewide. The writer read

aloud poetry from famous female poets such as Maya Angelou, Emily Dickinson, and Edna St. Vincent Millay. The students discussed their thoughts regarding the poems in think-pair-share pairings.

The writer and the other teacher of the gifted revised future lessons based upon the results of data collected from the daily tally sheets. The writer conducted a weekly meeting with the other teacher of the gifted to discuss and review classroom daily tally sheets.

*Week 11.* The writer compiled a draft of the informational brochure on Gender Equity in the Classroom. The writer taught students the differences between lower-level questioning and higher-level queries. Students were then asked to incorporate two low-level (highlighted in yellow) and two higher-level (highlighted in pink) questions into a five-paragraph narrative essay.

The writer discussed with the other teacher of the gifted the think-pair-share pedagogy as a solution strategy for encouraging increased verbal participation between students. The writer conducted a weekly meeting with the other teacher of the gifted and again reviewed the number of higher-level queries being asked of the females versus those asked of the males.

*Week 12.* The writer revised the draft of the informational brochure on Gender Equity in the Classroom and submitted it to the director of the state league of teachers' organization for distribution at the spring meeting. The writer required the students to search the Internet to learn definitions for philosophy and to research famous philosophers. Individuals then compiled a brief report stating their definitions for philosophy and citing three salient points about a philosopher of the same gender. The writer conducted a weekly meeting with the other teacher of the gifted to discuss the

success of their attempts to encourage females to increase verbalization.

*Week 13.* The writer interviewed all gifted students for a third time to ascertain their levels of comfort in verbal participation, confidence within the program for gifted learners, and awareness of inequities between females and males in verbalization within classroom lessons. Weekly, students read the same selection from a collection of international tales compiled by the Great Book Society. The students then discussed the story as a class, utilizing higher-level thinking questions provided by the teacher. The writer conducted a weekly meeting with the other teacher of the gifted and discussed findings from the third student interviews.

*Week 14.* The writer revised, published, and disseminated the Gender Equity in the Classroom brochures statewide through the state league of teachers' organization. The writer provided the students with photographs and art prints and required them to create advertisements that would entice people to purchase these pieces. Students worked in teams and utilized at least three of the multiple intelligences to produce an advertising campaign to sell these works of art. The writer conducted a weekly meeting with the other teacher of the gifted, discussed any concerns relative to the study, and shared the first printing of the informational brochure on gender inequity in the classroom.

*Week 15.* The writer and the other teacher of the gifted were videotaped teaching a lesson in their respective classrooms. Following research protocol, the videotapes were destroyed after being viewed and discussed solely by the writer and the other teacher of the gifted.

After students had read novels featuring strong female characters, they all presented oral reports that specified character attributes and expressed each individual's accomplishments. The writer conducted a weekly meeting with the other teacher of the

gifted and discussed the classroom daily tally sheets and the second videotape's footage. This evidence confirmed the tallied data that a more equalized female and male verbal participation and an increase in higher-level queries and meaningful feedback to female students were occurring.

*Week 16.* The writer asked each of the five female parent volunteers to talk about their lives and goals for the future. After a week had transpired, the students were asked to write an expository essay explaining the importance of future goals.

The writer implemented student-team presentations with an assessment rubric that included annotation of verbal participation by every member. The writer conducted a weekly meeting with the other teacher of the gifted and included observers in discussing results from the classroom daily tally sheets.

*Week 17.* The writer selected exemplary expository essays and asked the authors to read their compositions; the class then discussed and critiqued these assignments. The writer conducted interviews with a randomly selected sample of parents/guardians of female gifted students to discern if they had noticed a change in the willingness of their daughters to be more verbally responsive (see Appendix E). All of these participants signed adult informed-consent forms. The writer conducted a weekly meeting with the other teacher of the gifted and discussed the classroom daily tally sheets and team presentations.

The writer distributed scripts to plays that focused on the pre-Civil War period that was being studied. Students created a readers' theater production of the plays for the 1-day-a-week, pull-out class for gifted students in kindergarten through second grade. The writer discussed the female students' parent/guardian interview findings with the other teacher of the gifted, along with information from the daily tally sheets.

*Week 19.* The writer administered the posttest of the Bar-On EQ Inventory: Youth Version to the students with signed informed-consent forms on file. The writer interviewed all gifted students for a fourth time to ascertain their levels of comfort in verbal participation, confidence within the program for gifted learners, and awareness of inequities between females and males in verbalization within classroom lessons. The writer conducted a weekly meeting with the other teacher of the gifted and discussed the classroom daily tally sheets and findings of the parent/guardian and student interviews.

*Week 20.* The writer completed the last entry in the teacher log and discussed the study's positive aspects and needed modifications with the other teacher of the gifted and the classroom observers.

## Chapter 5: Discussion of Conclusions and Implications

### *Overview of the Applied Dissertation*

An increase in verbalization by gifted third- and fourth-grade female students through utilization of the multiple intelligence theory was accomplished within this study. The collected qualitative data consisted of (a) interviews with students and randomly selected parents of female students, (b) comments by trained observers, (c) evaluative responses from participants in the Gender Equity in the Classroom parent/teacher seminar conducted by the writer, (d) videotaped classroom instruction by teachers of the gifted, and (e) notations from the writer's study log. The quantitative data consisted of a pre- and posttest utilizing the Bar-On EQ Inventory: Youth Version and observational tally sheets implemented during classroom interactions between students and teachers.

### *Results of the Data Analysis*

Objective 1 stated that verbal participation by female gifted learners in the combination third- and fourth-grade classes would increase from 6 of 16 students to 13 of 16. These students and those in the fifth-grade class increased their verbal participation as demonstrated in Table 1.

Table 1 compares the rates at which females were called upon by their teachers to the rates that males were asked to participate. The increased verbalization by females was attributed to lesson modifications utilizing multiple intelligences and promotion of a constructivist learning environment. Throughout this study, the writer and the other teacher of the gifted were observed daily for 1/2-hour increments by trained volunteers.

Objective 2 utilized a pre- and posttest of the Bar-On Emotional Quotient-Inventory: Youth Version to demonstrate a reduction in anxiety levels from 13 of 16 gifted female students to 4 of 16 as assessed by their EQ. A reduction in the gifted

females' anxiety levels as perpetuated by verbal participation in the combination third- and fourth-grade classes and the fifth-grade class was demonstrated by the comments from randomly selected parents of these students.

Table 1

*Students Called Upon by Teachers*

Grade	Teacher	No. female	No. male
		students part.	students part.
3 and 4	M	105	110
3 and 4	F	155	114
5	M	183	92
5	F	83	74

*Note.* Trained volunteer observers collected data from the classrooms of a male (M) and a female (F) teacher of the gifted; part. = participating.

Nine parents noted an increase in their daughter's willingness to participate in conversations at home since the beginning of the school year and commencement of the study. However, the pre- and posttest data collected from the Bar-On EQ Inventory: Youth Version was inconclusive and did not demonstrate a drop in the anxiety levels of these females students from 13 of 16 to 4 of 16 in the EQ as predicted by the writer. These data are shown in Tables 2 and 3. The posttest data showed one more female, between 8 and 9 years of age, above the mean than was indicated in the pretest. The posttest data from the females between 10 and 11 years of age showed a decrease of 5 above the mean to 3 above the mean.

Table 2

*Total Emotional Quotient Using Scores and Frequency Combined Grades 3 and 4*

Gender	Pretest		Posttest	
	SS	No. of students achieving SS	SS	No. of students achieving SS
Female	117	1	127	1
Female	108	1	126	1
Female	106	1	107	1
Female	105	1	106	1
Female	100	1	103	1
Female	98	1	97	3
Female	95	3	95	1
Female	91	1	92	1
Female	89	1	88	1
Female	83	1	79	1
Female	82	1		
Female	59	1		
Male	102	2	124	1
Male	101	1	108	1
Male	98	2	106	2
Male	96	1	102	3
Male	86	2	95	1
Male	84	1	85	1
Male	80	1	80	1
Male	73	1	76	1

*Note.* SS = standard score on Bar On Emotional Quotient Inventory: Youth Version.

Table 3

*Total Emotional Quotient Using Scores and Frequency Grade 5*

Gender	Pretest		Posttest	
	SS	No. of students achieving SS	SS	No. of students achieving SS
Female	116	1	111	1
Female	107	3	107	1
Female	104	1	102	1
Female	88	1	99	1
Female	86	1	92	1
Female			87	3
Female			86	1
Male	123	1	108	1
Male	108	1	106	1
Male	105	1	105	1
Male	98	1	97	1
Male	97	2	96	1
Male	96	1	93	1
Male	94	1	90	1
Male	83	1	87	1
Male	78	1	67	1

*Note.* SS = standard score on Bar On Emotional Quotient Inventory: Youth Version.

However, the writer believes this change to be statistically insignificant.

Interestingly, the boys between 8 and 9 years of age demonstrated an increase from 3 above the mean to 7 above the mean, and the boys between 10 and 11 years of age only

increased from 3 to 4. Again, the writer thinks that these data were collected from too small a sample and should also be considered statistically insignificant.

Objective 3 found that gifted females did not experience a decrease of 7 of 16 simple queries with little or no feedback and an increase of 13 of 16 open-ended, higher-level inquiries as demonstrated in the data collected on the daily observational tally sheets. This information is displayed in Table 4.

Table 4

*Frequency of Higher-Level Questions Directed Toward Students*

Grade	Teacher	No. female students	No. male students
3 and 4	M	40	33
3 and 4	F	59	36
5	M	22	26
5	F	46	40

*Note.* Trained volunteer observers collected data from the classrooms of a male (M) and a female (F) teacher of the gifted.

Objective 4 did not demonstrate an increase in self-initiating verbalization from 2 of 16 students to 7 of 16. These results are highlighted in Table 5 and demonstrate the frequency with which female students initiated verbal discourse versus the frequency that males initiated verbal interactions.

Pertinent to note is that many of the comments from the parents, teachers, and administrators who attended the Gender Equity in the Classroom Seminar stated that they

thought that a personality trait could cause a child, regardless of gender, to be reticent. One participant also believed that the Rosenthal Effect relating student performance to expectations might have been a contributing factor. The writer and colleague were encouraged by the number of quieter students who learned to be more assertive and who continued to participate, even after the study's conclusion. Many students who were interviewed suggested developing additional lessons that required forced pairings of quiet students with those who spoke with confidence and focusing dialogue around areas of mutual interest. These lessons appeared to assist students in building collaborative study units and encouraged a social aspect enjoyed by many of them.

Table 5

*Frequency of Students Self-Initiating Verbal Skills*

Grade	Teacher	No. female students	No. male students
3 and 4	M	89	105
3 and 4	F	150	78
5	M	81	183
5	F	83	66

*Note.* Trained volunteer observers collected data from the classrooms of a male (M) and a female (F) teacher of the gifted.

Objective 5 was achieved as documents by active dialogues between the teachers of the gifted and the students. The students received feedback and discussed pertinent topics, observations, and/or difficulties with their instructors. Within this study, the

observers were trained to note the time in seconds during which a teacher and student shared ideas. The conversations required an exchange in order to be considered for tally in the feedback section. These data are displayed in Table 6.

Table 6

*Length of Dialogue Between Students and Teachers*

Grade	Teacher	Female students	Male students
3 and 4	M	42 min. 34 sec.	1 hr. 4 min. 3 sec.
3 and 4	F	16 min. 32 sec.	18 min. 8 sec.
5	M	34 min. 43 sec.	1 hr. 23 min.
5	F	46 min.	36 min. 32 sec.

*Note.* The writer converted all times into hours, minutes, and seconds. Trained volunteer observers collected data from the classrooms of a male (M) and a female (F) teacher of the gifted.

*Conclusions Related to the Results*

The concept of emotional intelligence was pioneered by Goleman (1998) and was utilized extensively within this study to develop an "emotional competence framework" (p. 26). Aligned with this seminal work, the writer administered the Bar-On EQ Inventory: Youth Version as a pre- and posttest to all gifted students in Grades 3 through 5 in the participating school. The writer concluded that the abstract notion of the EQ was not accurately determined from the results of the data collected in the pre- and posttests. Teachers, parents, and the trained observers all perceived an increase in the quiet females' determination to be heard and growth in their willingness to participate within lessons. Although the Bar-On EQ Inventory: Youth Version was field-tested with a sample of

over 10,000 children, the writer contends that the resulting quantitative data from this study were not indicative of the students' emotional growth.

Each week, the writer met with the other teacher of the gifted to discuss teaching methodologies. Information gathered from these meetings and the evaluations of tallied data were utilized to develop and conduct parent- and teacher-training workshops that promoted gender equity within instructional settings. Davidson and Davidson (2004) admonished, "No one explains what being gifted is all about. It's kept a big secret" (p. 157). The purpose of these seminars was two-fold: to define gifted education and to address gender equity issues. The writer concluded that these meetings were extremely useful to the teachers, parents, and administrators who were in attendance. He is supported in this conclusion by the commentary cited in Appendix G that expressed a newly learned awareness of concerns related to gender equity in the classroom and within the home. With a goal of tempering gender bias within classrooms, the writer developed and disseminated an informational brochure for all instructional personnel who are members of a state organization for exemplary teachers. Comments from these individuals also confirmed that gender equity and the needs of gifted are issues of importance to the profession.

Sustaining these ideals, Jule (2004) devoted an entire text to research findings that "consistently suggested that boys in classrooms talk more, that boys exert more control over talk, and that boys interrupt more" (p. 25). Additionally, Orenstein (1994) noted, "Ignored by their teachers and belittled by their male peers, girls lose heart; they may become reluctant to participate at all in class" (p. 14). Further supporting the need for this study, Guzzetti, Young, Gritsavage, Fyfe, and Hardenbrook (2002) revealed, "Boys' attempts to silence voices were only directed at the girls in the group and never at each

other" (p. 22).

### *Limitations of the Applied Dissertation*

The study was inhibited by collection of too much qualitative data. The writer became inundated with 172 student interviews that were conducted periodically throughout the study. Limiting the interviews to a pre- and posttest format would have provided insights and required half of the time. Using volunteers to record observations sometimes caused gaps in data collection. For example, one observer received a patent and was not able to fulfill her commitment as expected, leaving another day lacking an observer. A remedy would be to hire and pay personnel to observe and collect the data.

Another limitation was that some of the lesson modifications required longer implementation than expected, so the study's timetable was not always adhered to as closely as was initially anticipated by the writer. Maintaining alignment with a calendar of curricular events was a constant struggle because in the teaching profession, students frequently grasp concepts or complete work at a pace faster or slower than expected by educators.

### *Implications for Future Research*

The writer thinks that future research is warranted to discover the frequency with which teachers and students engage in dialogue. For an increase in verbalization by females to occur, students seemingly had to participate within this format. The writer and the other teacher of the gifted noted this factor and attempted to utilize these interactions in multiple lessons. Dialogue was also encouraged between students and teams of students, especially after presentations and during discussions.

### *Summary*

At the conclusion of the study, the writer conducted an evening seminar to inform

parents/guardians and educational personnel of the study's findings and to involve them in encouraging females to become more active participants in the learning process.

Results of this seminar are reported in Appendix G. Finally, the writer has investigated submitting either portions of or the entire dissertation to (a) Gifted Child Today, (b) The Accomplished Teacher (A National Board for Professional Teaching Standards' online publication), (c) Roeper Review, and (d) Educational Leadership.

Segments of the solution strategies that proved workable and worthy were published in an educational brochure that was disseminated statewide through an exemplary teachers' organization. Workshops for parents and teachers are planned to utilize the study's findings to inform as many people as possible of strategies to promote increased female verbal participation as assurance of gender equity in learning within the educational environment.

## References

- Bar-On, R., & Parker, J. D. A. (2000). *Bar-On emotional quotient inventory: Youth version*. North Tonawanda, NY: Multi-Health Systems.
- Begin, J., & Gagne, F. (1994). Predictors of attitudes toward gifted education: A review of the literature and a blueprint for future research. *Journal for the Education of the Gifted, 17*(2), 161-179. Retrieved April 15, 2003, from Wilson database.
- Callahan, C. M., & Moon, T. R. (2001). Curricular modifications, family outreach, and mentoring programs: Impacts on achievement and gifted identification in high-risk primary students. *Journal for the Education of the Gifted, 24*(4), 305-321. Retrieved October 19, 2002, from Wilson database.
- Csikszentmihalyi, M. (1997b). Flow and creativity. *North American Montessori Teachers' Association Journal, 22*(2), 61-97. Retrieved May 20, 2003, from Wilson database.
- Csikszentmihalyi, M. (1997a). Flow and education. *North American Montessori Teachers' Association Journal, 22*(2), 3-35. Retrieved May 10, 2003, from Wilson database.
- Dai, D. Y. (2002). Are gifted girls motivationally disadvantaged? Review, reflection, and redirection. *Journal for the Education of the Gifted, 25*(4), 315-358. Retrieved April 27, 2003, from Wilson database.
- Dai, D. Y., & Feldhusen, J. F. (1999). A validation study of the thinking styles inventory: Implications for gifted education. *Roeper Review, 21*(4), 302-307. (ERIC Document Reproduction Service No. EJ589527)
- Davidson, J., & Davidson, B. (2004). *Genius denied: How to stop wasting our brightest young minds*. New York: Simon and Schuster.
- Fasko, D., Jr. (2001). An analysis of multiple intelligences theory and its use with gifted and talented. *Roeper Review, 23*(3), 126-130. (ERIC Document Reproduction Service No. EJ626402)
- Gagne, F. (1999). My convictions about the nature of abilities, gifts, and talents. *Journal for the Gifted, 22*(2), 109-136. Retrieved April 3, 2003, from Wilson database.
- Gallagher, J. J. (2002). Gifted education in the 21st century. *Gifted Education International, 16*(2), 100-110. (ERIC Document Reproduction Service No. EJ653772)
- Gardner, H. (1998). The intelligence of leaders. *International Journal of Leadership, 1*(2), 203-206. Retrieved March 18, 2003, from First Search database.

- Gardner, H. (1999). Keynote address. *Bulletin of the Council for Research in Music Education*, 142, 9-21. Retrieved May 23, 2003, from Wilson database.
- Gardner, H. (2000). The complete tutor. *Technos*, 9(30), 10-13. Retrieved March 18, 2003, from First Search database.
- Gentry, M., Rizza, M. G., & Owen, S. V. (2002). Examining perceptions of challenge and choice in classrooms: The relationship between teachers and their students and comparisons between gifted students and other students. *Gifted Child Quarterly*, 46(2), 145-155. Retrieved March 18, 2003, from First Search database.
- Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam.
- Guzzetti, B. J., Young, J. P., Gritsavage, M. M., Fyfe, L. M., & Hardenbrook, M. (2002). *Reading, writing, and talking gender in literacy learning*. Chicago: National Reading Conference.
- Hebert, T. P. (2000). Gifted males pursuing careers in elementary education: Factors that influence a belief in self. *Journal for the Education of the Gifted*, 24(1), 7-45. Retrieved April 14, 2003, from Wilson database.
- Hetzel, J., & Barr, M. (2000). Creativity, leadership, and intelligence: Working with the gifted. *Yearbook (Claremont Reading Conference)*, 79-96. Retrieved May 2, 2003, from Wilson database.
- James, P. (2002). Ideas in practice: Fostering metaphoric thinking. *Journal of Developmental Education*, 25(3), 26-33. Retrieved March 18, 2003, from First Search database.
- Johnsen, S. K. (1999). Renzulli's model: Needed research. *Journal for the Education of the Gifted*, 23(1), 102-103. (ERIC Document Reproduction Service No. EJ601342)
- Johnson, G. M. (2000). Schoolwide enrichment: Improving the education of students at risk at promise. *Teacher Education Quarterly*, 27(4), 45-61. Retrieved February 4, 2003, from Wilson database.
- Jule, A. (2004). *Gender, participation and silence in the language classroom, Sh-shushing the girls*. New York: Palgrave Macmillan.
- Karnes, F. A., Lewis, J. D., & Stephens, K. R. (1999). Parents and teachers working together for advocacy through public relations. *Gifted Child Today*, 22(1), 14-18. (ERIC Document Reproduction Service No. EJ581611)
- Kerr, B. A. (1994). *Smart girls: A new psychology of girls, women, and giftedness* (Rev. ed.). Scottsdale, AZ: Great Potential Press.

- Kerry, T. (2002). The Plowden vision revisited: Managing curriculum for the 21st century. *Gifted Education International*, 16(3), 214-224. (ERIC Document Reproduction Service No. EJ653790)
- Kirschenbaum, R. J. (1998). The creativity classification system: An assessment theory. *Roeper Review*, 21(1), 20-26. (ERIC Document Reproduction Service No. EJ575335)
- Mui, F. L. L., Yeung, A. S., Low, R., & Jin, P. (2000). Academic self-concept of talented students: Factor structure and applicability of the internal/external frame of reference model. *Journal for the Education of the Gifted*, 23(3), 343-367. Retrieved March 29, 2003, from Wilson database.
- Neihart, M. (1999). The impact of giftedness on psychological well-being: What does the empirical literature say? *Roeper Review*, 22(1), 10-17. Retrieved March 28, 2003, from Wilson database.
- Olszewski-Kubilius, P., & Turner, D. (2002). Gender differences among elementary school-aged gifted students in achievement, perceptions of ability, and subject preference. *Journal for the Education of the Gifted*, 25(3), 233-268. Retrieved April 6, 2003, from Wilson database.
- Orenstein, P. (1994). *Schoolgirls: Young women, self-esteem, and the confidence gap*. New York: Doubleday.
- Peng, K., & Nisbett, R. E. (1999). Culture, dialectics, and reasoning about contradiction. *American Psychologist*, 54, 741-754. (ERIC Document Reproduction Service No. EJ594380)
- Rea, D. (2001). Maximizing the motivated mind for emergent giftedness. *Roeper Review*, 23(3), 157-164. (ERIC Document Reproduction Service No. EJ626407)
- Reis, S. (2002). Internal barriers, personal issues, and decisions faced by gifted and talented females. *Gifted Child Today*, 25(1), 14-28. Retrieved April 26, 2003, from Wilson database.
- Sisk, D. A. (2000) Thinking with a futures perspective. *Gifted Education International*, 15(1), 29-44. (ERIC Document Reproduction Service No. EJ626354)
- Sternberg, R. J. (1998). A balance theory of wisdom. *Review of General Psychology*, 2(4), 347-365. Retrieved March 2, 2003, from First Search database.
- Sternberg, R. J. (1999). A propulsion model of types of creative contributions. *Review of General Psychology*, 3(2), 83-100. Retrieved March 21, 2003, from First Search database.
- Sternberg, R. J. (2000). The theory of successful intelligence. *Gifted Education*

*International*, 15(1), 4-21. (ERIC Document Reproduction Service No. EJ626352)

White, D. A. (2002a). Gifted students and philosophy: Feminism and social justice. *Gifted Child Today*, 25(1), 40-45, 64. Retrieved March 29, 2003, from Wilson database.

White, D. A. (2002b). Gifted students and philosophy: Technology--servant or destroyer? *Gifted Child Today*, 25(2), 22-27, 64. Retrieved March 7, 2003, from First Search database.

Yulina, N. S. (1998). Teaching people how to reason: The philosophical strategy of philosophy for children. *Thinking: The Journal of Philosophy of Children*, 13(4), 8-19. Retrieved April 17, 2003, from Wilson database.

Appendix A

Classroom Observation Data Collection Sheet



Appendix B  
Student Interview Form

Student # \_\_\_\_\_ Date \_\_\_\_\_ Grade Level \_\_\_\_\_ Gender \_\_\_\_\_

1. Who do you think talks more in literature, history, and language arts classes - boys or girls? \_\_\_\_\_

Why do you think this happens?

---

---

---

---

2. Who do you think talks more in mathematics and science classes - boys or girls?

\_\_\_\_\_

Why do you think this happens?

---

---

---

---

3. On a scale from 1 – 5, five being very talkative and 1 being never talkative, how would you rate your comfort-level when you are talking? \_\_\_\_\_

4. What techniques do you think teachers should use to encourage quiet students to participate more in discussions, debates, and teamwork?

---

---

---

---

Appendix C

Gender Equity in the Classroom Seminar Sign-In Sheet

# Gender Equity in the Classroom Seminar Sign-in Sheet

February 17, 2005    David E. Walker – Presenter

Name (please print)	Parent, Teacher, or Administrator
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	

Appendix D

Gender Equity in the Classroom Seminar Evaluation Sheet

## Gender Equity in the Classroom Seminar Evaluation Sheet

David E. Walker – Presenter

Please rate the seminar by placing a check within the appropriate box and provide necessary feedback with your comments.

	Superb	Very Good	Adequate	Minimal	Poor
Seminar Content					
Presentation of Material					

Comments:

---



---



---



---



---



---



---



---

What did you learn as a result of participating in this seminar?

---



---



---



---



---



---



---



---

How will you use the information that you learned in this seminar?

---



---



---



---



---



---



---



---

Thank you for attending this seminar and completing the evaluation sheet.

Appendix E

Interview Questions for Randomly Selected Parents of Gifted Female Students

Parent # \_\_\_\_\_ Date \_\_\_\_\_

Student # \_\_\_\_\_ Grade Level \_\_\_\_\_

1. Have you noticed an increase in your daughter's willingness to participate in conversations at home since the beginning of the school year? \_\_\_\_\_

If yes, why do you think this has occurred?

---

---

---

---

2. Does your child seem to be less anxious about school now compared to the beginning of the school year? \_\_\_\_\_

If yes, what factors do you think have contributed to her feeling less anxious?

---

---

---

---

3. On a scale from 1 – 5, five being very talkative and 1 being never talkative, how would you rate your daughter as a person who is comfortable with talking? \_\_\_\_\_

4. What techniques do you think teachers should use to encourage quiet students to participate more in discussions, debates, and teamwork?

---

---

---

Appendix F

Gender Equity in the Classroom Brochure

## GENDER EQUITY IN THE CLASSROOM

---



## USING OTHER RESEARCHERS' THEORIES TO INCREASE VERBAL PARTICIPATION BY FEMALE LEARNERS

---

**Csikszentmihalyi** (1997) developed a theory of flow that connects a student's all-consuming passion for learning to the concept of creativity. The researcher has found that when flow was used as a motivational tool, verbal participation by female students increased.

**Sternberg** (1998, 1999, 2000) has theorized that developing wisdom through a practical intelligence is essential to learning. The researcher has noted that many female students enjoyed debating the merits of a practical intelligence and pondering the development of wisdom.

**Sisk** (2000) has explored futures studies. The researcher has found that this kind of learning inspired only a few of the females into increased dialogue with their classmates. The males were much more interested in projecting themselves into the future.

**White** (2002) and **Yulina** (1998) have both promoted using philosophy and feminist literature to encourage females to meet their potentials. The researcher has noted an intense interest by both females and males to explore this kind of learning.



“The first problem for all of us, men and women, is not to learn, but to unlearn.”  
- **Gertrude Stein**

“Truth is such a rare thing, it is delightful to tell it.” - **Emily Dickinson**

“In this world people have to pay an extortionate price for any exceptional gift whatever.” - **Willa Cather**

“No one can make you feel inferior without your consent.”  
- **Eleanor Roosevelt**

“I attribute my success to this: I never gave or took an excuse.”  
- **Florence Nightingale**

“My candle burns at both ends; It will not last the night; But, ah, my foes, and, oh, my friends – It gives a lovely light.”  
- **Edna Vincent Millay**

## **INCREASING VERBAL PARTICIPATION BY FEMALE STUDENTS**

---

Frequently, this researcher had observed female learners remaining as quiet observers in their classrooms. Becoming an active participant within the learning environment is to break free from the role of observer and to present verbally one's ideas within product development, discussions, and team presentations. The salient causes that drove this study were that gifted females:

1. feel the pressures of trying to be socially acceptable and tend to camouflage their intelligence behind shy, quiet demeanors;
2. feel intimidated by their male classmates' overt abilities to verbalize their thoughts and ideas;
3. believe that by being quiet, they will not be challenged to defend their thinking;
4. are not being asked to be more assertive by their classmates, teachers, and/or parents/guardians; and
5. are not aware of the subtle cues that teachers may be giving to encourage males to be gregarious and females to be inhibited.

## **ENCOURAGING FEMALE STUDENTS TO INCREASE THEIR VERBAL PARTICIPATION**

---

The researcher realized that utilizing a variety of learning theories helped all students to develop their voices. The theories that are presented within this brochure have been found to inspire female students to increase their verbal participation and enjoyment of learning.

Within this study, teacher gender was not found to influence female students' verbal participation. The most indicative factors that did increase female verbalization were lessons that combined multiple intelligences with student product development, class discussions focused on short stories, and teamwork leading to classroom presentations.

Students who were interviewed in this study felt that quiet students would be more apt to participate verbally within the classroom if they were rewarded for their efforts, encouraged by their peers, allowed to align their interests with lessons that involved talking, and placed in situations that called for dialogue such as think-pair-share situations and readers' theatre performances.

Parents of the gifted females in this study thought that learning environments that encouraged positive interactions, inspired creative expression, and fostered individuality would be helpful in developing increased verbal participation.

## UTILIZING THE THEORY OF MULTIPLE INTELLIGENCE (MI)

---

Gardner (1998, 1999, 2000) developed MI as a tool to be used in assisting students to find alternative ways to learn. Presently, eight separate intelligences have been identified for educators and parents to develop in children. The intelligences include logical/mathematical, verbal/linguistic, visual/artistic, kinesthetic, interpersonal, intrapersonal, musical, and naturalist. The researcher found that the learning experience was heightened and that female verbal participation increased when the students explored lessons that combined several of the intelligences.

The greatest factor that increased gifted females' verbalizations was interpersonal lessons in which the students worked in teams to generate a product. Free from teacher pressure and class-wide focus, all students discussed their work, negotiated task assignments, and networked with peers.

A constructivist classroom in which students are allowed to solve problems that interest them, discover insights through peer interactions, and express creativity and ingenuity was seen by the majority of gifted learners as an environment conducive to increasing verbal participation by all pupils.

All educators must attempt to provide opportunities for female students to find their voices and to express themselves verbally. The males seemingly possess these skills; now is the time for the girls to develop theirs.

(Reformatted for proper inclusion in the dissertation

from the original, colorful, double-sided trifold)

## Appendix G

Data From Gender Equity in the Classroom Seminar Evaluation Sheets

Please rate the seminar by placing a check within the appropriate box and provide necessary feedback with your comments.

	Superb	Very Good	Adequate	Minimal	Poor
Seminar Content	7	2	0	0	0
Presentation of Material	8	1	0	0	0

Quotes from *Comments*

- "The subject was very interesting; it was presented in a thoughtful, intriguing manner that encouraged discussion among the groups."
- "Many different opinions on why there are gender differences were explored."
- "I really have not stopped to think about this topic. I found Mr. Walker very knowledgeable about gender equity."
- "The discussion in the groups was very informative and brought to awareness many areas that I was not informed of."

Quotes from *What did you learn as a result of participating in this seminar?*

- "Parent and teacher expectations directly affect student performance in academic and social domains."
- "It was a wonderful opportunity for good academic discussion."
- "I learned that I need to be more aware of this within my own classroom."
- "I learned how to help my two daughters who are extremely quiet by providing them with an environment that should support them. For example, make them feel comfortable enough to share their ideas."
- "Measuring success is different according to what makes an individual happy."
- "The lack of expectation and participation of girls is also applicable to the other 'minority' groups."

Quotes from *How will you use the information that you learned in this seminar?*

- "I will become more aware of making an effort to give all a chance to speak throughout the day."
- "I will remind myself when I am impatient with my children that his or her definition of success is his or her own, and not a reflection of mine."
- "I will go home and tell my children that it is important to choose a career that makes you happy and no matter what that career is, be the best you can be."
- "I will be more aware of gender equity and use particular strategies to illicit more discussion with the girls."
- "I will be more encouraging toward groups without equal representation."