Summer 2004

A Comparison of the Behavioral Adjustment of First-Grade Students that Attended a Full-Day Kindergarten Program and First-Grade Students that Attended a Half-Day Kindergarten Program

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A COMPARISON OF THE BEHAVIORAL ADJUSTMENT OF FIRST-GRADE STUDENTS THAT ATTENDED A FULL-DAY KINDERGARTEN PROGRAM AND FIRST-GRADE STUDENTS THAT ATTENDED A HALF-DAY KINDERGARTEN PROGRAM

by

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Submitted in partial fulfillment of

the requirements for the degree

Doctor of Education

Executive Counselor Education and Supervision Program

School of Education

Duquesne University

August, 2004

DUQUESNE UNIVERSITY
SCHOOL OF EDUCATION
Department of Counseling, Psychology and Special Education

Dissertation

Submitted in Partial Fulfillment of the Requirements

For the Degree of Doctor of Education (Ed.D.)

Executive Counselor Education and Supervision Program

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June 30, 2004

A COMPARISON OF THE BEHAVIORAL ADJUSTMENT OF FIRST GRADE STUDENTS THAT ATTENDED A FULL-DAY KINDERGARTEN PROGRAM AND FIRST GRADE STUDENTS THAT ATTENDED A HALF-DAY KINDERGARTEN PROGRAM

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Abstract

This study investigated and compared the behavioral adjustment of first-grade students that participated in a full-day kindergarten program and first-grade students that participated in a half-day kindergarten program. The researcher also examined gender interactions between the two groups. The study was conducted in two elementary schools in western Pennsylvania. Participants in the study included 10 first-grade teachers. Participants completed a total of ninety-three behavioral questionnaires. Student's *t*-tests and analysis of variance were used to analyze the data. Results of the study showed no statistically significant difference in overall behavioral adjustment, impulsive acting out behaviors, passive-aggressive behaviors, impulsive overactive behaviors, repressed behaviors, or dependent behaviors between first-grade students that attended a full-day kindergarten program and first-grade students that attended a half-day kindergarten program. First-grade boys attending a full-day kindergarten program showed more problems behaviors than girls that attended both full and half-day programs. No significant difference in gender was found in passive-aggressive, impulsive overactive, repressed, or dependent behaviors.

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ACKNOWLEDGEMENTS

Dr. Joseph Maola patiently served as my dissertation chair. Thank you for your endless supply of encouragement, support, and guidance throughout not only the dissertation process, but throughout the entire doctoral program. You always seem to know exactly the right thing to say.

Dr. Jocelyn Gregoire served as a member of my dissertation committee. Thank you for providing me with the spiritual support I needed and for helping me to edit my project.

Dr. Patrick Crawford served as a member on my dissertation committee. Thank you for helping me to collect the data needed to complete my research.

Thank you Paul for all of your love, support, and encouragement. I could not have reached my goals without your help, patience, and understanding. We did it!

Thank you Mikayla for letting me turn your room into an office and for graciously giving up your personal space.

Thank you Zachary and Brayden for all of the hugs and kisses when things weren't going smoothly.

Thank you to all of my friends and family for your encouragement and support.

DEDICATION

This dissertation is dedicated in the loving memory of my sister, Colleen, who should have been our family's first doctor and who would have been very proud of her little sister.

Chapter I

INTRODUCTION

Over the last decade, numerous national task forces, commissions, and initiatives have emphasized the importance of children's early years to ensure that they are ready for kindergarten (Diamond, Reagan, and Bandyk, 2000). Currently school district officials, community representatives, and state legislators debate the most effective way to educate Pennsylvania's youngest students. The shift from play and group adjustment-oriented settings to kindergarten classrooms characterized by direct teaching of discrete skills and specific expectations for achievement is being reinforced by recent calls for reform of public education (Elkind, 1986). Dramatic changes in what children are expected to do upon entry and in kindergarten have resulted in well-intentioned interventions that are often inequitable, ineffective, and wasteful of limited public resources (NAECS/SDE, 2001).

Vecchiotti (2001) describes the kindergarten experience as setting the stage for subsequent learning and school success, providing the foundation for future academic progress. Traditionally, a child's introduction to the public school system consisted of an "easing-in" in the form of a half-day experience designed to develop and foster cognitive, social, and physical competencies to meet the demands of a structured educational experience. Economics and change in family structure make it necessary for school administrators to accommodate parents with extended day kindergarten programs. Many schools still provide half-day kindergarten programs, however, the trend in the United States has been toward implementation of all-day kindergarten programs.

Developmentally appropriate practices are not the norm in early childhood programs. Although teachers endorse this pedagogical method, they often struggle with implementation (Dunn and Kontos, 1997). The current emphasis on children's academic preparedness continues to overshadow the importance of children's social and emotional development for school readiness (Raver and Zigler, 1997). Kindergarten programs must be related to the needs of the children enrolled in them. In spite of major sociological and technological changes, developmental rates have not accelerated (Meyer, 2001). Most kindergarten children are 5 years old, and they have the basic needs of this age group (Elkind, 1986).

The pressure for academic achievement, coupled with the mistaken idea that today's children have outgrown the need to play have led to an increased emphasis on "basic skills" in kindergarten (Meyer, 2001). In their quest to raise standardized test scores and give children a competitive advantage at ever-earlier ages, many school districts have targeted "non-essential" activities as cutting into crucial instruction time. Recess and non-academic free time are being shortened and even eliminated (Flaxman, 2001).

Some parents have misconceptions about the goals of the kindergarten program, focusing on cursory academic skills mainly because such learning is easily measured. Elkind (1996) warns that pushing children into academic areas too soon has a negative effect on learning, and refers to this practice as the "miseducation" of young children. In too many kindergartens, the core of rich creative experiences with real materials have now been replaced with abstract curriculum materials requiring pencil-and-paper responses (NAECS/SDE, 2000).

Statement of the Problem

Referral of children who have Educational and Behavioral (EBD) problems to Educational Psychology Services have increased dramatically in the past few years (Sherr, Bergenstrom, McCann, 1999). Since beginning employment as a Behavior Specialist Consultant (BSC) at a Behavioral Health Rehabilitation (BHR) agency in a rural Pennsylvania community, the researcher has observed a significant increase in Therapeutic Staff Support (TSS) services provided to kindergarten and first grade children in several school districts since the implementation of full-day kindergarten programs. Therapeutic services for kindergarten children are increasingly requested for behavioral problems such as verbal and physical aggression, defiance, opposition, angry outbursts, anxiety, impulsivity, poor attention, over activity, lack of self-confidence, low self-esteem, withdrawal from activity, and poor school achievement.

Rimm-Kauffman, Pianta, and Cox (2000) surveyed a nationwide sample of kindergarten teachers. In this study teachers reported that 16 percent of children had multiple difficulties when first entering kindergarten and 46 percent or more of their classroom children had specific problems in kindergarten. Early childhood professionals at all levels are concerned about the methods and content in the majority of kindergarten programs (Meyer, 2001). Over the past 20 years, research has demonstrated that children's emotional and social skills are linked to their early academic standing (Wentzel and Asher, 1995). Children

who have difficulty paying attention, following directions, getting along with others, and controlling negative emotions of anger and distress do less well in school (Raver, 2003).

For many children, academic achievement in their first few years of schooling appears to be built on a firm foundation of children's emotional and social skills (Ladd, Kochenderfer, and Coleman, 1997). Well-designed educational programs for young, economically disadvantaged children can clearly affect their lives for the better, both during the school years and beyond. These programs also enhance the development of other children, particularly the handicapped. Economic analyses indicate that providing such programs is an excellent investment in the future of our society (Barnett and Escobar, 1987).

Despite societal changes, kindergarten remains a place where children need a quality program in order to achieve their full potential (Meyer, 2001). A consensus is needed among the educational community and families that only those practices beneficial to young children will be permitted in order to bring an equitable, excellent, and economical public education for all of the nation's kindergarten children.

Purpose of the Study

Typically, decisions to implement all-day kindergarten programs are based on economics, convenience, and academic gain with little consideration of the emotional or behavioral effects the added demands may have on small children. As education progresses and the majority of public schools in Pennsylvania implement full-day kindergarten programs, more research is needed to ensure that the basic needs and developmental milestones of young children are being met.

The aim of this study was to determine whether or not there is a significant difference in the overall behavioral adjustment of first-grade students that attended a full-day kindergarten program and first-grade students that attended a half-day kindergarten program. This research study also compared gender differences in overall behavioral adjustment, impulsive acting behaviors, passive-aggressive behaviors, impulsive overactive behaviors, repressed behaviors, and dependent behaviors using the total score and five sub-scale scores on the Stress Response Scale.

Emotional and behavioral conclusions from this study will provide participating school districts with information that will enable them to make more multi-dimensional decisions regarding this initial school experience. Administration and teachers from the participating schools can use information from

this study when planning kindergarten programs and curricula, taking into account the behavioral needs of the students when attempting to provide a developmentally appropriate educational experience.

Significance of the Study

Collecting information about kindergarten at the school district level or local level is needed. Many national sources such as the National Center for Education Statistics (NCES) and many states generally collect information only about kindergarten enrollment. The presence and prevalence of mental health problems in young children as well as therapeutic interventions is less well understood than the same problems in adults. Long-term consequences of childhood mental health problems have been noted, yet provision of services at the age-appropriate levels is often limited (Sherr, Bergstrom, and McCann, 1999).

Research on kindergarten since the implementation of all-day programming is still in its early stages. While developmentally appropriate practices enhance children's social skills in general, additional data is needed to determine how these practices affect other facets of behavior and socialization. As the majority of public schools in Pennsylvania implement full-day kindergarten programs, more research is needed to ensure that the basic needs and developmental milestones of young children are being met.

Research Questions

1. Is there a significant difference in overall behavioral adjustment in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Total Score on the Stress Response Scale?
2. Is there a significant difference in impulsive acting out behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Impulsive (Acting Out) score on the Stress Response Scale?
3. Is there a significant difference in acting out passive-aggressive behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Passive-Aggressive sub-scale score on the Stress Response Scale?

4. Is there a significant difference in impulsive overactive behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Impulsive (Overactive) sub-scale score on the Stress Response Scale?
5. Is there a significant difference in repressed behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Repressed sub-scale score on the Stress Response Scale?
6. Is there a significant difference in dependent behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Dependent sub-scale score on the Stress Response Scale?
7. Is there a significant interaction with gender in overall behavioral adjustment in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Total Score on the Stress Response Scale?
8. Is there a significant interaction with gender in impulsive acting out behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Impulsive Acting Out sub-scale score on the Stress Response Scale?
9. Is there a significant interaction with gender in passive-aggressive behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Passive-Aggressive sub-scale score on the Stress Response Scale?
10. Is there a significant interaction with gender in impulsive overactive behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Impulsive Overactive sub-scale score on the Stress Response Scale?

11. Is there a significant interaction with gender in repressed behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Repressed sub-scale score on the Stress Response Scale?
12. Is there a significant interaction with gender in repressed behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Repressed sub-scale score on the Stress Response Scale?

Hypothesis Statements

1. There is no significant difference in overall behavioral adjustment in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Total Score on the Stress Response Scale.
2. There is no significant difference in impulsive acting out behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Impulsive Acting Out sub-scale score on the Stress Response Scale.
3. There is no significant difference in passive-aggressive behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Passive-Aggressive sub-scale score on the Stress Response Scale.
4. There is no significant difference in impulsive overactive behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Impulsive Overactive sub-scale score on the Stress Response Scale.
5. There is no significant difference in repressed behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a

half-day kindergarten program measured by the Repressed sub-scale score on the Stress Response Scale.

6. There is no significant difference in dependent behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Dependent sub-scale score on the Stress Response Scale.
7. There is no significant interaction with gender in overall behavioral adjustment in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Total Score on the Stress Response Scale.
8. There is no significant interaction with gender in impulsive acting out behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Impulsive Acting Out sub-scale score on the Stress Response Scale.
9. There is no significant interaction with gender in passive-aggressive behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Passive-Aggressive sub-scale score on the Stress Response Scale.
10. There is no significant interaction with gender in impulsive overactive behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Impulsive Overactive sub-scale score on the Stress Response Scale.
11. There is no significant interaction with gender in repressed behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Repressed sub-scale score on the Stress Response Scale.

12. There is no significant interaction with gender in repressed behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Repressed sub-scale score on the Stress Response Scale?

Definitions

Full-day Kindergarten Programs- Kindergarten programs that are 6.0 hours or more in duration.

Half-day Kindergarten Programs- Kindergarten programs that are 2.5 hours to 4.0 hours in duration.

Overall Behavioral Adjustment- the quantitative Total Score on the Stress Response Scale (SRS).

Impulsive Acting Out Behaviors- behavioral response patterns characterized as demanding, selfish, defiant, impulsive, willful, detached, headstrong, stubborn, and uncooperative. Includes behaviors such as not caring about school work, picking on other children, fighting, and inability to take criticism (Chandler, 1985).

Passive-Aggressive Behaviors- behavioral response patterns characterized by daydreaming, underachievement, procrastination, poor attitude toward school, declining school grades, detachment, stubbornness, and uncooperativeness (Chandler, 1985).

Impulsive Overactive Behaviors- behavioral response patterns characterized as easily excited, playful, talkative, mischievous, participative, and headstrong. Behaviors that are not withdrawn, passive, or shy (Chandler, 1985).

Repressed Behaviors- behavioral response patterns characterized by worrying, sensitivity, nervousness, lack of confidence, and fear of new situations (Chandler, 1985).

Dependent Behaviors- behavioral response patterns characterized by passivity, dependence, lack of participation in activities, lack of self-confidence, lack of assertiveness, and inability to take criticism (Chandler, 1985).

Chapter II

REVIEW OF THE LITERATURE

Introduction

"Kindergarten is a critical period in children's early school careers. It sets children on a path that influences their subsequent learning and school achievement. For most children, kindergarten represents the first step in a journey through the world of formal schooling. However, children entering kindergarten in the United States in the 1900's are different from those who entered kindergarten in prior decades. They come from increasingly diverse racial, ethnic, cultural, social, economic and language backgrounds. Many kindergartners now come from single-parent families, step-parent families and homes with very different social and economic backgrounds. They also differ in the level and types of early care and educational experiences that they have had prior to kindergarten" (NCES, 2000).

According to the National Center for Educational Statistics (2000) these trends present new opportunities and pose new challenges to our nation's schools. In their Statistical Analysis Report (2000) NCES authors point out that schools are expected to meet the needs of each child regardless of their background and experience. Teachers are faced with classrooms of children with increasingly diverse needs.

Early childhood education and care has become an important political and social issue in many industrialized countries. The recent surge in attention to this area has fostered several major developments, including rapid expansion of early childhood services, increased focus on the quality of those services, greater attention to the coherence and integration of early childhood programs, and higher levels of public investment in the system as a whole (Neuman and Bennett, 2001). Considering the important role kindergarten plays in the introduction of children to education, it is surprising how often kindergarten is overlooked when educational research and policy agendas are formed (Vecchiotti, 2001).

The meaning of a child entering school has been subjected by various interpretations by early childhood and elementary school teachers and administrators; national, state, and local policy makers; and families (Kagan, 1992). The transition to kindergarten presents a major change for both children and families. Discontinuity in the form of differing contexts and differing demands exist for children and

families as they leave the preschool year and enter kindergarten (Love, Loque, Trudeau, and Thayer, 1992). Some educators and clinicians embrace a naturist or maturational perspective on school readiness. From that perspective, individual children mature at different rates and children who are immature, particularly in behavioral development, are at risk for school failure (Ames, 1986).

Kindergarten serves as many children's introduction to the public education system. In kindergarten, children are expected to begin to integrate their cognitive, social, and physical competencies to meet the demands of a structured educational experience (Early, Pianta, and Cox, 1999). Kindergarten is described as setting the stage for subsequent learning and school success, since it aims to provide the foundation for future academic progress (Alexander and Entwisle, 1998).

The original purpose of kindergarten was to support children's social and emotional adjustment to group learning. Trained teachers, promoting intellectual curiosity, self-expression, and social relations through play and group activities like singing and dancing taught young children (Brosterman, 1997; Shapiro, 1983). From its origins, enhancement of children's cognitive, physical, and social development was the emphasis of kindergarten. This precept has been expanded to included support for children's cognitive development and preparation for the academic instruction to come (Bredecamp and Copple, 1997).

Historical Perspective

Kindergarten began in the 1840's in Germany with Freidrich Froebel's idea of shaping young children in a nurturing, educational, protected environment in preparation for entry into the formal education system; hence the name, "children's garden" (Vecchiotti, 2001). It was the traditional idea of learning by doing and its intention was to produce a sensitive, inquisitive child with an uninhibited curiosity and genuine respect for nature, family, and society (Hewes, 1998). Play consisted of formal, sequenced, stylized, instructional exercises such as arranging wooden blocks in designated patterns (Beatty, 1995).

Many of the earliest kindergartens in the United States served the purpose of easing acculturation of newly arrived immigrant children (Meyer, 2001). In 1856, in Watertown, Wisconsin, Margarethe Meyer Schurz opened the first German-speaking kindergarten in America following Froebel's model. In 1860,

Elizabeth Peabody opened the first English-speaking kindergarten in Boston, also following the Frobelian method (Vecchiotti, 2001).

The earliest kindergartens served mainly middle-to-upper income families, but by the 1870's charity or free kindergartens were established to serve poor and immigrant children. Many of the charity or free kindergartens followed Froebel's method while others incorporated American songs and traditions and stressed academic skills (Beatty, 1995; Shapiro, 1983). Private and charity kindergarten programs eventually formed the public school system during World War I with the aim of acculturating immigrants to the United States and teaching them English (Vecchiotti, 2001).

During World War II the United States experienced a shortage of teachers and classrooms (Vecchiotti, 2001). In order to reduce costs, kindergarten sessions were doubled and children attended morning and afternoon sessions. This enabled students to share teachers, materials, and classrooms (Beatty, 1995). Kindergarten took root as an agent for change to help enrich the lives of children from disadvantaged backgrounds, with education seen as an important tool for social reform (Roopnarine and Johnson, 1993; Seefeldt, 1994).

Although many schools systems still provide only half-day kindergarten programs, the trend in the United States has been toward the implementation of all-day kindergarten (Clark and Kirk, 2000). In the early 1980's, only about 30 percent of U.S. kindergarten children attended all-day kindergarten (Holmes and McConnell, 1990); by the early 1990's the number had risen to nearly 50 percent (Karweit, 1992). By 1993, 54 percent of U.S. kindergarten teachers were teaching in full-day kindergarten programs (Rothenburg, 1995). This trend has grown as a result of both societal changes and educational concerns (Clark and Kirk, 2000).

Benefits Full-Day Kindergarten Programs

Arguments used by full-day kindergarten advocates include: 1) all kindergarten-aged students need a safe and enriching environment for more than 2 ½ hours per day; 2) students who are delayed cognitively, physically, socially, or emotionally benefit from having more time to obtain support and to practice skills in areas of delay; 3) full-day kindergarten can help level the playing field for those students

who were not afforded quality preschool experiences; 4) teachers can individualize instruction better if they are given half as many students for twice as much time; and 5) our society needs its children to acquire important competencies early in their school careers. Many kindergarten teachers favor full-day kindergarten because they find it difficult to balance cognitive activities and affective/social activities in the short kindergarten day Housden and Kam, 1992).

In Elicker and Mathur's evaluation report (1997), teachers perceived the full-day program to be beneficial for teachers, children, and families for a number of reasons: 1) Participating in full-day eased the transition to first grade, helping children adapt to the demands of a six-hour school day. 2) Having more time available in the school day offered more flexibility and more time to do activities during free choice times. 3) Having more time made kindergarten less stressful and frustrating for children because they had time to develop interests and activities more fully. 4) Participating in the full-day schedule allowed more appropriate challenges for children at all developmental levels. For children with developmental delays or those "at-risk" for school problems, there was more time for completion of projects and more time for needed socialization with peers and teachers. For more advanced students, there was time to complete increasingly long-term projects. 5) Having full-day kindergarten assisted parents with child-care. 6) Having more time made child assessment and classroom record keeping more manageable for teachers. 7) Switching to full-day kindergarten gave teachers more time for curriculum planning, incorporating a greater number of thematic units in the school year and offering more in-depth coverage of each unit.

Full-school-day programs have been promoted as enhancing instruction and learning in kindergarten (Fromberg, 1995; Rothenberg, 1995). Research indicates that in full-day programs children spend more time engaged in self-directed, independent learning and dramatic play (Vecchiott, 2001). Science, social studies, art, music, and physical education are included more often than in half-day programs (Snyder and Hoffman, 2001). Full-day kindergarten allows teachers to more easily pace instruction according to children's individual needs, explore instructional topics in depth, develop close parent-teacher relationships, and accommodate more teacher-directed individual work with students (Evansville-Vanderburgh, 1988; Cran, Sheenan, Weichel, and Bandy-Hedden, 1992).

Research reviews indicate positive effects of full-day kindergarten programs on children's learning and achievement, especially for children from low-income families (Vecchiotti, 2001). Recent reviews conclude that full-day kindergarten is advantageous for all children, not just children from families with low incomes (Fusaro, 1997; Clark and Kirk, 2000). According to Vecchiotti (2001) participation in full-day kindergarten, as compared to half-day kindergarten, results in higher academic achievement in kindergarten, especially in reading and math, and promotes good relationships with peers and teachers. This author states that studies also indicate that children in full-day programs have higher attendance rates and more satisfied parents, as well as long term-positive effects such as fewer grade retentions and higher reading and math achievement in the early school years.

Cryan, Sheehan, Weischel, and Bandy-Hedden (1992) compared both academic and behavioral success of children enrolled in half-day versus full-day kindergarten programs. Results provided strong support for the effectiveness of the full-day kindergarten program on children's classroom behavior. According to these researchers, a clear relationship emerged between the kindergarten schedule and children's classroom behavior. Of the 14 dimensions measured using the Hahnemann Elementary School Behavior Rating Scale, nine were more positive in all-day kindergarten: originality, independent learning, involvement in classroom activities, productivity with peers, intellectual dependency, failure/anxiety, unreflectiveness, holding back or withdrawal, and approach to teacher. No dimension of children's behavior was more positive in the half-day program when compared with the all-day program.

Other researchers who have studied social and behavioral outcomes found that children in all-day kindergarten programs were engaged in more child-to-child interactions (Clark and Kirk, 2000), and that they made significantly greater progress in learning social skills (Elicker and Mathur, 1997). Researchers Hough and Bryde (1995) propose that in first grade, there were lower incidences of negative behaviors and increased incidences of positive behaviors among the children who had attended full-day kindergarten. These authors suggest that first-graders that attended full-day kindergarten exhibited more confidence when approaching tasks and had significantly higher levels of cooperative social behavior than children that attended half-day programs.

In the Martinez and Akey study (1999), first-graders that attended full-day kindergarten scored significantly higher in reading, slightly higher in math, and significantly lower in listening than their half-day counterparts on a norm-referenced achievement test. These researchers also report that first-grade children that attended full-day programs were referred less frequently for special education placement than children that attended half-day kindergarten programs.

Parent's perceptions of their children's success in kindergarten are significantly higher for parents of full-kindergarten students. Full-day parents also report a closer working relationship with their child's teacher (Martinez and Snider, 2001). Full-day kindergarten saves parents day-care problems, while providing children a comprehensive, developmentally appropriate program (Rothenburg, 1995). Parents said that children often feel more stress when they have to go from a school situation to a day-care environment where different rules and philosophies apply (Elicker and Mathis, 1997). Parents favor a full-day program, which reduces the number of transitions kindergartners experience in a typical day (Rothenburg, 1995).

According to Haufman (1997), when asked what they liked about the full-day kindergarten program, parents' responses related to the students having more time to socialize, being better prepared for first grade, and thinking it was better for the children to be in one learning environment all day. Haufman further states that parents indicated that the full day resulted in less stress and less pressure and that children were developing faster academically. This researcher reports that parents appreciated that teachers were accessible and knew their children well. They also felt more opportunity for participation in their children's education.

There were several programmatic areas parents liked. Parents thought that children had more time for learning and could go into more depth. The full-day program allowed for more variety, more specials, and more enrichment. Parents also indicated an appreciation for the "hands-on" activities that more time allowed (Martinez and Snider, 2001).

Proponents of Half-Day Kindergarten Programs

The move to full-day kindergarten has not been without its skeptics (Railsback and Brewster, 2002). It is not uncommon to hear that full-day kindergarten will only be used for additional playtime or as

a state-funded alternative to childcare (NASBE, 1999). Elkind (2000) has characterized full-day kindergarten as "a good illustration of how a social problem"- in this case, increased childcare needs- "gets misinterpreted and given an educational solution" (p.15). Others voice concern that first-grade curriculum will be inappropriately pushed down to kindergarten-aged children, or that kindergarten will become "too academic" (Cromley, 1996; Elicker and Mathur, 1997; and Pappano, 2001).

The consequence of this is that educators have raised their expectations for entering first-graders and have become increasingly willing to retain less prepared children in kindergarten (Railsback and Brewster, 2002).

Many educators still prefer half-day, every day kindergarten. They argue that a half-day program can provide a high quality educational and social experience for young children while orienting them adequately to school (Rothenberg, 1995). Specifically, half-day programs are viewed as providing continuity and systematic experience with less probability of stress than full-day programs. Proponents of the half-day approach believe that, given the 5-year-old's attention span, level of interest, and home ties, a half-day offers ample time in school and allows more time for the young child to play and interact with adults and other children in less-structured home or child care settings (Finklestein, 1983).

Some educators, such as (Elkind, 1988), Katz (1987), Zigler 1986, and representatives of the National Association for the Education of Young Children (1986) warn against too much formal, highly structured education for very young children. Cotton and Conklin (2001) posit that because kindergarten programs are conducted in schools normally serving elementary-age children, it is inevitable that schools will adopt formal academic teaching methods that early childhood specialists generally consider developmentally inappropriate for under six-year-olds. These authors suggest that research reporting positive long-term benefits of early education programs is based on the kind of high quality of staff and program implementation unlikely to be duplicated in most school districts.

Writers such as Herman (1984) and Puleo (1988) note that some educators and researchers feel that the additional hours are too fatiguing for young children and that, in any case, increasing allocated time does not necessarily enhance program quality.

The practice of scheduling kindergarten students for only half-day has been a function of economics (less expensive to schedule two groups of children for half-day each) than of early childhood educational concerns (Martinez and Snider, 2001). Critics point out that full-day programs are expensive because they require additional teaching staff and aides to maintain an acceptable child-adult ratio. Studies have found some disadvantages of full-day kindergarten programs. Some teachers and parents think more time with students equates with a more formal, academic curriculum. Such a curriculum is not age appropriate according to Martinez and Snider (2001). These authors posit that addition of the full-day kindergarten is expensive, and that brain research indicates that the best use of additional education funds may be for preschool programs. Martinez (1991) points out that a few longitudinal studies involving at-risk students show that gains made during the kindergarten year are lost by the end of the first-grade year.

Observers of trends in kindergarten scheduling argue that changing the length of the kindergarten day is not as important as making sure that all kindergarteners are provided with developmentally and individually appropriate learning environments (Karweit, 1992). Research shows that most full-day kindergarten students demonstrate somewhat higher academic and social achievement than half-day kindergarten students; however, the higher academic achievement seems to diminish somewhat over time (Martinez and Snider, 2001). Teachers think that the full-day program might not be right for all children; thus, they recommend making the full-day program voluntary (Hough and Bryde, 1995; Elicker and Mathur, 1997).

Developmentally Appropriate Practice

While the image of kindergarten has changed over the years, children's developmental needs have not changed. Meyer (2001) emphasizes the importance of educating the whole child, recognizing his or her physical, social/emotional, and intellectual growth and development. This author postulates that a change in curriculum was brought about by: 1) societal pressure, 2) misunderstandings about how children learn, 3) aggressive marketing of commercial materials largely inappropriate for kindergarten-age children, 4) a shortage of teachers specifically prepared to work with young children, and 5) the reassignment of trained teachers in areas of declined enrollment.

When children enter school their developmental status is based on previous cognitive development, literacy experiences, social development, and physical development (NCES, 2000). Children with developmental difficulties (e.g., increased activity levels, attention difficulties, articulation difficulties) may develop feelings of separateness from their peers and adults other than their parents, potentially adversely affecting their school experience (Kagan et al., 1995; Meisels et al., 1993).

As children enter kindergarten for the first time, they demonstrate a diverse range of cognitive knowledge, social skills, and approaches to learning (Snow and Burns, 1998). Social skills and positive approaches to learning are related to success in school and are important at this age (Kagan, Moore, and Bredekamp, 1995). The depth and breadth of children's knowledge and skills are related to both developmental and experiential factors and include such factors as age, gender, and cognitive and sensory limitations and characteristics of the child's home environment and preschool experience NCES (2000).

Studies following children over time suggest there may be academic benefits to developmentally appropriate programs in the long run. Children that attended programs rating high on developmental appropriateness do well academically in first-grade (Frede and Barnett, 1992). Children of low socioeconomic status attending appropriate kindergarten classrooms generally have better reading achievement scores in the first- grade than children attending inappropriate classrooms (Burts et al, 1993). The fact that differences between children in more and less appropriate classrooms are evident a year or more later suggests to this researcher that children's learning environments during these early years are very important.

Burts, Hart, Charlesworth, and Kirk (1990) discovered that children in developmentally inappropriate kindergarten classrooms exhibited significantly more stress behaviors than children in developmentally appropriate kindergarten classrooms. In another study conducted in 1993, Burts and her colleagues found no significant differences between scores of children in developmentally appropriate kindergartens and those in developmentally inappropriate kindergartens. These researchers found that the emphasis on academics in developmentally inappropriate classrooms did not result in higher test scores. Burts et al, (1990) found that children in inappropriate classrooms exhibited more total stress behaviors throughout the day and more stress behaviors during group times and workbook/worksheet activities.

Hyson, Hirsh-Pasek, and Resorla (1990) documented that children exhibit more stress in didactic environments than in child-initiated environments. This research team found that children enrolled in child-initiated programs displayed lower levels of test anxiety than children enrolled in academic programs. They discovered that classrooms characterized by child initiation appear to facilitate children's creative development. Hirsh-Pasek, Hyson, and Rescorla (1990) found that children in child-initiated classrooms scored higher on measures of creativity, or divergent thinking, than children in academically oriented classrooms.

The principle source of development in the early years is play (Vygotsky, 1976). Catron and Allen (1999) state that the optimal development of young children is made possible through play. Meyer (2001) posits that when viewed as a learning process, play becomes a vehicle for intellectual growth, and continues to be the most vital avenue of learning for kindergartners. Research indicates that academic gains from non-play approaches are not lasting (Schweinhart and Weikert, 1996).

Kindergarten Readiness

Children enter school demonstrating a vast array of knowledge and skills, some further along than others (West, Denton, and Hauskin, 2000). The kindergarten year serves multiple purposes and is geared toward the development of both cognitive and non-cognitive knowledge and skills (Seefeldt, 1990). Depending on the child, knowledge and skills develop in different areas and at different rates across the kindergarten year (NCES, 2000). A socially and emotionally healthy, school-ready child is confident and friendly, has good peer relationships, tackles and persists at challenging tasks, has good language development, can communicate well, listens to instructions, and is attentive (National Research Council and Institutes of Medicine, 2000).

The concept of readiness for school continues to hold a preeminent place in national discussions about the early school years (Diamond, Reagan, and Bandyk, 2000). Readiness is a term used to describe preparation for what comes next: readiness for kindergarten involves both the child and the instructional situation (Nurss, 1987). Developmental theories (Piaget, 1950; Vygotsky, 1978) emphasize that all children are ready to learn when the content of what is to be learned, and the way the content is taught, is appropriate for the child's developmental capabilities. Diamond, Reagan, and Bandyk (2000) propose that

learning comes from the interaction between a child's individual abilities and the environment, including the child's interactions and collaborations with adults and peers.

School readiness continues to be thought of as a characteristic of children that can be used to sort them into groups of those who are ready and those who are not ready to enter school (Graue, 1992). Kagan (1992, 1994) argued that readiness includes two constructs: readiness to learn and readiness for school. Readiness for learning emphasizes the developmental processes that form the basis for learning a particular subject matter or content. Readiness for school implies that each child must attain a specific set of skills before he or she is ready to enter kindergarten (Crnic and Lamberty, 1994).

Many children now have prior structured experience in nursery school, pre-kindergarten, or day care. In the past, when kindergarten was the child's initial school experience, its focus was in the child's social adjustment to school (Nurss, 1987). Now kindergarten is an integral part of the elementary school's curriculum and the focus has shifted from social to academic (Nurss and Hodges, 1982). The emphasis on school readiness has also led many parents and school administrators to expect that children possess basic academic skills before entering kindergarten (Vecchiotti, 2001).

It has been assumed that children will better be able to handle the academic demands of school if they are older when they enter kindergarten (Meisels, 1992). Concerned over the demanding nature of the kindergarten curriculum, many parents do delay their children's kindergarten entrance (Meyer, 2001). This practice has tended to institutionalize the more demanding and narrowly academic curriculum (Walsh, 1989). Meyer (2001) states that while 6-year-olds may be more capable of accomplishing the curricular goals, such programs try to "fit" children into the curriculum, rather than adjusting the curriculum to respond to the nature of the learner. This author proposes that younger children are more likely to fail in this scenario.

Both schools and parents sometimes delay children's entrance into kindergarten for a year, a practice called "red-shirting." This practice is based on the belief that some children need extra time to mature, and that older children adjust better to the demands of kindergarten than younger children. According to Vecchiotti (2001) research does not support these practices. Vecchiotti posits that extra time to mature or additional educational experience (retention or transitional kindergarten) does not result in an

academic boost. Carlton and Winsler (1999) found that although older children initially perform better academically, these positive outcomes are limited and fade out in the early grades. Retaining children in kindergarten can also negatively affect children's social and emotional adjustment, particularly their sense of self (Shepard and Smith, 1989).

Kindergarten Curriculum

The length of the school day is just one dimension of the kindergarten experience. The most important variables are the quality of the teaching and the appropriateness of the curriculum. According to teachers, the schedule and the curriculum can make or break the program; therefore, the entire program must fit the needs of the five-year-old child (Martinez and Snider, 2001). Current kindergarten curricula tend to focus on specific skills to be learned, accompanied by great pressures on children to succeed, instead of focusing on providing a nurturing environment (Moyer Egertson, and Isenberg, 1987).

Historically, early childhood educators have hesitated to officially address the issue of curriculum because of the great value placed on the emphasis of emergent curriculum, what successful teachers do in conjunction with and in response to children (Hirsh, 1987; Bennett, 1988). The 1980's saw numerous calls for school reform, with changes recommended in teacher education, graduation requirements, school structure, and accountability measures. As the 1990's approached school reform took on the question: what to teach (Rothman, 1989). The early childhood profession, represented by the National Association for the Education of Young Children (NAEYC) entered the educational reform debate by issuing influential position statements defining developmentally appropriate practices for young children (Bredekamp, 1987).

Along with calling for change in curriculum, major national organizations have raised concerns about the negative effects of traditional methods of evaluation, particularly standardized pencil-and-paper, multiple-choice achievement tests (NAEYC-NAECS, 1990). Curriculum decisions not only involve questions about how children learn, but also what learning is appropriate and when it is best learned (Katz, 1991). The way learning is assessed directly influences what is taught and when it is expected to be learned. Curriculum is an organized framework that delineates the content that children are to learn, the processes through which children achieve the identified curricular goals, and the context in which teaching and learning occur (NAEYC-NAECS, 1990).

Compelling evidence from developmental research has discovered that early experiences and relationships at home and at school set the stage for how a child learns self-regulation skills, as well as the ability to manage emotions, take perspective of others, and develop close relationships (National Research Council and Institutes of Medicine, 2000). Evidence also exists that children's social and emotional competence is linked to cognitive and academic competencies manifested by their ability to learn and be successful at school (Raver and Knitzer, 2002). Raver and Knitzer (2002) suggest that teaching children how to play with other children, recognize and express feelings, be friendly and talk to peers, exercise self-control, and negotiate conflict situations, may result in fewer aggressive responses, more positive friendships, inclusion with prosocial peer groups, and an increased likelihood of success in school.

Social interaction is necessary for intellectual development, but it is also necessary for children to develop social competence and self-esteem. Social interaction calls for reciprocity, mutual respect, and cooperation (Piaget, 1952; Erikson, 1963). Children's learning is a reflection of a recurring cycle that begins in awareness and moves to exploration, to inquiry, and finally to utilization (Rosegrant, 1989).

Appropriate curriculum does not violate, but rather respects children's biological needs. In appropriate programs children are not required to sit and attend to paperwork or listen to lectures for extended periods. Such activities are at odds with children's biological needs. The curriculum should provide for active physical play and periods of restful, quiet activity. Children should also feel safe, secure, and accepted (NAEYC-NAECS, 1990).

According to the National Association of Early Childhood Specialists in State Departments of Education (2000) several factors have interacted to bring about changes in curricula: 1) Research about the capabilities of young children has been misrepresented and misunderstood. 2) A popular belief has developed that children are smarter now primarily because of exposure to television and because so many go to preschool. 3) A rather large number of overzealous parents have insisted that their children be "taught" more and by expecting these children to learn to read in kindergarten. Members of the National Association of Early Childhood Specialists in State Departments of Education (2000) suggest that this parental view of kindergarten has reinforced the notion that didactic methods of teaching (many of questionable value even for older elementary children) should be accepted practice in kindergarten.

Professionals disagree about what curriculum and instructional methods should be used in kindergarten. In developing or adopting kindergarten curricula, many programs today do not use the available research knowledge of young children's development and learning (NAECS/SDE, 2000). Vecchiotti (2001) suggests that further confusing the debate is the non-existence of a common terminology to discuss classroom curricula and instruction. Researchers, early educators, parents, and policymakers use the language of the child-centered vs. didactic, intellectual skills vs. academic skills, child initiated vs. teacher-directed, and developmentally appropriate practice vs. developmentally inappropriate practice. Within this context, two original purposes of kindergarten- fostering thinking skills and building basic academic knowledge- have become sources of conflict as different kindergarten program approaches have been developed favoring one goal over the other (Vecchiotti, 2001).

Curriculum development should take into account the many sources of curriculum: child development knowledge, individual characteristics of children, the knowledge base of various disciplines, the values of our culture, parents' desires, and the knowledge children need to function competently in our society (Spodek, 1977, 1988). The task of developing curriculum is made more challenging by the fact that these different sources of curriculum are sometimes in conflict with one another. To some extent, curriculum decisions represent a negotiation process, with parent and community expectations about what is taught influenced by professional expertise about how to teach and when content is appropriate (NAEYC-NAECS, 1990).

Members of the National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE) representing all sections of the country, have observed with concern the persistence of practices which narrow the curriculum in kindergarten and primary education, constrict equal opportunity for some children, and curtail the exercise of professional responsibility of early childhood educators (Position Statement, 2000). The NAECS/SDE (2000) offered their position statement in an effort to increase public awareness about educational policies and practices affecting young children in hope that it would serve as a catalyst for change at local, state, and national levels.

The NAECS/SDE (2000) states that for the last two decades members have continued to call attention to attitudes and practices which erode children's legal rights to enter public school and participate

in a beneficial educational program. According to this national association, classroom teachers continue to report that they have little or no part in decisions that determine curriculum and instructional methodology. Instead, those decisions are made by administrators who are influenced by public demand for more stringent educational standards and the increased availability of commercial, standardized tests.

Importance of Play

Early in the 20th century, child-development specialists such as Jean Piaget and Lev Vygotsky recognized the value of play. Vygotsky believed that play leads directly to the development of a child's conceptual abilities, enabling them to master abstract thought, among other skills. Piaget maintained that infants and young children learn new concepts by discovering a process and then practicing it. (Flaxman, 2001).

Free play is a critically important factor in normal development from birth through childhood. Froebel believed that in free play children reveal their future minds (cited in Bruce, 1993). In free play children direct and invent, no one presents them with a task or a set of standards to follow. The use of materials, the environment, the rules of the game, and the roles of the participants all flow from the children's imaginations and their sense of reality (Flaxman, 2001).

Play involves not only use of materials and equipment, but also words and ideas that promote literacy and develop thinking skills (Meyer, 2001). This author surmises that, in addition to the three R's, play also promotes problem-solving, critical thinking, concept formation, and creativity skills. This is important today when children are being exposed to so much, so early (Flaxman, 2001). Meyer (2001) states that social and emotional development are also enhanced through play. "Children integrate everything they know in all domains when they play" (Almy, 2000, p. 10). Play allows children to form an understanding of the social, emotional, moral and intellectual concepts to which they are being introduced as they rapidly develop. Play helps children make sense of and internalize all the stimuli they are exposed to every day and provides emotional release from the increasing stress of modern life (Flaxman, 2001).

In a quest to raise standardized test scores and give children a competitive advantage at ever-earlier ages, many school districts have targeted "nonessential" activities as cutting into crucial instructional time. The end result being shortened and even eliminated recess and nonacademic free time

(Flaxman, 2000). Critics of the current practice of emphasizing academic work over free play are not advocating an environment that makes fewer demands on children (Meyer, 2001). Suranksy (1983) warns that "eroding the play life of early childhood has severe implications for the children we attempt to 'school' in later years (p. 29).

Behavioral/Emotional Considerations

Development involves change, and change is often stressful (Chandler, 1985). Even under normal circumstances children face considerable stress in mastering the tasks of development (Chandler, 1982). The first day of school dramatically expands the size of the elementary child's world over night. The most obvious source of stress at this age has to do with the mastery of new knowledge (Chandler, 1982). The stresses of childhood are an inevitable part of development, and they are necessary for growth (Chandler, 1985). Coddington (1972) developed a list of stressful life events of children. This inventory lists thirty-seven life events of elementary age children that are associated with some degree of negative stress. Beginning school is listed as a life event often associated with stress during childhood according to Coddington's list.

Raver and Zigler (1997) state that the current emphasis on children's academic preparedness continues to overshadow the importance of children's social and emotional development for school readiness. Research indicates that young children's emotional adjustment matters (Raver, 2003). According to this author, children who are emotionally well adjusted have a significantly greater chance of early school success, while children who experience serious emotional difficulty face grave risks of early school difficulty.

Over the past 20 years, research has demonstrated that children's emotional and social skills are linked to their early academic standing (Wentzel and Asher, 1995). Children who have difficulty paying attention, following directions, getting along with others, and controlling negative emotions of anger and distress experience less school success (Arnold et al., 1999; McClelland et al., 2000). It appears that for many children academic achievement is built on a foundation of emotional and social skills (Ladd, Kochenderfer, and Coleman, 1997).

Social skills are an important part of children's development. A primary goal of early childhood education is the socialization of children (NCES, 2000). The ability to make and keep friends and maintain relationships with peers and adults are substantial goals of early education. Experiences with peers will likely influence their attitude toward school and learning (Kagan, Moore, and Bredenkamp, 1995). Emerging research on early schooling suggests that the relationships that children form with peers and teachers are based on their ability to regulate their emotions in prosocial versus antisocial ways (Raver, 2003). Those relationships serve as a "source of provisions" that either help or hurt children's chances of doing well academically (Ladd et al., 1999, p. 1375).

Children's social skills may be conceptualized along two lines- prosocial and problem behaviors (Meece, 1997). According to this author prosocial behavior includes positive behaviors that facilitate successful social interaction. Prosocial skills in young children allow them to accept peer ideas in play and to form friendships. Children with prosocial skills may experience an easier time adjusting to the school setting (NCES, 2000).

Problem behaviors are those behaviors that tend to impede social interaction and include behaviors such as fighting and arguing. Children who exhibit problem behaviors such as aggression or antisocial behaviors normally are not liked by peers and are viewed as disruptive by teachers and adults. Psychologists find that children who act in antisocial ways are less likely to be accepted by classmates and teachers (Kupersmidt and Coie, 1990; Shores and Wehby, 1999). Children's early academic skills and emotional adjustment may be bi-directionally related, so that young children who struggle with early reading and learning difficulties may grow increasingly frustrated and more disruptive (Arnold et al., 1999; Hinshaw, 1992). Children who fight, argue or yell at others are more likely to experience peer rejection, which has been associated with academic difficulties and increased likelihood for school dropout (NCES, 2000).

Studies have emphasized the importance of exploring the nature and course of student's behavior problems and maladaptive behaviors in the preschool, kindergarten, and early school years (Al-Yagon, 2003). This author suggests that for a large number of children, factors occurring during these early years appear to set a downward developmental path that leads to school-age behavior problems, adolescent

violence, and adult psychiatric disorders. Al-Yagon (2003) postulates that recent studies have underscored the connection in preschoolers between adjustment and cognitive aspects such as learning problems, attention focusing, attention shifting, and language abilities.

There are two major components in the definition of adaptive functioning or adaptive behavior: ego resilience and ego control (Cicchetti, Rogosch, Lynch, and Holt, 1993; Easterbrook and Goldberg, 1992). These authors refer to ego resilience as a child's flexibility and persistence in tasks and situations and ego control as the child's capacity to modulate impulses and emotions. According to these definitions, adaptive behavior reflects the child's social and personal functioning. Adaptive functioning at the kindergarten age would consist of displaying flexibility and persistence in different tasks and situations as well as the capacity to regulate impulses and emotions and to express them appropriately (Al-Yagon, 2003).

There is general consensus from a large number of studies that maladaptive functioning in kindergarten falls into two categories (Achenbach, Howell, Quay, and Conners, 1991). Internalizing maladjustment includes loneliness, anxiety, shyness, and social withdrawal. Externalizing maladjustment includes hyperactivity, aggression, and antisocial disorders (Al-Yagon, 2003). Research has also examined the contribution of the child's gender as a risk factor in explaining maladaptive functioning among young children. Some researchers reported a higher level of externalizing disorders in young boys than in young girls (Crowther et al., 1981; Prior, Smart, Sanson, and Oberklaid, 1993). Others found no significant contribution of the gender characteristic. These inconsistent findings suggest the need for additional exploration of gender's role in explaining adaptive functioning among kindergartners (Al-Yagon, 2003).

Lazarus and Folkman (1984) define coping as the process of constantly changing behaviors or cognitive perceptions, or both, to control, lessen or endure external conditions, internal conditions, or both, which are viewed as stressful by the individual. The primary purpose of coping is to manage the situation causing the stress and to relieve or manage the emotional reaction to the stress (Gonzalez and Sellers, 2002).

According to Gonzalez and Sellers (2002) emotional distress can result in decreases in cognitive performance and problem solving and memory processing in testing situations can be affected by stress

levels in children. These authors suggest that pertinent literature supports a need for programs that increase the ability of all children to cope with stress. They posit that children cope inappropriately with stress by falling into negative patterns of inappropriate behaviors such as underachievement, lack of persistence, acting-out behavior, daydreaming, and frustration. The behavior a child adopts in response to stress may be viewed on a continuum from adaptive, effective coping behaviors to extreme maladaptive efforts to meet stressful demands (Chandler, 1983; 1984)

It is commonly understood that social cognition and emotion play a major role in behavior and that they influence, and are influenced by, one's environment (Izard, 2001). Environmental events such as what teachers, parents, and peers say and do, exert a powerful influence on children's feelings, thoughts, and behaviors (Bear, Manning, and Izard, 2003). These authors point out that observable antecedents and consequences often provide critical information as to the function of behavior.

Bear (1998) writes that the development of social and moral responsibility has always been an educational priority among American educators. A recent Gallup Poll showed that the general public believes that the most important purpose of public education is "to prepare people to become responsible citizens." (Rose and Gallup, 2000). Responsible behavior entails self-motivation and self-guidance, and not obedience and compliance to rules merely in response to external supervision, rewards, and punishment (Bear, Manning, and Izard, 2003).

Compelling evidence from developmental research has revealed that early experiences and relationships at home and school set the stage for how a child learns self-regulation skills, as well as the ability to manage emotions, take perspective of others, and develop close relationships (National Research Council and Institutes of Medicine, 2000). Evidence suggests that without intervention, emotional and behavioral problems in young children may be less responsive to interventions after age 8, resulting in an escalation of academic problems and antisocial behavior and eventual school drop out in later years (Johnson and Strain, 2003).

Gender Differences

Past research has well established that boys are more physically aggressive than girls (Rys and Bear, 1997). Researchers investigating children's cognitions about aggression have found that as early as second grade, boys are more likely than girls to believe that physical aggression is an acceptable behavior (Huesmann, Guerra, Zelli, and Miller, 1992). This difference was found regardless of the conditions surrounding the aggression (provoked or unprovoked) or whether or not the aggression was against other boys, other girls, or adults (Rys and Bear, 1997).

Bjorkqvist and his colleagues (Bjorkqvist, 1994; Bjorkqvist, Lagerspetz, and Kaukiainen, 1992; Bjorkqvist, Osterman, and Kaukiainen, 1992; Lagerspetz, Bjorkqvist, and Peltonen, 1988) used a cross-sectional design to investigate the use of three forms of aggression (physical, direct verbal, and indirect) among 8, 11, 15, and 18-year olds. Both a developmental trend and gender differences were found in children's aggression strategies. Physical aggression was exhibited first among both boys and girls, reflecting younger children's immature language abilities and poor impulse control. This was followed by direct verbal aggression (insults, threats, yelling, name-calling) and finally by indirect aggression. Indirect aggression was defined as social manipulation in the form of character defamation (lies, gossip), betrayal of trust (revealing a peer's secrets), social exclusion by the aggressor, and influencing others to shun the victim (Rys and Bear, 1997). In respect to gender differences, boys were more physically aggressive than girls. Direct verbal aggression increased significantly with age among both genders, but 8-year-old boys used direct verbal aggression significantly more than same-age girls.

Researchers have suggested a relationship between a child's gender and problem behaviors, but the nature of that relationship is ambiguous. Boys are usually reported to present more problem behaviors (Kazdin, 1995). Externalizing behavior problems have been found to be much more prevalent in boys than in girls (American Psychiatric Association, 1994). Campbell (1995) stated that preschool boys and girls may be similar in their presentation of problem behaviors. Kaiser et al. (2000) found boys to have more total problem behaviors and more aggressive and destructive behaviors than girls. Spieker et al (1999) found that boys exhibited higher levels of disruptive behavior than girls.

The child development literature documents that, for a variety of reasons ranging from biology to sex-typed modeling to differential parent and teacher interactions based on sex-stereotyped roles, boys are more active than girls and engage in higher rates of problem behaviors (Maccoby and Jacklin, 1978). Boys are more likely to have higher activity levels and exhibit behaviors that do not conform with classroom regimens (Wehmeyer and Schwartz, 2001). Developmental literature suggests that boys display more externalizing behaviors, including Attention Deficit/Hyperactivity Disorder symptoms than do girls (Arnold, 1996).

One of the most consistent characteristics of special education services in the past two decades has been the disproportionate number of males served. According to Wehmeyer and Schwartz (2001) the primary explanation for this has been that boys exhibit behavior patterns that are more likely to result in their referral to special education. Researchers have consistently found that boys have a more difficult time conforming to school-based expectations for behavior, independent of disability status or disability category (Maccoby and Jacklin, 1978).

Research in educational equity and child development shows that parents, teachers, and the general public treat girls quite differently than boys and have expectations based on gender (AAUW, 1992). According to a summary of current literature by the AAUW (1992) gender bias in the classroom takes many forms, some direct and some indirect, with teachers calling on boys more often than girls, encouraging more assertive behavior in boys than in girls, evaluating boys' papers for creativity and girls' for neatness, and giving boys the time and help to solve problems on their own, but 'helping' girls along by simply telling them the right answers.

At the elementary ages, girls are reinforced to be more adult-oriented than are boys, tend to seek teacher feedback, and tend to achieve more when adults are present than when they are absent (Wehmeyer and Schwartz, 2001). While male problem behaviors are often associated with aggression and activity, female-specific problem behaviors are often more internalized, leaving girls at higher risk for depression and learned helplessness (Grossman and Grossman, 1994).

Socioeconomic Considerations

Huaqing Qi and Kaiser (2003) conducted a systematic search of studies conducted between 1991 and 2002 yielding a total of 30 research reports. Findings have been consistent in indicating that children from low-income backgrounds identified as having more behavior problems in preschool years tend to have parents who are more stressed, more depressed, and harsher in their use of child discipline (Huaqing Qi and Kaiser, 2003). According to Huang Qi and Kaiser (2003) these findings have been consistent across a range of studies using different sample selection approaches and behavior assessment methods and measurements and they are consistent with data on older children and their families.

Children from low socioeconomic status (SES) backgrounds were found to have a higher incidence of behavior problems as compared to the general population. Behavior problems were associated with multiple risk factors found in these children's lives related to child, parent, and socioeconomic characteristics. Child behaviors appear to be the result of an interaction among child characteristics (e.g., language functioning, social skills, attachment status, cognitive ability, gender); parent characteristics (harsh discipline, mother's stress, depression, absent father); and socio-demographic risk factors (education, number of children, income) associated with poverty.

A large body of research exists that links multiple risk factors with childhood behavior problems (Brooks-Gunn et al., 1997). Even so, it has been difficult to determine which specific risk factors lead to the behavior problems of children with low SES environments because of the complex factors associated with this population. It has been hypothesized that particular child characteristics, parent characteristics, and socioeconomic characteristics, when occurring together, result in heightened behavior problems in low income children. Children in poverty are exposed to multiple risks, and interrelationships among these risk factors influence a child's behavioral development. (Huaqing Qi and Kaiser, 2003).

Summary

Which kindergarten is best? The best answer to this question is probably "it depends." Like most issues in education, choosing a kindergarten schedule depends on multiple factors, including the needs of the students to be served; the needs and wishes of parents, teachers, administrators, and community members; and the availability of space, teachers, funding, and other resources necessary to implementing a

program successfully (Railsback and Brewster, 2002). Spidell, Rusher, McGrevin, and Lambiotte (1992) state, “Communication among teachers, principals, policymakers, experts in childhood education, and parents is vital” (p. 294).

Taken together, the research favors developmentally appropriate practice (Dunn and Kontos, 1997). Central administrators, supervisors, and building principals who oversee kindergarten programs must be educated about the developmental needs of kindergarten children and the unique needs of the kindergarten program (Meyer, 2001). Given adequate resources and support, along with an appropriate curriculum, there are strong arguments for full-day kindergarten. Particularly for students from low-income, second language, and educationally disadvantaged backgrounds, full-day kindergarten appears to be a worthwhile investment in moving students toward greater social and academic success (Railsback and Brewster, 2002).

“Scientific literature and experience clearly demonstrate that by age eight, it is ‘to late’ to address young children’s first and most basic needs. Early childhood programming provides an entry point for meeting children’s needs and ensuring their rights to live and develop to their full potential” (Evans, 2001). All involved in the education of kindergarten children must meet the challenge of building on what is known to make the best use of resources so that no child will begin their school career without the full support required to promote their overall well-being.

Chapter III

RESEARCH METHODOLOGY

The objective of this study was to compare the behavioral adjustment of first-grade students that participated in a full-day kindergarten program and first-grade students that participated in a half-day kindergarten program. The researcher examined five behavioral adjustment response styles: impulsive acting out behaviors, passive-aggressive behaviors, impulsive overactive behaviors, repressed behaviors, and dependent behaviors. The researcher also provides a comparison of overall behavioral adjustment between the two groups. This study attempted to determine, if there were significant differences, the degree to which the differences existed.

The methodology for this study is quantitative in nature. Quantitative research is defined as research that describes phenomena in numbers and measures rather than in words. The focus of the research is premeditated and concluded from preceding research (Krathwohl, 1998).

Participants

This study was conducted in two elementary schools in western Pennsylvania. Both of the elementary schools are located in rural areas. All of the appropriate university and school district research approvals were obtained prior to conducting this study. The researcher invited all first-grade teachers from both schools to participate in the research study. Four teachers from the school district hosting a half-day kindergarten program the previous year volunteered to participate in the study. Six teachers from the school district hosting a full-day kindergarten program the previous year volunteered to participate in the study.

Sample

First-grade student enrollment in the school providing a half-day kindergarten program the previous year was 96, fifty male students and forty-six female students. The number of first-grade students in the school that provided a full day of kindergarten the previous year totaled 124, sixty-five male students and fifty-nine female students. The student sample was comprised of varying socioeconomic backgrounds. Children in Special Education classes were not included in the study.

First-grade teachers participating in the study determined each student's previous year kindergarten enrollment using the student information data-base utilized by their school. The researcher

instructed teachers to use only the students that attended a full-day program or half-day program according to which program their school provided the previous school year.

Instrumentation

This research study utilized a behavioral rating scale questionnaire as a means of gathering information. The use of a survey for this study is appropriate because the researcher is not interested in making causal inferences. The primary assumption derived from the reliance on self-report data is that survey responses reflect the realty of the respondent to the greatest extent possible. Survey researchers assume that survey responses mirror the nature of the social world under investigation at the moment of investigation (Bateson, 1984). The fundamental assumptions of survey research are notions of accuracy and honesty. To have confidence in the results, survey researchers must believe and help ensure that respondents report information correctly and truthfully, within the constraints of their memory, comprehension, and level of trust (Hutchinson and Lovell, 1999).

The Stress Response Scale is a 40-item behavior rating scale with items rated by frequency of occurrence on a six-point Likert-type scale ranging from 0= never to 5 = always. It is generally used with elementary school-aged children, i.e., those between 5 and 14 years of age. The SRS is normally completed by an adult familiar with the child's behavior, usually a teacher or parent. Items are written in such a way as to not be specific to either home or school. The scale usually takes about 10 minutes to complete (Chandler, 1993).

The SRS was developed for use in clinics, schools, and community agencies as a measure of children's emotional adjustment. The SRS is based on a model of the response styles often adopted by children. In addition to a Total Score, which may be seen as an overall measure of behavioral adjustment, the SRS yields five sub-scale scores consistent with the behavioral response styles predicted by the model: Impulsive (Acting Out), Passive-Aggressive, Impulsive (Acting Out), Repressed, and Dependent (Chandler, 1983).

A comparison of selected Stress Response Scale and DSM-III diagnostic categories illustrates a correlation between the SRS Impulsive (Acting Out) category and a DSM-III diagnosis of Conduct Disorder (Aggressive Type), the SRS Passive-Aggressive category and the DSM-III diagnosis of

Oppositional Disorder, the SRS Impulsive (Overactive) category and the DSM-III diagnosis of Attention Deficit Disorder, and the SRS Repressed category and the DSM-III diagnosis of Anxiety Disorder (Chandler, 1985). The identified diagnostic categories are the behavioral problems the researcher is contracted for most often as a Behavior Specialist Consultant for kindergarten and first-grade students.

The validity conclusions drawn from survey research in this study are dependent upon the integrity of the teacher's responses on the questionnaire. First-grade teachers were chosen to complete the questionnaires due to the researcher's assumption that first-grade teachers would be less threatened by any implications or conclusions from conducting the study than kindergarten teachers. The move to all-day kindergarten programming is recent and undoubtedly has the support of the majority of those responsible for its implementation. Consultation with kindergarten teachers as a Behavior Specialist Consultant led the researcher to believe that first-grade teachers would provide a more accurate, unbiased assessment of the students' behavior.

Concurrent validity was tested by comparing the data derived from the SRS with that derived from other instruments designed to assess children's behavior and emotional status. Hughes (1986) compared SRS scores with those from the Walker Problem Behavior Identification Checklist (WPIBC), a behavior rating scale designed to identify children with behavior problems, using a sample of 30 school children in grades K through 6 who had been referred for psychological evaluation. Results showed that the total scores on both instruments were positively related.

Johnson (1989) examined the relationship between scores derived from Koppitz' list of emotional indicators as applied to children's Human Figure Drawings (HFD), and the Stress Response Scale scores derived from teacher ratings of the children's behavior. Results pointed to a significant moderate relationship between HFD scores and the SRS Total T-Scores, and a similar relationship between HFD Scores and the SRS Acting-Out sub-scale scores. A weaker relationship, although significant, was found between HFD scores and the SRS Passive-Aggressive sub-scale score.

The discriminant validity of the SRS has been tested by a series of studies which examined the ability of scores on the scale to discriminate among various clinical groups and subgroups and their peers.

Findings have consistently shown that referred children are rated significantly higher than non-referred children, and children in the general population of school children (Chandler, 1993).

The scale's criterion-related validity was tested in terms of educational outcomes in a school setting. Robinson and Chandler (1985) conducted a study to determine whether SRS scores could be useful in predicting students that would be referred to special education programs and/or programs for children with emotional or behavioral disturbances. The results showed students with a high acting out score and low repressed and dependent scores were more likely to be specifically referred for placement. These findings suggest to the researcher that the SRS can be useful in making psycho-educational decisions.

Reliability was found to be good with children in regular education classes using teachers as raters, and a test-retest interval of two weeks. A reliability study with the current version of the scale shows good results with a similar population in a test-retest procedure using a one-month interval (Chandler, 1993).

One important psychometric property of any rating scale is inter-rater agreement. Marsh (1984) found a significant agreement level between parents and teachers. This slight positive relationship is consistent with that reported in the literature. Baseline data collected with children in regular education classes suggests that scores on the scale might best be interpreted by taking into account age and sex trends, and that ranges of risk may be established based on the total score (Chandler, 1983).

Data Collection

Behavioral rating scales were completed by the first-grade teachers in the last semester of the students first-grade year to allow classroom teachers the passage of time to provide a more accurate impression of each child's behavior over a significant period of time. The survey instrument was explained by the researcher to teachers at both elementary schools at meetings scheduled by their principal and superintendent. Confidentiality was maintained so that students and schools cannot be identified.

Four first-grade teachers representing the half-day group completed a total of 50 questionnaires. Teachers selected every other female and every other male on their class rosters and completed varying numbers questionnaires depending on the number of surveys each teacher volunteered to complete. First-grade teachers in the full-day group volunteered to complete 6 questionnaires each. The researcher

instructed the teachers to select the first, third, and seventh males and first, third, and seventh females on their class roster. Teachers that volunteered to complete more than 6 questionnaires were asked to complete surveys for every other male and female after the seventh student. Teachers from the full-day group returned 43 questionnaires.

Data Analysis

Completed questionnaires were collected from the two participating elementary schools and hand scored by the researcher using procedures outlined in the Stress Response Scale's manual. Scores were entered into a computer program and T-tests were performed to compare the total scores and five sub-scale scores from the full-day kindergarten group and the half-day kindergarten group. A T-test is a parametric test used to determine how great the difference between two means must be in order for it to be judged significant, that is, a significant departure from the differences which might be expected by chance alone (LaFountain and Bartos, 2002). The researcher used a computer program to compute Student's T-Tests to moderate the problems associated with inference based on small samples.

Analysis of variance is another hypothesis testing procedure that can be used to evaluate mean differences (Gravetter and Wallnau, 1996). ANOVA has been used in this study to determine mean differences in gender variables. A Tukey Test which is widely used and is appropriate for exploring differences in pairs of means (Lehman, 1988) was also utilized.

Chapter 4

RESULTS

This chapter will present the findings of the analysis of the data. The data consists of information obtained from 93 behavioral rating scale surveys completed by 10 first-grade teachers in two rural elementary schools in western Pennsylvania. Each hypothesis will be re-stated and the results of the data analysis for each will be presented.

Hypothesis One

There is no significant difference in overall behavioral adjustment in first grade students that have participated in a full-day kindergarten program and first grade students that have participated in a half-day kindergarten program measured by the Total Score on the Stress Response Scale.

The number of students who were in the full-day kindergarten program was 50 and the number of students who were in the half-day kindergarten program was 43. For the Total Score, the mean for the students from the full-day kindergarten program was 84.40 with a standard deviation of 29.81; the mean for the students from the half day program was 85.32 with a standard deviation of 26.17. The t-ratio was calculated to be $t = -0.158$ which is not significant at the .05 alpha level. There is no significant difference; the hypothesis is accepted (see table 1).

Table 1
Analysis of Variance for Full-Day and Half-Day Kindergarten Students on the Total Score on the Stress Response Scale

Group	N	Mean	Standard Deviation	df	t
Full-Day Kindergarten	50	84.40	29.81	91	-0.158
Half-Day Kindergarten	43	85.32	26.17		

Hypothesis Two

There is no significant difference in impulsive acting out behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Impulsive Acting Out sub-scale score on the Stress Response Scale.

The number of students who were in the full-day kindergarten program was 50 and the number of students who were in the half-day kindergarten program was 43. For the Impulsive Acting Out sub-scale score, the mean for the students from the full-day kindergarten program was 16.92 with a standard deviation of 12.04; the mean for the students from the half-day program was 17.22 with a standard deviation of 11.22. The t-ratio was calculated to be t = – 0.118 which is not significant at the .05 alpha level. There is no significant difference; the hypothesis is accepted (see table 2).

Table 2
Analysis of Variance for Full-Day and Half-Day Kindergarten Students on the Impulsive Acting Out Sub-Scale score on the Stress Response Scale

Group	N	Mean	Standard Deviation	df	t
Full-Day Kindergarten	50	16.92	12.04	91	- 0.118
Half-Day Kindergarten	43	17.22	11.22		

Hypothesis Three

There is no significant difference in passive-aggressive behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Passive-Aggressive sub-scale score on the Stress Response Scale.

The number of students who were in the full-day kindergarten program was 50 and the number of students who were in the half-day kindergarten program was 43. For the Passive Aggressive Sub-Score, the mean for the students from the full-day kindergarten program was 17.36 with a standard deviation of 13.31; the mean for the students from the half-day program was 17.91 with a standard deviation of 10.22. The t-ratio was calculated to be t = – 0.262 which is not significant at the .05 alpha level. There is no significant difference; the hypothesis is accepted (see table 3).

Table 3
Analysis of Variance for Full-Day and Half-Day Kindergarten Students on the Passive Aggressive Sub-Scale on the Stress Response Scale

Group	N	Mean	Standard Deviation	df	t
Full-Day Kindergarten	50	17.36	13.31	91	- 0.262
Half-Day Kindergarten	43	17.91	10.22		

Hypothesis Four

There is no significant difference in impulsive overactive behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Impulsive Overactive sub-scale score on the Stress Response Scale.

The number of students who were in the full-day kindergarten program was 50 and the number of students who were in the half-day kindergarten program was 43. For the Impulsive Overactive sub-scale score, the mean for the students from the full-day kindergarten program was 25.66 with a standard deviation of 6.73; the mean for the students from the half-day program was 26.29 with a standard deviation of 6.70. The t-ratio was calculated to be t = - 0.403 which is not significant at the .05 alpha level. There is no significant difference; the hypothesis is accepted (see table 4).

Table 4
Analysis of Variance for Full-Day and Half-Day Kindergarten Students on the Impulsive Overactive Sub-Scale on the Stress Response Scale

Group	N	Mean	Standard Deviation	df	t
Full-Day Kindergarten	50	25.66	6.73	91	- 0.403
Half-Day Kindergarten	43	26.29	6.70		

Hypothesis Five

There is no significant difference in repressed behaviors in first-grade students that have participated in a full-day kindergarten program and first-grade students that have participated in a half-day kindergarten program measured by the Repressed sub-scale score on the Stress Response Scale.

The number of students who were in the full-day kindergarten program was 50 and the number of students who were in the half-day kindergarten program was 43. For the Repressed Sub-Score, the mean for the students from the full-day kindergarten program was 10.01 with a standard deviation of 5.50; the mean for the students from the half-day program was 9.07 with a standard deviation of 5.09. The t-ratio was calculated to be t = 0.932 which is not significant at the .05 alpha level. There is no significant difference; the hypothesis is accepted (see table 5).

Table 5
Analysis of Variance for Full-Day and Half-Day Kindergarten Students on the Repressed Sub-Scale on the Stress Response Scale

Group	N	Mean	Standard Deviation	df	t
Full-Day Kindergarten	50	10.01	5.50	91	0.932
Half-Day Kindergarten	43	9.07	5.09		

Hypothesis Six

There is no significant difference in dependent behaviors in first grade students that have participated in a full-day kindergarten program and first grade students that have participated in a half-day kindergarten program measured by the Dependent sub-scale score on the Stress Response Scale.

The number of students who were in the full-day kindergarten program was 50 and the number of students who were in the half-day kindergarten program was 43. For the Repressed Sub-Score, the mean for the students from the full-day kindergarten program was 14.55 with a standard deviation of 3.52; the mean for the students from the half-day program was 15.01 with a standard deviation of 3.62. The t-ratio was calculated to be $t = -0.643$ which is not significant at the .05 alpha level. There is no significant difference; the hypothesis is accepted (see table 6).

Table 6
Analysis of Variance for Full-Day and Half-Day Kindergarten Students on the Repressed Sub-Scale on the Stress Response Scale

Group	N	Mean	Standard Deviation	df	t
Full-Day Kindergarten	50	14.55	3.52	91	- 0.643
Half-Day Kindergarten	43	15.01	3.62		

Hypothesis Seven

There is no significant interaction with gender for the overall behavioral adjustment in first grade students that have participated in a full-day kindergarten program and first grade students that have participated in a half-day kindergarten program measured by the Total Score on the Stress Response Scale.

For the boys who were in the full-day kindergarten, the N = 24; the Mean was 91.70 with a standard deviation of 28.11. For the boys who were in the half-day kindergarten, the N = 21; the Mean was 90.12 with a standard deviation of 20.21. For the girls who were in the full-day kindergarten, the N = 26; the Mean was 77.79 with a standard deviation of 30.34. For the girls who were in the half-day kindergarten, the N = 22; the Mean was 80.89 with a standard deviation of 30.58 (see table 7).

The F-ratio was calculated to be 3.95, which is significant at the .05 alpha level (see table 8). There is a significant interaction and the hypothesis is rejected. Using a Tukey test for multiple comparisons it was determined that there was no difference when comparing the girls in the full day with the girls in the half-day. There is also no difference when comparing the boys in the full day with the girls in the half-day. The boys, regardless of their group scored higher than any of the comparisons with the girls (see table 9).

Table Seven
Means and Standard Deviations for the Interaction Analysis of the Total Score on the Stress Response Scale

Group	N	Mean	Standard Deviation
Boys in the Full-Day Program	24	91.70	28.11
Boys in the Half-Day Program	21	90.12	20.21
Girls in the Full-Day Program	26	77.79	30.34
Girls in the Half-Day Program	22	80.89	30.58

Table Eight
Source of Variance for the Interaction Analysis of the Total Score on the Stress Response Scale

Source	SS	df	MS	F
Between	1261.38	3	20.46	3.95 *
Within	9580.21	90	106.45	
Total	10841.59			

- = significant at the .05 alpha level

Table Nine
Multiple Comparisons of the Interaction of Gender on the Total Score on the Stress Response Scale

Comparison	df	t
Girls in Full-Day with Girls in Half-Day	46	- 0.350
Girls in Half-Day with Boys in Half-Day	41	- 4.112 *
Girls in Half-Day with Boys in Full-Day	44	- 4.118 *
Girls in Full-Day with Boys in Half-Day	45	- 4.142 *
Girls in Full-Day with Boys in Full-Day	48	- 4.732 *
Boys in Full-Day with Boys in Half-Day	43	- 0.213

* = Significant difference at the .05 alpha level

Hypothesis Eight

There is no significant interaction with gender in impulsive acting out behaviors in first grade students that have participated in a full-day kindergarten program and first grade students that have participated in a half-day kindergarten program measured by the Impulsive Acting Out sub-scale score on the Stress Response Scale.

For the boys who were in the full-day kindergarten, the N = 24; the Mean was 21.75 with a standard deviation of 12.03. For the boys who were in the half-day kindergarten, the N = 21; the Mean was 19.43 with a standard deviation of 9.85. For the girls who were in the full-day kindergarten, the N = 26; the Mean was 12.57 with a standard deviation of 10.58. For the girls who were in the half-day kindergarten, the N = 22; the Mean was 15.09 with a standard deviation of 12.32 (see table 10).

The F-ratio was calculated to be 4.71, which is significant at the .05 alpha level (see table 11). There is a significant interaction and the hypothesis is rejected. Using a Tukey test for multiple comparisons it was determined that there are two significant comparisons. The boys in the full-day program scored significantly higher than girls in the half-day program. The boys in the full-day program scored significantly higher than the girls in the full-day program (see table 12).

Table Ten
Means and Standard Deviations for the Interaction Analysis of the
Impulsive Acting Out Sub-scale on the Stress Response Scale

Group	N	Mean	Standard Deviation
Boys in the Full-Day Program	24	21.75	12.03
Boys in the Half-Day Program	21	19.43	9.85
Girls in the Full-Day Program	26	12.57	10.58
Girls in the Half-Day Program	22	15.09	12.32

Table Eleven
Source of Variance for the Interaction Analysis of the
Impulsive Acting Out Sub-scale on the Stress Response Scale

Source	SS	df	MS	F
Between	164.47	3	54.82	4.71 *
Within	1047.60	90	11.64	
Total	1212.07			

- = significant at the .05 alpha level

Table Twelve
Multiple Comparisons of the Interaction of Gender on the
Total Score on the Stress Response Scale

Comparison	df	t
Girls in Full-Day with Girls in Half-Day	46	- 0.774
Girls in Half-Day with Boys in Half-Day	41	- 3.951
Girls in Half-Day with Boys in Full-Day	44	- 4.225 *
Girls in Full Day with Boys in Half-Day	45	- 4.002
Girls in Full-Day with Boys in Full-Day	48	- 4.622 *
Boys in Full-Day with Boys in Half-Day	43	- 0.678

* = Significant difference at the .05 alpha level

Hypothesis Nine

There is no significant interaction with gender in passive-aggressive behaviors in first-grade students that have participated in a full-day kindergarten program and first grade students that have participated in a half-day kindergarten program measured by the Passive-Aggressive sub-scale score on the Stress Response Scale.

For the boys who were in the full-day kindergarten, the N = 24; the Mean was 17.8 with a standard deviation of 11.90. For the boys who were in the half-day kindergarten, the N = 21; the Mean was 18.84 with a standard deviation of 7.42. For the girls who were in the full-day kindergarten, the N = 26; the Mean was 16.85 with a standard deviation of 14.77. For the girls who were in the half-day kindergarten, the N = 22; the Mean was 17.11 with a standard deviation of 12.43 (see table 13).

The F-ratio was calculated to be 1.988; this is not significant at the .05 alpha level (see table 14). There is no significant interaction and the hypothesis is accepted.

Table Thirteen
Means and Standard Deviations for the Interaction Analysis of the Impulsive Acting Out Sub-scale on the Stress Response Scale

Group	N	Mean	Standard Deviation
Boys in the Full-Day Program	24	17.83	11.90
Boys in the Half-Day Program	21	18.84	7.42
Girls in the Full-Day Program	26	16.85	14.77
Girls in the Half-Day Program	22	17.11	11.90

Table Fourteen
Source of Variance for the Interaction Analysis of the Impulsive Acting Out Sub-scale on the Stress Response Scale

Source	SS	df	MS	F
Between	94.77	3	31.59	1.988
Within	1430.10	90	15.89	
Total	1524.87			

Hypothesis Ten

There is no significant interaction with gender in impulsive overactive behaviors in first-grade students that have participated in a full-day kindergarten program and first grade students that have participated in a half-day kindergarten program measured by the Impulsive Overactive sub-scale score on the Stress Response Scale.

For the boys who were in the full-day kindergarten, the N = 24; the Mean was 29.60 with a standard deviation of 6.56. For the boys who were in the half-day kindergarten, the N = 21; the Mean was 28.13 with a standard deviation of 5.59. For the girls who were in the full-day kindergarten, the N = 26; the Mean was 21.92 with a standard deviation of 4.38. For the girls who were in the half-day kindergarten, the N = 22; the Mean was 24.35 with a standard deviation of 7.27 (see table 15).

The F-ratio was calculated to be 2.68; this is not significant at the .05 alpha level (see table 16). There is no significant interaction and the hypothesis is accepted.

Table Fifteen
Means and Standard Deviations for the Interaction Analysis of the Impulsive Acting Out Sub-scale on the Stress Response Scale

Group	N	Mean	Standard Deviation
Boys in the Full-Day Program	24	29.60	6.54
Boys in the Half-Day Program	21	28.13	5.59
Girls in the Full-Day Program	26	21.92	4.38
Girls in the Half-Day Program	22	24.35	7.27

Table Sixteen
Source of Variance for the Interaction Analysis of the Impulsive Acting Out Sub-scale on the Stress Response Scale

Source	SS	df	MS	F
Between	172.30	3	57.43	2.68
Within	1,928.70	90	21.43	
Total	2,101.00			

Hypothesis Eleven

There is no significant interaction with gender of repressed behaviors in first grade students that have participated in a full-day kindergarten program and first grade students that have participated in a half-day kindergarten program measured by the Repressed sub-scale score on the Stress Response Scale.

For the boys who were in the full-day kindergarten, the N = 24; the Mean was 8.46 with a standard deviation of 4.49. For the boys who were in the half-day kindergarten, the N = 21; the Mean was 8.43 with a standard deviation of 3.68. For the girls who were in the full-day kindergarten, the N = 26; the Mean was 11.60 with a standard deviation of 5.98. For the girls who were in the half-day kindergarten, the N = 22; the Mean was 9.68 with a standard deviation of 6.17 (see table 17).

The F-ratio was calculated to be 2.72; this is not significant at the .05 alpha level (see table 18). There is no significant interaction and the hypothesis is accepted.

Table Seventeen
Means and Standard Deviations for the Interaction Analysis of the Impulsive Acting Out Sub-scale on the Stress Response Scale

Group	N	Mean	Standard Deviation
Boys in the Full-Day Program	24	8.46	4.49
Boys in the Half-Day Program	21	8.43	3.68
Girls in the Full-Day Program	26	11.60	5.98
Girls in the Half-Day Program	22	9.68	6.17

Table Eighteen
Source of Variance for the Interaction Analysis of the Impulsive Acting Out Sub-scale on the Stress Response Scale

Source	SS	df	MS	F
Between	81.52	3	27.17	2.72
Within	899.10	90	9.99	
Total	980.62			

Hypothesis Twelve

There a no significant interaction with gender with dependent behaviors in first grade students that have participated in a full-day kindergarten program and first grade students that have participated in a half-day kindergarten program measured by the Dependent sub-scale score on the Stress Response Scale.

For the boys who were in the full-day kindergarten, the N = 24; the Mean was 14.22 with a standard deviation of 3.38. For the boys who were in the half-day kindergarten, the N = 21; the Mean was 15.44 with a standard deviation of 2.65. For the girls who were in the full-day kindergarten, the N = 26; the Mean was 14.81 with a standard deviation of 3.66. For the girls who were in the half-day kindergarten, the N = 22; the Mean was 14.60 with a standard deviation of 4.37 (see table 19).

The F-ratio was calculated to be 2.81; this is not significant at the .05 alpha level (see table 20). There is no significant interaction and the hypothesis is accepted.

Table Nineteen
Means and Standard Deviations for the Interaction Analysis of the Impulsive Acting Out Sub-scale on the Stress Response Scale

Group	N	Mean	Standard Deviation
Boys in the Full-Day Program	24	14.22	3.38
Boys in the Half-Day Program	21	15.44	2.65
Girls in the Full-Day Program	26	14.81	3.66
Girls in the Half-Day Program	22	14.60	4.37

Table Twenty
Source of Variance for the Interaction Analysis of the Impulsive Acting Out Sub-scale on the Stress Response Scale

Source	SS	df	MS	F
Between	107.64	3	35.88	2.81
Within	1,149.30	90	12.77	
Total	1,256.94			

Summary

There is no significant difference in overall behavioral adjustment in the first-grade students who were in the full-day kindergarten when compared to the first-grade students who were in the half-day kindergarten. This was true for the total score and on all five sub-scales.

First-grade teachers rated boys in the full-day program as having significantly more problem behaviors than girls in both the full-day program and half-day program. There was no difference in the overall behavioral adjustment for girls in the full-day program and half-day program. No significant difference was found in the overall behavioral adjustment for boys in full and half-day programs. There was also no significant difference for the boys in the half-day program when compared with the girls in either full or half-day kindergarten.

First-grade teachers rated boys in the full-day kindergarten program as having more impulsive acting out behaviors than half-day girls. All other group comparisons on the Impulsive Acting Out sub-scale were not significant. There was no significant interaction of gender among first grade students on the Passive Aggressive sub-scale, Impulsive Overactive sub-scale, Repressed sub-scale, or the Dependent sub-scale of the Stress Response Scale.

Chapter 5

DISCUSSION, CONCLUSION, AND RECOMMENDATIONS FOR FUTURE RESEARCH

The purpose of this study was to determine whether or not there was a significant difference in the overall behavioral adjustment of first-grade students that attended a full-day kindergarten program and first-grade students that attended a half-day kindergarten program. This research study also compared gender differences in overall behavioral adjustment, impulsive acting behaviors, passive-aggressive behaviors, impulsive overactive behaviors, repressed behaviors, and dependent behaviors using the total score and five sub-scale scores on the Stress Response Scale.

Participants in this study included 10 first-grade teachers from two rural elementary schools in western Pennsylvania. All of the teachers contributing data to this research study participated on a voluntary basis. The methodology for the study was quantitative. One 40-item behavior rating scale survey instrument was used to collect data from the teachers.

This chapter is divided into four parts. The first part has been developed to summarize the key findings from the study. Secondly, the researcher will provide a discussion of the results. The researcher will also draw conclusions from the results and note limitations of the study. Finally, recommendations for future research will be made.

Review of Results

The review of the results is presented as a restatement of each research question followed by a summary of the findings.

Question 1: Is there a difference in the overall behavior adjustment of first-grade students that attended a full-day kindergarten program and first-grade students that attended a half-day kindergarten program?

Comparing the total scores on the Stress Response Scale found no statistically significant difference in overall behavioral adjustment in first-grade students that attended a full-day kindergarten program and first-grade children that attended a half-day kindergarten program.

Question 2: Is there a difference in impulsive acting out behaviors in first-grade students that attended a full or half-day kindergarten program?

Comparing the Impulsive Acting Out sub-scale scores on the Stress Response Scale found no statistically significant difference in behavioral response patterns characterized as demanding, selfish, defiant, impulsive, willful, detached, headstrong, stubborn, and uncooperative, including behaviors such as not caring about school work, picking on other children, fighting, and inability to take criticism, between first-grade students that attended a full and half day kindergarten programs.

Question 3: Is there a difference in passive aggressive behaviors in first-grade students that attended a full or half-day kindergarten program?

Comparing the Passive-Aggressive sub-scale score on the Stress Response Scale found no statistically significant difference in behavioral response patterns characterized by daydreaming, underachievement, procrastination, poor attitude toward school, declining school grades, detachment, stubbornness, and uncooperativeness in first-grade students that attended full and half day kindergarten programs.

Question 4: Is there a difference in impulsive overactive behaviors in first-grade student that attended a full or half-day kindergarten program?

Comparing the Impulsive Overactive sub-scale scores on the Stress Response Scale found no statistically significant difference in behavioral response patterns characterized as easily excited, playful, talkative, mischievous, participative, and headstrong in first-grade students that attended a full or half-day kindergarten program.

Question 5: Is there a difference in repressed behaviors in first-grade student that attended a full or half-day kindergarten program?

Comparing the Repressed sub-scale scores on the Stress Response Scale found no statistically significant difference in behavioral response patterns characterized by worrying, sensitivity, nervousness, lack of confidence, and fear of new situations in first-grade students that attended a full or half-day kindergarten program.

Question 6: Is there a difference in dependent behaviors in first-grade student that attended a full or half-day kindergarten program?

Comparing the Repressed sub-scale scores on the Stress Response Scale found no statistically significant difference behavioral response patterns characterized by passivity, dependence, lack of participation in activities, lack of self-confidence, lack of assertiveness, and inability to take criticism in first-grade students that attended a full or half-day kindergarten program.

Question 7: Is there a significant interaction with gender in overall behavioral adjustment in first-grade students that have participated in full and half-day kindergarten programs?

There was no difference when comparing the girls in the full-day group with the girls in the half-day group. There is also no difference when comparing the boys in the full-day group with the girls in the half-day group. The boys, regardless of their group, were rated as exhibiting significantly more problem behaviors in comparison with the girls.

Question 8: Is there a significant interaction with gender in impulsive acting out behaviors in first-grade students that have participated in full and half-day kindergarten programs?

It was determined that there are two significant comparisons. The boys in the full-day program exhibited significantly more impulsive acting out behaviors than the girls in the half-day program. The boys in the full-day program were also rated as having significantly more impulsive acting out behaviors than the girls in the full-day program.

Question 9: Is there significant interaction with gender in passive-aggressive behaviors in first-grade students that have participated in a full and half-day kindergarten program?

No gender differences in passive-aggressive behaviors were found between the full-day group and the half-day group. First-grade teachers in both groups rated the students the same on behavioral response patterns characterized by daydreaming, underachievement, procrastination, poor attitude toward school, declining school grades, detachment, stubbornness, and uncooperativeness.

Question 10: Is there significant interaction with gender in impulsive overactive behaviors in first-grade students that have participated in a full and half-day kindergarten program?

No gender differences in impulsive overactive behaviors were found between the full-day group and the half-day group. According to responses by the first-grade teachers on the Stress Response Scale there is

no difference in student behavior response patterns characterized as easily excited, playful, talkative, mischievous, participative, and headstrong.

Question 11: Is there significant interaction with gender in repressed behaviors in first-grade students that have participated in a full and half-day kindergarten program?

No gender differences in repressed behaviors were found between the full-day group and the half-day group. Length of kindergarten day was not found to effect first-grade student's behavioral response patterns characterized by worrying, sensitivity, nervousness, lack of confidence, and fear of new situations according to teacher responses on the Stress Response Scale.

Question 12: Is there significant interaction with gender in dependent behaviors in first-grade students that have participated in a full and half-day kindergarten program?

No gender differences in dependent behaviors were found between the full-day group and the half-day group. Length of kindergarten day was not found to have an effect on dependent behaviors. There was no significant difference in passivity, dependence, participation in activities, self-confidence, assertiveness, or ability to take criticism according to the teacher rating scale responses on the Stress Response Scale.

Discussion

This study was designed to compare the behavioral adjustment of first-grade students that attended a full-day kindergarten program and first-grade students that attended a half-day kindergarten program. The researcher compared overall behavioral adjustment of students in both groups in terms of impulsive acting out, passive-aggressive, impulsive overactive, repressed, and dependent behaviors. This study also examined gender differences among these behaviors.

Available studies have indicated that children who have attended a full-day kindergarten program tend to be more self-confident, cooperative, independent, and engage in a greater amount of social interaction and classroom involvement (Cryan et al., 1992; Kam and Housden, 1992; Hough and Bryde, 1995; Stipek et al., 1995). Hough and Bryde (1995) found that first-grade students that attended a full-day kindergarten program had lower incidents of negative behaviors and increased incidences of positive behaviors among the children that attended full-day kindergarten. These researchers also found that first-graders who

attended full-day kindergarten exhibited more confidence when approaching tasks and significantly higher levels of cooperative social behavior than children who attended half-day programs.

Data for this study was collected at the end of the students' first-grade year in contrast to previous studies found in the current professional literature that collected data in the kindergarten year (Cryan et al., 1992; Clark and Kirk, 2000; Karweit, 1992). These studies used data collection methods such as classroom observations, parent and teacher surveys, and interview data from students, teachers, and parents. This study relied on quantitative data from a behavioral rating scale designed to measure children's behavioral adjustment using observations from a source familiar with the child in the environment being studied. Data collected from the Stress Response Scale allowed the researcher to examine and compare specific behaviors such as independence, assertiveness, defiance, willfulness, aggression, acting out, impulsiveness, cooperation, procrastination, sensitivity, attitude toward school, and decision-making abilities.

Results from this study did not duplicate findings in the current literature regarding the benefits of full-day kindergarten programming. Assessments from the first-grade teachers from both participant groups provided no statistically significant differences in student behaviors on the total score or any of the sub-scale scores of the Stress Response Scale. Results from this study suggest that behavioral gains found in children examined during their kindergarten year do not continue through their first-grade year. Teachers participating in this study rated student behavior the same regardless of whether the student attended a full or half-day kindergarten program. Length of kindergarten day was found to have no effect on student's behavioral adjustment in first-grade.

The results of this study supported conclusions in relation to gender differences. Statistically significant differences were found between teacher's perceptions about the difference between male and female first-grade student behavior. Teachers rated boys as having significantly more overall problem behaviors than girls, specifically, more impulsive acting out behaviors. This result was anticipated because it is established that females have some biological advantages over males such as fewer birth defects and more rapid maturation (Harmon, Stockton, and Contrucci, 1992). Boys are more active and more likely to act out or misbehave in classroom settings due to genetic, biological, and neuropsysiological differences (Wehmeyer and Schwartz, 2001). Kedar-Voivodas (1983) noted that child rearing practice, sex role

modeling, imitation, socialization, and a student's individual reaction to school influence the selection of behavior that girls and boys perform in the classroom. Boys may learn early that adults are more tolerant of their more active behavior while girls are encouraged to behave in more inhibited manners; passive, quiet, obedient, and pleasant (Wehmeyer and Schwartz, 2001).

Overall, national survey data have suggested that the prevalence of problem behaviors in young children is about 10% and may be as high as 25% for children of low-income families (Webster-Stratton and Hammond, 1998). According to Joseph (2003) preschool teachers report that child disruptive behavior problems are the most important challenges they face. Inattention has become one of the most common behavior problems among young children (Cohen, Becker, and Campbell, 1990). These findings have implications for the kinds of support teachers need as well as for preventative intervention strategies for teachers that target strengthening social and emotional competence in young children (Joseph, 2003). Many teachers would benefit from consultations that aim to improve the effectiveness of existing behavior modification programs (Fabiano, 2003). Teaching children skills such as how to play with other children, recognize and express feelings, talk to peers, exercise self-control, and negotiate conflict situations may result in fewer aggressive responses, more positive friendships, inclusion with pro-social peer groups, and increased likelihood of success in school (Joseph, 2003).

Because development of these skills is not automatic, intentional teaching is needed (Bredekamp and Copple, 1977). Without early intervention in school and at home, many impulsive, overactive, and acting out behavioral problems will continue to appear and even escalate once the demands of elementary school are placed on the child (Campbell, 1990; Olsen and Hoza, 1993). Preschool children with high levels of disruptive behaviors have considerable risk for a variety of forms of maladjustment throughout childhood (Tremblay, Pihl, Vitaro, and Dobkin, 1994). Given the constancy problem behaviors, interventions that improve their symptoms and prepare a child for kindergarten are strongly recommended for this population (McGoey, 2002).

In recent years since the release of regulations for the implementation of the 1997 amendments to the Individuals with Disabilities Education Act, the application of the Positive Behavior Support approach has been expanded to include a variety of settings including school, home, and community (Sugai, 2002). The

focus on this approach has broadened from individual case management to systems-level implementation, especially for the school as a whole (Lewis and Sugai, 1999; Sugai and Horner, 1999). The Positive Behavior Approach has been defined as a broad range of systematic and individualized strategies for achieving important social and learning outcomes while preventing problem behaviors in all students (Sugai et al., 2000). Strong recommendations for a shift toward and an emphasis on more preventative and positive approaches for addressing problem behaviors have been made by numerous educators and researchers (Sugai, 2002).

Conclusions

The actual prevalence of behavior problems among young children is difficult to determine because the prevalence rates reported in the literature vary greatly (Huaqing Qi and Kaiser, 2003). Most studies that report the prevalence of behavior problems in children generally define the children as having behavior problems on the basis of cutoff scores on adult informant surveys (Campbell, 1995). This study attempted to compare the prevalence of behavior problems of first-grade students that attended full and half-day kindergarten programs. This study also used scores on an adult informant survey to collect data on behavioral response patterns adopted by children.

The idea for this study was the result of professional observations of the researcher in the role of a Behavior Specialist Consultant. In the position of professional consultant the researcher has encountered a growing number of kindergarten and first-grade children receiving therapeutic wrap-around support since the implementation of full-day kindergarten programming in one county in western Pennsylvania. This trend has continued throughout the planning and completion of this research project, however, conclusions from this study did not provide insight into or collaboration of this observation. Results from this study suggest something other than the length of day of kindergarten programming as the underlying principle. It is noted, however, that the average scores for both groups of students are higher than the norm scores for the instrument. This finding supports the observation of why more children are being referred for behavioral services.

When scoring the questionnaires completed by the first-grade teachers from both groups the researcher realized the prevalence and severity of behavior problems in the general population sampled. Informal

discussions with teachers from both groups confirmed conclusions in relation to the pervasive behavior problems of first-grade students and the perceived lack of behavioral training for teachers to implement needed behavioral interventions. The development of successful interventions for these students could decrease the number of students placed in special education settings because of behavior problems and provide general educators with a new set of tools derived from positive behavior supports (Kennedy, 2001).

Without early intervention in school, many of these behavioral symptoms continue to appear and often escalate once the demands of elementary school are placed on a child (Campbell, 1990; Olsen and Hoza, 1993). Further research is needed to determine the prevalence and causes of increased behavior problems in early education. Methods to identify and assess emotional and behavioral problems in young school children are needed. Experts agree that meaningful change must be systematic. Change must occur in all aspects and levels of the educational system, beginning in kindergarten.

Limitations

In the past, problems with full-day kindergarten studies included the following: there was no comparison group, children were not followed past their kindergarten year or first-grade year, sample sizes were small, and the only outcomes studied were academic outcomes (Martinez and Snider, 2001). This study attempted moderate as many of these limitations as possible by sampling the first-grade population of both groups at the end of the first-grade school year. The sample size used in this study (N=93) was moderate in size. The study was limited to two rural elementary schools in western Pennsylvania. This limitation restricts geographical, socioeconomic, and cultural generalization of the findings.

Teachers participated in the study on a voluntary basis and all teachers and classrooms of first-grade students in both elementary schools were not represented. It is possible that inter-classroom and environmental variables may have had some effect on the outcomes. Teacher experience or inexperience, teacher commitment to the research study, and personality aspects of the teachers could have some influence on the results. It is also possible there may have been some diversity in interpreting some of the survey items by the teachers.

Implications for Future Practice

Based on a review of the literature of behavior problems in elementary-age children and upon the findings of this study, the following general recommendations are made for school administrators, teachers, parents, and behavioral support personnel.

1. School administrators should provide professional development to teachers to enable them to understand the need and ways to incorporate various behavioral strategies and techniques in their classrooms and curriculum.
2. School administrators and teachers should be encouraged to seek behavioral consultation when problems arise.
3. School administrators, teachers, and parents should consider results from this study when making decisions regarding the length of kindergarten day.
4. School administrators and teachers should consider results from this study when making curriculum decisions in order to ensure developmentally appropriate practice.
5. School administrators and teachers should investigate and incorporate early intervention programs that include parent participation to provide positive behavior support.
6. School administrators and teachers should develop assessment procedures to identify and document student problem behaviors that impede school success.
7. School administrators and teachers should develop interventions that include a broad range of systematic and individualized strategies for achieving important social and learning outcomes while preventing problem behaviors in all students.
8. Teachers should develop proactive instructional approaches to teach and improve social behaviors.
9. Teachers should use specially designed and individualized interventions to decrease the duration, intensity, complexity, and/or frequency of problem behaviors.
10. Administrators, teachers, and parents should focus on how children develop in order to meet their social, emotional, and behavioral needs.

Recommendations for Future Research

Based on the literature and findings of this study, recommendations for further investigation of behavioral adjustment of first-grade students that attended a full-day kindergarten program and first-grade children that attended a half-day kindergarten program are as follows:

1. The survey could be repeated in other school districts in rural, suburban, and urban school districts in Pennsylvania and in other states to increase generalization.
2. The study could be repeated using a larger number teachers to include a more significant sample size.
3. The study could be repeated using a pretest in the beginning of the school year and a post-test at the completion of first-grade to determine if there is a significant difference in behavioral adjustment over time.
4. Additional study is recommended on developmentally appropriate practice for both kindergarten programs.
5. Additional study is needed to develop a comprehensive developmentally appropriate kindergarten curriculum.
6. This study could be expanded to include parent completion of the behavior rating scales.
7. Future studies could include a qualitative element using focus groups including school administrators, teachers, parents, behavior consultants, mental health personnel, and developmental specialists.
8. A study could be conducted to investigate strategies to implement various assessment instruments and assessment procedures.
9. A qualitative focus group could be conducted with the participating teachers to process responses on the Stress Response Scale in terms of severity and occurrence of problem behaviors.
10. Social-emotional curricular programs could be implemented into control group classrooms to determine the effectiveness of preventative approaches to problem behaviors.
11. It is suggested that a proportional analysis be conducted to determine if the proportion of children evaluated for this study have a higher level of behavioral problems than the students identified in

the norm sample. This would give a further indication that these behavioral problems occur prior to enrolling in the first-grade.

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APPENDIX A

Stress Response Scale

STRESS RESPONSE SCALE

SEX ☐ BOY ☐ GIRL	AGE	GRADE
SCHOOL/CLINIC		For office use only ID#

DIRECTIONS: This scale consists of 40 items. For each item, mark a (✓) in the blank which best describes the behavior of the child being rated. Please answer all items carefully. The scale usually takes about 10 minutes to complete.

	0 Never	1 Almost Never	2 Some-Times	3 Often	4 Almost Always	5 Always	FOR OFFICE USE
01. Worries							1
02. Daydreams							2
03. Easily excited							3
04. Easily distracted							4
05. Demanding							5
06. Helpless							6
07. Underachiever							7
08. Quiet, withdrawn							8
09. Selfish							9
10. Passive							10
11. Temper outbursts							11
12. Immature speech							12
13. Procrastinates, puts things off							13
14. Restless, overactive							14
15. Poor attitude toward school							15
16. Giddy, silly behavior							16

OVER PLEASE

Page 2

	0 Never	1 Almost Never	2 Some-times	3 Often	4 Almost Always	5 Always	FOR OFFICE USE
17. Defiant							17
18. Sensitive, easily hurt							18
19. Playful							19
20. Pays attention							20
21. Participates							21
22. Talkative							22
23. Cares about schoolwork							23
24. Declining school grades							24
25. Picks on other children							25
26. Impulsive							26
27. Self-confident							27
28. Willful							28
29. Fights							29
30. Shy							30
31. Completes assignments							31
32. Nervous, jumpy							32
33. Easily upset							33
34. Detached, out of touch							34
35. Afraid of new situations							35
36. Independent							36
37. Mischievous							37
38. Able to take criticism							38
39. Cooperative							39
40. Stubborn							40

APPENDIX B

Invitation to Participate in a Research Study

INVITATION TO PARTICIPATE IN A RESEARCH PROJECT

Dear Superintendent:

My name is Denise Shaffer and I am a doctoral candidate in the Counselor Education Program in the School of Education at Duquesne University. Presently I am in the process of gathering information for my dissertation, which will examine the behavioral adjustment of first-grade children who have participated in a full-day kindergarten program and children who have participated in a half-day kindergarten program. Specifically, the study will focus on five behavioral response styles: Dependent, Acting Out, Passive-Aggressive, and Repressed. The study will also produce an overall measure of behavioral adjustment for each group.

I would like to invite you to participate in the study. If you choose to participate, I will be asking you and your staff for help in identifying first-grade students who have attended a half-day kindergarten program in the 2002-03 school year. We will then randomly choose the same number of students from a group of children identified as having attended a full-day kindergarten program in the 2002-03 school year. When the two groups of students have been identified, I will be asking first-grade classroom teachers to complete a behavior rating scale for each student. The Stress Response Scale takes approximately 10 minutes to complete. Information from the Stress Response Scale will remain strictly CONFIDENTIAL and ANONYMOUS. At any time during the process you will be free to terminate your participation in this study.

Research on kindergarten since the implementation of all-day programming is still in its early stages and more research is needed to understand children's development during this period. More research is needed to form a more accurate picture of the kindergarten experience from an emotional and behavioral perspective. I am confident that the results of this study will contribute new insights in this area. Thank you for your consideration of my request and for the gift of your time to further this research.

CONSENT TO PARTICIPATE

- I understand that I will be involved in gathering information about student behavior.
- My participation in this study is voluntary and the identity of the school will be kept confidential and anonymous.
- The identity of the teachers and students participating in the study will be kept anonymous and confidential.
- I understand that I can withdraw my consent and ask questions at any time.
- Completion of the Stress Response Scale presents no risks to teachers or students.
- There are no monetary benefits associated with this study.
- Participation in this study will require no monetary cost to you.
- A summary of the results of this research will be supplied to you, at no cost, upon request.

I have read the above statements and understand what is being asked of me. On these terms, I certify that I am willing to participate in this research project.

Superintendent's Signature: _____ Date: _____

Researcher's Signature: _____ Date: _____

APPENDIX C

Consent to Participate in a Research Study

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

TITLE:	A Comparison of Behavioral Adjustment of First-Grade Students Who Have Attended a Full-Day Kindergarten Program and First-Grade Students Who Have Attended a Half-Day Kindergarten Program
INVESTIGATOR:	Denise Shaffer, Doctoral Candidate Counselor Education Program in the School of Education Duquesne University (412) 396-5567
ADVISOR:	Dr. Joseph Maola School of Education Duquesne University (412) 396-6099 Ext. 6099
SOURCE OF SUPPORT:	This study is being performed as a partial fulfillment of the requirements for the doctoral degree in Education (Ed.D.) at School of Education, Duquesne University.
PURPOSE:	You are being asked to participate in a research project that seeks to investigate the behavioral adjustment of first-grade students who have participated in a full-day kindergarten program and students who have participated in a half-day kindergarten program in the 2002-03 school year. You will be asked to complete a behavioral rating scale called the Stress Response Scale for each child in your classroom participating in the study. The behavioral rating scale takes approximately 10 minutes to complete for each student. These are the only requests that will be made of you.
RISKS AND BENEFITS:	There are no known risks to participating in this study. Your participation in this study will benefit parents, teachers, school administrators, and educational policy makers. Data from this study will provide educational decision makers with behavioral information that will allow them to make a more multi-dimensional decision regarding kindergarten programming.
COMPENSATION:	There is no monetary compensation for participating in this study. Participation in the project will require no monetary cost to you.
CONFIDENTIALITY:	Your name and your student's name(s) will never appear on any survey or research instruments. No identity will be made in the data analysis. All written materials and consent forms will be stored in a locked file in the researcher's home. Your response(s) will only appear in statistical data summaries. All materials will be destroyed at the completion of the research.
RIGHT TO WITHDRAW:	You are under no obligation to participate in this study. You are free to withdraw your consent to participate at any time.

SUMMARY OF RESULTS: A summary of the results of this project will be supplied to you, at no cost, upon request.

VOLUNTARY CONSENT: I have read the above statements and understand what is being requested of me. I also understand that my participation is voluntary and that I am free to withdraw my consent at any time, for any reason. Of these terms, I certify that I am willing to participate in this research project. I understand that should I have any further questions about my participation in this study, I may call Dr. Paul Richer, Chair of the Duquesne University Institutional Review Board (412) 396-6553.

_____ _____

Participant's Signature Date

_____ _____

Researcher's Signature Date

APPENDIX D

Summary of Results

Table 21 Summary of Full-Day Kindergarten (Female) Stress Response Scores

Total Score	Impulsive Acting Out	Passive-Aggressive	Impulsive Overactive	Repressed	Dependent
50	2	9	19	7	13
42	1	4	26	0	11
76	17	17	22	7	13
71	10	16	12	15	18
139	37	49	22	13	18
112	31	23	37	7	14
75	13	9	31	8	14
63	15	4	33	5	6
117	29	30	32	10	16
60	5	5	31	6	13
35	1	1	24	2	7
55	6	7	25	5	12
94	23	21	30	8	12
105	19	21	28	17	20
80	9	14	11	27	19
131	46	34	29	8	14
84	7	23	14	19	21
69	7	19	13	11	19
131	25	38	30	16	22
48	6	4	21	6	11
86	15	20	22	11	18
54	7	9	23	5	10

Table 22 Summary of Full-Day Kindergarten (Male) Stress Response Scale Scores

Total Score	Impulsive Acting Out	Passive-Aggressive	Impulsive Overactive	Repressed	Dependent
118	32	32	25	13	16
79	6	18	30	7	18
113	27	25	32	11	18
86	15	17	31	7	16
100	35	16	32	6	11
108	22	30	27	11	18
61	11	6	23	11	10
82	20	14	33	3	12
114	30	21	33	11	19
56	5	6	29	1	15
100	20	22	35	7	16
98	21	22	26	12	17
111	24	29	30	10	18
103	22	22	32	12	15
78	13	15	32	4	14
88	29	8	29	9	13
76	15	15	34	1	11
120	37	28	25	13	17
69	8	14	20	9	18
66	9	17	14	10	16
66	7	17	18	9	15

Table 23 Summary of Half-Day Kindergarten (Female) Stress Response Scale Scores

Total Score	Impulsive Acting Out	Passive-Aggressive	Impulsive Overactive	Repressed	Dependent
77	7	7	18	26	19
65	5	18	17	9	16
88	21	11	26	16	14
125	25	46	22	14	18
49	6	6	22	6	9
75	17	10	25	11	12
56	9	7	20	9	11
113	32	26	25	16	14
89	10	27	18	17	17
38	4	0	22	3	9
37	4	2	21	3	7
47	3	2	15	15	12
91	6	34	21	9	21
57	4	4	24	10	15
46	2	6	16	8	14
54	4	4	17	14	15
113	27	33	31	7	15
62	6	12	23	5	16
77	7	10	21	21	18
76	7	16	16	18	19
110	21	43	18	8	20
118	29	39	25	9	16
52	4	4	22	11	11
46	4	3	25	2	12
120	29	30	28	16	17
139	32	38	31	19	19

Table 24 Summary of Half-Day Kindergarten (Male) Stress Response Scores

Total Score	Impulsive Acting Out	Passive-Aggressive	Impulsive Overactive	Repressed	Dependent
63	2	16	17	13	15
83	16	18	29	6	14
136	30	39	41	10	16
153	40	50	27	16	20
60	14	3	27	7	9
97	30	15	32	8	12
95	15	26	29	8	17
105	31	21	38	6	9
114	33	24	31	14	12
138	42	32	39	9	16
64	12	7	33	1	11
62	9	11	16	12	14
136	42	32	35	10	17
85	19	19	27	7	13
106	32	22	35	3	14
61	19	3	32	0	7
103	34	20	34	5	10
54	3	4	18	12	17
85	17	10	22	18	18
92	20	16	29	10	17
76	8	11	26	12	19
94	24	15	34	5	16
72	19	5	32	4	12
66	9	7	28	7	15