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TEACHER'S RESPONSE TO INTERNALIZING AND
EXTERNALIZING SYMPTOMATOLOGY IN CHILDREN

A Dissertation

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Degree of

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By

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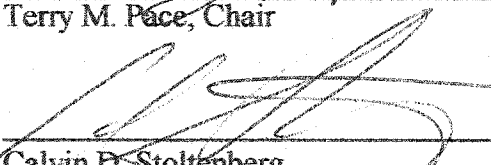
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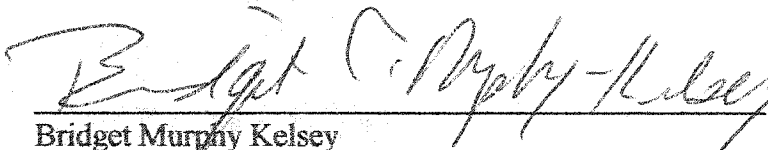
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TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
II. REVIEW OF LITERATURE	8
Childhood Depression	9
Attention Deficit Hyperactivity Disorder	15
Interpersonal Responding Literature	24
III. METHOD	32
Participants	32
Procedure	33
Measures	34
Video Tape Vignettes	35
IV. RESULTS	38
V. DISCUSSION	48
REFERENCES	57
APPENDIX A – Transcript of Video Tape Vignettes	67
APPENDIX B – Teacher Rating Measures (TRIA, TRPR)	81
APPENDIX C – Background Information Form for Teachers	84
APPENDIX D – Institutional Review Board Application	87
APPENDIX E – Informed Consent Form	95

LIST OF TABLES

Table	Page
1. Means and Standard Deviations of Teachers Social Responding Variables Based on Condition	39
2. Correlations Among Selected Demographic Variables and Teachers Ratings of Interpersonal Attractiveness and Teachers Ratings of Interpersonal Rejection	44
3. Stepwise Regression Analysis Predicting Teachers' Ratings of Interpersonal Attractiveness from Condition	46
4. Stepwise Regression Analysis Predicting Teachers' Ratings of Interpersonal Rejection from Demographic Variables And Condition	46

ABSTRACT

It is of interest to understand the role teacher responses to their students may have in contributing to the maintenance of childhood emotional, behavioral and social problems. This study examined the differences between children's internalizing behavior, externalizing behavior and well functioning behaviors with teacher's levels of interpersonal attractiveness or personal rejection. A sample of 182 teachers drawn from an educational conference were randomly selected to view one of three video taped vignettes in which a child actor was portrayed as depressed (internalizing symptomatology), inattentive and hyperactive (externalizing symptomatology), or as well functioning (no apparent clinical symptomatology). The child portrayed with internalizing behavior was perceived by teachers to be less interpersonally attractive compared to the other two conditions. However, the child portrayed with externalizing behaviors was perceived negatively on both social responding measures of interpersonal attractiveness and personal rejection compared to the well functioning child condition. This suggests that children exhibiting internalizing or externalizing behavior are perceived differently as well as negatively by influential adults in their lives, placing them at risk for further psychological difficulties.

Teacher's Response to Internalizing and Externalizing Symptomatology in Children

CHAPTER I

Introduction

There are important applied and theoretical reasons for research into the association between social desirability and dysfunctional behavior as reported in children. (Dadds, Perrin, & Yule, 1998). As much as 15 percent of children experience emotional and behavioral problems such as depression, anxiety, attention deficit hyperactivity, and conduct related disorders (McElhaney, Russell, & Barton, 1993). Depression in children is associated with impairment in psychological functioning and a high risk for continuity into adulthood (Campbell, 1998; Harrington, 1993). The generally held consensus is that both childhood and adult depression present with similar affective, cognitive, physical and motivational symptoms, although there may be age specific features (Schwartz, Gladstone, & Kaslow, 1998). Increased sadness, feelings of guilt, loss of pleasure in normal activities, and negative self-appraisal are but a few examples of symptoms seen in childhood depression. Attention deficit hyperactivity disorder (ADHD) is a complex disorder (Culbertson & Krull, 1996) with multiple presentations and perhaps multiple etiologies. Short attention span, impulsivity and hyperactivity not developmentally appropriate are all examples of symptoms associated with ADHD. This disorder can affect the cognitive, emotional, and social areas of the child and also has a negative effect on peers, family and society.

Therefore, it is of particular interest to understand the role teacher responses to students may have in contributing to the maintenance of childhood emotional, behavioral and social problems, as well as alleviating or increasing internalizing or externalizing behaviors. However, little research has been conducted regarding teachers' abilities to accurately identify emotional distress in children (Maag, Rutherford & Parks, 1988) and how their responses influence these disorders. What is speculated, however, is that a child's ability to regulate emotions and behavior in the context of interpersonal relationships derives largely from early experiences with caregivers (Mash & Terdal, 1997) or other important and meaningful influences on a child such as their teacher.

Background of the Problem

A growing body of research has focused on Coyne's (1976) interpersonal interaction theory. Coyne (1976) explained the maintenance of psychological problems such as depression by examining the interpersonal consequences of emitting such behaviors. Coyne (1976) postulated that most often when individuals first behave in a socially ineffective or disturbing manner, others respond with concern. However, if the symptomatology continues, others begin to harbor negative feelings of anger and resentment because they are unable to understand why the symptoms persist. These experiences result in rejection, avoidance or criticism and serve as confirmations of the person's emotional or behavioral disturbance. Based on this model, a child with emotional or behavioral difficulties may become involved in a cycle of self and other rejection (Pace, Mullins, Beesley, Hill, & Carson, 1999).

In addition to adult depression, several studies have investigated Coyne's theory in relation to childhood psychopathology. When adults have been asked to rate their

desire for interaction with a child, personal rejection toward the child, and attractiveness of the child, findings indicate that the child's level of depression considerably influences these factors. Findings indicate that those rating the child perceive the depressed child in negative terms (Mullins, Peterson, Wonderlich, & Reaven, 1986; Mullins, Chaney, Kiser, Nielsen, & Pace, 1998). While participants who viewed the depressed child perceived the child as significantly less interpersonally attractive, they were not more personally rejecting of the child (Mullins et al., 1998).

When teachers from elementary and secondary schools viewed hypothetical vignettes of a depressed or non-depressed child experiencing high or low life stress, the child's level of depression influenced almost every rating (Peterson, Wonderlich, Reaven, & Mullins, 1987). These teachers perceived the depressed child as unattractive and as likely to function ineffectively in a variety of social roles. In a similar study, results indicated that after exposure to the depressed child, subjects felt more anxious and depressed themselves (Mullins et al., 1986).

Mullins, Chard, Hartman, Bowlby, Rich and Burke (1995) suggested that the relationship between student self-reported symptomatology and negative social responding might increase over the course of the academic year. This evidence may further complicate identification of those students who may be in need of help and may be due to the teachers growing knowledge of individual differences within their students and typical behavior attributed to those students. Mullins et al. (1995) used a school sample of 113 fourth through sixth graders to replicate the significant relationships previously found between teacher's social responses and student behaviors. This study examined the relationship between self-reported and parent-reported depressive

symptomatology in school children and social responses of teachers. Significant relationships were found between self-reported child depressive symptoms and negative social responses. However, no significant relationship was found between teacher social response ratings and parent reports of child depressive-type symptoms. Overall, partial support was found for Coyne's interpersonal interaction theory (Mullins et al, 1995).

Pace et al. (1999) also examined the relationship between children's behavioral problems and teachers social response. Teachers rated 43 fourth through sixth grade children on measures of interpersonal attractiveness and personal rejection. Results indicated that teacher ratings of interpersonal attractiveness were significantly correlated with level of student depression, internalizing problems and externalizing problems. However, only externalizing behaviors were significantly correlated with teacher ratings of personal rejection. Teacher ratings were also significantly related to and influenced by family income (Pace et al., 1999). Findings again lend partial support to Coyne's interpersonal interaction theory.

Collectively, the aforementioned studies demonstrate that adults find children with internalizing symptomatology less interpersonally attractive. Furthermore, it appears that teachers may perceive externalizing children in a more rejecting manner in addition to less interpersonally attractive. However, only a limited amount of research has investigated externalizing symptomatology in children and the differences in the way teachers relate to these children from children with internalizing symptomatology.

Statement of the Problem

The role of teacher responses and interpersonal interactions with students may have significant implications in the etiology and maintenance of childhood behaviors

(Peterson et al., 1987). Socially aversive experiences may promote and foster more emotional, behavioral and social problems for a child. Despite the relative lack of psychological training, classroom teachers at all levels are often called upon to identify and assist these children (Stark, 1990). Teacher acceptance, understanding, and ability to establish positive relationships help build a solid foundation for all children. Children that develop warm, close, communicative relationships with their teachers have been found to be better adjusted overall as they progress through school and later years (Pianta, Steinberg, & Rollins, 1995). The research suggests, however, that children with internalizing and externalizing symptomatology do not establish close communicative relationships with their teachers that foster acceptance and understanding.

Identification and intervention for emotional and behavioral problems in children are essential to preventing chronic, long-term psychological, social and educational difficulties. While teachers are often placed in this position, they have little or no training to assess emotional, behavioral or other psychological difficulties in their students (Stark, 1990). Children that display internalizing symptomatology may be overlooked in a classroom setting and not receive support they need. Children that display disruptive, acting-out behavior are typically identified as students in need of assistance, yet those children are often removed from the classroom and similarly receive little support from the teacher. Given these assumptions, and the lack of interpersonal interaction, it is not yet clearly understood how teachers identify, perceive and relate to internalizing and externalizing symptomatology in children.

Significance of the Study

This study will investigate the association between student-teacher relationships and the emotional and behavioral difficulties experienced by students. Specifically, these difficulties include internalizing problems such as depression and externalizing problems such as inattentive and hyperactivity disorders. Because only a small percentage of children experiencing these problems receive special program assistance or mental health treatment, the teacher is often placed in a difficult position of assisting these children while creating a healthy learning environment for everyone. This study may help to better understand how teachers identify and relate to children with internalizing and externalizing symptomatology. The empirical research (e.g., Shottle & Peltier, 1996) indicates that when teachers receive instruction in dealing with chronic behavior problems, their students improved from being regarded as significantly at risk to being in the normal range for the behavior. This was true for teachers that received either individual or group instruction, although greater change in student behavior was noted for teachers receiving individual instruction (Shottle & Peltier, 1996). Also, teachers that feel competent in identifying and helping students with problem behaviors are more likely to be more socially responsive and accepting than those that lack these skills.

With a better understanding of how teachers identify and perceive internalizing and externalizing behaviors in their students, additional educational programs may be developed that help to advance interpersonal relationships. Therefore, it is important to understand how the teacher's relationship with these students may either foster further distress or support positive adjustment.

Research Hypotheses

- I. Levels of children's internalizing symptomatology will be associated with higher levels of negative social responding compared to those children considered well functioning.
 - A. Depressive symptomatology will be associated with lower levels of interpersonal attractiveness.
- II. Levels of children's externalizing symptomatology will be associated with higher levels of negative social responding compared to those children considered well functioning.
 - A. Inattentive and hyperactive (ADHD) symptomatology will be associated with lower levels of interpersonal attractiveness.
 - B. Inattentive and hyperactive (ADHD) symptomatology will be associated with higher levels of personal rejection.
- III. Levels of externalizing symptomatology will be associated with greater levels of negative social responding than compared to internalizing symptomatology.
 - A. Inattentive and hyperactive (ADHD) symptomatology will receive greater personal rejection levels than compared to depressive symptomatology.

CHAPTER II

RELATED LITERATURE

Previous research has demonstrated that teachers find children with internalizing symptomatology less interpersonally attractive (e.g., Mullins et al., 1998). Furthermore, it appears that teachers may perceive externalizing children in a more rejecting manner in addition to less interpersonally attractive (e.g., Pace et al., 1999). However, only a limited amount of research has investigated externalizing symptomatology in children and the differences in the way teachers relate to these children from children with internalizing symptomatology.

Socially aversive interpersonal experiences may foster emotional, behavioral and social problems for some children. Furthermore, how teachers respond to students that may be experiencing difficulties could have significant implications in the etiology and maintenance of negative childhood behaviors (Peterson et al., 1987). Classroom teachers are often called upon to identify and assist these children, yet they generally have little or no training to assess emotional, behavioral or other psychological difficulties in their students (Stark, 1990). While children that develop warm, close, communicative relationships with their teachers are better adjusted overall as they progress through school (Pianta et al., 1995), the research suggests that children with internalizing and externalizing symptomatology do not establish these types of relationships.

Children with internalizing symptomatology may be experiencing emotional difficulties such as depression or anxiety. They may be overlooked in a classroom setting, not receiving the support they need, especially if they are quiet or withdrawn. On the other hand, children that display disruptive, acting-out behavior are typically identified as

students in need of assistance, yet those children are often removed from the classroom and similarly receive little support from the teacher. Given these assumptions and implications for student-teacher relationships, it is important to review the internalizing behaviors of depression and externalizing behaviors of attention deficit hyperactivity disorder.

Childhood Depression

Many theorists have questioned the existence of depression in childhood. Commonly held conceptualizations included (a) depression cannot occur in children; (b) if depression exists in children, it is rare or occurs in "masked" form; and (c) childhood depression is a transitory developmental phenomenon or reflects a normal developmental stage (Kaslow & Rehm, 1985). However, recent assumptions regarding childhood depression suggest that it parallels adult depression (Clarizio, 1994; Schwartz et al., 1998).

Depression in children is associated with impairment in psychological functioning and a high risk for continuity into adulthood (Campbell, 1998; Harrington, 1993). The generally held consensus is that both childhood and adult depression present with similar affective, cognitive, physical and motivational symptoms, although there may be age specific features (Schwartz et al., 1998). Stark (1990) discusses the nature of childhood depression and the way these symptoms are manifested. For example, affective or emotional symptoms may include dysphoric mood, anger or irritability, anhedonia, weepiness, loss of mirth response, feeling uninvolved and self-pity. Cognitive symptoms include negative self-evaluations, guilt, hopelessness, difficulty concentrating, indecisiveness, and morbid ideation. Physical or vegetative symptoms may include

fatigue, change in appetite or weight, aches and pains, sleep disturbance, psychomotor retardation and psychomotor agitation. Finally, motivational symptoms include suicidal ideation and behavior, decreased academic performance and social withdrawal (Stark, 1990).

According to recent research, the rate of major depressive disorders in children is higher than previously recognized (Campbell, 1998; Harrington, 1993). There are no definitive studies of the prevalence of depression in children (Achenbach & Edelbrock, 1981; Clarizio, 1994; Schwartz et al., 1998). However, current studies suggest that 2%-5% of children in the general population meet DSM-IV criteria for depressive disorder and range from 10%-50% of children in clinical populations as meeting these criteria (Schwartz et al., 1998).

With depression in children having many similarities to depression in adults, specific operational and diagnostic criteria for depression are used for both groups (Clarizio, 1994; Harrington, 1993). This mutual criteria for depression is evident in the Diagnostic and Statistical Manual for Mental Disorders-IV (APA, 1994). Depression is not listed among the disorders that are usually evident in infancy, childhood, or adolescence. Rather, affective disorders in children are classified under the section on adult mood disorders. The DSM-IV does comment on age specific associative features that differ across developmental periods. For example, irritable mood in both children and adolescents may substitute for depressed mood and failure to make expected weight gains in children may substitute for significant weight loss or weight gain (APA, 1994). In pre-pubertal children with major depression, somatic complaints, irritability and social withdrawal are thought to be particularly common (APA, 1994). A diagnosis of Major

Depressive Disorder is made when a child or adolescent has experienced one or more Major Depressive Episodes and no Manic, Hypomanic or Mixed Episodes. The current DSM-IV criteria for a Major Depressive Episode is described below (APA, 1994):

A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure. Note: Do not include symptoms that are clearly due to a general medical condition, or mood-incongruent delusions or hallucinations.

- (1) depressed mood most of the day, nearly every day, as indicated by subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful). Note: In children and adolescents, can be irritable mood.
- (2) markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation made by others)
- (3) significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. Note: In children, consider failure to make expected weight gains.
- (4) insomnia or hypersomnia nearly every day
- (5) psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)

- (6) fatigue or loss of energy nearly every day
 - (7) feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)
 - (8) diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others)
 - (9) recurrent thoughts of death (not just fears of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide
- B. The symptoms do not meet criteria for a Mixed Episode.
 - C. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
 - D. The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hypothyroidism).
 - E. The symptoms are not better accounted for by Bereavement, i.e., after loss of a loved one, the symptoms persist for longer than 2 months or are characterized by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation.

In addition to using a DSM approach with information typically gathered through a clinical interview of the child and caregiver, other measures have been developed to test

degrees of severity for depression and other psychological disorders. For example, these include the Minnesota Multiphasic Personality Inventory-Adolescent (MMPI-A; Butcher, Williams, Graham, Archer, Tellegan, Ben-Porath, & Kaemmer, 1992) and the Youth Self-Report (Achenbach & Edelbrock, 1991). Other inventories used with children that measure the single construct of depression include the Child Depression Inventory (CDI; Kovacs, 1992) and the Reynolds Adolescent Depression Scale (RADS; Reynolds, 1986).

While recent studies have increased the understanding of childhood depression, their focus has largely been on cognitive and neurobiological factors without examining the interpersonal context of depression. This assumes to a large extent that the child's depression is somehow independent of their environment, and is a limitation of the DSM approach to diagnosis of depression in children (Rehm & Sharp, 1996). According to Rehm and Sharp (1996), depression in children should be viewed in the context of family, peers and school. This interpersonal context of depression may effect the onset of depression, the personal subjective experience in depression, and the behavioral manifestations and resolution to depression (Joiner & Coyne, 1999).

Family environment has been shown to be a determining influence on the development and maintenance of childhood depression (Kaslow, Deering, & Racusin, 1994). For example, parental depression is a risk factor for depression in children and adolescents (Kaslow et al., 1994). Depressed children also perceive their family environments to be more distressed compared to their non-depressed peers (Kaslow et al., 1994). However, specific adverse experiences within the family such as bereavement, divorce and abuse have not been shown to have strong relationships with depression in

children (Harrington, 1993). This is likely due to significant individual differences in children's affective responses to adverse life events (Harrington, 1993).

Behavioral and cognitive-behavioral models suggest a relationship between social skills deficits and depression (Spirito, Hart, Overholser, & Halverson, 1990). Social skills can be thought of as the ability to interact with others in an effective and appropriate manner. Depressed children rate their own social skills lower than their non-depressed peers (Dalley, Bolocofsky, & Karlin, 1994). In a school setting, children who perceive themselves as less academically or socially competent were more likely to be depressed (Chan, 1997). Furthermore, children who indicated a higher level of self reported depression were rated by their teachers as having more social skills deficits (Shah & Morgan, 1996). Since interpersonal factors and social skills deficits have been linked to the development of depressive disorders, interventions that address these deficits are a promising method of treatment (Sommers-Flanagan, Barrett-Hakanson, & Clark, 2000).

While different treatment approaches exist for the treatment of depression in children and adolescents including pharmacological, there is preliminary evidence of the effectiveness of cognitive-behavioral strategies (Clarizo & Payette, 1990). These strategies may include cognitive restructuring procedures in which the therapist will work with the child to identify evidence that supports or refutes their automatic thoughts and the underlying cognitive structures (Stark, 1990). Problem solving training is also used with depressed children to help empower them and develop a procedure for overcoming difficulties (Stark, 1990). Stark (1990) also suggests that family therapy, activity scheduling, self-control procedures, assertiveness training and relaxation training may also be effective methods of treatment for childhood depression.

Due to the interpersonal nature of depression in children, social skills training may be particularly effective. Social skills training is a structured learning therapy designed to teach the specific skills necessary for an individual to receive maximum positive reinforcement in a variety of interpersonal situations (Bellack, Hersen, & Himmelhoch, 1996). Social skills teach the person to be effective in their own environment by coordinating delivery of a variety of verbal and nonverbal response components (Bellack, Hersen, & Himmelhoch, 1996). For children, this is an interpersonal and interactive format typically using modeling and role-play situations in which the child is given immediate feedback of desired behavior (Stark, 1990).

In conclusion, a growing body of research suggests not only a strong relationship between interpersonal factors and the development of childhood depression (Spirito, Hart, Overholser, & Halverson, 1990), but also the efficacy of implementing interpersonal strategies in the treatment of childhood depression (Clarizo & Payette, 1990; Sommers-Flanagan, Barrett-Hakanson, & Clark, 2000).

Attention Deficit Hyperactivity Disorder

Attention deficit hyperactivity disorder (ADHD) is a complex disorder with multiple presentations and perhaps multiple etiologies, and is one of the most studied disorders in existence (Culbertson & Krull, 1996). This is a serious disorder, affecting the cognitive, emotional, and social areas of a child's life. It has a negative effect not only on the child, but their environment as well (Barkley, 1990).

The typical features of ADHD are short attention span and impulsivity that is developmentally inappropriate. Children with this disorder may have severe or subtle

impairments. These symptoms endure for at least six months. Parents usually recognize this condition before or during early elementary school (Maxmen & Ward, 1995).

Symptoms most commonly include over-reactivity to stimuli (noise, light, and temperature), crying constantly, staying awake and frequent agitation. Fifty percent of children with ADHD present some symptoms before age four. The other fifty percent begin presenting symptomatology during elementary school (Kaplan & Sadock, 1991).

The prevalence of ADHD is approximately 3-4% of boys and 1-2% of girls (Hinshaw & Melnick, 1995). Comorbidity with depressive disorder is 13%, with anxiety disorder is 25%, with oppositional defiant disorder is 20-67%, and with conduct disorder is 20-56% (Mesco & Cantwell, 1991).

Attention deficit hyperactivity disorder was thought to be mainly a biologically based disorder, although early descriptions of the disorder occurring after brain injury were reported as early as the nineteenth century (Shaywitz & Shaywitz, 1988). Nevertheless, it has numerous potential etiologies (Barkley, 1997). Possible fetal and prenatal causes of ADHD include poor maternal nutrition, maternal substance abuse, viral infections, and exposure to toxins such as lead (Hinshaw & Melnick, 1995). This disorder also occurs in 70% of children and 50% of adults with thyroid hormone resistance (Maxmen & Ward, 1995). Other potential causes include neurological factors, diet, neurotoxins, genetic factors and social factors (Barkley, 1990).

Not until the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III; American Psychiatric Association, 1980), has an operational definition of attention deficit disorder (ADD) been specified in establishing guidelines for descriptors, age of onset and duration of symptoms (Barkley, 1996). The name of the

disorder was changed to ADHD with the DSM-III revision (APA, 1987), highlighting the elevated importance of hyperactivity as a symptom. With the DSM-IV (APA, 1994), the criteria for ADHD provided two separate lists of symptom descriptors, one for inattention and one for hyperactive-impulsive behavior considered jointly (Barkley, 1997). The current DSM-IV criteria for ADHD is described below (APA, 1994):

A. Either (1) or (2):

- (1) six (or more) of the following symptoms of inattention have persisted for at least six months to a degree that is maladaptive and inconsistent with developmental level:

Inattention

- a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
- b) often has difficulty sustaining attention in tasks or play activities
- c) often does not seem to listen when spoken to directly
- d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
- e) often has difficulty organizing tasks and activities
- f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)

- g) often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
- h) is often distracted by external stimuli
- i) is often forgetful in daily activities

(2) six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Hyperactivity

- a) often fidgets with hands or feet and squirms in seat
- b) often leaves seat in classroom or in other situations in which remaining in seat is expected
- c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
- d) often has difficulty playing or engaging in leisure activities quietly
- e) is often "on the go" or acts as if "driven by a motor"
- f) often talks excessively

Impulsivity

- g) often blurts out answers before the questions have been completed
- h) often has difficulty awaiting turn

- i) often interrupts or intrudes on others (e.g., butts into conversations or games)
- B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.
- C. Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).
- D. There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.
- E. The symptoms do not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder, and are not better accounted for by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).

Code based on type:

Attention-Deficit/Hyperactivity Disorder, Combined Type: if both Criteria A1 and A2 are met for the past 6 months

Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type: if Criterion A1 is met but Criterion A2 is not met for the past 6 months

Attention-Deficit/Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type: if Criterion A2 is met but Criterion A1 is not met for the past 6 months

Barkley (1996) suggests that children with ADHD may also demonstrate deficiencies in other areas beyond the operational DSM definitions of inattention and impulsivity. These are associated with cognitive impairments. These difficulties include

such things as motor coordination, working memory, verbal fluency and self-regulation of emotional arousal (Barkley, 1996), which are considered to fall within the domain of executive functions. Executive functions are considered neuropsychological processes that permit or assist with self-regulation. In other words, these executive processes are strategies or mechanisms used by a person to monitor and organize their own thoughts and behaviors (Barkley, 1990). Recent theories of ADHD hypothesize the primary deficit of the disorder is a complex self-regulating problem (Barkley, 1996).

Given the characteristics and difficulties associated with ADHD as well as potential impairments in executive processes, a child with the disorder is at an increased risk for problematic interactions with peers, teachers and parents (Barkley, 1990). Both at home and in a school setting, the child with ADHD has problems with rule-governed behavior. Likewise negative interactions increasingly develop between the child and the adult establishing or maintaining the rules for expected behavior (Barkley, 1996). Given the importance of social interaction with peers and adults in the development of children, the child's social environment should be included as part of the assessment and potential treatment (Barkley, 1990).

Assessment of ADHD includes multiple evaluation procedures and includes parent, child and teacher interviews, parent and child rating scales, self-report measures, and observational techniques (Barkley, 1997). While parental interviews are often criticized for being unreliable, they nevertheless provide important information concerning the child's symptoms and difficulties (Barkley, 1997; Maxmen & Ward, 1995). They also provide a good opportunity to learn more about the child's health in order to rule out problems caused by a medical condition. Variations in the behaviors as

well as the severity of the problems are assessed including the frequency, age of onset and chronicity (Barkley, 1997). A thorough developmental history of the child should be obtained during the parent interview including information about developmental milestones, social and cognitive abilities and language. Family histories are also important components of the interview, as well as obtaining information about current family circumstances and parent-child interactions. Finally, parents are usually asked to complete some form of a child behavior rating scale such as the Child Behavior Checklist (CBCL; Achenbach, 1991).

The child interview will vary in format, length and content depending on the child's age, language abilities and intellectual level (Barkley, 1997). This can range from a time spent simply developing a relationship with the younger child while noting appearance, developmental level and behavior to learning more about issues such as other ongoing problems, perceptions of home and family, school performance and social relationships with older children. While careful observation of the child's behavior is important, it should be guarded in cases where children are not problematic in a clinic or office setting since many ADHD children do not initially misbehave in this setting (Barkley, 1997).

Teacher interviews are important in clarifying the nature and extent of the child's problems. Children with ADHD typically present symptoms in classroom settings and have difficulties with academic performance (Barkley, 1997). The teacher interview is generally conducted by phone although it may be possible to discuss the child's behavior in person should a school observation be performed. Like the parents, teachers are also usually asked to complete some form of a child behavior rating scale.

Treatment strategies include individual child therapy, cognitive behavioral therapy, social skills training, parent training and medication. Individual child therapy works to help children with ADHD like and accept themselves despite their disorder. In psychotherapy the child talks to the therapist about upsetting thoughts and feelings, explores self-defeating behaviors and learns alternative ways to handle emotions (Barkley, 1990). Learning to confide in an adult, understanding their own disorder, developing hope at being able to change and feeling understood will result in improved self esteem and social interactions (Weiss, 1991).

Cognitive training has been designed to teach hyperactive children self-control, self-guidance, and problem solving strategies (Weiss, 1991). A practical example is helping the child organize school and homework and encouraging new behaviors by praise and reward.

Social skills training is a treatment model that consists of the therapist discussing and modeling appropriate behaviors such as waiting for a turn, sharing toys, and asking for help. The child begins to understand other people's facial expressions and tone of voice to respond more appropriately. Social skills training is not effective as a single treatment, however, and other strategies should be implemented concurrently (Weiss, 1991).

Parent training consists of training parents in general contingency management. Because parents have enormous influence over their young children's behavioral and emotional development, some parenting practices may cause or exacerbate a young child's problem (Hembree-Kigin, T. L. & Bodiford McNeil, C., 1995). The applications of reinforcement or consequences follow appropriate and inappropriate behaviors.

Reinforcement procedures have typically relied on praise or tokens whereas consequences are implemented by the loss of tokens or timeouts (Hinshaw, Klein & Abikoff, 1998). An additional aspect of this training is developing and enhancing parental attention, which might include one on one special day and family meetings. During this time together the parent looks for opportunities to notice and point out strengths and abilities (Barkley, 1990).

Finally, an increased number of children are being prescribed medication to help with the symptoms of the ADHD diagnosis (Barkley, 1990). There are three levels of drug interventions for children with ADHD: 1) stimulants, 2) antidepressants, and 3) neuroleptics. The uses of stimulants are the most commonly prescribed method of intervention (Maxmen & Ward, 1995). Since 1971, the use of stimulants (specifically Ritalin) for ADHD has doubled every four to seven years (Maxmen & Ward, 1995). Therapeutic efficacy of prescribed stimulants is evidenced by decreased motor activity when children are expected to be still. However, this effect is not evident when children are allowed to be physically active. Cognitive processes, such as sustained attention, distractibility, impulsivity, and short-term memory may be improved. In turn, this may have a positive impact on motivation, academic achievements, and interpersonal relationships (Maxmen & Ward, 1995).

While stimulant medication may be one of the most commonly employed treatments for ADHD and evidence exists to support some short-term benefits, its long-term efficacy is not known (Barkley, 1990). Stimulant medication should only be considered after other therapeutic modalities have failed and should not be used as the

sole form of therapy but rather used concurrently with other applied psychological treatments (Barkley, 1990).

Interpersonal Responding Literature

While it may be difficult to assess the emotional states of children, the classroom teacher is in an important position to offer assistance. Teachers are in a unique role, given the extensive interpersonal contact between students and teachers at the elementary school level, to facilitate the development of positive and effective coping strategies among their students. Problems arise, however, when teachers are not able to accurately identify these developing or existing difficulties. Teachers may be able to recognize behavioral problems found in their students, but are less able to accurately assess emotional difficulties.

When adults have been asked to rate their desire for interaction with a child, personal rejection toward the child, and attractiveness of the child, findings indicate that the child's level of depression considerably influences these factors. Findings indicate that those rating the child perceive the depressed child in negative terms (Mullins et al., 1986; Mullins et al., 1998). While participants who viewed the depressed child perceived the child as significantly less interpersonally attractive, they were not more personally rejecting (Mullins et al., 1998).

When teachers from elementary and secondary schools viewed hypothetical vignettes of a depressed or non-depressed child experiencing high or low life stress, the child's level of depression influenced almost every rating (Peterson et al., 1987). These teachers perceived the depressed child as unattractive and as likely to function ineffectively in a variety of social roles.

Mullins and colleagues (1995) suggested that the relationship between student self-reported symptomatology and negative social responding might increase over the course of the academic year. This evidence may further complicate identification of those students who may be in need of help and may be due to the teachers growing knowledge of individual differences within their students and typical behavior attributed to those students. Mullins et al. (1995) used a school sample of 113 fourth through sixth graders to replicate the significant relationships previously found between teacher's social responses and student behaviors. This study examined the relationship between self-reported and parent-reported depressive symptomatology in school children and social responses of teachers. Significant relationships were found between self-reported child depressive symptoms and negative social responses. However, no significant relationship was found between teacher social response ratings and parent reports of child depressive-type symptoms.

Pace et al. (1999) also examined the relationship between children's behavioral problems and teachers social response. Teachers rated 43 fourth through sixth grade children on measures of interpersonal attractiveness and personal rejection. Results indicated that teacher ratings of interpersonal attractiveness were significantly correlated with level of student depression, internalizing problems and externalizing problems. However, only externalizing behaviors were significantly correlated with teacher ratings of personal rejection. Teacher ratings were also significantly related to and influenced by family income (Pace et al., 1999).

Failure to identify, assess and provide appropriate interventions for difficulties observed in children may result in chronic, long-term problems with pervasive effects on

psychological and social development (Mash & Terdal, 1997). While this study focuses on identification and perception of internalizing and externalizing symptomatology in children, other factors may be relevant to the understanding of student-teacher relationships. These include gender differences, student perceptions of teachers, student family structure and socioeconomic status.

Gender Differences

Not only is there an abundant amount of research investigating the manner in which teachers respond to gender of the student, but there are also numerous studies that have explored differences in gender for emotion and behavior. Boys may not display sadness to the extent of girls, and generally expect negative consequences if they do express sadness (Fuchs & Thelen, 1988; Underwood, Coie & Herbsman, 1992). Furthermore, girls are seen to express emotions while inhibiting externalizing behaviors while boys may express difficulties through negative externalizing behavior and inhibit the expression of other emotions or internalized feeling states (Brody, 1985).

Studies of teacher ratings that examine differences in gender of students have been varied with respect to dependent variables measured. When asked to describe the most favored and most estranged students, teachers significantly differentiated these students on items such as attentiveness, and emotional stability, yet no significant differences were found in relation to age, race, or sex of the student (Caudry & Wilson, 1973). McDermott (1995) found only a small percentage of variability in cognitive ability, academic achievement, and social adjustment could be attributed to demographic factors including gender and age.

In a study of 2,709 male and 2,676 female fourth through eighth graders, teachers consistently rated females higher than males on quality of work and effort given. However, teacher ratings of subject abilities did not differ with respect to gender except in the language arts area (Siegle & Reis, 1998). While a large sample was used, subjects only included those students identified as gifted or talented. Therefore, this study is limited in its ability to generalize to students in other academic settings.

Serketich and Dumas (1997) examined adult ratings of children's attractiveness, aggression, anxiety, and social competence based on their physical appearance from a photograph. Results indicated that pictures of dysfunctional children were easily distinguished from their well-adjusted peers. The pictures of dysfunctional children were rated as less attractive, more aggressive, more anxious, and more likely to have an emotional or behavioral problem compared to their counterparts. Furthermore, these differences were especially profound and more easily observed for boys (Serketich & Dumas, 1997). Other research also suggests that teachers appear highly sensitive to the behavior of boys while being relatively unconcerned about such behavior in girls (Childs & McKay, 1997).

Students Perceptions of Teachers

In considering the effects of teacher's perceptions of their students, one must inversely consider how teacher characteristics influence their students. The interaction of these events may have reciprocal effects when considering the validity of teacher's evaluations. Therefore, a brief discussion of student evaluations or perception of teachers should be considered.

Although student evaluations of teaching performance can provide useful feedback for instructors, there are serious limitations in accuracy of these evaluations (Hanna, 1983; Simpson, 1995). These limitations of student evaluations are due to variables that may bias student ratings. More specifically, variables that may bias student ratings include teacher warmth (Elmore & LaPointe, 1975), prestige of professor (Kaschak, 1981), teacher self-disclosure (McCarthy & Schmeck, 1982), educational background of professor (Klaczynski, 1991), and socioeconomic group of those being rated (Hardy & Johnson, 1992). These extraneous variables might influence student ratings of teacher effectiveness and need to be considered in the evaluation of the validity of these ratings (Hanna, 1983).

While the question of bias in student evaluations concerning gender of teacher has long been debated in the literature (e.g., Elmore & LaPointe, 1974; Kaschak, 1978; Mischel, 1974), it is reasonably evident that behavioral traits or affect of the teacher are variables that can effect the validity of student ratings (e.g., Basow, 1990; Elmore & LaPointe, 1975; Kierstead, D'Agostino & Dill, 1988). Studies using variables other than gender focused upon behaviors and characteristics such as teacher warmth and instructors facial expressions (Elmore & LaPointe, 1975; Kierstead, D'Agostino & Dill, 1988). Teachers that were perceived by students as warm received higher ratings in teacher effectiveness (Elmore & LaPointe, 1975). Teachers that were perceived as friendly and used happy facial expressions also had elevated ratings (Basow, 1990; Kierstead, D'Agostino & Dill, 1988).

The literature suggests that such non-behavioral factors such as prestige and educational background of the teacher can also influence students perception of teacher

effectiveness (e.g., Hardy & Johnson, 1992; Kaschak, 1981; Klacezinski, 1991). There is evidence that other non-behavior factors also might bias student evaluation of their teachers such as sexual orientation of instructor (Liddle, 1997). Galguera (1998) found evidence that students preferred teachers of the same ethnicity when sampling Latino and African American students. This study did not, however, provide evidence of student preference for same gender teachers. Continued research is recommended to explore other extraneous influences upon student ratings of teacher effectiveness (Hanna, 1983; Simpson, 1995).

Family Structure and SES

Studies have consistently implied that teacher ratings of children from intact families were more favored than their ratings of children from one-parent or re-married families (Guttman & Broudo, 1989; Mensink & Sawatzky, 1989). Teachers consistently rated the child from a divorced family more negatively on such variables as happiness, emotional adjustment, and ability to cope with stress. Teachers not only expected students from intact families to function better emotionally, but also academically and socially as well (Guttmann & Broudo, 1989). This may indicate, however, that teachers may simply be responding to stereotypical views of what they believe is affective or relational behavior for those children (Santrock & Tracy, 1978). While there is some empirical support for actual differences between children from intact and divorced families on measures of anxiety, adjustment, and acceptance of self and others (Dastidar, 1996), much of the research looking at teacher ratings have used "fictitious" students for teachers to evaluate based on these variables. Mensink and Sawatzky (1989) suggested that it would be difficult for teachers out of the controlled experimental setting to

distinguish between children from intact and one-parent or divorced families without prior knowledge.

Student socioeconomic status has been theorized to have an impact on these attitudes of teachers. In a survey of teachers' classroom ratings, Childs and McKay (1997) found that fathers' occupational status was found to be a significant predictor of teacher's expectations. Teachers expected children from blue-collar backgrounds to be four times more likely to make poor academic progress. Pace et al. (1999) found that student family income was significantly related to interpersonal perceptions of the teacher toward the child. Children from lower income families were rated as less interpersonally attractive.

Other Factors

It has been suggested that teachers' ratings of children's behavior problems vary with teachers' personal style of handling behavior problems (Vitaro, Tremblay, & Gagnon, 1995). Some teachers may respond in an assertive manner and set appropriate limits while other teachers may be less confident in positions of authority. Response styles of teachers may also vary in terms of circumstance or situation. For example, the recurrence or severity of emotional or behavioral problems in students may influence teacher response. The frequency of disruptive behavior has been shown to be a significant predictor of negative ratings and social response by teachers (Childs, 1997).

Caudry and Wilson (1973) found teacher ratings of students academic accomplishments were highly correlated (.73) with their attitudes toward students. Teachers portray academically successful children more favorably than their counterparts with lower abilities (Carr & Kurtz-Costes, 1994). This effect, however, may be due to the

direct reinforcement the teacher receives from student learning rather than a reflection of the interpersonal relationship.

Little research has been done in the area of investigating the relationship between culture and ethnic identity and student teacher relationships. Stone (1994) indicated that teachers' ratings showed bias against Caucasian and Asian-American students by under-predicting their achievement scores. However, the interaction of teacher ethnicity and student ethnicity on interpersonal relationships has not been thoroughly investigated.

Finally, understanding how teachers specifically respond to students in an interpersonal manner has been difficult to measure. Subjective measures have largely been used to interpret the perceptions of the student and teacher as well as the quality of the relationship. Teachers' ratings of particular problem children and independently coded observations reveal weak concurrent validity coefficients. This is argued to be indicative of implicit teacher expectations of their students and the subsequent poor validity of teacher ratings (Childs, 1997). More specific teacher rating scales, which assess emotional and behavioral difficulties of children, are being increasingly used to aid teachers in objectively reflecting current diagnostic descriptors and modifying subjective perceptions (Miller, Klein, Piacentini, & Abikoff, 1995).

CHAPTER III

Method

Participants

Elementary through high school teachers, media specialists and school counselors from a number of cities across a southwestern state were included in the study based on willingness to participate. The sample consisted of 182 participants (173 female and 7 male) ranging from 20 to 63 years old ($M = 43.71$, $SD = 9.24$). Ethnic composition of the sample was 148 (82.2%) Caucasian, 11 (6.1%) African American, 10 (5.6%) Native American, 7 (3.9%) Hispanic, and 2 (1.1%) Asian American. The majority of the sample indicated they were married (75%) while 15% reported being divorced and 7.8% being single. Most of the participants (89.9%) reported having children of their own with 74 (41.1%) indicating they have two children, which was the mode of those sampled. When asked about level of education, a disproportionate number of the teachers indicated they had received a masters degree or higher (74.4%) with a remaining 24.6% having college experience or a bachelors degree. Over half of the teachers (64.4%) reported a yearly family income of \$41,000 or more, while 25.6% reported making between \$31,000 and \$40,000. Another 9.2% indicated a yearly family income of under \$30,000. Ninety-two of the participants (51.1%) were school counselors describing themselves as actively involved in teaching, 63 (34.9%) were teachers and 21 (11.7%) indicated their duties as media or library specialists. Of these, 77 (42.8%) were located at an elementary school, 28 (15.6%) at middle schools, and 19 (10.6%) at a high school. Another 39 (21.7%) reported being in a combination of school settings. The average years of overall teaching experience ranged from less than one to thirty-three years ($M = 14.75$, $SD = 8.98$).

When asked to report current level of teaching satisfaction, the majority (76.1%) indicated a high level equal to or greater than 4 ($M = 4.1$, $SD = .71$) based on a 1 to 5 Likert scale.

Procedure

Participants were drawn from a statewide conference for educators that included elementary through high school teachers, media specialists and school counselors. They were included in the study based on willingness to participate and not to meet any requirements of the conference. A booth was set up in the exhibit area of the conference for participants to take part in the study. The investigator then asked conference attendees about their willingness to participate as they approached the booth or passed through the exhibit area.

Participants read and signed the informed consent form describing the study and then were asked to complete a two-page demographic information survey, taking approximately 5 minutes to complete. Subsequent to this, teachers were randomly selected to view one of three video taped vignettes (approximately 3 minutes in length) in which a child actor is portrayed as depressed (internalizing symptomatology), inattentive and hyperactive (externalizing symptomatology) or as well functioning (no obvious or apparent clinical symptomatology). Random selection was maintained by alternating the three different videotapes after every third person and beginning with a random draw. This maintained a relatively equal number of participants for each of the three conditions. Teachers only viewed one of the three videotapes and were not exposed to the other two. They were also asked not to discuss the content of the videotape with other potential study participants and only those who had already completed the study.

As per test instructions, the participants were asked to think about the child they just viewed on the video from a personal point of view, apart from their professional attitudes as a teacher. The participants then completed the measures of interpersonal attractiveness (TRIA) and personal rejection (TRPR) to the child actor, taking approximately 5 minutes to finish.

Measures

The participants completed a two-page demographic information survey that included such items as age, ethnic identity, education, marital status, years of teaching experience, areas of instruction, family income and level of teaching satisfaction.

Teacher's Ratings of Student Interpersonal Attractiveness (TRIA): (Pace et al., 1999).

This measure was designed to assess an overall impression of interpersonal attractiveness that includes physical, intellectual and behavioral dimensions. The measure consists of 20 items rated by the teachers on a 7-point Likert scale to assess perceptions of the interpersonal attractiveness of each child. Items are anchored with adjectives that represent the extremes of interpersonal characteristics (e.g., cute to plain; pleasant to unpleasant). Total scores may range from 20 to 140, with higher scores meaning less interpersonal attractiveness. Coefficient alpha for this scale is .96 (Pace et al., 1999). Similar scales have been used successfully in previous research on teacher's social response to children (Mullins et al, 1986; Peterson et al., 1985).

Teacher's Ratings of Personal Rejection Toward Students (TRPR): (Pace et al., 1999), is a ten item scale designed to measure teacher's attitudes toward students within the common types of interactions in school settings. The TRPR was used as a dependent

variable in analysis. Teachers are asked to indicate their willingness to interact with a child in specific types of activities (e.g., "sit beside him/her on a three hour bus trip"; take him/her to the zoo for a day"). Each item is rated by respective teachers on a 7-point Likert scale. The summed total of the ten items is used to measure personal rejection, with higher scores indicating greater personal rejection (Pace et al., 1999). Coefficient alpha was found to be .97 for this scale. Similar scales have been used successfully in previous research on teacher's social response to children (Mullins et al., 1986; Peterson et al., 1985).

Video Tape Vignettes

Each video portrayed a male child actor (appearing approximately 10-12 years old although his age was not specifically provided to participants in the study). In all three videos the child was filmed in the same setting, wore the same attire, and was interviewed by the same person. The child actor was Caucasian in ethnicity, appeared well groomed, had light brown hair, and did not wear any glasses. He was dressed casually but neatly in a tee shirt and jeans, much as he would for school. The setting and background for the video was set up to appear much like a school environment with the child actor working at a table. For each video, the child actor was asked questions by a male interviewer who was not visible on tape.

All videos were made by the investigator of this study using a model from previous research in which a child actor is portrayed as having clinical symptomatology (i.e., Mullins et al, 1987). The actor, although not a professional, portrayed a depressed child (internalizing symptomatology) in "Video A"; an inattentive and hyperactive child (externalizing symptomatology) in "Video B"; and a well functioning child (no obvious

or apparent clinical symptomatology) in "Video C". To help validate the videos as accurate portrayals, five independent mental health professionals rated the videos for 1) level of believability and credibility of the tape, 2) level of some clinical symptomatology (internalizing or externalizing) exhibited by the child, and 3) level to which a diagnosis could be made. This was measured using a five point Likert scale with higher scores indicating a greater level. The mental health workers rating the tapes were licensed psychologists ($n = 2$) or licensed professional counselors ($n = 3$). All described themselves as Caucasian in ethnicity. Three of the mental health professionals were males and two were females. They had a range of clinical experience from 2 years to 23 years ($M = 9.8$, $SD = 8.23$) and ranged in age from 26 to 42 years old ($M = 37.2$, $SD = 9.63$). Each scale rating and a total score of the three ratings were used to compute an interrater reliability coefficient. To compute the reliability coefficient, random effect was set for the rater with the measure effect fixed to obtain an alpha level or coefficient of agreement. For "Video A" (the depressed child condition), alpha was .88; for "Video B" (the inattentive and hyperactive child condition), alpha was .81; and for "Video C" (the well functioning child condition), alpha was .93. Although interrater reliability was higher for the depressed child condition, higher score ratings for level of clinical symptomatology and level to which a diagnosis could be made were given for the inattentive and hyperactive child condition ($M = 6.4$, $SD = .54$) compared to the depressed child condition ($M = 5.6$, $SD = .89$). The well functioning child condition received the lowest score ratings for the same two scales ($M = 2.4$, $SD = .54$). These data support the reliability and validity of the videotape vignettes.

Statistics

Descriptive statistics were used to illustrate demographic information and means for the two teacher social responding variables. Chi-square and one-way analysis of variance (ANOVA) statistics were used to determine if participants in each condition differed significantly in terms of demographic data. A series of one-way ANOVA's were used to compare demographic data to the two social responding variables to determine any differences that may affect the interpretation of results.

As part of the primary analyses, correlation and regression models were used to investigate relationships between teachers and their perceptions of the target child. Multiple regression equations were performed to determine how the demographic information and condition of participants (IV's) helps predict levels of interpersonal social responding (DV's). This was done using a stepwise selection procedure in which all demographic variables are first considered for entry into the equation. The variable with the largest positive or negative correlation and the smallest probability of F is entered into the equation and then the next variable with the largest partial correlation and smallest probability of F is considered. Using this procedure, the overlapping effects of the independent variables were partialled out given the high correlations among many variables or covariates. In addition to the demographic information, condition was entered into the regressions on step two of the equation as a further predictor of the DV's. Finally, as part of the primary analyses, a one-way ANOVA was used to test for differences between groups with a post-hoc analysis to determine specific differences between conditions.

CHAPTER IV

Results

Descriptive Findings

Table 1 contains the means and standard deviations for each dependent variable. The overall mean of the three conditions for the TRIA was 73.69, with the depressed child condition having a mean of 86.81, the ADHD child condition having a mean of 73.79, and the well functioning child condition having a mean of 59.79. The mean for the well functioning child condition is similar to an elementary school population sample of 43 (i.e., Pace et al., 1999) in which the mean was 52.4 and a follow-up study (Sternlof, 2002) of 139 elementary school children in which the mean was 55.8. The mean for the depressed child condition (86.81) is also consistent with Mullins et al. (1998) analogue study using a video taped vignette of a depressed child in which the mean was 85.74.

The overall mean of the three conditions for the TRPR was 34.69, with the depressed child condition having a mean of 32.45, the ADHD child condition having a mean of 41.2, and the well functioning child having a mean of 30.53. The possible range of scores for this instrument is 10-70, with higher scores reflecting greater interpersonal rejection. The mean for the well functioning child condition is similar to an elementary school population sample of 43 (i.e., Pace et al., 1999) in which the mean was 28.2 and a follow-up study (Sternlof, 2002) of 139 elementary school children in which the mean was 31.4. The mean for the depressed child condition (32.45) and the well functioning child condition (30.53) is also consistent with Mullins et al. (1998) analogue study in which the means were 33.37 for the depressed condition and 33.94 for the non-depressed condition.

Table 1

Means and Standard Deviations of Teachers Social Responding Variables Based onCondition

DV	n	M	SD
TRIA ^a			
A – Depressed	62	86.8065	16.2004
B – ADHD	58	73.7931	13.6160
C - Well functioning	59	59.7966	16.6648
Total	179	73.6872	19.0712
TRPR ^b			
A – Depressed	62	32.4516	13.6029
B – ADHD	59	41.2034	11.0325
C - Well functioning	59	30.5254	12.3628
Total	180	34.6889	13.1703

Note. TRIA = Teacher Ratings of Interpersonal Attractiveness; TRPR = Teacher Ratings of Interpersonal Rejection.

^aHigher scores on the TRIA indicate less interpersonal attractiveness. ^bHigher scores on the TRPR indicate greater interpersonal rejection.

Demographic variables were examined for group differences. Analyses of demographic data indicated that participants in each condition did not differ significantly in terms of age, $F(2, 173) = .99, p = .37$; sex, $\chi^2(2, n = 178) = .316, p = .85$; ethnicity, $\chi^2(8, n = 178) = 12.57, p = .13$; marital status, $\chi^2(6, n = 178) = 4.53, p = .61$; grade or level currently teaching, $\chi^2(6, n = 163) = 7.68, p = .26$; or area of teaching or instruction, $\chi^2(4, n = 157) = 6.06, p = .19$. Furthermore, no differences between participants in each condition were found for variables of satisfaction with teaching, number of areas of certification, number of children, level of education, years teaching overall and years teaching at current school, with all probabilities greater than .05.

Preliminary Analyses

Demographic factors were examined for differences that may affect interpretation of the results. No a priori hypotheses were made about the relationship of demographic variables to the two teacher social responding variables. A series of one-way ANOVA's were used to compare the demographic variables of age, sex, ethnicity, marital status, number of children, education, years teaching overall, years teaching at current school, area of instruction, number of areas of certification, and satisfaction with teaching on the two social responding variables. Interestingly, no significant effects were found for area of teaching or instruction (i.e., those primarily identified as teachers, counselors or media specialists) on the two dependent variables, TRIA, $F(4, 174) = .47, p = .75$ and TRPR, $F(4, 174) = .96, p = .43$ or for grade level of teacher (i.e., those primarily teaching elementary, middle school, high school or a combination) on the two social responding measures, TRIA, $F(3, 161) = .65, p = .58$ and TRPR, $F(3, 162) = .28, p = .84$.

The variables of age, years teaching overall, years teaching at current school, and family income were each collapsed into five balanced groups each for acceptable sample size and meaningful comparison. Participant's number of children was collapsed into three groups for easier and more meaningful comparison. No differences were found for age, ethnicity, family income, level of education or satisfaction with teaching on either of the teacher social responding measures. Demographic variables that were significant, however, included sex of participant, marital status, number of children, years teaching overall and years teaching at current school.

While males accounted for only 3% of the entire sample, and sex of participant was therefore not used in the primary analyses, significant differences did occur on the TRPR, $F(1, 177) = 8.31, p = .004$, with males more rejecting of the child ($M = 48.42$) compared to females ($M = 34.03$). Significant differences also occurred on the TRPR between marital status of participant $F(3, 177) = 3.86, p = .01$. Tukey HSD post-hoc analysis revealed that these differences occur between married ($n = 135, M = 33.56$) and divorced ($n = 27, M = 41.89$) participants, with married participants less rejecting of the child on the social responding measure.

Participant's number of children was found to be significant on both social responding measures, TRIA, $F(2, 176) = 6.95, p = .001$, TRPR, $F(2, 177) = 10.16, p = .000$. On the TRIA, those participants having no children ($n = 20, M = 69.3$) and more than one child ($n = 118, M = 71.40$) differed significantly from those only having one child ($n = 39, M = 83.51$). Those participants having only one child rated the child actor as less interpersonally attractive compared to those who did not have children or those who had more than one child. Likewise, on the TRPR, participants having no children

($\underline{n} = 20$, $\underline{M} = 29.0$) and more than one child ($\underline{n} = 118$, $\underline{M} = 32.98$) differed significantly from those only having one child ($\underline{n} = 40$, $\underline{M} = 42.15$). Participants having only one child were more rejecting of the child actor compared to those who did not have children or those who had had more than one child.

Years teaching overall was significant on both teacher social responding variables, TRIA, $F(4, 173) = 3.82$, $p = .005$, TRPR, $F(4, 174) = 4.07$, $p = .004$. A Tukey HSD post-hoc analysis revealed the greatest significant differences on the TRIA occurred between participants teaching one to five years ($\underline{n} = 35$, $\underline{M} = 65.94$) and those teaching six to eleven years ($\underline{n} = 33$, $\underline{M} = 81.88$). Similarly, the greatest significant differences on the TRPR occurred between participants teaching one to five years ($\underline{n} = 35$, $\underline{M} = 27.71$) and those teaching six to eleven years ($\underline{n} = 33$, $\underline{M} = 39.0$). Participants teaching in the range of one to five years found the child actor to be more interpersonally attractive and were less rejecting compared to those teaching in the range of six to eleven years.

Finally, years teaching at current school was also significant on the TRIA, $F(4, 176) = 4.38$, $p = .002$, and on the TRPR, $F(4, 177) = 8.03$, $p = .000$. A Tukey post-hoc analysis revealed the significant differences on both teacher social responding measures occurred between those teaching at their current school six to nine years and the four other groups. On the TRIA, participants teaching at their current school six to nine years ($\underline{n} = 28$, $\underline{M} = 86.07$) found the child actor less interpersonally attractive than all other groups ($\underline{n} = 149$) having a combined mean of 71.53. Correspondingly, on the TRPR, participants teaching at their current school six to nine years ($\underline{n} = 29$, $\underline{M} = 43.83$) were more rejecting of the child actor compared to all other groups ($\underline{n} = 149$) having a combined mean of 32.80.

Primary Analyses

Result of a zero-order correlation matrix in Table 2 shows the significant relationships among several demographic variables and the two social responding variables. As in past research (e.g., Pace et al., 1999), the TRIA was significantly correlated with the TRPR in a positive direction.

Age is negatively correlated with the TRIA. As age of participant increases, scores on the TRIA tend to decrease. In general terms, this suggests that as teachers get older, their level of interpersonal attraction toward students tends to increase. As expected, years of teaching overall and years of teaching at current school were significantly correlated with each other and both variables were significantly correlated with age of teacher. Both years of teaching overall and years of teaching at current school were significantly correlated with the TRPR, but not the TRIA. As years of teaching overall and years of teaching at current school increase, levels of interpersonal rejection tend to increase.

Table 2

Correlations Among Selected Demographic Variables and Teachers Ratings of
Interpersonal Attractiveness and Teachers Ratings of Interpersonal Rejection

	TRIA	TRPR	Age	Years Tch. Overall	Years Tch. School
TRIA	1.00	.240 **	-.195**	.053	-.007
TRPR		1.00	.112	.166*	.182*
Age			1.00	.584**	.406**
Years Tch. Overall				1.00	.677**
Years Tch. School					1.00

Note. TRIA = Teacher Ratings of Interpersonal Attractiveness; TRPR = Teacher Ratings of Interpersonal Rejection.

* $p < .05$ ** $p < .01$.

Multiple regression equations were performed to determine which demographic variables are most predictive of teachers' ratings of interpersonal attractiveness and which are most predictive of teachers' ratings of personal rejection toward students. A stepwise selection procedure was performed in which all demographic variables are first considered for entry into the equation. The variable with the largest positive or negative correlation and the smallest probability of F is entered into the equation and then the next variable with the largest partial correlation and smallest probability of F is considered. Condition was then entered into the regression equation in a hierarchical procedure.

For the TRIA, the regression model was significant, $F(1, 111) = 72.54$, $R^2 = .40$, $p = .000$. However, only condition was a significant predictor in the model. For the TRPR, the regression was also significant on model 1 $F(1, 112) = 3.66$, $R^2 = .03$, $p = .049$ and model 2, $F(2, 112) = 4.21$, $R^2 = .07$, $p = .017$. Marital status and number of areas of certification made the significant contributions as predictors for the TRPR, yet condition did not significantly change the model when entered into regression equation. Table 3 summarizes the results of the regression equation for the TRIA as criterion and Table 4 summarizes the results for the TRPR.

Table 3

Stepwise Regression Analysis Predicting Teachers' Ratings of InterpersonalAttractiveness from Condition

	<u>B</u>	<u>SE B</u>	β	<u>t</u>
Model 1				
Condition	-14.26	1.67	-.63	-8.52**

Note. $R^2 = .40$ for Model 1 (Condition = Depressed, ADHD or Well Functioning)

* $p < .05$ ** $p < .01$.

Table 4

Stepwise Regression Analysis Predicting Teachers' Ratings of Interpersonal Rejectionfrom Demographic Variables and Condition

	<u>B</u>	<u>SE B</u>	β	<u>t</u>
Model 1				
Marital Status	3.92	2.05	.179	1.91*
Model 2				
Marital Status	4.51	2.04	.21	2.22*
Number of Areas of Cert.	-1.44	.67	-.20	-2.16*

Note. $R^2 = .03$ for Model 1, $R^2 = .07$ for Model 2

* $p < .05$ ** $p < .01$.

Finally, as part of the primary analyses, an analysis of variance procedure was used to examine differences in participant ratings of interpersonal attractiveness and personal rejection of the child actor based on condition. Results indicated a significant main effect for the child condition on the teachers ratings of interpersonal attractiveness, $F(2, 178) = 45.47, p = .000$ and for the teachers ratings of interpersonal rejection, $F(2, 179) = 12.48, p = .000$. A Tukey HSD post-hoc analysis indicated that the statistically significant differences in child condition occurred between all groups for the TRIA. The depressed child condition ($M = 86.81$) was viewed more negatively on interpersonal attractiveness compared to the other groups, followed by the ADHD child condition ($M = 73.79$) and the well functioning child condition ($M = 59.80$). In other words, the well functioning child was seen as the most interpersonally attractive, yet the ADHD child was seen as more interpersonally attractive than the depressed child was. For the TRPR, the post-hoc analysis indicated that the ADHD child condition ($M = 41.20$) was significantly perceived more negatively than the depressed child condition ($M = 32.45$) or the well functioning child condition ($M = 30.53$). Teachers were therefore more rejecting of the ADHD child compared to the child in the other two conditions.

CHAPTER V

Discussion

Previous research in the area of student-teacher relationships had focused primarily on students that exhibited internalizing behaviors (e.g., Mullins et al., 1986, Mullins et al., 1998, and Peterson et al., 1987). This research suggested that students with depressive symptomatology are perceived by teachers and other adults with higher levels of negative social responding. Teachers viewed these students as less interpersonally attractive than students who did not exhibit this symptomatology. However, teachers negative social responding was limited to only interpersonal attractiveness and they were not necessarily more rejecting of the students portrayed as depressed.

Only recently has research been done to also investigate how externalizing behaviors in children may also influence social responses in teachers (e.g., Pace et al., 1999). The current study attempted to confirm findings from previous research based on teachers' perceptions of internalizing children using a similar analogue study as a model (i.e., Mullins et al., 1998) and also to investigate the relationship of teachers' perceptions toward externalizing children. As such, the primary purpose of this study was to investigate how teachers identify and perceive both internalizing and externalizing behaviors in students and also compared to those students that exhibit behavior which is considered more acceptable or "well-functioning." Specifically, it was hypothesized that 1) a child's level of internalizing behavior (e.g., depressive symptomatology) would be associated with lower levels of interpersonal attractiveness compared to a well functioning child; 2) a child's level of externalizing behavior (e.g., inattentive and hyperactive symptomatology) would be associated with lower levels of interpersonal

attractiveness and higher levels of personal rejection compared to a well functioning child; and 3) a child's level of externalizing behavior would be associated with higher levels of personal rejection compared to a child with internalizing behavior.

All of these hypotheses were supported by the current study. Consistent with past research, the child portrayed as depressed was perceived by teachers to be less interpersonally attractive than the child in the well functioning condition, yet was not necessarily seen with greater levels of personal rejection. Teachers may have felt it was more acceptable to think of the depressed child as less interpersonally attractive, but believed it might be less socially desirable to reject interaction with a child that had depressive symptoms. Teachers in a classroom setting may also find the internalizing child less interpersonally attractive, but they are less rejecting of the child because they are not creating disturbances in the classroom.

Adding to this with the current study, the child portrayed with attention and hyperactive difficulties was perceived negatively on both social responding measures of interpersonal attractiveness and personal rejection when compared to the child in the well functioning condition. Also as hypothesized, levels of personal rejection for the externalizing child were greater than those for the internalizing child. This indicates that children's externalizing behaviors are more likely to exert a more powerful influence of personal rejection for social responses of teachers. For example, in a classroom setting, the externalizing behaviors may create such a disruption that rejecting any interaction with the child takes place in the form of the child leaving the classroom to sit in the hallway or principals office.

Given this information, children with a wide range of emotional and behavioral problems may be at an increased risk for poor interpersonal relationships with their teachers, but only those with externalizing symptomatology have a greater risk for overt personal rejection (Pace et al., 1999). Although the findings do not establish a causal link between internalizing and externalizing symptomatology in children and negative social responding, they are consistent with Coyne's (1976) interpersonal theory. However, the original theory is not comprehensive enough to include different types of behavior that may elicit negative social responding or how these behaviors may directly influence interactions between a child and teacher. This study used some generalization of Coyne's (1976) interpersonal interaction theory of depression to also explain the social response to other maladaptive behaviors or psychological problems such as externalizing behaviors. This was intended to further develop the ideas contained in Coyne's (1976) theory and help determine what behaviors may elicit negative social responding in addition to depressive symptomatology. With generalization of the existing theory, also using externalizing behaviors, it may still be an accurate way to describe how children with emotional and behavioral difficulties respond less positively to their teachers and therefore elicit negative social responses back. This process may create a repeated negative feedback in the interpersonal relationship.

Interestingly however, and not hypothesized, the child portrayed with depressive symptomatology was seen as less interpersonally attractive than the child portrayed with ADHD symptomatology. This may be due to the interpersonal characteristics of the child that the TRIA helps to assess. The negative adjectives toward internalizing symptomatology may appear more pronounced on the measure than they would towards

externalizing symptomatology with descriptors such as unfriendly, unenjoyable, negative, inactive, dull, unsuccessful, uncheerful, withdrawn and not confident. This phenomenon may also complement Coyne's (1976) theory of interpersonal interaction, in which the avoidance of others' psychological problems would be easier toward children exhibiting internalizing symptomatology than those exhibiting externalizing behavior. Likewise, this easier avoidance may foster less interpersonal interaction with the internalizing child.

Of note is the distinction in terminology between avoidance and rejection used to describe interactions between teachers and students. Descriptors such as avoidance have been used to explain the relationship between teachers' response and internalizing symptomatology while descriptors such as rejection have been used to explain the relationship between teachers' response and externalizing symptomatology. Avoidance is much more a passive process whereby rejection is an active one. To what extent the differences in negatively passive or negatively active processes of interaction play on a child's well being is relatively unknown with little research completed in the area. While it may be speculated that the active process of negative social interaction (rejection) may have a more damaging influence on a child given the high level of potential conflict, a passive role of non-interaction (avoidance) and reduced attention may also further existing difficulties. In either situation, children with emotional and behavioral problems may be at increased risk to become more distressed or impaired over time.

Interestingly, no significant differences on the two social responding measures were found between area of teaching or instruction (i.e., those primarily identified as teachers, counselors or media specialists), or for grade level of teacher (i.e., those primarily teaching elementary, middle school, high school or a combination). This may

be in part due to test norms that asked participants to think about the child they just viewed from a personal point of view, apart from their professional attitudes as a teacher.

Demographic variables that were significant on the social responding measures yielded many more questions than answers, and will likely be issues of further study in future research. For example, married participants were less rejecting of the child on the social responding measure than divorced participants were. Other teachers variables that were significant included number of children, years teaching overall and years teaching at current school, which were all likely a function of age as they were positively correlated. It is unknown why teachers having one child of their own rated the child actor as less interpersonally attractive and were more rejecting of the child actor than participants having no children or more than one child. Furthermore, no relevant research has been conducted in this area and may be a phenomenon of interest for future studies. Likewise, no relevant research has been conducted to investigate how teachers' perceptions of interpersonal relationships with their students may change over the years or the course of a career. However, in this study, teachers with one to five years of overall teaching experience viewed the child to be more interpersonally attractive and were less rejecting compared to those teaching in the range of six to eleven years. Similar effects were seen for teachers with number of years teaching at their current school, with those teaching six to nine years more rejecting and finding the student less interpersonally attractive than all other groups. As teachers approach their mid teaching years, they may become more rejecting and find students less interpersonally attractive than teachers who are at points early in their career or late in their teaching career. Again, while no relevant studies have investigated this aspect as it concerns negative social responses toward their students,

these findings may be due in part to teachers' level of stress, teachers' perceptions that they can no longer make a difference, feelings of apathy or degree of burnout. Future research in the area of student and teacher relationships should focus on these findings and the questions they present.

While children's internalizing and externalizing symptomatology may originate from a host of different causes, including impairments in interpersonal relationships with peers, parents or teachers, they may only be made worse by the negative social responses of others. A key in this is whether teachers can "look beyond" a child's distress and temper their own personal views to help prevent a negative interaction cycle from forming. In sum, healthy relationships with adults are critical for healthy development of children both to prevent dysfunctional behavior and to help resolve existing problems.

Limitations of the study include its analog nature and the inherent difficulty in external validity toward its targeted classroom population. Although difficult to design and implement, future research needs to be continued in the field (e.g., Pace et al., 1999) within a classroom environment as a next step to confirm and validate the findings of this study. Although steps were taken to ensure validity of the video tape vignettes using consultation and interrater reliability measures of trained mental health professionals, the study used a child actor portraying himself as well functioning, with depressed symptomatology and with ADHD symptomatology and not actually diagnosed with those disorders. Furthermore, a Caucasian male subject was used in the videotapes, which may pose some difficulty in generalization to female students or to other ethnic groups.

Teachers may see externalizing behaviors as more common in male students, as ADHD is more frequent in males than compared to females (DSM-IV, 1994).

The sample was limited in terms of the number of male participants. While some indication of differences occurred between male and female participants on the social responding measures, adequate interpretations could not be made due to the small number of males in the sample (3%). Further research is needed to investigate specifically how male and female teachers interpersonally respond to students and differences that may occur.

Implications of this study suggest that there are specific types of behaviors that children may exhibit within a school setting that elicit negative social responses from teachers. These include externalizing behaviors that may involve inattentive and hyperactive (ADHD) symptomatology as well as internalizing behaviors that may involve depressive symptomatology. Teachers viewed the internalizing child as less interpersonally attractive than the externalizing child, and the externalizing child as less interpersonally attractive than the child portrayed as well functioning. Teachers were also more personally rejecting of the externalizing child compared to both the internalizing child or the child portrayed as well functioning.

While it is known that some degree of externalizing and internalizing behaviors may overlap and coexist within the same child, this study only investigated the distinct symptomatology associated with the two behavioral classifications. Therefore, future research needs to determine how a combination of these behaviors may be responsible for eliciting negative social responses. Also, research needs to determine how other specific types of externalizing and internalizing behaviors (e.g., oppositional defiant disorder and anxiety disorder) may elicit negative social responses.

This research, as well as previous studies, suggests that influential people in a child's life such as their teacher may hold negative perceptions for those children exhibiting internalizing or externalizing behaviors. To the extent these behaviors are involved in eliciting negative social responses may place children at risk for further psychological difficulties. However, a number of intervention strategies may be available to address the problems. Teacher education programs could help increase awareness and knowledge of childhood disorders. Teachers would then be better able to identify and understand the symptoms of internalizing and externalizing behaviors and the related disorders that accompany them. They would also have a better understanding of treatment considerations for each disorder. This increased knowledge would allow teachers to identify children with presenting symptomatology much earlier in the course of a psychological disorder and prevent any difficulties from escalating in severity. The nature of negative social responding should also be addressed, in order to help teachers better understand the interpersonal dynamics between themselves and the children they teach. This could ultimately prevent the negative feedback cycle from developing that Coyne (1976) hypothesized. Teachers then may benefit from advanced training and ongoing consultation regarding their interpersonal skills with students that exhibit emotional difficulties or behavioral problems.

Psychologists and other mental health clinicians who provide services for children with psychological difficulties should also consider classroom intervention strategies that involve both the student and their teacher. Also, parents may need to be educated about the influences of negative social responses and strategies for helping their child develop healthy interpersonal relationships with their teachers. Finally, the overall school climate

should be closely scrutinized to prevent labels being attached to children (i.e., sad, lazy, wild or bad) that may give children a damaging sense of self.

Because certain behaviors exhibited by the child elicit negative social responses from teachers, which in turn may lead to poor interpersonal relationships, it is important to make every effort to identify, prevent and resolve any negative or lasting consequences before they develop. Children may then be able to develop warm, close, communicative relationships with their teachers and be better adjusted as they progress through school.

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APPENDIX A

TRANSCRIPT OF
VIDEO TAPE VIGNETTES

Video A

Interviewer:

Hi Alex. What are you doing in from recess?

Child:

(Was drawing on paper but stopped drawing to answer – was looking at interviewer).

Oh, I don't really like to play because I don't have any friends out there.

Interviewer:

Hmmm. So you decided just to stay inside?

Child:

(Nodding head). Yeah. (Continued drawing on paper not looking up).

Interviewer:

What are you working on?

Child:

My art project. *(Continued drawing on paper not looking up).*

Interviewer:

Do you like art?

Child:

Yeah, it's not my favorite subject. Science is but I'm not very good at it. *(Continued drawing on paper not looking up).*

Interviewer:

You like Science but you're not very good at it?

Child:

(Slight nodding of head – continued drawing on paper not looking up).

Interviewer:

So, you don't go out and play with the other kids at recess very often?

Child:

Yeah. *(Looking up briefly then back to drawing on paper)*

Interviewer:

You'd rather be inside?

Child:

Mostly. *(Continued drawing on paper not looking up).*

Interviewer:

Hmmm. How many other friends do you have?

Child:

I don't have any friends. *(Continued drawing on paper not looking up).*

Interviewer:

You don't really have very many friends? Well, do you get along with your teacher or your principal?

Child:

The principal doesn't like me and the teacher never smiles at me. *(Continued drawing on paper not looking up).*

Interviewer:

Hmmm. Well, sometimes it's hard to get to know other kids and even sometimes hard to get to know your teacher or your principal. Tell me how things are at home.

Child:

I used to help my mom cook and I used to play with my sister but my sister is younger than me and I don't like cooking very much (*looking up*) anymore (*back to drawing on paper*).

Interviewer:

So you don't do those types of things with your mom and sister anymore? (*Child looking up briefly – made eye contact with interviewer - in the middle of the question*).

Child:

No.

Interviewer:

Hmmm. I wonder if you do anything with your dad?

Child:

We used to fish but fishing (*shaking head no*) but don't really go anymore.

Interviewer:

So you don't like fishing anymore? Did you used to like fishing?

Child:

A little. (*Continued drawing on paper not looking up*).

Interviewer:

But not so much anymore?

Child:

(*Slight nodding of head while continuing to draw*).

Interviewer:

Tell me what kind of a kid that you are, Alex. How would you describe yourself?

Child:

(Stopped drawing. Holding one pencil while touching it to another that was laying on the table. Looking at the pencils). Not very sure (looking at interviewer).

Interviewer:

Not very sure? Do you think you worry about some things or you're kind of sad sometimes?

Child:

Uh huh. *(Nodding head). Sometimes I feel like crying. (Looking at interviewer during that statement).*

Interviewer:

Sometimes you feel like crying?

Child:

(Eyes looked down at table while nodding head).

Interviewer:

Have you been able to talk to anybody about that?

Child:

No. *(Shaking head – looking at interviewer).*

Interviewer:

No? It's not something that you usually like to talk about?

Child:

(Shaking head – began drawing on paper again).

Interviewer:

No? Okay. Well I enjoyed visiting with you ,Alex and I have to run and I'll let you finish your art project, okay? Maybe we can talk again later.

Child:

(Did not respond, kept looking down)

Interviewer:

Bye

Video B

Interviewer:

Hey, Alex, what are you doing in from recess today?

Child:

Oh, I got in trouble. *(Drawing on paper not looking up)*.

Interviewer:

You got in trouble? Well, tell me what happened.

Child:

(Looking up at interviewer). I don't really know why. The teacher just didn't let me out for recess. *(Then back to drawing on paper)*.

Interviewer:

Oh. The teacher didn't let you out for recess. Hmmm. Well, do you get in trouble a lot?

Child:

Yeah. *(Looked at interviewer while answering, then back to drawing)*.

Interviewer:

Yeah? I see. Well, do you have very many friends that you usually play with out on recess?

Child:

(Pushed paper away and reached for another piece to draw on). No, I used to but then they all

said I got them in trouble.

Interviewer:

Oh, your friends said that you got them in trouble. I see. Well, what about your teacher and the principal? How do you get along with them?

Child:

The teacher yells and calls me hyper a lot and I know my principal pretty well because sometimes I take my work and do it in his office. *(Stopped drawing and looked up during answer. Also tapped pencil on electronic device sitting on the table. Then back to drawing)*

Interviewer:

Oh. So you sometimes have to take your work and do it in the principal's office. I see. Well, tell me about home.

Child:

Well, I have one sister. *(Continued drawing and not looking up).*

Interviewer:

You have one sister...and, do you live with your mom and dad?

Child:

(Pushed paper away and reached for another piece to draw on). Yeah. (Shaking head as he looked at interviewer and answered).

Interviewer:

Yeah? And tell me about some of things that you do with your mom and dad.

Child:

I used to help cook with my mom but she said I made too big a mess, and I used to fish with my dad but then I accidentally, umm, dropped his favorite pole in the water and also while we were fishing one time I went to go umm, look for some frogs and then, umm, he

couldn't find me for an hour. *(Turned on the electronic device on the table and it was making noise).*

Interviewer:

Wow. And then I wonder if you do anything with your sister? *(Electronic device still making noise).* Alex, did you hear what I said? *(Turned off electronic device and began fidgeting. Turned around in chair to look behind him).*

Child:

Huh?

Interviewer:

Did you hear what I said?

Child:

Nope.

Interviewer:

Do you do anything with your sister?

Child:

Umm, sometimes I try to wrestle with her but she always cries. *(Fidgeting in chair, looking at interviewer).*

Interviewer:

So you try to wrestle with her but she always cries? Hmmm. You've made a lot of pictures here. A bunch of pictures. Wow. *(Looking at interviewer as well as eyes wandering all around room).*

Interviewer:

Tell me what kind of kid that you're like.

Child:

The teachers call me, ummm, hyper and I'd say I'm a happy kid.

Interviewer:

You'd say you're a pretty happy kid?

Child:

(Nodding head).

Interviewer:

Well, Alex, I have to go and I will come in here maybe some other time and visit with you. Does that sound okay? *(During the time interviewer was talking, the child picked up electronic device and put it back down, slid a piece of paper back and forth on the table, then it fell off, he picked it up from the floor and put it back on the table and then looked at the paper he was drawing on. Did not look at the interviewer).*

Child:

Uh huh.

Interviewer:

Bye

Video C

Interviewer:

Hi Alex, what are you doing in from recess today?

Child:

Ahh, just finishing my artwork. *(Stopped drawing and looked up at interviewer to answer).*

Interviewer:

Finishing your artwork, wow. So, you're not at recess or playing with your friends, you decided to stay in today?

Child:

Uh huh. *(Stopped drawing and looked up at interviewer to answer).*

Interviewer:

Must be some important artwork.

Child:

It's due this Friday. *(Nodding head and looking at interviewer to answer).*

Interviewer:

Okay, well that's great. It looks like you're a pretty good artist.

Child:

Thank you. *(Did not stop drawing or look up).*

Interviewer:

Like you're a good artist. Do you usually stay in from recess?

Child:

No, not really. *(Did not stop drawing or look up).*

Interviewer:

Not really. You like to go out on recess and play with your friends?

Child:

Uh huh. *(Did not stop drawing or look up).*

Interviewer:

Do you have a lot of friends?

Child:

Uh huh. *(Nodding head. Stopped drawing and looked up at interviewer).*

Interviewer:

What types of things do you do with your friends?

Child:

Oh we play tag and swing. *(Looking at interviewer while fiddling with pencil in hand).*

Interviewer:

Swing and play tag. That's good. So today you decided to finish your artwork project?

Child:

Mmm. *(Did not stop drawing or look up).*

Interviewer:

That's terrific. Is art your favorite subject?

Child:

Not really. I like all of them. *(Did not stop drawing or look up).*

Interviewer:

You like all your subjects? That's great. Well, tell me about your teacher this year and your principal.

Child:

Oh, umm, my teacher's fine and my principal is nice. *(Did not stop drawing or look up).*

Interviewer:

Teacher's fine and your principal is nice...that's good...and you like your subjects...well, tell me about your home. Tell me how things are going at home.

Child:

(Stopped drawing and looked up at interviewer). Oh, fine. I help my mom cook and we go on fishing trips with my dad.

Interviewer:

That's great. So you help out in the kitchen...and...you like to go fishing with your dad...and...I wonder if you have any brothers or sisters?

Child:

Just one sister. *(Did not stop drawing or look up).*

Interviewer:

One sister. And do you do anything with your sister?

Child:

Yeah, sometimes play Monopoly. *(Looked at interviewer).*

Interviewer:

So you play games with your sister?

Child:

Yeah. *(Did not stop drawing or look up).*

Interviewer:

That's terrific.

Child:

(Head nodding then back to drawing).

Interviewer:

Well, that's good. Well, what kind of kid do you think you're like, Alex?

Child:

(Stopped drawing and looked at interviewer). Hmm. I'd say happy. (Went back to drawing).

Interviewer:

Happy kid? That's good. And it sounds like you have a lot of friends and you do pretty good in your schoolwork. That's good. Well, I have to go and I will stop by and talk to you some other day.

Child:

Okay. *(Looked up briefly).*

Interviewer:

Okay, does that sound all right?

Child:

Uh huh. *(Looked up briefly).*

Interviewer:

Bye.

APPENDIX B

TEACHER'S SOCIAL RESPONDING
MEASURES

Student Rating Scale

STUDENT: _____

Please answer the following questions about the student you have viewed on the video. Please answer honestly; say how you personally feel about the student. Try to think of this student apart from your professional attitudes as a teacher. We want to know how you feel about this student from a personal point of view. All responses will remain strictly confidential.

A. Please indicate the best answer for each for each of the questions below. Use the following scale to answer each question.

DEFINITELY YES 1 2 3 4 5 6 7 DEFINITELY NO

For example, if you would definitely not be willing or interested in working with this child you would indicate a "7". If you don't care either way, you would put a "4". If you were very interested or willing in working with this child you would want to indicate a "1".

To what degree would you be personally interested in the following activities with this child?

1. Sit beside him/her for a three hour bus trip? _____
2. Take him/her to the zoo for the day? _____
3. Have him/her come over to play with a child of yours once per week for a year? _____
4. Babysit for him/her every other afternoon for a year? _____
5. Take him/her to lunch a couple of times per week for a year? _____
6. Supervise him/her in an hour long daily structured activity for a year? _____
7. Individually tutor him/her three times a week for a year? _____
8. Supervise him/her as a member of a club or group such as girl or boy scouts that meets in your home once per week for a year? _____
9. Assuming it were possible, have him/her as a close family member such as a niece or nephew? _____
10. Assuming it were possible, consider adopting him/her? _____

Please continue to the next survey (Part 2)

Student Rating Scale – Part 2

B. Please indicate the one best answer for each of the questions below by circling the appropriate number. Remember to report your personal feelings about the child. Be as honest as you can; answers are confidential.

1. CUTE	1	2	3	4	5	6	7	PLAIN
2. ATTRACTIVE	1	2	3	4	5	6	7	UNATTRACTIVE
3. PRETTY	1	2	3	4	5	6	7	UGLY
4. BEAUTIFUL	1	2	3	4	5	6	7	HOMELY
5. PLEASANT	1	2	3	4	5	6	7	UNPLEASANT
6. FRIENDLY	1	2	3	4	5	6	7	UNFRIENDLY
7. ENJOYABLE	1	2	3	4	5	6	7	UNENJOYABLE
8. POSITIVE	1	2	3	4	5	6	7	NEGATIVE
9. STRONG	1	2	3	4	5	6	7	WEAK
10. HEALTHY	1	2	3	4	5	6	7	UNHEALTHY
11. ACTIVE	1	2	3	4	5	6	7	INACTIVE
12. NORMAL	1	2	3	4	5	6	7	ABNORMAL
13. WELL ADJUSTED	1	2	3	4	5	6	7	MALADJUSTED
14. BRIGHT	1	2	3	4	5	6	7	DULL
15. WELL BEHAVED	1	2	3	4	5	6	7	MISBEHAVED
16. SUCCESSFUL	1	2	3	4	5	6	7	UNSUCCESSFUL
17. CHEERFUL	1	2	3	4	5	6	7	UNCHEERFUL
18. RESPONSIBLE	1	2	3	4	5	6	7	NOT RESPONSIBLE
19. OUTGOING	1	2	3	4	5	6	7	WITHDRAWN
20. CONFIDENT	1	2	3	4	5	6	7	NOT CONFIDENT

APPENDIX C

BACKGROUND INFORMATION
FOR TEACHERS

BACKGROUND INFORMATION FORM: *TEACHER*

All information will have names removed and replaced with a code number so that complete confidentiality will be maintained. Please answer as accurately and completely as possible. Thank You.

Name: _____ Age: _____

Sex: (Circle One)

1. Male
2. Female

Marital Status: (Circle One)

1. Single
2. Married
3. Divorced
4. Separated
5. Widowed

Number of children living in your home: _____

Ages: _____

Race or culture you identify with: (Circle One)

1. African-American
 2. Asian-American
 3. Caucasian
 4. Hispanic
 5. Native-American
 6. Other: (Please Specify)
- _____

Your education: (Circle highest level completed)

1. High School
 2. Vocational School
 3. Some College
 4. Associates Degree
 5. Bachelors Degree
 6. Masters Degree
 7. Other: (Please Specify)
- _____

School name: _____

Years teaching at this school: _____ **Overall years of teaching:** _____

Grade currently teaching: _____ **Years teaching at this grade level:** _____

Areas of Teacher Certification

Family income during last year: (Circle One)

- | | |
|------------------------|--------------------------|
| 1. \$0 - \$10,000 | 6. \$51,000 - \$60,000 |
| 2. \$11,000 - \$20,000 | 7. \$61,000 - \$70,000 |
| 3. \$21,000 - \$30,000 | 8. \$71,000 - \$80,000 |
| 4. \$31,000 - \$40,000 | 9. \$81,000 - \$90,000 |
| 5. \$41,000 - \$50,000 | 10. \$91,000 - \$100,000 |
| | 11. \$100,000 + |

Current level of satisfaction with teaching: (Circle Number)

1-----2-----3-----4-----5
Low ←-----→ High

Thank you for completing this form.

APPENDIX D

INSTITUTIONAL REVIEW BOARD

APPLICATION

INSTITUTIONAL REVIEW BOARD APPLICATION

FOR APPROVAL OF THE USE OF HUMAN SUBJECTS IN AN INVESTIGATION
CONDUCTED ON THE NORMAN CAMPUS AND/OR BY UNIVERSITY OF
OKLAHOMA FACULTY, STAFF OR STUDENTS

Your application for approval of the use of human subjects should consist of eleven (11) copies* of three parts:

- PART I - A COMPLETED APPLICATION FORM
- PART II - A DESCRIPTION OF YOUR RESEARCH STUDY
- PART III - SUBJECT'S INFORMED CONSENT FORM FOR PARTICIPATION IN YOUR STUDY

You should attach supplementary information pertinent to this study that will help the board members in their review of your application, i.e., questionnaires, test instruments, letters of approval from cooperating institutions or/and organizations. Failure to submit these items will only delay your review.

Applications are due not later than the 1st day of the month in which you wish the proposed project reviewed

Please return completed proposals to:

Campus Mail:
Office of Research Administration
Buchanan Hall, Room 314

U.S. Mail:
Office of Research Administration
1000 Asp Avenue, Room 314
Norman, Oklahoma 73019

Please call the ORA at 325-4757 and ask for the IRB if you have any questions. Please type your responses.

PART I - APPLICATION FORM

1. **Principal Investigator:**

Name Steve Sternlof, M.S.

Department Educational Psychology

Campus Phone No. 325-5974 E-mail Address SteveSternlof@ou.edu

If you are a student, provide the following information:

Daytime Phone No. (if different from above) (405) 271-5251 x47604

Mailing Address 23000 Briarwood Dr., Edmond, OK 73003

Faculty Sponsor:

Name Terry Pace, Ph.D.

Department Educational Psychology

Sponsor's Phone No. (405) 325-2914

Co-Principal Investigator(s) (Please include name, department, and campus phone number)

Terry Pace, Ph.D.

Educational Psychology

(405) 325-2914

Signatures:

Principal Investigator

Co-Principal Investigator(s)

Faculty Sponsor (if student research project)

If you believe your use of human subjects would be considered exempt from review or qualifies for expedited review as defined in Sections 4 and 12 of the University of Oklahoma Norman Campus Policy and Procedures for the Protection of Human Subjects in Research Activities, you may submit two (2) copies of this application for initial review. If full Board review is required, you will be required to submit nine (9) additional copies.

2. Project Title: Part. I: Validation of Teacher Rating Measures Concerning Student-Teacher Relationships.
Part. II: Teacher's Response to Internalizing and Externalizing Symptomatology in Children.
3. Project Time Period: From 1/15/2002 to 1/15/2003
4. Previous Institutional Review Board-Norman Campus Approval for this project?
Yes No X
If yes, please give date of the action
5. Are you requesting funding support for this project?
Yes No X
If yes, please give sponsor's name
6. Description of Human Subjects:

Age Range: Elementary School Teachers Gender (please check one):
Males;
Females; X Both

Number of Subjects Part. I: 30 - 60 Part. II: 100 - 160

Special Qualifications

Source of Subjects and Selection Criteria Public Schools, University Elementary Educ.

Please check any protected groups included in this study.

<input type="checkbox"/> Pregnant Women	<input type="checkbox"/> Fetuses
<input type="checkbox"/> Mentally Disabled	<input type="checkbox"/> Elderly
<input type="checkbox"/> Mentally Retarded	<input type="checkbox"/> Prisoners
	<input type="checkbox"/> Children

PART II - DESCRIPTION OF THE STUDY

To assist Institutional Review Board members in conducting their review of your application, please prepare a brief (1-3 page) description of the study you plan to conduct, including the following information:

A. Purpose/Objectives

Considerable interest has been focused on factors affecting at-risk children in the schools. One factor influencing school age children broadly described in the literature is the relationship they have with their teacher. However, much of the research to date has been specifically directed toward student learning and academic achievement as the primary outcome of interest.

Based on the literature and similar research conducted by investigators from this university (e.g. Pace et al., 1999), teachers' rating of students interpersonal attractiveness significantly correlated with all measures of child emotional and behavioral adjustment. Personal rejection toward students was also related to externalizing problems. However, this study was limited in sample size and diversity of participants.

Therefore, the initial part of the study (Part. I) for consideration in this research proposal is to gain standardized and normative information for the previously used student-teacher assessment measures (described below) applied to more diverse and greater number of student teacher relationships, including a better understanding of teacher socioeconomic and ethnic variables.

Part II of the study will utilize the normative data obtained in Part I for the student-teacher assessment instruments to investigate the association between student-teacher relationships and the emotional and behavioral difficulties experienced by students. Specifically, these difficulties might include internalizing problems such as anxiety or depression and externalizing problems such as hyperactivity or conduct related disorders. Because only a small percentage of children experiencing these problems receive special program assistance or mental health treatment, the teacher is often placed in a difficult position of assisting these children while creating a healthy learning environment for everyone. Therefore, it is important to understand how the teacher's relationship with these students may either foster further distress or support positive adjustment.

B. Research Protocol

Participants

Part I: Teachers from 3rd, 4th and 5th grade will be selected from five to ten demographically different elementary schools. Each teacher will be asked to complete a two-page demographic information survey. Each teacher will also randomly rate (approximately five to ten) non-identified children from their classrooms using the assessment measures described below. No student will be identified in any way, will be interviewed or asked to complete any material.

Part II: Teachers from elementary schools and/or elementary education student teachers will be asked to complete a two-page demographic information survey. Each teacher will then be asked to view 1 of 3 films (5 minutes in length) in which a child actor is portrayed as either depressed/anxious, hyperactive/oppositional, or well functioning. They will then complete the measures of interpersonal attractiveness and personal rejection to the child based on their perceptions of the target child.

Instruments

“Teacher’s ratings of student interpersonal attractiveness.” This measure was designed to assess an overall impression of interpersonal attractiveness that includes physical, intellectual and behavioral dimensions. The measure consists of 20 items rated by the teachers on a 7-point Likert scale to assess perceptions of the interpersonal attractiveness of each child. Total scores may range from 20 to 140, with higher scores meaning less interpersonal attractiveness.

“Teacher’s ratings of personal acceptance toward students.” This scale was designed to measure teachers’ attitudes toward students within the common types of interactions in elementary school settings. This measure consists of 10 items rated by teachers on a 7-point Likert scale to assess the degree of acceptance toward each student. Total scores may range from 10 to 70.

Both of the above mentioned instruments have been used in previous research and accepted by school systems without any reported problems.

A two page demographic information survey will be completed by the teachers.

Procedures

Part I: Oklahoma elementary school teachers will be selected based on willingness to participate and demographic diversity. Teachers for the five to ten selected elementary schools will be contacted regarding a day and time that would be convenient to begin the study.

Selected teachers from the 3rd through 5th grades will be asked to complete a two-page demographic information survey, taking approximately 5 minutes to complete. These teachers will also be asked to complete student rating instruments on five to ten randomly selected, non-identified students. All teacher demographic forms and rating instruments will be kept confidential and collected upon completion.

The data obtained will be analyzed to gain standardized and validated information for the assessment instruments as they apply to more diverse and greater number of student-teacher relationships. Descriptive and correlational statistics and analysis will be used.

Part II: Oklahoma elementary school teachers and university elementary education student-teachers will be selected based on willingness to participate. Selected teachers will be asked to complete a two-page demographic information survey, taking approximately 5 minutes to complete. These teachers will be randomly selected to view 1 of 3 films (5-10 minutes in length) in which a child actor is portrayed as either depressed/anxious (internalizing symptomatology), hyperactive/oppositional (externalizing symptomatology) or well functioning. They will then complete the measures of interpersonal attractiveness and personal rejection to the child actor.

Pearson correlation coefficients and regression models will be used to investigate relationships between teachers and their perceptions of the target child. Analysis of variance will be used to determine effects of conditions on dependent measures.

C. Confidentiality

Complete confidentiality will be maintained by using participant identification numbers on all instruments and removing names as soon as data has been collected. All instruments will be turned in via sealed envelopes and placed in sealed boxes to prevent others from seeing data. All records will be kept in the office of the PI. Any public report of the results of this research will not identify teacher participants, schools or school systems in any way.

D. Subject Benefit/Risk

Risks:

There are no risks associated with this research. Survey research of this nature using these types of instruments has been found to have no adverse effects for participants. As this is descriptive and correlational research, there is no experimental manipulation.

Benefits:

Participants will be able to contribute to advancing our understanding of student-teacher relationships, which will benefit society. Teachers participating will be offered a free workshop on issues that may facilitate healthier student-teacher relationships. Participants choosing to withdraw may not receive the benefit/incentive workshop. This workshop will be scheduled at a time convenient for the participants and conducted by the PI, who has training and experience in such matters.

APPENDIX E

INFORMED CONSENT

FORM

UNIVERSITY OF OKLAHOMA, NORMAN CAMPUS

INFORMED CONSENT FORM

TITLE OF PROJECT: Part II: Teacher's Response to Internalizing and Externalizing Symptomatology in Children.

INVESTIGATORS: Steven A. Sternlof, M.S., Doctoral Student, Department of Educational Psychology, University of Oklahoma, 405-271-5251; Terry M. Pace, Ph.D., Associate Professor, Department of Educational Psychology, University of Oklahoma, 405-325-5974.

CONSENT FOR TEACHER PARTICIPATION: This is to certify that I, _____, agree to participate as a volunteer in a scientific study to provide information that will help in the understanding of student-teacher relationships and rating measures. This is part of an authorized research program of the University of Oklahoma under the supervision of Steve Sternlof, M.S. and Terry Pace, Ph.D.

PURPOSE OF THE STUDY: Teachers are often placed in a difficult position of creating a healthy learning environment for all students despite unique interests, concerns and needs. Therefore, it is important to understand how the teacher's relationship with these students may either impede or facilitate positive emotional, behavioral and academic adjustment.

This study hopes to validate previously used and accepted student-teacher assessment measures applied to diverse student teacher relationships and to better understand how these relationships are influenced by emotional and behavioral factors exhibited by children. If this research can verify the impact of student-teacher relationships, a higher priority for this area may be given to teacher training and professional development.

DESCRIPTION OF STUDY: The researchers will ask you to complete two surveys regarding your perceived social relationship with a student portrayed by a child actor on a video-taped film. This will take approximately 15 minutes of time and will not take time away from teaching. You will also be asked to

Continue To The Next Page

complete a questionnaire covering background information. All information obtained from teachers will be protected and kept confidential.

RISKS OF PARTICIPATION: I understand that all questionnaires used in this study have been used in previous research and are considered safe and appropriate for the purposes they are being used and that completion of these questionnaires is not expected to pose any discomfort to participants.

BENEFITS OF PARTICIPATION: Participants will be able to contribute to advancing our understanding of student-teacher relationships, which will benefit society.

Incentives: Should I choose to participate in this research I understand that I will be invited to attend a free workshop to address issues that may facilitate healthier student-teacher relationships. This workshop will be scheduled at a convenient time for all participants and conducted by the researchers who have expertise on student-teacher dynamics and are focused on the interests of students and teachers. If I choose to withdraw from the study at any time, I may do so without penalty. However, I may not receive the incentive if I withdraw.

PARTICIPANT ASSURANCES:

Conditions of Participation: I understand that participation is voluntary and that refusal to participate or withdrawal from participation at any time will in no way effect me. I understand that I may discontinue participation at any time without penalty or consequence.

Confidentiality: I understand that all information collected from me will remain strictly confidential and will only be seen by the investigators. I understand that all names will be removed from the questionnaires and code numbers will be assigned to each participant. I understand that all information will be stored in a locked cabinet at the University of Oklahoma Health Sciences Center in the office of the principal investigator, Steve Sternlof, M.S. I understand that no individual will be identified in any public report of this research. I also understand that at no time will information on individuals be shared with any school and that schools will also not be identified in any public report of the research.

Contacts for Questions: I understand that if I have any questions about this research study, I may contact Steve Sternlof at (405) 271-5251 x47604 or Dr. Terry Pace at (405) 325-5974. If I have questions about my rights as a research participant, I should contact the Office of Research Administration at (405) 325-4757 or irb@ou.edu

SIGNATURES:

I hereby agree to participate in the above-described research. I understand my participation is voluntary and that I may withdraw at any time without penalty. If you have any questions regarding your rights as a research participant, please call the Office of Research Administration at (405) 325-4757.

Printed name of Teacher

Signature of the Teacher

Date

Signature of the Principal Investigator

Date