

IS SOCIAL-EMOTIONAL DEVELOPMENT A PREDICTOR OF SCHOOL SUCCESS
IN HEAD START CHILDREN? A FIELD STUDY

A Dissertation

by

RACHEL MARIE TEAM

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2006

Major Subject: School Psychology

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Approved by:

Chair of Committee,	Cynthia A. Riccio
Committee Members,	Michael J. Ash
	Contance J. Fournier
	William H. Rupley
Head of Department,	Michael R. Benz

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ABSTRACT

Is Social-Emotional Development a Predictor of

School Success in Head Start Children? A Field Study. (August 2006)

Rachel Marie Team, B.S., Abilene Christian University

Chair of Advisory Committee: Dr. Cynthia A. Riccio

Social-emotional development in preschoolers often functions as a gateway into more advanced social and academic behaviors; social-emotional experiences during the preschool years may enhance or diminish a child's later adjustment and academic outcome. With the current focus on promoting pre-academic skills in preschool programs, the importance of social-emotional development has been left behind. The U.S. Department of Health and Human Services requires initial and follow-up screening of academic readiness skills for the Head Start programs. At the same time, much of the research that relates social-emotional development to academic outcome was completed 20 to 30 years ago. This study examined the relation between academic skills and social-emotional development in the beginning and end of one school year. Approximately 150 children ages 3 to 5 years old were assessed in six Head Start centers in different cities in rural Texas. Each student participated in an academic screening within the first 45 days of school and again at the end of the school year. A parent and teacher also completed a rating scale on each student's social and emotional skills at the beginning of school.

The purpose of this study was to contribute to a better understanding of the impact social-emotional development has on the academic progress for preschool-aged children. The overall goal of this study was to determine the extent to which social-emotional development can predict school readiness in Head Start children. The central hypothesis of this study was that social-emotional development can facilitate or impede children's academic progress. This project was a prospective, repeated measures, single-sample design. The Head Start children who participated in this study were assessed at the beginning and end of the school year. Gain scores were used to measure the growth in academic skills over one school year and compared to initial social-emotional skill level. Results suggest a relationship between adaptive skills and academic gains in one year is evident in Head Start children, which indicates the importance of continuing to provide services and funding for services that go beyond the basic academic tasks. This study found that social-emotional development influences many vital attributes in a child's growth, including academic success.

DEDICATION

To my husband, Jody. You have always believed in me and encouraged me when I was down. You have helped me in so many ways and for that I am truly grateful. Without your help and support, I would not be where I am today. You are my best friend and forever my love.

To my parents. You have taught me to shoot for the stars and pursue my dreams. Your encouragement and strength have meant the world to me. The faith you passed on to me has become my strength. I am truly grateful for you and our family.

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CHAPTER I

INTRODUCTION

Social-emotional development in preschoolers is often a window into more advanced social and academic behavior; social-emotional experiences during the preschool years may enhance or diminish a child's later adjustment and academic outcome. Although social-emotional development is extremely important for preschool children, the Department of Health and Human Services requires initial and follow-up screening of only academic readiness skills for the Head Start programs within the first 45 days of enrollment.

Head Start is a government funded program that provides comprehensive child development programs which serves children ages birth to five, pregnant mothers, and families (Head Start Bureau, 2003). The Head Start program works to deliver comprehensive and high quality services that are designed to foster healthy development in low-income children. Head Start grantee and delegate agencies provide a range of individualized services in the areas of education and early childhood development; medical, dental, and mental health; nutrition; and parent involvement. Head Start also provides services that are responsive and appropriate to the development of each child and family.

All Head Start programs are required to adhere to Program Performance Standards. The Head Start Program Performance Standards define the services that Head

This dissertation is follows the style of *School Psychology Review*.

Start Programs are to provide to the children and families they serve. These standards set the expectations and requirements for Head Start grantees to meet. They are designed to ensure that the Head Start goals and objectives are implemented successfully, the Head Start philosophy continues to thrive, and all grantee and delegate agencies maintain the highest possible quality in the provision of Head Start services. The program standards are updated yearly and address all aspects of Head Start. These include eligibility and recruitment, staffing, treatment of children and families, development of programs, and learning programs (Head Start Bureau, 2003).

The Head Start program used in this study, Brazos Valley Community Action Agency (BVCAA) Head Start, utilizes the Speed DIAL (Mardell-Czudnowski & Goldenberg, 1998a) for their developmental screening tool. The purpose of this screening is to aid in the early detection of developmental difficulties in compliance with the No Child Left Behind Act (NCLB, PL 107-110, 2001). While these assessments are important, much of the research that relates social-emotional development to academic outcome was completed 20 to 30 years ago. Given the potential impact of social-emotional development on academic outcome, the purpose of this study was to provide more updated information. The current study examined the relationship between academic skills and social-emotional development in the fall and spring semesters for approximately 150 children ages 3 to 5 years old in six Head Start centers that encompass five different cities in rural Texas.

Statement of Problem/Rationale

The continuing debate about children's social-emotional development and its link to school readiness serves as the basis for this research. For many years the focus between pre-academic and social-emotional skills has varied. Few studies have realized the importance of both skill sets in promoting the highest level of academic and personal performance in young children. Much of the educational funding today is geared toward enhancing the pre-academic skills of preschoolers at the expense of social and emotional skills.

The bulk of the research relating to social-emotional development to academic success was completed in the 1970s and 1980s (National Institute for Child Health and Human Development Early Child Care Research, 2003). They found the quality of care was significantly associated with less positive adjustment as reported by three sets of respondents. Parents with limited funds must often settle for lower quality childcare programs. Many low-income children are likely to experience risk factors that impede their social and emotional development (Knitzer, 2003) in addition to lower quality childcare.

Child-care quality has been observed to have a modest long-term effect on children's cognitive and social-emotional development at least through kindergarten (Langlois & Liben, 2003; National Institute for Child Health and Human Development Early Child Care Research Network, 2003; Peisner-Fienberg et al., 2001). Results indicated that children who experience better quality preschools were more advanced in their development over a five-year period. It is necessary to provide the highest quality

programs to children of all races and levels of social-economic status. High quality child-care, with attention to social-emotional development as well as overall mental health is imperative for successful preschool programs. Kindergarten teachers included in the study reported that between one-third and one-half of children are “not ready for school” because they lack the needed social and emotional skills. These skills include the ability to follow directions, relate to others, and manage their own impulses and behaviors appropriately (Knitzer, 2003).

It has become a national priority to make certain our young children enter school socially and emotionally ready to learn (National Institute of Mental Health [NIMH], 2000). Socially-emotionally healthy and school-ready children are characterized as being confident and friendly, having good peer relationships, having the ability to persist through challenges, having good language development, and communication skills, being able to listen to instructions, and being attentive (NIMH, 2000). According to Lopez, Tarullo, Forness and Boyce (2000), little mental health research exists to inform national policy and practice for children in Head Start. However, an understanding of how early childhood experiences affect the long-term odds for success in these at-risk children is important in order for researchers to advise policy makers on how to promote the best interventions (Campbell, Pungello, Miller-Johnson, Burchinal, & Ramey, 2001).

Flanagan et al. (2003) found that teacher ratings of aggressive, hyperactive-inattentive, and low levels of prosocial behaviors helped predict school outcomes for 755 children two years later in the 3rd grade. Each of these three early behavior problems predicted later school behavior problems, poor academic performance, and low social

preference among their peers. When a child was reported to exhibit a high level on one of the aforementioned problem behaviors, he/she also was likely to exhibit high levels of one or more of the other problem behaviors. The presence of at least one of the problem behaviors increased the risk for negative school outcomes for the children. The impact of social-emotional development for first graders up to two years later evidenced the need for early identification of social-emotional deficits (Flanagan et al., 2003). Thus, early identification and therefore, early intervention, can help prevent later academic, school, and social difficulties for at-risk children.

Purpose of Study

The central hypothesis of this study was that social-emotional development could facilitate or impede children's academic progress. By increasing the knowledge and, therefore, support for social-emotional development and mental health in the Head Start program, Head Start professionals may be able to prevent social, emotional, and academic problems in the future. This information also could provide support for and add to the knowledge base related to the idea that there is a relationship between social-emotional skills and school readiness in preschool children. Working with a diverse population that includes the students, their families, and the Head Start staff requires sensitivity and flexibility. It often takes time to build trust between the families and staff, especially when addressing children's mental health and social-emotional development. Many people view mental health for children as something that is unnecessary or something that is for children and families who have severe problems. Working to educate both the families and the staff of the importance and relevance of

children's mental health to their school readiness will be an integral part to this partnership with the Head Start program. It is important for the Head Start staff to understand the relationship between the children's social-emotional development and pre-academic skills in order to identify methods to improve their students' mental health, school readiness, and long-term outcomes.

Research Questions

1. What is the contribution of beginning year pre-academic skills as measured by domains on the Speed DIAL to academic progress in one year as measured by the fall-spring gain scores of Developmental Continuum?
2. What is the contribution of mental health as measured by the clinical scales of the parent BASC contribute to academic progress in one year as measured by the fall-spring gain scores of the Speed DIAL and Developmental Continuum?
3. What is the contribution of mental health as measured by the clinical scales of the teacher BASC to academic progress in one year as measured by the fall-spring gain scores of the Speed DIAL and Developmental Continuum?
4. What is the contribution of social-emotional development as measured by the adaptive scales of the parent BASC to academic progress in one year as measured by the fall-spring gain scores of the Speed DIAL and Developmental Continuum?
5. What is the contribution of social-emotional development as measured by the adaptive scales of the teacher BASC to the academic progress in one year as

measured by the fall-spring gain scores of the Speed DIAL and Developmental Continuum?

6. Does a model that focuses only on initial academics or a model that incorporates initial academic levels with mental health and adaptive behavior best fit the pre- and post-gain data?

This study provides a present-day look at social-emotional development in young children as a predictor of their future school success. The population included in this study is at-risk for school difficulties; this study provides another avenue for support and preventative efforts. The data gleaned from this study assists in the understanding of the early learning needs of preschool children in similar programs across the nation by determining the best predictors of academic gain. Specific objectives included determining the extent to which mental health in preschoolers (as measured by the clinical scales) and the social-emotional development in preschoolers (as measured by the adaptive scales of parent and teacher rating scales) contribute to their progress as measured by the gain scores on the Speed DIAL and Developmental Continuum. When assisting preschoolers with pre-academic problems, the consideration of their social-emotional development must be included in order to determine if any social or behavioral problems are contributing to, or confounding, the academic problems these children evidence.

The long-term goal was to contribute to a better understanding of the impact social-emotional development has on the academic progress in preschool-aged children. The overall objective of this study was to determine the extent to which social-emotional

development can predict school readiness in Head Start children. This project was a prospective, repeated measures, single-sample study. Data were collected in the fall, winter, and spring of the 2004-2005 school year. This study was innovative in that it took a new look at the social-emotional development of preschool children as a predictor of school success. This study provided the local and national Head Start programs with valuable information in determining appropriate prevention and intervention techniques for these students and their families. With the current focus on promoting pre-academic skills in preschool programs, the importance of social-emotional development has been left behind. Similar to prior research, this project was expected to add to the knowledge base for younger children. This project improved our understanding of the role social-emotional development plays in the development of academic skills.

Implications

The primary objective of this study was to provide more updated information regarding the impact of social-emotional development on academic outcomes. Quality early assessment for social-emotional adjustment difficulties can provide programs with necessary information concerning the needs of children (Fantuzzo et al., 2003). Better understanding of this relationship would have significant implications regarding curriculum choices, daily lessons, and instructional management for Head Start programs and preschools locally and across the country. Also, while the assumptions regarding social-emotional competence and academic success appear true, relatively few studies have examined early school outcomes such as social competence (Huffman, Mehlinger, & Kerivan, 2000).

Little research is available concerning the social-emotional development of children younger than five years old; literature addressing school problems and the issue of risk factors is limited (Huffman, Mehlinger, & Kerivan, 2000). There is a critical need to better understand the early years of development and the moderating and mediating effects of various factors on outcome is beneficial in creating interventions and strategies to assist those young children experiencing difficulties. Further research also is needed that provides information concerning the social-emotional and mental health development of young children to help practitioners learn prevention strategies.

The information gathered by this study will help School Psychologists working with preschool-age children, including those attending Head Start programs by providing updated data and show the importance of early intervention. School Psychologists can work with preschool students to help remedy skill deficits before beginning kindergarten. If social-emotional difficulties can be improved before entering school, children are much more likely to succeed.

Definitions

In relation to this study, social-emotional development is defined as the acquisition of appropriate social skills needed to maintain appropriate peer and adult relationships (i.e., coping skills, listening, understanding nonverbal cues, following directions, etc.). Development is the natural process of growth and maturation that occurs more rapidly during childhood and adolescence.

CHAPTER II

LITERATURE REVIEW

Potential Risk and Protective Factors

The children traditionally serviced by Head Start programs around the country are at a higher risk for educational and behavioral difficulties. The majority of children who are serviced by Head Start programs live in poverty by definition (Foster, 2002); children who are enrolled in Head Start are more likely to have less educated mothers, and less father involvement, with few parents who are employed. These conditions are associated with less progressed cognitive development and emotional development (see Foster, 2002, for a review). Because of the potential negative influences of the home context, the potential positive impact of participation in Head Start is critical.

Acquiring social competencies for successful peer interactions is a primary developmental task for preschool children (Fantuzzo et al., 1995). Children who do not master peer interaction skills are likely to experience social incompetence and maladaptation at home and school. Children from an improvised background, such as those in Head Start, have an increased risk for deficits in acquiring social competencies as documented by Fantuzzo et al. (1995). Young children with poor peer relationships are more likely to experience school failure than children with positive peer relationships (Janes, Hesselbrock, Myers, & Penniman, 1979).

Social skills deficits have been related to poor academic performance in children with and without disabilities (McKinney & Speece, 1983). Also, Elliot, Sheridan, and Gresham (1989) reported that children with persistent social skills deficits often

experience long and short-term negative consequences. Huffman et al. (2002) stated that overall, there has been only limited literature addressing school problems and the issue of risk factors. Kreisman (2003) found that Head Start programs decrease the influence of income level on preschool children and their achievement levels, as well as, reducing the gender gap in mathematics.

Influence of the Quality of Child Care Programs

Child-care quality has been observed to have a modest long-term effect on children's cognitive and social-emotional development at least through kindergarten (Langlois & Liben, 2003; National Institute for Child Health and Human Development Early Child Care Research Network, 2003; Peisner-Fienberg et al., 2001). As such, it is important for Head Start as well as other types of child-care facilities to offer the most appropriate and supportive learning environment for their children. Peisner-Fienberg et al. (2001) found longitudinal effects on children's cognitive development and academic achievement for receptive language ability, math ability, cognitive and attention skills, problem behaviors, and sociability. Results indicated that children who experience better quality preschools were more advanced in their development over a five-year period.

Two aspects of child-care quality were evaluated in the Peisner-Fienberg et al. study: classroom practices and teacher-child closeness. For children with a more difficult temperament, the structure of the day care can interfere with child's process of adapting to the setting (De Schipper, Tavecchio, Van Ijzendoorn & Van Zeijl, 2003). Low quality day care programs can increase the probability for children with difficult

temperaments to have behavior problems. De Schipper et al. (2003) found the process of adapting to day care programs can be facilitated or impeded by a child's temperamental characteristics. Higher quality programs can mediate many of the problems children with difficult temperaments experience by providing a caregiver that is available everyday and more caregivers per child.

As mentioned previously, the quality of childcare was found to relate to receptive language skills, math ability, cognitive skills, problem behaviors, and social competence. Results suggested that child-care experiences, both concurrently and, over the long term, have an even greater influence on some aspects of cognitive and social development for children who are classified at greater risk (Peisner-Fienberg et al., 2001). In fact, although maternal education was found to be a moderator variable for math skills and behavior, the results indicated that quality child care had a stronger positive effect on outcome for children from families with lower maternal education level. Thus, early intervention through quality child-care programs may prove to offset the moderating effects of low maternal education level.

High quality child-care, with attention to social-emotional development as well as overall mental health is imperative for successful preschool programs. Relating to quality intervention and programming, Knitzer (2003) argued that many young children are being described as "sad, bad, and mad"; many of their teachers and parents do not know what to do with these children. In some cases these children have been expelled from early childhood programs, sometimes more than once due to their behavior. Furthermore, kindergarten teachers reported that between one-third and one-half of their

young children are “not ready for school” because they lack the needed social and emotional skills. These skills include the ability to follow directions, relate to others, and manage their own impulses and behaviors appropriately (Knitzer, 2003).

Social Skills and Academic Progress

In the search for possible causes of the poor academic skills in American children, numerous child, family, and socio-cultural factors have been blamed. However, less attention has been given to other factors that influence academic achievement such as social-behavioral characteristics (McClelland, Morrison, & Holmes, 2000). An extensive body of research has linked social behavior to school achievement. Work-related social skills (i.e., listening and following directions) were the most predictive of academic achievement as measured by formal measures at kindergarten and at the end of second grade. Most research that has addressed social skills and academic progress has focused on social behavior in general, without specifying aspects that are typically important to school performance (McClelland & Morrison, 2003). After transitioning to school, learning-related social skills continue to influence school adjustment. Early skills “set the stage” for later social behavior and academic performance through their foundation for positive classroom behavior.

Social problem solving has been used to assess children’s social thinking abilities (Mayuex & Cillessen, 2003). Often a developmental change in information processing increases social problem solving. This indicates that social problem solving ability increases with age. A distinct shift in socio-cognitive skills appears to occur between the ages of six and eight. Results from Mayuex and Cillessen’s (2003) study

called for programs that focus on improving a wide range of social behavioral skills from emotional regulation to behavior response in order to increase the social functioning of children today.

Knitzer (2003) stated that there are several additional reasons to pay attention to social and emotional development in young children. Early relationships and experiences matter more for development than previously understood; social and emotional competence set the stage for later developmental tasks. Also, children in poverty are more likely to experience the risk factors that increase probability for difficulties in social and emotional development. Those risk factors that are particularly problematic for social-emotional development include: parental drug or alcohol abuse, depression, and exposure to domestic violence (Knitzer, 2003). Counter influences or protective factors in the child's environment can positively affect the child's development. These resiliency influences can include high quality, Head Start programs, and a caring stable adult in the child's life. Finally, poor social and emotional development predicts poor academic outcomes (Raver & Knitzer, 2002).

School Functioning

In a recent large scale, longitudinal study of kindergarteners, *From Neurons to Neighborhoods* (National Research Council and Institute of Medicine, Board on Children, Youth, and Families, Commission on Behavioral and Social Sciences Education, 2001) the data showed that approximately ten percent of these children exhibited problematic behavior; these rates of problematic behaviors are 2-3 times higher for low-income children than for other children. Knitzer (2003) recommended

the implementation of behavioral health strategies with early childhood programs as a type of intervention and suggested the use of mental health consultants to meet this need. Alexander and Entwisle (1988) found that children who were unable to adjust and function well in school by age eight, had difficulty in their future adjustment. This emphasizes the need to address social and emotional difficulties starting in preschool and continuing throughout the school years.

Positive interactive play, as rated by their teachers, has been linked to active engagement in classroom learning activities while disconnection in play has been linked to inattention, passivity, and lack of motivation in the classroom (Coolahan, Mendez, Fantuzzo, & McDermott, 2000). Children rated as interacting positively with peers in play also received higher ratings from their teachers regarding general social skills. For preschool children, relating successfully with peers is critical and a developmental task associated with healthy adjustment. Because positive peer play is associated with positive learning behaviors, elementary schools should incorporate activities that provide opportunities for positive peer interactions as an instructional strategy. Never the less, many state and federal programs are increasingly cutting funding for social and emotional activities in the schools.

Research has documented the role of learning-related social skills in academic achievement and school success (Cooper & Farran, 1988; McClelland, et al., 2000). Both studies found children entering school with poor social behavior have problems, such as peer rejection, behavior problems, and low levels of academic achievement. Cooper and Farran (1988) identified the earliest risk behaviors were inattentiveness and

high external reliance as rated by kindergarten teachers. Interpersonal behaviors including disobedience and poor interactions with peers were rated as more tolerable by kindergarten teachers than behavior associated with being off-task or inattentive in classroom routines and instructions.

Foster (2002) explained that disadvantage among Head Start children is great; for example, between 1988 and 1992, 77% of the enrolled African American children were considered poor at the time they entered Head Start. Other disadvantages include single-parent families, jobless head of the family, and receiving welfare. Foster's (2002) description of disadvantage among enrollees is characterized by three themes: exposure to disadvantage at age four, trends over time, and trends in lifetime disadvantage. Overall, the data reveal that Head Start enrollees are more disadvantaged than other children. The need to address potential negative outcomes for these children has been evident historically in the Head Start movement (Kelley & Surbeck, 2000) and has become more evident with all children recently with the No Child Left Behind Act (PL 107-110, 2001 [NCLB]).

The aims of the NCLB include addressing the educational needs of children in high poverty schools and minimizing the gap between those children who are disadvantaged and their more advantaged peers. In addition, NCLB targets those children who are limited English proficient (LEP), those who come from culturally diverse backgrounds, or those who have disabilities. Given the increasing proportion of minority young children, Barona and Barona (2000) argued that there is a need to consider cultural differences and the way these differences can affect the way learning

occurs. Similarly, since many children from other cultures speak a language other than English as their primary language, there is some evidence that these children are at risk for developing academic problems. For all children, despite minority status or socioeconomic status (SES), there are multiple influences (e.g., home environment, social competency, quality of child care, parenting style) that affect child outcomes. However, how these factors interact for any single child is unknown.

Academic and Social-Emotional Predictors

Suplee, Shaw, Hailstones, and Hartman (2004) completed research on child and family factors in early childhood that affect academic and emotional regulatory behaviors from toddler age to school entry using a sample of 174 boys from low-SES backgrounds. Academic behaviors were defined as the skills related to children's success in school and emotional regulation was defined as the skills children need to form successful relationships with both teachers and peers. Their results suggest that maternal instruction plays an important role in early school success in both areas of academic and social adjustment, particularly for children at risk for school problems.

Flanagan et al. (2003) utilized a broad-based screening model to identify children who are at-risk, stating that this system revealed the greatest sensitivity and the greatest odds ratio in predicting behavioral, academic, and social problems in third grade. The results from this study suggested that evaluation of a broad base of behavior problems (hyperactivity-inattention, pro-social skill deficits, and aggression) might increase the ability to help correctly identify girls who are at-risk for school maladjustment (Flanagan et al., 2003). The Flanagan et al. study demonstrated the usefulness of their model for

identifying children who may be at-risk based on teachers' ratings of multiple behaviors. Given these results, the use of both parent and teacher ratings in the current study should increase the likelihood that those children who may benefit from intervention will be identified. Bishop, Spence, and McDonald (2003) found parent ratings generally demonstrate good predictive validity when reporting behavioral inhibition.

In the Fantuzzo, Bulotsky, McDermott, Mosca, and Lutz (2003) study, the relationship between preschool emotional and behavioral adjustment was assessed for urban Head Start children. Although children who exhibited disruptive, overactive behaviors were more likely to be identified by Head Start teachers, children who were less active (underactive) were more at risk for problems in attaining reading skills (Fantuzzo et al., 2003). Fantuzzo et al. (2003) stated that, while they had examined the relationships between emotional and behavioral adjustment problems and classroom learning and social outcomes for preschool children from a predominantly African American, low-income, urban environment, more research with other samples and locations is needed to determine the applicability of their findings to other groups. Therefore, the current study provided research with another population in a more rural setting with measures that address both externalizing and internalizing behaviors.

According to Gadeyne, Ghesquiere, and Onghena (2004), most research only focuses on one area of psychosocial functioning in relation to learning disabilities and does not aim to estimate the common contribution of the psychosocial area for academic functioning of children. The children in this study, with a learning disability, were rated

as having more attention, social, and total behavioral problems than those without learning disabilities.

Adapting to Preschool

In a recent physiological and neurocognitive study at Pennsylvania State University, Blair and Peters (2003) found a relationship between the development of social and academic competence and adaptation to preschool among Head Start children. They postulated that emotionality and the processes relating to social competence are most important for future academic success. Their findings appear to provide evidence for correlations between social and adaptive behavior and success in meeting preschool academic expectancies in children from low-income families. They proposed more than one pathway (e.g., academic skills training, social emotional training) to competence in the early school years among Head Start children. From this study, it is evident that all options need to be explored as part of those early interventions that are designed to promote academic success and prevent school failure. Blair and Peters (2003) argued for the importance of examining several aspects of child regulation for preventive intervention. Examining externalizing (i.e. disruptive) and internalizing behaviors, as well as adaptive skills would provide a more in-depth look at the child's behavior.

Huffman et al. (2000) suggested that participation in a preschool enrichment program could help promote school success and, therefore, decrease delinquency. Often a child's academic and social paths are determined in their early school years. When a child experiences repeated social and academic difficulties as they begin school, he/she is less likely to experience positive social exchange and peer support. Children's

competency also appears to be influenced by social skills and emotional regulation abilities (Huffman et al., 2000). Waisk and Karweit (1994) reported that children who have a good start in the early years are more likely to be successful in school; however, most children born into poverty do not show early obvious signs of delay.

Appropriate Assessment

With difficulty identifying early signs of delay, it is imperative that closer examination of these children be conducted. The concern is that many children in poverty may not be identified for the needed services during their preschool years and will continue to enter school poorly prepared to learn (Waisk & Karweit, 1994). Because social-emotional development in preschoolers often functions as a gateway into more advanced social behaviors, social-emotional experiences in preschool may enhance or diminish a child's later adjustment and outcome. Social-emotional deficits in young children can lead to poorer social-emotional development and adjustment in the future (Merrell & Holland, 1997). Three subscales identified the strongest differences in social-emotional behavior between the group of children labeled as developmentally delayed and those without developmental delays. These subscales included social interaction, social withdrawal, and social independence as rated by the child's parent and teacher. More research is needed to help promote the early detection of social-emotional problems that may impact overall outcome.

Early Prevention and Intervention

Weissberg, Kumpfer, and Seligman (2003) cited primary prevention efforts to lower the incidence of emotional disorders by reducing stress by enhancing competence

and coping skills among young people as a cause in desperate need of attention and research. Few young people have the personal competencies, values, attitudes, and environmental supports that protect against high-risk behavior and promote positive behaviors. Weissberg et al. (2003) called for enhancing the quality of the environments where children are raised and educated. Children will benefit the most when the adults around them cooperate to strengthen and implement programs addressing social deficits. Greenberg et al. (2003) assert that school-based prevention programming with coordinated social, emotional, and academic learning should be a fundamental aspect of preschool and beyond.

The need for social and emotional competence positively influences both the individual and the other students. Large numbers of students with mental health problems and social deficits have difficulty learning or disrupt the learning environments for their peers (Greenberg et al., 2003). A content analysis was conducted with 179 handbook chapters and 91 research studies regarding the 28 categories of influences on learning. Among the top 11 categories documented to affect learning, eight involved social-emotional influences (Wang, Haertel, & Walberg, 1997). They reported students' social-emotional competence fostered better academic performance including more self-awareness and confidence, they try harder, are more motivated, they set goals, manage their stress better, and organize more adequately.

The current research investigated the effects of social-emotional skills on academic gain in one school year for a group of Head Start children. It is predicted that

social-emotional skills combined with pre-academic skills will have a larger impact on academic gain than pre-academic skills alone.

CHAPTER III

METHOD

This was a one-year prospective study that incorporated a repeated measures, single-sample research design. Multiple regression analyses were conducted. The domain scales of the Speed DIAL were analyzed to determine the contribution of pre-existing academic skills to school-readiness. The clinical scales of the BASC were analyzed to determine the contribution of clinical behaviors, and the adaptive scales of the BASC were analyzed to determine the contribution of adaptive behavior (e.g. social skills) to acquisition. The dependent variable for all three regression analyses was the gain scores as obtained from the Fall-Spring Speed DIAL scores and Developmental Continuum scores.

Participants

All children enrolled in the BVCAA Head Start program were invited to be included in the sample regardless of their age, ethnicity, mental health or disability status. This included 25 classrooms of children ages three to five years. Only children without parental consent were excluded from the study. In order for this study to be completed, approval from the local Head Start director had to be obtained as well as approval from the Policy Council (the council of parents who approve decisions in local Head Start programs). Once approval was given, consent forms for participation in the study were sent out to all students in the BVCAA Head Start centers. Consent forms were sent home with each student and then returned to their teacher. The teacher collected the consent forms for the researcher to pick up. The participants for this study

included 159 children out of the 350 children enrolled in one of the six BVCAA Head Start centers that encompass five different cities in rural Texas. This region of rural Texas has a culturally and linguistically diverse population of children and families (See Table 1). The sample consisted of 109 children who were reported to speak English (68.6 %) and 50 were reported to speak Spanish (31.4%). Males made up 50.3% of the sample (n = 80) and females made up 49.7% of the sample (n = 79). This sample included approximately 44% African American students, 39% Hispanic students, 13% Caucasian students, and 4% other ethnic groups of children is similar to many Head Start programs across the country.

Table 1
Descriptive Statistics

	Frequency	%
<hr/>		
Language		
English	109	68.6
Spanish	50	31.4
Sex		
Male	80	50.3
Female	79	49.7
Center		
Center 1	24	15.1
Center 2	47	29.6
Center 3	27	17.0
Center 4	23	14.5
Center 5	16	10.1
Center 6	22	13.8

Instruments

Speed DIAL. Members of the Mental Health collaboration, in conjunction with the BVCAA Head Start director and other Head Start staff, chose the Speed DIAL (Mardell-Czudnowski & Goldenberg, 1998a) as the developmental screener to be used in their program. Within 45 days of enrollment, the Speed DIAL is individually administered to each child enrolled in the BVCAA Head Start program. In order to better serve our culturally and linguistically diverse population of children, the Speed DIAL may be administered in English or Spanish, depending on the need. The Speed DIAL is a measure designed for and standardized on preschool children. The Speed DIAL is brief enough to keep the student's attention. It also involves many tasks the children are familiar with and enjoy. Further, the Speed DIAL is an appropriate measure based on its validity and reliability. Reported reliability coefficients for the ages of 3-0 to 4-11 varied from the lowest of 0.76 for the age group of 4-6 to 4-11 to the highest of 0.85 for the ages of 3-0 to 3-5. In addition, its reliability with the BVCAA Head Start population was found to be acceptable (Gonzales, Pizzitola, Team, & Ash, 2002). The reliability coefficients obtained locally in this test-retest reliability study yielded a value of 0.82, $p < .01$. Although a shorter version, the Speed DIAL results correlate well with the DIAL-3 total score (correlation coefficient $r = 0.94$; Mardell-Czudnowski & Goldenberg, 1998b).

Curricular Gain. The Speed DIAL is used with the curriculum measure, the Developmental Continuum of the Creative Curriculum (Teaching Strategies, Inc., 2002). This measure is used to examine each child's "pre-academic" skills as well as serving as

measures of progress. The BVCAA Head Start program selected the Creative Curriculum approximately eight years ago. It was chosen because of its ease of use for the teachers and its appropriateness to the children's developmental level. The basis of the Creative Curriculum is the application of developmentally appropriate practices as outlined by the National Association for the Education of Young Children (NAEYC, 1997). In 2002, Teaching Strategies, Inc. released the fourth edition of the Creative Curriculum for preschool; this is the edition that is currently being used.

The Developmental Continuum is a checklist, aligned with the Creative Curriculum, designed to track a child's progress and assist the teacher in planning learning experiences (Teaching Strategies, Inc., 2002). It covers all of the mandated Child Outcomes required by the National Head Start Bureau. Through the Developmental Continuum, areas of development (i.e., language, social/emotional, physical, and cognitive) are broken down into forerunner skills and developmental steps I, II, and III. Each progression represents the developmental step for achieving each objective outlined on this measure during the preschool years. There are 50 possible items; each step will be assigned a value (e.g. forerunner = 0, Step I = 1, etc.). Item scores are summed together to yield a domain area score. Gain scores were obtained by subtracting the end of year (spring) score from the baseline (fall) score to determine the progress made by each child in the areas of interest for this study (language and cognitive). Thus, each child has an average cognitive score and an average language score. These averages were transformed into Z-scores for the analyses. Differences

between the baseline score and spring scores were used to operationalize curricular outcome.

Social-Emotional Development/Mental Health. None of the previously mentioned measures assess adaptive or social-emotional development for these youngsters; yet early development of healthy social and emotional skills is important in preventing poor academic outcomes (Knitzer, 2003). For this reason, this research study in partnership with the BVCAA Head Start staff and council added the Behavior Assessment System for Children (BASC; Reynolds & Kamphaus, 1992). The parent and teacher report of the BASC was used to assess each child's social-emotional development and mental health. As with the Speed DIAL, the BASC is available in English and Spanish, allowing data to be obtained across families and children who may not speak English. This provides information concerning diverse groups of families in their home language.

The preschool version of the BASC is normed for children age 2 ½ to 5 years. The BASC provides a broad range of data given by both the parent/guardian and teacher. Gleaning information from both the home and school setting in relation to a child's social and emotional health provides important information about a child. The BASC parent rating scales (BASC-PRS) is a 131-item rating scale. The parent rates the listed statements regarding their child's behavior during the past six months as occurring "never, sometimes, often, almost always". The BASC teacher rating scales (BASC-TRS) is a 109-item rating; the teacher rates the listed statements regarding their student's behavior during the past six months as occurring "never, sometimes, often, always".

The internal consistency coefficients for the BASC-TRS range from 0.88 to 0.95 for the younger preschool group (ages 2-6 to 3-11) and from 0.90 to 0.96 for the older preschool group (ages 4-0 to 5-11). For the BASC-PRS the internal consistency coefficients were adequate across the preschool age groups, ranging from 0.82 to 0.92.

Procedure

As the children began school in the fall of 2004, each student in the BVCAA Head Start Center Based program was given the Speed DIAL by trained personnel. The Developmental Continuum was completed at this time as well by each child's teacher. Approximately 350 consent forms and BASC-Parent Rating Scales were given to the BVCAA Head Start program and dispersed to all Center-Based teachers. Teachers sent them home with each student. After informed consent was obtained, each child was rated on the BASC by his or her parent(s) and teacher or teacher's assistant.

The Developmental Continuum was used to monitor each child's progress. In addition to the initial baseline completion, the Developmental Continuum and Speed DIAL were completed on each child who was still enrolled in the Head Start program in the spring. The difference between the fall and spring scores was used to operationalize academic outcome as described previously. Information was offered to any interested parents during or after the study had been completed regarding their specific child. The study was conducted over one school year examining the relationship between social and emotional competence and academic progress of the children involved in the Center Based program.

CHAPTER IV

RESULTS

This study examined the relationship between social-emotional development and academic success in Head Start students over one year. Students enrolled in the BVCAA Head Start Program in rural Texas were invited to participate in this study. Parent and teacher rating scales were collected for each child involved. A pre-academic measure, the Speed DIAL (Mardell-Czudnowski & Goldenberg, 1998a), was completed at the beginning of the school year to measure the skills each child entered with and again at the end of the year to measure the skills acquired. The Creative Curriculum's Developmental Continuum (Teaching Strategies, Inc., 2002) was completed by each student's teacher at three checkpoints in the school year; the first and last checkpoints were used to measure gains. This chapter will include extensive interpretation and discussion of the findings from the data analyses and their relations to the respective research questions and hypotheses.

Data Analyses and Hypotheses

Before any data analysis was completed, gain scores from the fall and spring Speed DIAL assessments were calculated. Also, the gain scores on the Developmental Continuum for the cognitive and language domains were calculated by subtracting the spring scores from the fall scores and converted to z-scores via statistical analysis (SPSS; Prentice-Hall, 1998).

Initial data was used to provide descriptive data for the sample. In order to determine the relative contribution of social emotional development and mental health

status to acquisition of pre-academic skills, multiple regression analyses were conducted. The domain scales of the Speed DIAL was examined first to determine the contribution of pre-existing academic skills; the clinical scales of the BASC were entered to determine the contribution of clinical behaviors in a second analysis; and finally, the adaptive scales of the BASC were entered to determine the contribution of adaptive behaviors (e.g., social skills) to acquisition. The dependent variable for all three regression analyses were the fall-spring gain scores obtained on the Speed DIAL or Developmental Continuum for the children. Thus, the analyses examine how pre-academic skills, mental health, and social-emotional development each predict the academic gains over the course of the school year. Both the Speed DIAL and Developmental Continuum gain scores were obtained in order to provide a more accurate measure.

The Contribution of Pre-academic Skills to Progress Obtained in One School Year for Head Start Children. What is the contribution of the beginning year pre-academic skills as measured by domains on the Speed DIAL to academic progress in one year as measured by the fall-spring gain scores of the Speed DIAL? Results suggest that the pre-academic skills with which a child enters a Head Start program are predictive of the gain scores on the Speed DIAL (see Table 2).

Table 2
Regression Analysis of Pre-academic Skills and Gain Scores on the Speed DIAL

Speed DIAL Gain Scores (n = 124)		
	1	2
1. Speed DIAL	---	
2. Gain Scores	-.21*	---

Note. Speed DIAL = Fall Score only. Speed DIAL Gain Scores = Computed gain from fall assessment to spring assessment.

* $p < .05$, two-tailed.

Predictor	<i>B</i>	SE	Beta	<i>t</i>	<i>p</i>
Model ($R^2 = .046$, $F = 5.820$, $p = .017$)					
Speed DIAL	-.17	.07	-.21	-2.41	.02

What is the contribution of the beginning year pre-academic skills as measured by domains on the Speed DIAL to academic progress in one year as measured by the fall-spring gain scores on the Developmental Continuum? Results suggest that pre-academic skills are predictive of gain scores as measured by the Cognitive and Language Domains of the Developmental Continuum (see Tables 3 and 4).

Table 3
Regression Analysis of Pre-academic Skills and Gain Scores on the Cognitive Domain of the Developmental Continuum

	Developmental Continuum (n = 108)		
	1	2	3
1. Speed DIAL	---		
2. Cog Dev Cont (Z-score)	.32**	---	
3. Lang Dev Cont (Z-score)	.37**	.85**	---

Note. Speed DIAL = Fall Score only. Cognitive Dev Cont = Gains made on the Cognitive domain of the Creative Curriculum's Developmental Continuum. Language Dev Cont = Gains made on the Language domain of the Creative Curriculum's Developmental Continuum.

** $p < .01$, two-tailed.

Predictor	<i>B</i>	SE	Beta	<i>t</i>	<i>p</i>
Model 1 ($R^2 = .138$, $F = 16.963$, $p = .000$)					
Speed DIAL	.06	.01	.37	4.14	.00

Table 4
Regression Analysis of Pre-academic Skills and Gain Scores on the Language Domain of the Developmental Continuum

Predictor	<i>B</i>	SE	Beta	<i>t</i>	<i>p</i>
Model 1 ($R^2 = .137$, $F = 16.857$, $p = .000$)					
Speed DIAL	.06	.01	.37	4.11	.00

The Contribution of Mental Health and Social-Emotional Development on Pre-academic Skills. What is the contribution of mental health as measured by the clinical scales of the parent BASC and social-emotional development as measured by the adaptive scales to pre-academic skills as measured by the fall Speed DIAL scores? Regression analyses were conducted to determine the relationship between the pre-academic skills (measured by the fall score on the Speed DIAL, Mardell-Czudnowski & Goldenberg, 1998a) with which a student entered the Head Start program and their social-emotional skills level (as measured by a parent rating and teacher rating on the Behavior Assessment System for Children (BASC; Reynolds & Kamphaus, 1992). Results suggest that the parent ratings are not correlated with the pre-academic skills measured by the initial score on the Speed DIAL (see Table 5). A positive relationship between the teacher ratings of the adaptive scales (social-emotional) and pre-academic skills was found and a negative relationship between the clinical scales (maladaptive skills) and pre-academic skills (see Table 6).

Table 5
Intercorrelations Between Pre-academic Skills and Social-Emotional Ratings by Parents

	Parent Ratings (n = 139)				
	1	2	3	4	5
1. Speed DIAL	---				
2. PR Adaptive Scales	.06	---			
3. PR Clinical Scales (BSI)	-.11	-.07	---		
4. PR Externalizing Problems	-.04	-.02	.87**	---	
5. PR Internalizing Problems	-.14	.05	.83**	.58**	---

**p < .01, two-tailed.

Note. Speed DIAL = Fall score only. PR = Parent Ratings on BASC scale.

Table 6
Intercorrelations Between Pre-academic Skills and Social-Emotional Ratings by Teachers

	Teacher Ratings (n = 139)				
	1	2	3	4	5
1. Speed DIAL	---				
2. TR Adaptive Scales	.38**	---			
3. TR Clinical Scales (BSI)	-.19**	-.32**	---		
4. TR Externalizing Problems	-.14	-.25**	.90	---	
5. TR Internalizing Problems	-.13	-.14	.86**	.68**	---

**p < .01, two-tailed, *p < .05, two-tailed.

Note. Speed DIAL = Fall Score only. TR = Teacher Ratings on BASC scale.

The Contribution of Mental Health and Social-Emotional Development on Academic Progress Obtained in One School Year for Head Start Children. What is the contribution of mental health as measured by the clinical scales of the parent BASC and social-emotional development as measured by the adaptive scales to academic progress in one year as measured by the gain scores of the Speed DIAL? Regression analyses were conducted to evaluate the relationship between academic gain and social-emotional skills and maladaptive skills. Results suggest that no statistically significant relationship exists between the parents' ratings and the fall-spring gain scores on the Speed DIAL exist (see Table 7). What is the contribution of mental health as measured by the clinical scales of the teacher BASC and social-emotional development as measured by the adaptive scales to academic progress in one year as measured by the gain scores of the Speed DIAL? A statistically significant relationship between the teachers' ratings and the fall-spring gain scores on the Speed DIAL was not evident (See Table 8).

Table 7
Regression Analysis of BASC Parent Ratings and Speed DIAL Gain Scores

	Parent Ratings (n = 124)				
	1	2	3	4	5
1. Speed DIAL Gain Scores	---				
2. PR Adaptive Scales	-.05	---			
3. PR Clinical Scales (BSI)	.04	-.07	---		
4. PR Externalizing Problems	-.00	-.02	.87**	---	
5. PR Internalizing Problems	.12	.05	.83**	.58**	---

**p < .01, two-tailed, *p < .05, two-tailed.

Note. Speed DIAL Gain Scores = Computed gain from fall assessment to spring assessment. PR = Parent Ratings on BASC scale.

Predictor	<i>B</i>	SE	Beta	<i>t</i>	<i>p</i>
Model 1 ($R^2 = .004$, $F = .264$, $p = .768$)					
PR Adaptive Scales	.02	.04	-.05	-.55	.58
PR Clinical Scales	.016	.04	.04	.44	.66

Table 8
Regression Analysis of BASC Teacher Ratings and Speed DIAL Gain Scores

	Teacher Ratings (n = 124)				
	1	2	3	4	5
1. Speed DIAL Gain Scores	---				
2. TR Adaptive Scales	-.03	---			
3. TR Clinical Scales (BSI)	-.09	-.32**	---		
4. TR Externalizing Problems	-.01	-.25**	.90	---	
5. TR Internalizing Problems	-.09	-.14	.86**	.68**	---

**p < .01, two-tailed, *p < .05, two-tailed.

Note. Speed DIAL Gain Scores = Computed gain from fall assessment to spring assessment. TR = Teacher Ratings on BASC scale.

Predictor	<i>B</i>	SE	Beta	<i>t</i>	<i>p</i>
Model 1 ($R^2 = .013$, $F = .778$, $p = .462$)					
TR Adaptive Scales	.04	.06	-.07	-.68	.50
TR Clinical Scales	.06	.05	-.12	-1.21	.23

What is the contribution of mental health as measured by the clinical scales of the parent BASC and social-emotional development as measured by the adaptive scales to academic progress in one year as measured by the gain scores of the Developmental Continuum? A statistically significant relationship between the parents' ratings and the

fall-spring gain scores on the Developmental Continuum was not evident in this study (See Tables 9-12). What is the contribution of mental health as measured by the clinical scales of the teacher BASC and social-emotional development as measured by the adaptive scales to academic progress in one year as measured by the gain scores of the Developmental Continuum? A statistically significant relationship between the teachers' ratings and the fall-spring gain scores on the both the Cognitive and Language Domains were statistically significant (See Tables 9, 10, 13, and 14).

Table 9
Intercorrelations of the BASC Ratings by Parents and Teachers and the Cognitive Domain on the Developmental Continuum Gain Scores

	Cognitive Developmental Continuum (n = 123)				
	1	2	3	4	5
1. Cog Dev Cont (Z-score)	---				
2. PR Adaptive Scales	.04	---			
3. PR Clinical Scales (BSI)	-.01	-.07	---		
4. TR Adaptive Scales	.31**	.22**	-.22**	---	
5. TR Clinical Scales (BSI)	-.05	-.08	.19*	-.32**	---

Note. Cognitive Dev Cont = Gains made on the Cognitive domain of the Creative Curriculum's Developmental Continuum. PR = Parent Ratings on the BASC scales. TR = Teacher Ratings on BASC scales.

**p < .01, two-tailed. *p < .05, two-tailed.

Table 10
Intercorrelations of the BASC Ratings by Parents and Teachers and the Language Domain on the Developmental Continuum Gain Scores

	Language Developmental Continuum (n = 123)				
	1	2	3	4	5
1. Language Dev Cont (Z-score)	---				
2. PR Adaptive Scales	.01	---			
3. PR Clinical Scales (BSI)	-.08	-.07	---		
4. TR Adaptive Scales	.31**	.22**	-.22**	---	
5. TR Clinical Scales (BSI)	-.13	-.08	.19*	-.32**	---

Note. Language Dev Cont = Gains made on the Language domain of the Creative Curriculum's Developmental Continuum. PR = Parent Ratings on the BASC scales. TR = Teacher Ratings on BASC scales.

**p < .01, two-tailed. *p < .05, two-tailed.

Table 11
Regression Analysis of BASC Parent Ratings and Cognitive Domain of the Developmental Continuum

Predictor	B	SE	Beta	t	p
Model 1 ($R^2 = .001$, $F = .069$, $p = .933$)					
PR Adaptive Scales	>.01	.01	.03	.35	.73
PR Clinical Scales	>.01	.01	-.01	-.12	.90

Table 12
Regression Analysis of BASC Parent Ratings and Language Domain of the Developmental Continuum

Predictor	<i>B</i>	SE	Beta	<i>t</i>	<i>p</i>
Model 1 ($R^2 = .017$, $F = 1.049$, $p = .354$)					
PR Adaptive Scales	.01	.01	.11	1.18	.24
PR Clinical Scales	>.01	.01	-.07	-.81	.42

Table 13
Regression Analysis of BASC Teacher Ratings and Cognitive Domain of the Developmental Continuum

Predictor	<i>B</i>	SE	Beta	<i>t</i>	<i>p</i>
Model 1 ($R^2 = .097$, $F = 6.435$, $p = .002$)					
TR Adaptive Scales	.04	.01	.32	3.54	.001
TR Clinical Scales	>.01	.01	.04	.47	.64

Table 14
Regression Analysis of BASC Teacher Ratings and Language Domain of the Developmental Continuum

Predictor	<i>B</i>	SE	Beta	<i>t</i>	<i>p</i>
Model 1 ($R^2 = .099$, $F = 6.583$, $p = .002$)					
TR Adaptive Scales	.04	.01	.30	3.30	>.01
TR Clinical Scales	>.01	.01	-.04	-.49	.63

A statistically significant relationship was found between the teachers' ratings of adaptive skills and the gain score for both the cognitive and language domains of the Developmental Continuum. The other scales on the parent and teacher ratings were not correlated significantly with the gain scores on either of the domains of the Developmental Continuum.

Model for Pre- and Post-Gain Data. Does a model that focuses only on initial academics or a model that incorporates initial academic levels with mental health and adaptive behavior best fit the pre- and post-gain data? Models were not compared as planned in this study due to insufficient variance.

CHAPTER V

SUMMARY AND CONCLUSIONS

Overview of Significant Findings

The results of this study were mixed as to whether social-emotional skill level impacts academic gain in one year. Each research question will be discussed in turn.

What is the contribution of beginning year pre-academic skills as measured by domains on the Speed DIAL to academic progress in one year as measured by the fall-spring gain scores of Developmental Continuum? Although initial Speed DIAL scores and Speed DIAL gain scores are correlated, a greater relationship was evident in the correlations between the initial Speed DIAL scores and the cognitive and language domains of the Developmental Continuum. The pre-academic skills measured by the Speed DIAL made a significant contribution to the academic progress in one year as measured by the gains made on the Developmental Continuum.

What is the contribution of mental health as measured by the clinical scales of the parent BASC to academic progress in one year as measured by the fall-spring gain scores of the Speed DIAL or the Developmental Continuum? In this study, the clinical scales of the BASC-Parent Report were not predictive of academic progress in one year.

What is the contribution of mental health as measured by the clinical scales of the teacher BASC to academic progress in one year as measured by the fall-spring gain scores of the Speed DIAL or Developmental Continuum? The clinical scales of the BASC-Teacher Report did not predict academic progress in one year for this Head Start sample. *What is the contribution of social-emotional development as measured by the*

adaptive scales of the parent BASC to academic progress in one year as measured by the fall-spring gain scores of the Speed DIAL or Developmental Continuum? The adaptive scales of the BASC-Parent Report did not appear to contribute to academic progress in one year. What is the contribution of social-emotional development as measured by the adaptive scales of the teacher BASC to the academic progress in one year as measured by the fall-spring gain scores of the Speed DIAL or Developmental Continuum?

Although the adaptive scales of the BASC-Teacher Report did not appear to contribute to academic gains as measured by the fall-spring gain scores on the Speed DIAL, a relationship was discovered between the adaptive scales and the Developmental Continuum. The difference in the gain scores on the Speed DIAL and the Developmental Continuum may be caused by variation between the standardized nature of the Speed DIAL compared to the observation system used by the classroom teacher to complete the Developmental Continuum. The adaptive scales of the BASC-Teacher Report make a significant unique contribution to the prediction of academic gains measured by the cognitive and language domains of the Developmental Continuum. This is consistent with previous literature linking work-related social skills (i.e., listening and following directions) to academic achievement as measured by formal measures at kindergarten and at the end of second grade (McClelland & Morrison, 2003).

Implications of the Study

This study indicated that social-emotional skills had an impact on academic progress over one year in these Head Start children. However, it is difficult to determine why the teachers' ratings were more predictive than the parents' ratings. One possibility

is that the teachers were more familiar with the questions asked on the BASC and therefore had a better understanding of the questions. Previous studies have found teacher ratings to be more predictive than parent ratings. The Flanagan et al. (2003) study demonstrated the usefulness of their model for identifying children who may be at-risk based on teachers' ratings of multiple behaviors. Children who exhibited disruptive, overactive behaviors were more likely to be identified by Head Start teachers (Fantuzzo et al., 2003). However, for the current study it was believed that the combination of parent and teacher ratings would add to the ability to identify social-emotional strengths and weaknesses.

More statistically significant results may have been present with a clinical sample. Although this sample has many of the risk factors for clinical problems, none of the BASC ratings were in the clinical range ($T > 70$). In fact, the sample ratings ranged from $T = 44$ to 48 ; within the average range across all scales measured. This sample of Head Start children may embody the counter influences or protective factors in their environment that can positively affect development. These resiliency influences include high quality, well-informed Head Start programs, and caring and stable adults in the child's life. Additionally, children who may be most at risk may not have been participated in this study due to parent and/or child factors. Parents may not have permitted their student to participate or were too overwhelmed at home to complete the consent or rating forms. Children with more social-emotional and/or academic deficits may be placed in a more restrictive environment (i.e., Special Education) or they may not be attending any preschool program.

Child-care quality has been observed to have a modest long-term effect on children's cognitive and social-emotional development at least through kindergarten (Langlois & Liben, 2003; National Institute for Child Health and Human Development Early Child Care Research Network, 2003; Peisner-Fienberg et al., 2001). High quality child-care, with attention to social-emotional development as well as overall mental health is imperative for successful preschool programs. The BVCAA Head Start program has extensive programs to enhance social-emotional skills including parenting programs, mental health consultants, mental health interns, and collaboration with a large university. The additional mental health staff help teachers and parents work with children identified as needing support. This Head Start program demonstrates the characteristics of a "high quality" childcare program. Weissberg et al. (2003) stated the highest quality of the environments where children are raised and educated is needed in order to enhance the learning benefits to children. They will benefit the most when the adults around them cooperate to strengthen and implement programs addressing social deficits. Greenberg et al (2003) assert that school-based prevention programming with coordinated social, emotional, and academic learning should be a fundamental aspect of preschool and beyond.

A statistically significant relationship between pre-academic skills as measured by the initial Speed DIAL score and teacher ratings' of adaptive and clinical scales indicate a relationship between what the child has learned before coming to the Head Start program and his or her mental health. A negative relationship between the clinical scales and pre-academic skills imply social-emotional difficulties may impede learning

outside of the Head Start program. This relationship was not evident at the end of the year, which may indicate a remedial factor of the Head Start program itself in increasing appropriate social-emotional skills. The relationship between pre-academic skills and gain scores over one year, reveal the influence of pre-academic skills on ability for children to progress in a Head Start program in one year. However, the relationship between the teacher ratings of adaptive skills and academic gain, indicates that the ability of a preschool student to progress academically can be improved with appropriate adaptive skills.

Although a statistically significant relationship was not found between the parent ratings and the academic gains in one year, this may indicate that the impact of these students' social-emotional skills and mental health may not be as obvious in one year. Peisner-Fienberg et al. (2001) demonstrated advanced development in children over a five-year period. A longer time period may be needed in order to show the influence of social-emotional skills on academic achievement.

These findings suggest the importance of teaching young children appropriate social-emotional skills, specifically adaptive skills, in order to improve academic gains. School Psychologists and Early Childhood educators are placed in a relevant role due to the need to address facilitate the acquisition of appropriate social-emotional skills in young children. The School Psychologists can provide the educators and parents with the needed tools to facilitate social-emotional growth in their children. This role may include consultation on environment and instruction for preschool programs.

Additionally, social-emotional and mental health development need to be included in early childhood curricula in order to prevent future academic and school problems.

Limitations of this Study

One limitation of this study was its duration across only one school year. Previous studies have examined social-emotional skills and academic progress over a longer period and have observed stronger relationships. This may be due to the length of time it takes for a child to develop social-emotional skills and the age-appropriate expectations of their teachers and parents. A distinct shift in socio-cognitive skills appears to occur between the ages of six and eight (Mayuex & Cillessen, 2003). Programs that focus on improving a wide range of social behavioral skills from emotional regulation to behavioral response during this age range may help increase the social functioning of children today. A more distinct relationship may be more evident after these interventions have been used.

The children involved in this study come from Head Start centers in rural Texas. They encompass only one geographical region and the results may not generalize to students across the country. Similarly, rural Head Start programs are not as prominent as urban programs and therefore, may not be representative of all Head Start children. This study is helpful in accessing the social-emotional skills and their relationship to academic progress for Head Start children. However, Head Start students face many different challenges than the average preschool student. A sample of Head Start and non-Head Start students would be helpful in measuring the application of this study's results to other children.

Use of a non-clinical sample may have impacted the level of skills that could be attained in one school year. Because this sample was in the average behavioral range, teachers and parents may have found it more difficult to acknowledge the small changes their student made. An evaluation of social-emotional skills at the end of the school year might be helpful in further determining the contribution of existing social-emotional skills, maladaptive skills, and pre-academic skills on academic gain.

As with any rating scale, the limitations of the rater's comfort and understanding of the instrument may impact the scores. Efforts were made by the researcher to answer questions of the parents and teachers about the rating scales, however, few were asked. This could be due to the ease of filling out the BASC rating scales. An observation system of the social-emotional skill level of the Head Start students would provide another avenue for evaluation but was unrealistic for this study.

Additionally, the Speed DIAL was not designed as a pre and post measure. Therefore, it is likely not sensitive to the incremental changes made by students throughout the school year. The scoring design of the Speed DIAL does not directly add all skill level increases to the overall score. However, because the Speed DIAL was already a part of the Head Start developmental screening process, it was utilized in the current study. A more sensitive measure of pre and post skill levels may prove beneficial in further research.

Recommendations for Further Research

Social-emotional development in young children is an interesting and important topic. Because many programs are losing funding, they are cutting back on social

programs and solely keeping academic programs. Such cut backs may prove detrimental to the children of today. Knitzer (2003) stated that there are several additional reasons to pay attention to social and emotional development in young children. Early relationships and experiences have a greater impact on development than previously understood; social and emotional competence set the stage for later developmental tasks. Alexander and Entwisle (1988) found that children who were unable to adjust and function well in school by age eight, had difficulty in their future adjustment. This emphasizes the need to address social and emotional difficulties beginning in preschool and continuing throughout the school years.

Further research should evaluate the impact of social programs, such as Head Start, on the continued development of social-emotional and academic skills. Comparing the development and impact of social-emotional skills on academic progress among clinical and non-clinical samples would provide additional information. This could increase awareness of the educational needs for students with clinically significant social and emotional deficits. Additionally, a study with larger samples and over a longer time period would provide important information regarding the generalizability of results to larger populations. A longitudinal study would help determine the influence of social-emotional skills as on academic gains over time.

The results of this study show the importance of continuing to provide services and funding for services that go beyond the basic academic tasks. It is obvious that social-emotional development influences many vital attributes in a child's growth, including academic success. Without further research on the relevance of social

competence in young children, we are likely to misunderstand its true impact on society and our future.

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APPENDIX A

Social-Emotional Development and School Readiness in Head Start Children

I, _____ consent to be included in this study. I understand that the purpose of this study is to look at the link between social-emotional development and academic progress in children ages 3 to 5 years. I understand that before the study is completed, 350 individuals will be included in this study. I understand that my participation is voluntary and that I can withdraw my consent at any time.

I understand that in participating I will be asked to complete a rating scale about the behavior of the children in my class. I understand that the rating scale will take about 20 minutes to complete. I understand that the rating scales will be analyzed by a doctoral student. I understand that I will only be able to access information of the children's' social-emotional development as a group.

I have read and understand the explanation provided to me I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study. I have been given a copy of this consent form. If I have any questions about this study, I can contact:

Rachel M. Team
Texas A&M University
College Station, TX
(979) 779-7403

Cynthia A. Riccio, Ph.D.
Department of Educational Psychology
Texas A&M University
(979) 862-4906

Signature

Date

Rachel M. Team, B.S.

Date

Cynthia A. Riccio, Ph.D.

Date

This research study has been reviewed and approved by the Institutional Review Board – Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects' rights, the Institutional Review Board may be contacted through Dr. Michael W. Buckley, Office of Vice President for Research and Associate Provost for Graduate Studies at (979) 845-8585.

APPENDIX B

Social-Emotional Development and School Readiness in Head Start Children

I give my permission for my child, _____ to be included in this study. I understand that the purpose of this study is to look at the link between social-emotional development and academic progress in children ages 3 to 5 years. I understand that before the study is completed, 350 individuals will be included in this study. I understand that my participation is voluntary and that I can withdraw my consent at any time with the records of my child's participation destroyed at my request.

I understand that in participating I and my child's teacher will be asked to complete a rating scale about my child's behavior. I understand that the rating scale will take about 20 minutes to complete. I understand that the rating scales will be analyzed by a doctoral student. I understand that information concerning the social-emotional development of my child may be individually obtained after the data have been collected and scored by me, but not my child's teacher.

I have read and understand the explanation provided to me (or it was read to me). I have had all my questions answered to my satisfaction, and I voluntarily agree for my child and me to participate in this study and to have my child's teacher complete the rating scale. I have been given a copy of this consent form. If I have any questions about this study, I can contact:

Rachel M. Team
Texas A&M University
College Station, TX
(979) 779-7403

Cynthia A. Riccio, Ph.D.
Department of Educational Psychology
Texas A&M University
(979) 862-4906

Signature

Date

Rachel M. Team, B.S.

Date

Cynthia A. Riccio, Ph.D.

Date

This research study has been reviewed and approved by the Institutional Review Board – Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects' rights, the Institutional Review Board may be contacted through Dr. Michael W. Buckley, Office of Vice President for Research and Associate Provost for Graduate Studies at (979) 845-8585.

VITA

Rachel Marie Team
 Department of Educational Psychology
 4225 TAMU
 College Station, TX 77845
 rteam@tamu.edu

Educational Background

- 2001-2006 **Texas A&M University**, *College Station, Texas*
 Ph.D. in School Psychology
- 1997-2001 **Abilene Christian University**, *Abilene, Texas*
 Bachelor of Science in Psychology
 Magna Cum Laude
 Minor: Sociology

Professional Experience

- 2005-2006 **Doctoral Psychology Intern**, *Lewisville Independent School District, Special Education Department*
- 2001-2005 **Mental Health Specialist**, *Brazos Valley Community Action Agency (BVCAA) Head Start Program,*
- 2004-2005 **Cypress-Fairbanks ISD School Practicum**, *Watkins Middle School and Walker Elementary School, Houston, TX.*

Presentations

Team, R. M. & Ash, M.J. (2006, March). *Performance differences on the Speed DIAL*. Poster presentation accepted to the National Association of School Psychologists Convention for March 2006.

Childes, K., Kennedy, C., Fournier, C., Newton, K., **Team, R.**, & Curran, E... (2004, April). *Early literacy: What are the skills of very young children?* Poster presented at the National Association of School Psychologists Convention, Dallas, TX.

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Team, R. M. (2002, February). *There Is More Than One Normal Distribution: What Is the Normal Distribution, Really?* Paper presented at the meeting of the Southwest Educational Research Association in Austin, TX and the Educational Research Exchange at Texas A&M University.