

**GENDER DIFFERENCES IN EDUCATION
THE MASTER'S RESEARCH PROJECT**

by

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A Master's Research Project submitted in partial fulfillment
of the requirement for the degree
Master of Arts

OTTAWA UNIVERSITY

July, 2002

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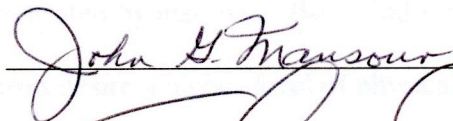
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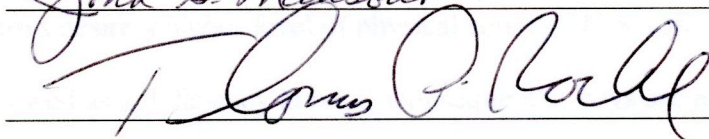
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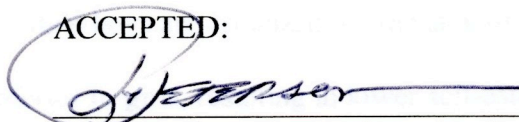
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ABSTRACT

The purpose of this proposal was to determine how it is that boys are having more academic and behavioral problems than girls in school in grades three through five, at a suburban elementary school in Arizona.

In general, the literature said that when boys were compared to girls in an educational setting, it appeared that boys were having more academic and behavior problems. Various reasons were given as to why the boys were not faring as well as the girls. The apparent lack of understanding among educators regarding gender differences in learning-styles and intelligences account for some of the reasons. Unfortunately, this lack of understanding results in a lifelong struggle for boys in school, where boys are placed in the dumb group, labeled as learning disabled, placed in special education classes, and generally made to feel academically inferior to girls.

The literature also indicates that girls start school having an advantage over the boys, in that they have better self-control. Girls can sit longer and pay attention without feeling frustrated by inactivity. Boys find it hard to sit and pay attention for long periods of time. Boys desire a higher level of physical activity. This difference between boys and girls is viewed as a deficiency in boys. Consequently, boys are more likely to be labeled as having an attention deficit disorder, attention deficit hyperactivity disorder, or emotional disorder. Girls are praised for their self-regulation, while boys are criticized for the lack of it, such that boys are made to feel behaviorally inferior to girls, resulting in lower self-esteem.

The data for this study was collected by using a descriptive survey. The survey was sent out to a suburban K-5 elementary school. The study included thirteen suburban elementary school teachers in grades three through five. A total of three hundred fifty-six students were surveyed, one hundred seventy-eight males and one hundred seventy-eight females.

DEDICATION

To my father, David Miller

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CHAPTER ONE

THE PROBLEM

Introduction

Elementary schools are made up of students who have individual behavioral and academic needs. If one were to spend time in any elementary school classroom, one would likely spot at least one of the following behavioral characteristics in the students: fidgeting or squirming, not paying attention, not working on the assignment, calling out answers, talking excessively, not taking turns, and moving about the classroom. These behaviors and other types of disruptive problems demonstrate the students' inability to use self-control. When these behavioral problems are severe enough to interfere with the student's learning, they could be labeled as having one of the following types of disorders: attention deficit disorder (ADD), attention deficit hyperactivity disorder (ADHD), behavioral disorder (BD) (Frank, 2001), or emotional and behavioral disorder (EBD) (Anderson, 2001).

Classrooms are made up of students who display varied strengths and weaknesses in learning, and who demonstrate different levels of ability. Students' process information at different rates; some quickly, some slowly. Some students excel in certain academic areas, and are tested for gifted classes. Other students may be weak in certain areas, and are tested for resource classes. When academically weak students demonstrate a discrepancy between their ability and actual achievement, there is evidence of learning disability. The term learning disabilities (LD) refers to a group of learning disorders (Tanner, 2001).

Development of the Problem

It is assumed that American boys and girls are receiving an equitable education, in that their behavioral and academic needs are being met. But at one time, according to some information, girls were being overlooked in our schools. In 1992, the American Association of University Women released its report, "How Schools Shortchange Girls." Findings supported the claim that girls were being overlooked academically. Studies suggest that girls were least likely to go into the fields of science and mathematics (Kalb, 2000). In the book, Failing at Fairness: How American Schools Cheat Girls, Myra and David Sadker state: "Female students are more likely to be invisible members of the classroom" (Weiss, 2001, p. 2). Evidence indicated teachers were spending more time interacting with boys than girls, typically, because boys demanded more attention than the girls (Weiss, 2001). Since 1992, educators have been bolstering girls' self-esteem and their academic performance, thus attempting to make schools equitable for girls.

This concentration on girls has led others to believe that boys are becoming overlooked. There is mounting evidence that support this belief. Christina Hoff Sommers (Kalb, 2000) claims that girls are flourishing and boys are now the ones in trouble. Boys are trailing girls in the classroom and are more at risk for learning disabilities and behavioral problems. A current study called, "Listening to Boy's Voices," by William Pollack (1998), a clinical psychologist at Harvard University, indicates that across America boys are in trouble. Pollack, as cited in Mulrine, 2001, states that "they earn 70 percent of the D's and F's that teachers dole out. They make up two thirds of students labeled learning disabled" (Mulrine, 2001, p.2). Also, a new report released by the Department of Education shows that boys are indeed faring worse in reading and writing

(Kalb, 2000).

Need for the Study

Studies by Kalb (2000), Pollack (1998), and Weiss (2001) are leading many to take a closer look at whether or not boys and girls are receiving a very different education. There is a growing debate among educators, researchers, and parents concerning this possible trend to overlook boys in education. Many feel that this issue, equity in education, is definitely worth investigating.

Purpose of the Study

The purpose of this proposal is to determine how it is that boys are having more academic and behavioral problems than girls in school in grades three through five, at a suburban elementary school in Arizona.

Research Question

How are boys having more academic and behavioral problems than girls in school, grades three through five in a suburban elementary school in Arizona?

Definition of Terms

1. Attention deficit disorder (ADD): a psychiatric classification used to describe individuals who exhibit poor attention and distractibility (Pierangelo, p. 282, 1994).
2. Attention deficit hyperactivity disorder (ADHD): a psychiatric classification

used to describe individuals who exhibit poor attention, distractibility, impulsivity, and hyperactivity (Pierangelo, p. 282, 1994).

3. Behavioral disorder (BD): individuals identified with having conduct problems and temperament problems due to either internal factors such as, developmental delays in the areas of social, cognition, and communication skills; or external factors which include the school and home environment (Conroy, p. 2, 2000).
4. Emotional and behavioral disorders (EBD): individuals who exhibit an inability to learn that could not be explained by intellectual, sensory, or health factors (Anderson, p. 9, 2001).
5. Learning disabled: an individual who has a learning disability due to central nervous system dysfunction (Tanner, p. 2, 2001).
6. Learning disabilities (LD): a disorder in one or more of the basic psychological processes involved in the understanding or in using spoken or written language, which manifests itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations (U.S. Office of Education, Public Law (P.L.) 101-476, the Individuals with Disabilities Education Act (IDEA), 1977)

CHAPTER TWO

THE LITERATURE REVIEW

Introduction

This chapter will present information found in articles and books concerning how boys are faring in school, academically and behaviorally, as compared to girls. Findings demonstrate to what extent boys are faring less well, in general.

The article, “Why Can’t A Man Be More Like A Women...And Vice Versa” by Kathryn Phillips was found in Omni on October, 1990. The purpose of the article was to explore research into the physiological areas of the brain that appear to indicate biological gender differences in intellect, skills, and behavior. It provided important background information about the anatomical differences in the brains of males and females. According to Phillips (1990), De Lacoste’s study on the brain revealed significant differences in the size of the brain’s corpus callosum between males and females. The bands of fibers in this section of the brain connect the brain’s hemispheres. The fibers are where the processing and relaying information occurs between the two cerebral halves. The studies findings indicate a possible anatomical basis for sexual differences in intellect, skills, and behavior. Structural brain differences between males and females were also found in the hypothalamus, the master controller for the integration of many basic behavioral patterns. Cecile Naylor (1988), a neuropsychologist at The Bowman Gray School of Medicine,

studied individuals with learning disabilities. Her findings suggest that in the language processing parts of the brain, females are recruiting areas of the brain that enable them to use more strategies than males.

The article, “Math Strategies Differ in First-Grade Boys, Girls” by Martha Carr, PhD. was found in the Brown University Child & Adolescent Behavior Letter on July, 1997. The purpose of the article was to illustrate the gender differences in strategies used by children in learning mathematics. The article was informative concerning gender differences in mathematics, but was too narrow in its scope, in that it was limited to first grade and represented only mathematics. Carr (1997) related gender differences in the way children approached problem-solving in mathematics. Girls were more likely to use overt methods, such as counting on counters or fingers to solve problems. Girls seemed more concerned about being right. Boys, however, relied on retrieval skills, drawing on memorized answers. Boys were more likely to increase their attempts to use retrieval, even if they were not successful.

The book, Real Boys by William Pollack (1998) represents two decades of work with boys, as does his recent study called “Listening to Boys’ Voices.” Pollack addresses a wide range of topics, such as: boys and their mothers, fathers, friends; boys in school, sports, and adolescence; how boys can develop more self-confidence, and emotional savvy they need to deal with issues they may have to confront—such as depression, love and sexuality, drugs and alcohol, divorce, and violence. Pollack presents insights on what boys are really like, revealing new findings about the expressive nature of boys, how they are different from girls, how they are similar to them, and what they are thinking and feeling. The findings of “Listening to Boys’ Voices” revealed the seriousness of the troubles boys are

having in school, which girls are not. Pollack (1998) states: “Boys are now twice as likely as girls to be labeled as learning disabled, they constitute up to 67 percent of our special education, and in some school systems are up to 10 times more likely to be diagnosed with a serious emotional disorder” (1998, p. xxi). Recent studies indicated that boys’ confidence as learners are being impaired. Also boys are substantially more likely to endure disciplinary problems at school than girls. According to Pollack (1998) the very structure of most coeducational schools tends, unwittingly, to favor female students

The book, The Men They Will Become, by Eli Newsberger (1999), offers important information and guidance into the nature and nurture of the male character. As one of America’s most distinguished pediatrician and expert on family development, he suggests that rather than looking for flaws and vulnerabilities, or trying to make boys into girls, that we celebrate the differences. His stories illustrate boys facing harsh challenges that forge or break character: cheating, bullying, dealing with drugs, alcohol, and competition.

Newsberger (1999) relates that the brain differences between boys and girls account for differences in reading abilities. Reading draws heavily upon both sides of the brain simultaneously. Girls, who have the better set of connecting nerves between the brain’s hemispheres, have better reading and overall verbal skills than boys. According to Newsberger (1999), “Boys manifest reading and other learning problems at three times the frequency of girls” (Newsberger, 1999, p. 44). Self-control is another area of difference between boys and girls. Newsberger (1999) finds that on the average girls, have an advantage over boys with respect to self-control. Boys are most likely to be labeled ADD/ADHD. Newsberger (1999) recommends using Howard Gardner’s theory of multiple intelligences in discerning the intellectual talents of a boy, as well as those talents not yet

developed.

The article, “What Boys Really Want”, by Claudia Kalb, was found in Newsweek on July 10, 2000. The purpose of this article was to address the sociological aspect of gender differences in children. Kalb (2000) summarizes the main points of Christina Sommer’s book, The War Against Boys: How Misguided Feminism Is Harming Our Young Men, which are: boys being ignored in our schools, being viewed as defective, and being molded into the opposite sex. Sommers (1999) study, called “The War Against Boys”, indicate that girls are flourishing in the classroom while boys are not. Boys are being overlooked and are at risk for failure. A report released by the Department of Education (2000) shows that boys are indeed faring worse in reading and writing. Also, boys are at greater risk for learning disabilities, drug abuse and crime.

The article, “NAEP 1999 Trends in Academic Progress: Three Decades of Student Performance” by Jay Campbell, Catherine Hombo, and John Mazzeo was found in the August 2000 report by the National Assessment of Educational Progress conducted at the National Center for Education Statistics. The purpose of the report was to present the results of the assessments given in reading, mathematics, and science at the end of the twentieth century; and to examine the trends in 9, 13, and 17- year-olds’ achievement in these subjects since the first administration of each assessment. The results of the long-term trend assessments are different from more recently developed assessments in the same subjects that make up NAEP’s main assessment program. The conclusion could be reached that different assessments render different results. One area of study found in this report was the long-term trend results for male and female. According to Campbell, Hombo, and Mazzeo (2000), the research findings indicated, “in 1999, female students had higher average reading scores

than male students in each age group. Among 9-year-olds, the gap between males and females narrowed between 1971 and 1999” (p.6). And “the apparent differences between male and female students’ average mathematics score was not significant at any age” (p.7).

The article, “Applying Brain Research in the Classroom in Not a No-Brainer” by Del Stover, was found in the Educational Digest on April, 2001. The purpose of the article was to discuss the use of brain research findings to improve teaching strategies and educational resources in the United States. The article reinforces the information given on the brain research, and provides a scientific basis on how the brain prefers to learn. Stover (2001) emphasizes the importance of brain research to education. Brain research has provided educators with the knowledge that teaching strategies are more effective when they are connected to how the brain works. Brain research suggested that children learn better in an enriched environment that taps into an individual’s intrinsic interests and motivations.

The article, “Are Boys the Weaker Sex?” by Anna Mulrine, was found in U.S. News & World Report on July 30, 2001. The purpose of the article was to discuss the gender differences between boys and girls. It suggests that boys are the weaker sex because they are linked to having more academic problems in school. Mulrine (2001) has an alarming message, which is, boys are having trouble in school. The statistical data pointed to the serious problems boys are having in school, which girls are not. Pollack (1998) agrees that boys have never been in more trouble. “They earn 70 percent of the D’s and F’s that teachers dole out. They make up two-thirds of students labeled learning disabled” (Mulrine, 2001, p. 2). Societies high expectations for its boys lead people to see signs of strength in boys, where there are none; and to ignore evidence that boys are in trouble. Scientists are discovering biological differences that make boys more impulsive, more vulnerable to

benign neglect, and less efficient learners. According to Sebastian Kraemer (1999) the biological facts support the boys' vulnerabilities. The Eli Newsberger (1999) study found girls ahead of boys in almost every measure of well-being. According to Ruben Gur (1999), the brain research indicates that the emotional brain of males is more primitive than that of females. Brain researchers findings note the anatomical differences in the brain structures of a male and female. The female brain is smaller, but more finely developed, which makes it easier for them to process information. The male brain has less gray matter and more white matter, which makes it harder for boys to process information, but easier to excel at gross motor skills. Michael Gurian (2001) states: "The female brain is an easier brain to teach. It's harder for the male brain to learn" (Mulrine, 2001, p. 4). Schools are reacting by advocating delayed entrance of boys into kindergarten and single-sex classrooms.

The book, Boys and Girls Learn Differently by Michael Gurian (2001) synthesizes the current knowledge on brain-based gender differences and how it affects how boys and girls learn. Gurian (2001) presents a new way to educate our children based on brain science, neurological development, and chemical and hormonal disparities. Scientific evidence documents the many biological gender differences that influence learning. For instance, girls talk sooner, develop better vocabularies, read better, and have better fine motor skills. Boys, on the other hand, have better auditory memory, are better at three-dimensional reasoning, are more prone to explore, and achieve greater abstract design ability after puberty. According to the federal Department of Education, girls are approximately one and half years ahead of boys in reading and writing competency. According to Gurian (2001) females are less likely to experience learning, psychiatric, or behavioral disorders.

Gurian (2001) states: “ Boys make up two-thirds of the learning disabled and ninety percent of the behaviorally disabled. They number nearly 100 percent of the most seriously disabled” (Gurian, 2001, p. 56), and make up ninety percent of the discipline problems in school. Gurian (2001) concludes that the educational system and individual classrooms are not as well designed for the male brain development as for the female. According to Gurian (2001) the differences between how boys and girls learn may be the key to advancing true educational reform. Gurian (2001) has developed guidelines for creating the ultimate classroom, which utilizes Howard Gardner’s theory of multiple intelligences.

Summary

Information concerning how boys are faring in school, academically and behaviorally, as compared to girls, seems to suggest that boys are having more problems in both of these areas. Boys are expected to do too much too soon, and their brains just aren’t ready for it. Brain research supports the biological differences between the male and female brains, which give females an advantage in reading and verbal skills. Lack of understanding about brain research could result in a lifelong struggle for boys in school, where boys are placed in the dumb group, labeled as learning disabled, placed in special education classes, and generally made to feel academically inferior to girls.

Girls start school having an advantage over the boys, in that they have better self-control. Girls can sit longer and pay attention without feeling frustrated by inactivity. Boys find it hard to sit and pay attention for long periods of time. Boys desire a higher level of physical activity. This difference between boys and girls is viewed as a deficiency in boys. Consequently, boys are more likely to be labeled as having an attention deficit disorder,

attention deficit hyperactivity disorder, or emotional disorder. Girls are praised for their self-regulation, while boys are criticized for the lack of it, such that boys are made to feel behaviorally inferior to girls, resulting in lower self-esteem. For true equality in education to occur, teachers need to know more about how the brain in general learns, and how boys' and girls' brains learn differently.

CHAPTER THREE

METHODOLOGY

Introduction

The purpose of this proposal is to determine how it is that boys are having more academic and behavioral problems than girls in school in grades three through five, in a suburban elementary school in Arizona.

Research Design

The research design for this proposal was descriptive. According to Merriam and Simpson (2000), descriptive research is “a method used to describe systematically the facts and characteristics of a given population or area of interest” (p. 226). “Its purpose is to systematically describe the facts and characteristics of a given phenomenon, population, or area of interest” (p. 61). The descriptive data obtained may be a collection of facts describing a phenomena; the identification of problems or justification of conditions; evaluation of project or product; and group comparisons of attitudes and beliefs to assist in future planning. The most common technique used for gathering data is the survey. A survey, as define by Merriam and Simpson (2000), is “a broad category of techniques that use questioning as a strategy to elicit information” (p. 229).

A Likert-style survey was administrated to approximately thirteen suburban school teachers who teach in grades three through five at a K-5 elementary school. The

survey notes their perception concerning behaviors that may affect academic learning in both boys and girls. The responses ranged from strongly agree to strongly disagree.

Population

This study included the thirteen suburban elementary school teachers in grades three through five. Of the thirteen teachers, twelve are females and one is male. The teachers who participated in the survey ranged from one to twenty-seven years of teaching experience. The average years of teaching experience was seven years. Each teacher assessed the average class size of twenty-seven students. One hundred sixteen third graders were surveyed, fifty-five males and sixty-one females. One hundred thirty-one fourth graders were surveyed, seventy-three males and fifty-eight females. One hundred nine fifth graders were surveyed, fifty males and fifty-nine females. The total count was three hundred fifty-six students, one hundred seventy-eight males and one hundred seventy-eight females. Twenty-four students were diagnosed with having a learning disability, eighteen males and six females. The students ranged in age from eight and twelve years. The survey was conducted in order to determine the academic and behavioral problems boys and girls are having in school.

Assumptions and Limitations

It is assumed that: (1) all responses on surveys will be honest; (2) all questions on survey are equally understood; and (3) the research gathered will be objective and valid. The limitations of the study are: (1) surveys will be sent to third through fifth grade teachers only; (2) only one school district will be involved in the collection of data; and (3)

only one elementary school will be involved in the collection of data.

Instrumentation

The method to collect the data was a survey. The survey was composed of nineteen Likert-scale statements, with five response categories – strongly agree, agree, disagree, strongly disagree, and not applicable. The five response categories were given a numerical value. A strongly agree response is valued at four points, an agree response is valued at three points, a response of disagree is valued at two point, a response of strongly disagree is valued at one point, and a not applicable response is valued at zero. The survey items were scored by adding the corresponding numerical value by each response.

The survey consisted of nineteen statements. Nine statements will dealt with academic achievement, addressing such topics as: learning abilities, abilities in subject matter content, academic interventions or accommodations for special needs. The additional ten statements dealt with behavioral problems/disorders that involve lack of self-control in school conduct. Specific behavioral disorders such as: attention deficit disorder, attention deficit hyper-activity disorder, and behavioral and emotional disorders were addressed. The boys and girls were assessed in order to evaluate the strength of each of the responses on the survey. The results were designed to determine if there are learning differences between boys and girls in two major categories – academic problems and behavioral problems.

Procedure

In order to collect the data, the survey were given to thirteen third, fourth, and fifth grade faculty members at a suburban elementary school on Thursday, the fourth of April,

2002. A letter accompanied the survey to explain the importance of gathering this data. Instructions were supplied on how to fill out the survey and a date was given on when to return the survey to the sender. The results of the data were tallied in each of the five response categories using on the Likert-style survey, and a comprehensive comparison between the boys and girls assessed.

Methods of Analysis

The data gathered by the survey makes a comparison between the similarities and differences in the five response categories- - strongly agree, agree, disagree, strongly disagree, and not applicable. The total number of responses for each of the five categories are listed. The results will be divided under two headings, academic problem and behavioral problems/disorders. Block graphs were produced indicating responses for each of the nine academic items and the ten behavioral items, demonstrating a comparison between boys and girls. An analysis was made to determine the correlation of data between boys and girls.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF THE DATA

Demographics

A descriptive survey was sent out to a suburban K-5 elementary school. The study included thirteen suburban elementary school teachers in grades three through five. Of the thirteen teachers, twelve are females and one is male. The teachers who participated in the survey range from one to twenty-seven years of teaching experience. The average years of teaching experience was seven years. Each teacher assessed the average class size of twenty-seven students. A total of three hundred fifty-six students were surveyed, one hundred seventy-eight males and one hundred seventy-eight females. Twenty-four students were diagnosed with having a learning disability, eighteen males and six females. The students ranged in age from eight and twelve years. The Likert-style survey was conducted in order to determine the academic and behavioral problems boys and girls are having in school.

The survey was composed of nineteen Likert-scale statements with five response categories – strongly agree, agree, disagree, strongly disagree, and not applicable. The five response categories were given a numerical value. A strongly agree response was valued at four points, an agree response was valued at three points, a response of disagree was valued at two point, a response of strongly disagree was valued at one point, and a not applicable response was valued at zero. The survey items were scored by adding the corresponding

numerical value by each response.

The survey consisted of nineteen statements. Nine statements dealt with academic achievement addressing such topics as: learning abilities, abilities in subject matter content, academic interventions or accommodations for special needs. The additional ten statements dealt with behavioral problems/disorders that involve lack of self-control in school situations. Specific behavioral disorders such as: attention deficit disorder, attention deficit hyperactivity disorder, and behavioral and emotional disorders were addressed. The boys and girls were assessed in order to evaluate the strength of each of the responses on the survey. The results was designed to determine if there are learning differences between boys and girls in two major categories – academic problems and behavioral problems.

Findings and Results

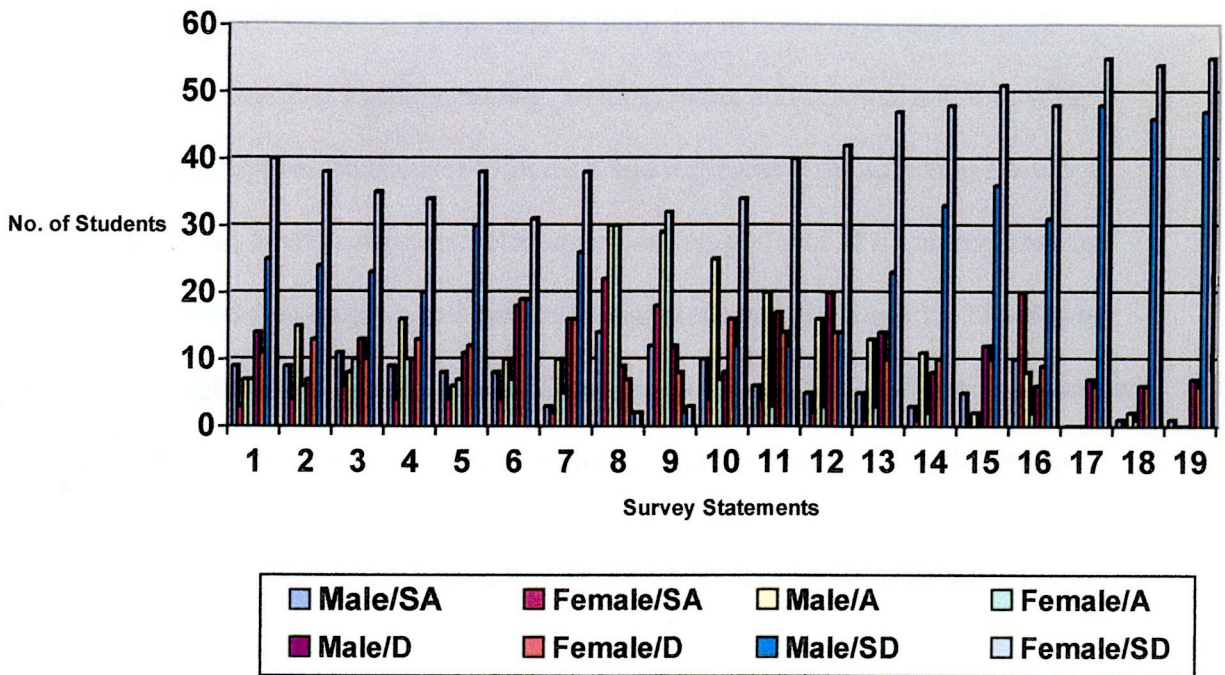
Findings and results are presented in narrative form preceding each table in the following sections. Table 1 through Table 3 present data gathered from teachers, in grades three, four, and five, regarding academic and behavioral concerns. The information delineates the actual number of students corresponding to each of the nineteen statements on the survey.

Table 4 presents a composite of Tables 1, 2, and 3.

Table 5 and 6 present composites of teachers' responses to the nineteen survey statements, according to numerical values assigned to each response, using a Likert-style response format. A strongly agree response was valued at four points, an agree response was valued at three points, a response of disagree was valued at two point, a response of strongly disagree was valued at one point, and a not applicable was valued at zero.

Table 1 (p. 20) represents responses from third grade teachers concerning one hundred sixteen students (55 males and 61 females), as the students related to nineteen learning and behavioral concerns. Responses to items 1-7 indicate boys as having the greatest difficulty regarding learning reading, writing, math, and science, and following written and oral directions. Responses to items 8 and 9 present boys as having a lower confidence level and lower self-esteem. Responses to items 10 and 11 show boys having more difficulty displaying positive self-directed skills. Responses to items 12-14 indicate boys as having higher disruptive behaviors. Responses to items 15-19 indicate boys have a higher diagnosis of behavioral disorders. The absence of bars on the table indicates no (zero) response.

**Table 1: 3rd Grade Teacher Responses
Re: Academic and Behavior Skills**

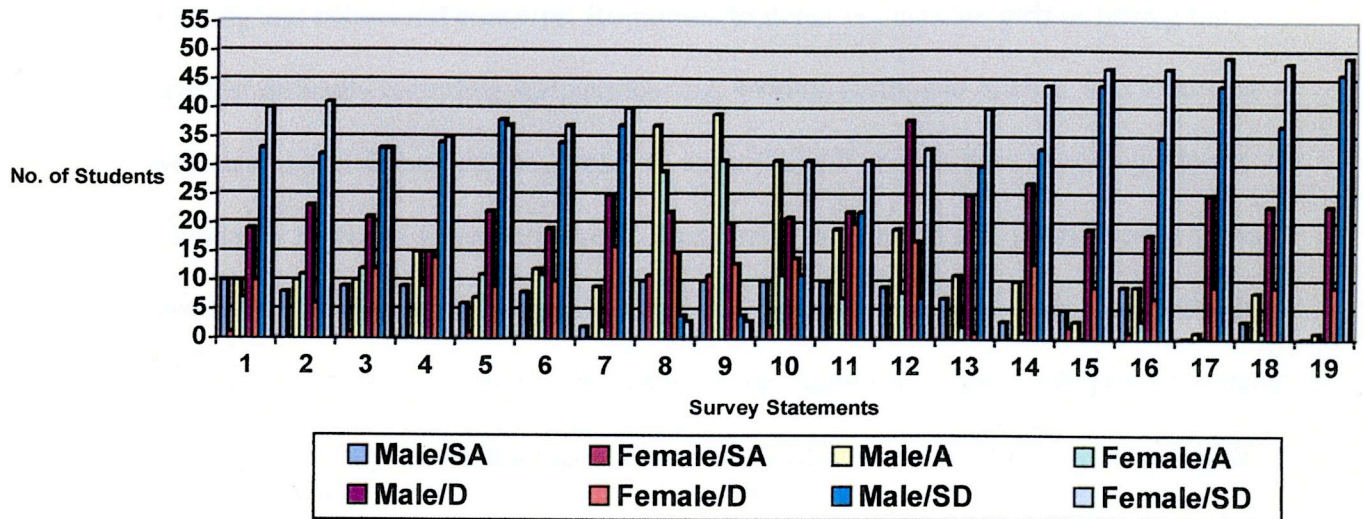


Statements:

1. Student exhibits characteristics for having a learning disability.
2. Student requires accommodations/interventions in learning.
3. Student has learning difficulties in the area of reading.
4. Student has learning difficulties in the area of writing.
5. Student has learning difficulties in the area of mathematics/science.
6. Student has difficulties following written directions.
7. Student has difficulties following oral directions.
8. Student has a good to excellent confident level in his/her ability to perform educational tasks.
9. Student has a good to excellent self-esteem.
10. Student displays off-task behaviors.
11. Student displays little or no self-control.
12. Student displays disruptive behaviors in the classroom.
13. Student displays disruptive behaviors outside of the classroom.
14. Student requires an alternative behavior management system.
15. Student has been diagnosed with ADD/ADHD.
16. Student displays characteristics of ADD/ADHD.
17. Student has been diagnosed with a BD.
18. Student displays characteristics of BD.
19. Student has been diagnosed with an EBD or displays characteristics of EBD.

Table 2 (p. 22) represents responses from fourth grade teachers concerning one hundred thirty-one students (73 males and 58 females), as the students related to nineteen learning and behavioral concerns. Responses to items 1-7 indicate boys as having the greatest difficulty regarding learning reading, writing, math, and science, and following written and oral directions. Responses to items 8 and 9 present boys as having a lower confidence level and lower self-esteem. Responses to items 10 and 11 show boys having more difficulty displaying positive self-directed skills. Responses to items 12-14 indicate boys as having higher disruptive behaviors. Responses to items 15-19 indicate boys have a higher diagnosis of behavioral disorders. The absence of bars on the table indicates no (zero) response.

**Table 2: 4th Grade Teacher Responses
Re: Academic and Behavior Skills**

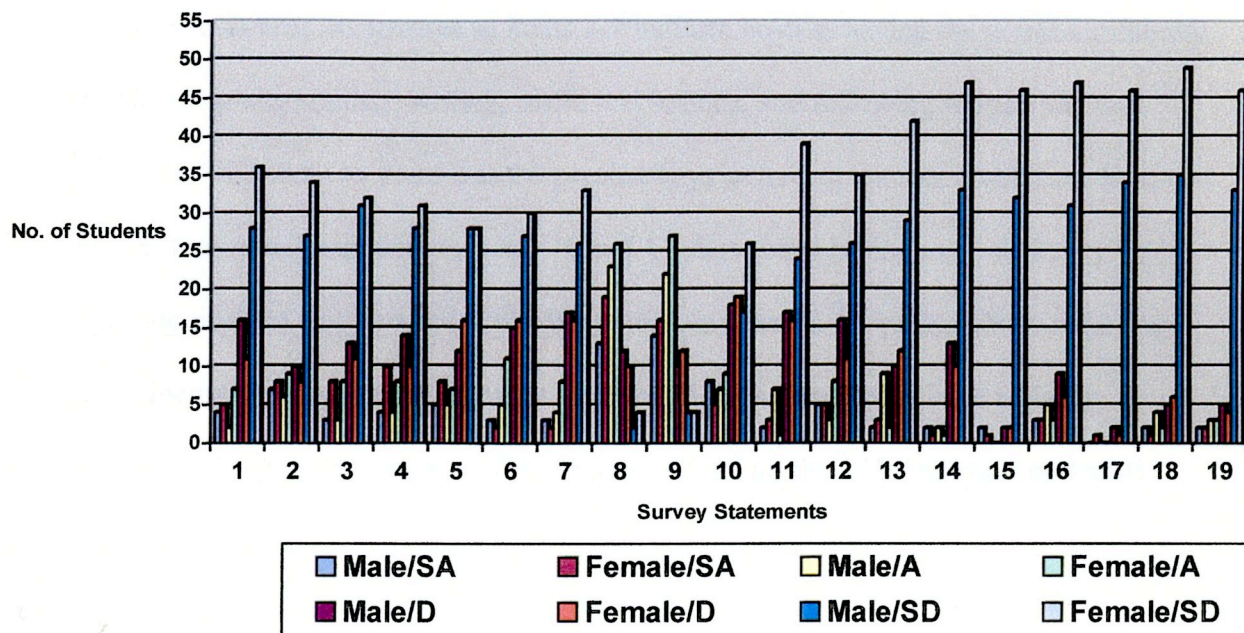


Statements:

1. Student exhibits characteristics for having a learning disability.
2. Student requires accommodations/interventions in learning.
3. Student has learning difficulties in the area of reading.
4. Student has learning difficulties in the area of writing.
5. Student has learning difficulties in the area of mathematics/science.
6. Student has difficulties following written directions.
7. Student has difficulties following oral directions.
8. Student has a good to excellent confident level in his/her ability to perform educational tasks.
9. Student has a good to excellent self-esteem.
10. Student displays off-task behaviors.
11. Student displays little or no self-control.
12. Student displays disruptive behaviors in the classroom.
13. Student displays disruptive behaviors outside of the classroom.
14. Student requires an alternative behavior management system.
15. Student has been diagnosed with ADD/ADHD.
16. Student displays characteristics of ADD/ADHD.
17. Student has been diagnosed with a BD.
18. Student displays characteristics of BD.
19. Student has been diagnosed with an EBD or displays characteristics of EBD.

Table 3 (p. 24) represents responses from fifth grade teachers concerning one hundred nine students (50 males and 59 females), as the students related to nineteen learning and behavioral concerns. Responses to items 1-7 indicate girls as having the greatest difficulty regarding learning reading, writing, math, and science, and following written and oral directions. Responses to items 8 and 9 present boys as having a lower confidence level and lower self-esteem. Responses to items 10 and 11 show boys having more difficulty displaying positive self-directed skills. Responses to item 12 indicate that girls displayed greater disruptive behaviors in the classroom, while the responses to items 13-14 indicate boys as having higher disruptive behaviors outside the classroom which required an alternative management system. Responses to items 15 and 16 indicate boys have a higher diagnosis of ADD/ADHD disorders. Responses to item 17 indicate a girl has been diagnosed with BD, however responses to item 18 indicate that more boys display characteristics of BD. Responses to item 19 indicate that the same number of girls and boys display characteristics of EBD. The absence of bars on the table indicates no (zero) response.

Table 3: 5th Grade Teacher Responses Re: Academic and Behavior Skills

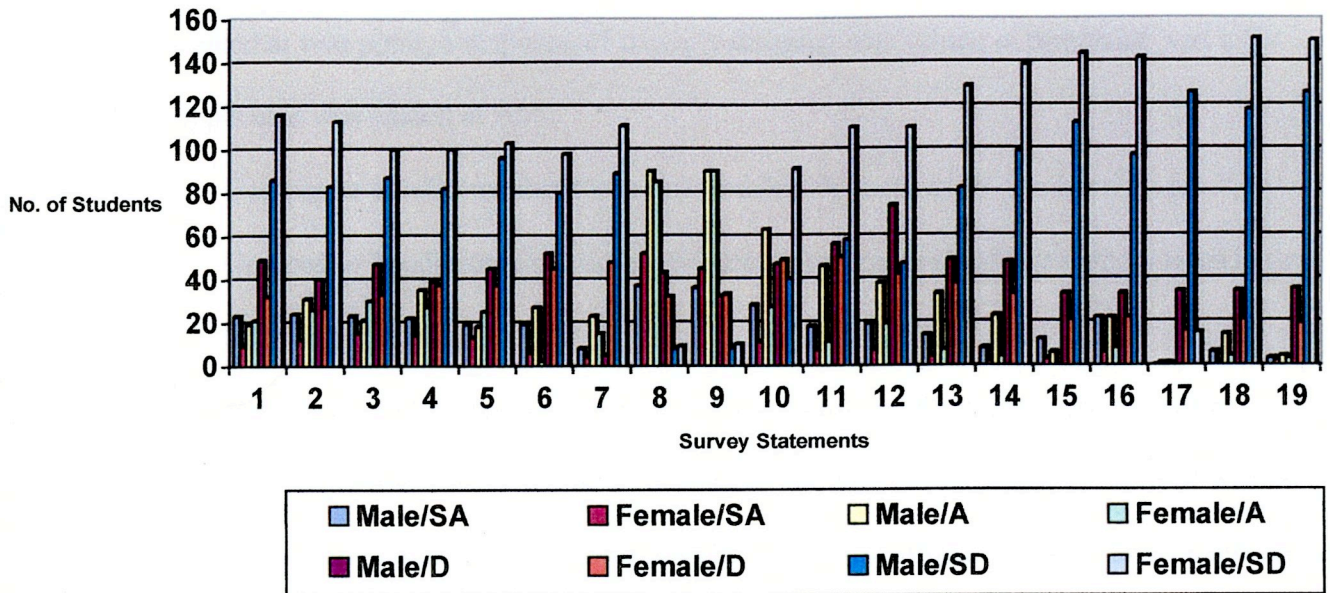


Statements:

1. Student exhibits characteristics for having a learning disability.
2. Student requires accommodations/interventions in learning.
3. Student has learning difficulties in the area of reading.
4. Student has learning difficulties in the area of writing.
5. Student has learning difficulties in the area of mathematics/science.
6. Student has difficulties following written directions.
7. Student has difficulties following oral directions.
8. Student has a good to excellent confident level in his/her ability to perform educational tasks.
9. Student has a good to excellent self-esteem.
10. Student displays off-task behaviors.
11. Student displays little or no self-control.
12. Student displays disruptive behaviors in the classroom.
13. Student displays disruptive behaviors outside of the classroom.
14. Student requires an alternative behavior management system.
15. Student has been diagnosed with ADD/ADHD.
16. Student displays characteristics of ADD/ADHD.
17. Student has been diagnosed with a BD.
18. Student displays characteristics of BD.
19. Student has been diagnosed with an EBD or displays characteristics of EBD.

Table 4 (p. 26) presents a composite of tables 1, 2, and 3. The table represents responses from third, fourth, and fifth grade teachers concerning three hundred fifty-six students (178 males and 178 females), as the students related to nineteen learning and behavioral concerns. Responses to items 1-7 indicate boys as having the greatest difficulty regarding learning reading, writing, math, and science, and following written and oral directions. Responses to items 8 and 9 present boys as having a lower confidence level and lower self-esteem. Responses to items 10 and 11 show boys having more difficulty displaying positive self-directed skills. Responses to items 12-14 indicate boys as having higher disruptive behaviors. Responses to items 15-19 indicate boys have a higher diagnosis of behavioral disorders. The absence of bars on the table indicates no (zero) response.

**Table 4: 3rd-5th Grade Teacher Responses
Re: Academic and Behavior Skills**



Statements:

1. Student exhibits characteristics for having a learning disability.
2. Student requires accommodations/interventions in learning.
3. Student has learning difficulties in the area of reading.
4. Student has learning difficulties in the area of writing.
5. Student has learning difficulties in the area of mathematics/science.
6. Student has difficulties following written directions.
7. Student has difficulties following oral directions.
8. Student has a good to excellent confident level in his/her ability to perform educational tasks.
9. Student has a good to excellent self-esteem.
10. Student displays off-task behaviors.
11. Student displays little or no self-control.
12. Student displays disruptive behaviors in the classroom.
13. Student displays disruptive behaviors outside of the classroom.
14. Student requires an alternative behavior management system.
15. Student has been diagnosed with ADD/ADHD.
16. Student displays characteristics of ADD/ADHD.
17. Student has been diagnosed with a BD.
18. Student displays characteristics of BD.
19. Student has been diagnosed with an EBD or displays characteristics of EBD.

Table 5 (p. 28) presents a composite of survey responses 1-9 according to numerical values assigned using a Likert-style response format. A strongly agree response was valued at four points, an agree response was valued at three points, a response of disagree was valued at two point, a response of strongly disagree was valued at one point, and a not applicable was valued at zero.

Composite 1 indicates that more boys exhibit characteristics of a learning disability.

Composite 2 indicates that more boys need interventions and accommodations in the learning process.

Composite 3 indicates that more boys have learning difficulties in the area of reading.

Composite 4 indicates that more boys have learning difficulties in the area of writing.

Composite 5 indicates that more boys have learning difficulties in the areas math/science.

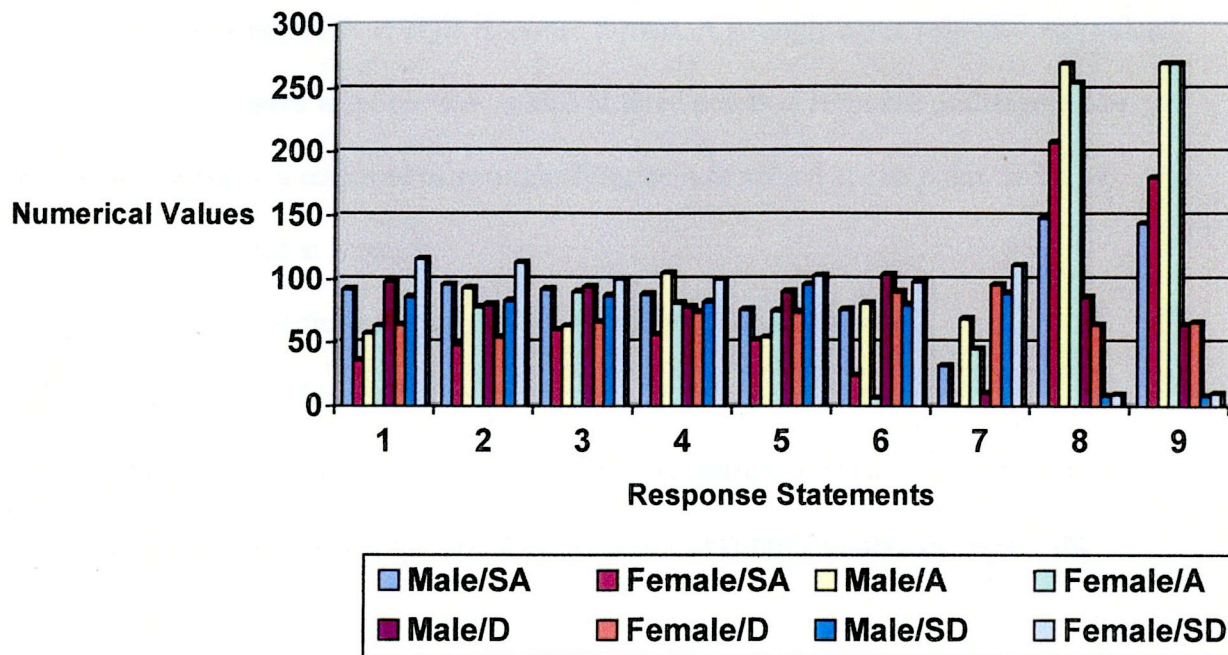
Composite 6 indicates that more boys have difficulties following written directions.

Composite 7 indicates that more boys have difficulties following oral directions.

Composite 8 indicates that boys have a lower confidence level in their ability to perform.

Composite 9 indicates that boys have a lower self-esteem level.

Table 5: Academic Problems in Grades 3-5



Statements:

1. Student exhibits characteristics for having a learning disability.
2. Student requires accommodations/interventions in learning.
3. Student has learning difficulties in the area of reading.
4. Student has learning difficulties in the area of writing.
5. Student has learning difficulties in the area of mathematics/science.
6. Student has difficulties following written directions.
7. Student has difficulties following oral directions.
8. Student has a good to excellent confident level in his/her ability to perform educational tasks.
9. Student has a good to excellent self-esteem.

Table 6 (p. 30) presents a composite of survey responses 10-19 according to numerical values assigned using a Likert-style response format. A strongly agree response was valued at four points, an agree response was valued at three points, a response of disagree was valued at two point, a response of strongly disagree was valued at one point, and a not applicable was valued at zero.

Composite 10 indicates that more boys display off task behaviors.

Composite 11 indicates that more boys exhibit little or no self-control.

Composite 12 indicates that more boys display disruptive behaviors in the classroom.

Composite 13 indicates that more boys display disruptive behaviors outside the classroom.

Composite 14 indicates that more boys require an alternative management system

Composite 15 indicates that more boys are diagnosed with ADD/ADHA.

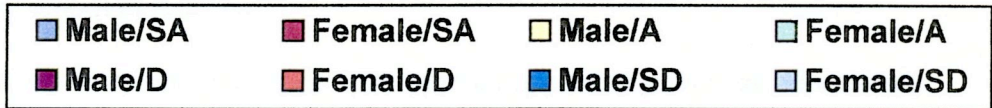
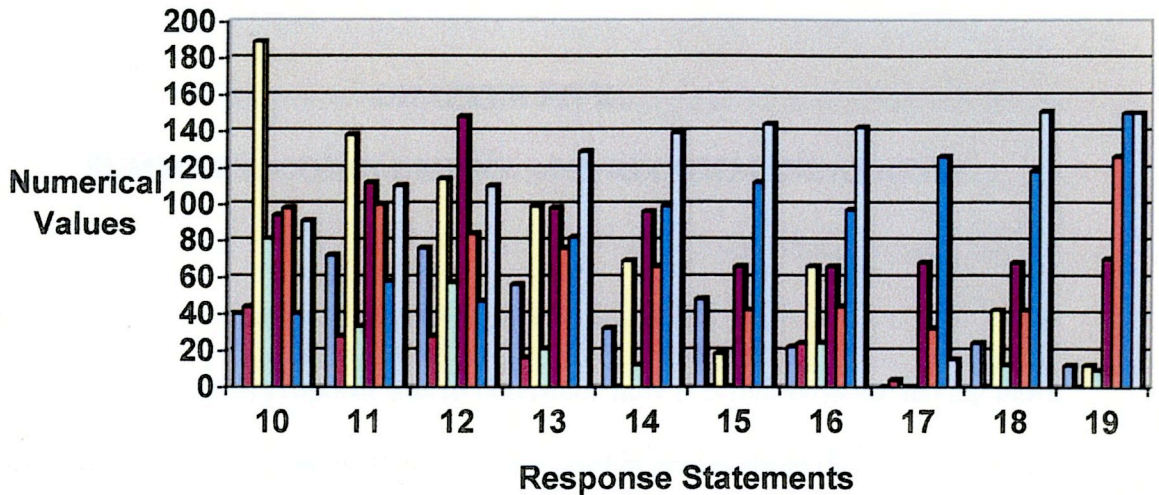
Composite 16 indicates that more boys display characteristics of ADD/ADHD.

Composite 17 indicates that a girl was diagnosed with BD.

Composite 18 indicates that more boys display characteristics associated with BD.

Composite 19 indicates that more boys were diagnosed or exhibited characteristics of BD.

Table 6: Behavior Problems in Grades 3-5



Statements:

10. Student displays off-task behaviors.
11. Student displays little or no self-control.
12. Student displays disruptive behaviors in the classroom.
13. Student displays disruptive behaviors outside of the classroom.
14. Student requires an alternative behavior management system.
15. Student has been diagnosed with ADD/ADHD.
16. Student displays characteristics of ADD/ADHD.
17. Student has been diagnosed with a BD.
18. Student displays characteristics of BD.
19. Student has been diagnosed with an EBD or displays characteristics of EBD.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this proposal was to determine how it is that boys are having more academic and behavioral problems than girls in school in grades three through five, at a suburban elementary school in Arizona.

In general, the literature said that when boys were compared to girls in an educational setting, it appeared that boys were having more academic and behavior problems. Various reasons were given as to why the boys were not faring as well as the girls. The apparent lack of understanding among educators regarding gender differences in learning-styles and intelligences account for some of the reasons. Unfortunately, this lack of understanding results in a lifelong struggle for boys in school, where boys are placed in the dumb group, labeled as learning disabled, placed in special education classes, and generally made to feel academically inferior to girls.

The literature also indicates that girls start school having an advantage over the boys, in that they have better self-control. Girls can sit longer and pay attention without feeling frustrated by inactivity. Boys find it hard to sit and pay attention for long periods of time. Boys desire a higher level of physical activity. This difference between boys and girls is viewed as a deficiency in boys. Consequently, boys are more likely to be labeled as having an attention deficit disorder, attention deficit hyperactivity disorder, or emotional disorder.

Girls are praised for their self-regulation, while boys are criticized for the lack of it, such that boys are made to feel behaviorally inferior to girls, resulting in lower self-esteem.

The data for this study was collected by using a descriptive survey. The survey was sent out to a suburban K-5 elementary school. The study included thirteen suburban elementary school teachers in grades three through five. A total of three hundred fifty-six students were surveyed, one hundred seventy-eight males and one hundred seventy-eight females. The survey consisted of nine academic items and ten behavioral items.

Data presented in table form indicate six summaries of composite tables 5 and 6 only. The data made a comparison between the boys and girls under two headings, academic problems and behavioral problems/disorders. An analysis was made to determine the correlation of data between boys and girls in these areas.

Conclusions

Data supports the literature that the school environment is not sufficiently hospitable for boys. Data supports the literature that boys are not academically faring as well as girls in school. In grades three and four, boys exhibited more difficulty in the learning skills areas and in following verbal or written directions. However, in grade five, girls exhibited more difficulty in these areas. In grades three, four, and five, boys had a lower self-image. Generally, in the area of academic learning, boys are more at-risk for failure.

Data supports the literature that boys exhibit more behavioral problems in school than girls. In grades three, four, and five, boys display more difficulty in the area of having the skills needed to be self-directed. Generally, boys displayed more indicators of being disruptive in grades three, four, and five. However, fifth grade girls were found to be more

disruptive inside the classroom. Generally in grades three, four, and five, boys were most likely to be diagnosed with a behavioral problem or disorder. Although a fifth grade girl was diagnosed with a behavioral disorder, and the same number of fifth grade boys and girls showed characteristics of having emotional and behavioral disorders.

Recommendations

Based on this study, universities should consider providing teacher training in male-brain development and male learning pace. Teachers should consider seeking increased training and understanding for handling the specific challenges of teaching and supervising boys, in order to better meet their academic and behavioral needs. Teachers should be made aware of brain-based research, which documents the learning-style differences between boys and girls. Some of the learning-style differences are: boys tend use deductive reasoning, girls tend to use inductive reasoning; boys tend to reason abstractly, while girls tend to use concrete reasoning; boys often work silently, while girls verbalize during the learning process; boys don't listen as well as girls; boys get bored more easily than girls; boys tend to use more physical space when they learn than girls do; boys move around while learning, while girls don't. Knowing these specific learning-style differences, could be beneficial for teachers to help implement changes in teaching approaches, so that boys would be more successful in an educational setting.

Schools should consider developing and implementing approaches that specifically meet the needs of boys. An understanding of Howard Gardner's Multiple Intelligence Theory would increase the teachers' awareness that boys and girls differ in their strengths and weaknesses in regarding their intelligences. Gardner has identified seven kinds of

intelligences: linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, interpersonal, and intra-personal. Boys tend to be dominant in the logical mathematical, spatial, and bodily- kinesthetic intelligences. Teachers should take into account the boys' strengths among the intelligences when planning lessons and instructing.

The differences in boy-girl learning-styles and intelligences should make educators better understand the reality that boys and girls are different learners, validating that they need to be taught differently too. Educators need to design the curricula and teaching methods to be boy-friendly, as well as girl-friendly. For instance, have classroom materials that interest and motivate boys; provide lots of opportunities for hands-on learning, problem-solving, and interactive teaching; and implement cooperative learning activities into classroom practices. Teachers need to find effective ways to teach all students.

Teachers need to be empathetic toward boys who need more time to learn, and have a different learning style and intelligences from girls. By taking into account these differences, teachers can create a positive school environment for boys; thus bolstering a boys' self-esteem and reducing behavior problems. Teachers may need to schedule breaks during the day and set-aside time for boys to engage in gross motor activities, to take into account the high degree of physicality that boys exhibit. These practices can also help reduce behavior problems. Boys might benefit from mentoring programs, where the mentors can be sympathetic to boys as learners. Boys might also benefit from having more male teachers as role models for the boys. The solution to equality of opportunity in education, is not to stop focusing on girls, but to perhaps begin focusing more effectively on both boys and girls.

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APPENDIX A

SURVEY LETTER TO PARTICIPANTS

To: Survey Participants
 From: Edie Bennett
 Date: April 4, 2002
 Re: Survey Procedures

Dear Colleagues,

The attached survey is a completion of a Master's thesis project for Ottawa University. It has been approved by the superintendent for distribution. The purpose of the survey is to determine the academic and behavioral problems that boys and girls are having in school in grades third to fifth. All individual information will be kept confidential. The results of the group will be made available at the completion of the project. Your perceptions of your students will provide valuable information, which might assist us in better meeting the needs of our students.

Please follow the directions provided in the survey. In order to make the scoring of the survey convenient, please use the enclosed, complimentary highlighter to mark your responses. Complete only one survey per student in your class. Most responses are in the form of a continuum ranging from 'Strongly Agree' to 'Strongly Disagree'. Please mark the one that best answers the statements, according to your experience.

Please use the following definitions for terminology used in the survey.

Attention deficit disorder (ADD) is a psychiatric term used to classify individuals who exhibit poor attention and distractibility.

Attention deficit hyperactivity disorder (ADHD) is a psychiatric term used to classify individuals who exhibit poor attention, distractibility, impulsivity, and hyperactivity.

Behavioral disorder (BD) is a term used to describe individuals who exhibit conduct problems and temperament problems due to internal factors or external factors.

Emotional and behavioral disorders (EBD) is a term used to describe individuals who exhibit an inability to learn that could not be explained by intellectual, sensory, or health factors.

Learning disabilities (LD) is a term used to describe a disorder in which individuals may exhibit the inability to listen, think, speak, read, write, spell, or do mathematical calculations due a psychological processing problem.

Thank you for your participation. Please return the surveys to Edie Bennett in Room C103 or to her school mailbox by April 12th.

Sincerely,
 Edie Bennett

APPENDIX B

SURVEY TO ASSESS ACADEMIC AND BEHAVIORAL CHARACTERISTICS

Survey to Assess Academic and Behavioral Characteristics

Directions: Please complete and return to my school mailbox or Room C103 by April 12, 2002. Please complete one survey per student in your class. Thanks in advance for your kind support.

Highlight the grade level of student: 3rd 4th 5th

Highlight the gender of student: female male

Student has been diagnosed with a learning disability (LD). Yes No Uncertain

Please mark the one best answer in the choices below:

Coding System: **Strongly Agree (SA) = 4**
 Agree (A) = 3
 Disagree (D) = 2
 Strongly Disagree (SD) = 1
 Not Applicable (NA) = 0

| | SA | A | D | SD | NA |
|--|-----------|----------|----------|-----------|-----------|
| 1. Student exhibits characteristics for having a learning disability. | 4 | 3 | 2 | 1 | 0 |
| 2. Student requires accommodations/interventions in learning. | 4 | 3 | 2 | 1 | 0 |
| 3. Student has learning difficulties in the area of reading. | 4 | 3 | 2 | 1 | 0 |
| 4. Student has learning difficulties in the area of writing. | 4 | 3 | 2 | 1 | 0 |
| 5. Student has learning difficulties in the area of mathematics/science. | 4 | 3 | 2 | 1 | 0 |
| 6. Student has difficulties following written directions. | 4 | 3 | 2 | 1 | 0 |
| 7. Student has difficulties following oral directions. | 4 | 3 | 2 | 1 | 0 |

| | SA | A | D | SD | NA |
|--|----|---|---|----|----|
| 8. Student has a good to excellent confident level in his/her ability to perform educational tasks. | 4 | 3 | 2 | 1 | 0 |
| 9. Student has a good to excellent self-esteem. | 4 | 3 | 2 | 1 | 0 |
| 10. Student displays off-task behaviors (not listening, paying attention). | 4 | 3 | 2 | 1 | 0 |
| 11. Student displays little or no self-control (fidgeting, squirming, moving around classroom). | 4 | 3 | 2 | 1 | 0 |
| 12. Student displays disruptive behaviors the classroom (makes noises, calls out, excessively talking). | 4 | 3 | 2 | 1 | 0 |
| 13. Student displays disruptive behaviors outside the classroom (lunchroom, recess, special area classes). | 4 | 3 | 2 | 1 | 0 |
| 14. Student requires an alternative behavior management system (desk chart, stickers, monitor sheet). | 4 | 3 | 2 | 1 | 0 |
| 15. Student has been diagnosed with attention deficit disorder (ADD) or attention deficit hyperactivity disorder (ADHD). | 4 | 3 | 2 | 1 | 0 |
| 16. Student displays characteristics of ADD or ADHD. | 4 | 3 | 2 | 1 | 0 |
| 17. Student has been diagnosed with a behavioral disorder (BD). | 4 | 3 | 2 | 1 | 0 |
| 18. Student displays characteristics of BD. | 4 | 3 | 2 | 1 | 0 |
| 19. Student has been diagnosed with an emotional and behavioral disorder (EBD) or displays characteristics of EBD. | 4 | 3 | 2 | 1 | 0 |

Many thanks. You are very much appreciated. Please return completed surveys to Edie Bennett by placing them in my school mailbox or Room C103 by April 12.

12 46645 OTTAWA: THS

121 MIS 09/04/02 5005