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## Academic Attribution Style Of Tenth Grade Students With Attachment Problems

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ACADEMIC ATTRIBUTION STYLE OF TENTH GRADE STUDENTS WITH  
ATTACHMENT PROBLEMS

An Abstract of a Thesis

Submitted

In Partial Fulfillment

Of the Requirements for the Degree

Specialist in Education in School Psychology

Kimberly Conrad

University of Northern Iowa

December 2002

## ABSTRACT

The purpose of this study is to determine if there is a relationship between attachment and attribution in adolescents. The question that will be answered in this study is is there a relationship between attachment (as measured by the Adolescent Attachment Questionnaire) and attribution (as measured by the Intellectual Achievement Responsibility Questionnaire). There is not enough data in the literature at the present time to clearly support that there is a relationship.

Data were collected by using two instruments, Adolescent Attachment Questionnaire (AAQ), (West, Rose, Spreng, Sheldon-Keller, & Adam, 1998), and Intellectual Achievement Responsibility Questionnaire (Crandall, Katkovosky, & Crandall, 1965). The participants in this study were 105 tenth grade students in Iowa Public Schools located in Northeast Iowa.

Analysis of the data included an examination of correlations between attachment and attribution in 10<sup>th</sup> grade students. The results showed that the research question, "Is there a relationship between attachment and attribution?" is yes, there is a statistically significant (better than chance) relationship. Findings showed that the magnitude of relationship as measured by Spearman Rho is .224, which is significantly different from a chance relationship at the .05 level.

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This Study by: Kimberly Conrad

Entitled: Academic Attribution Style of Tenth Grade Students with Attachment Problems

has been approved as meeting the thesis requirement of the Degree Specialist in Education in School Psychology

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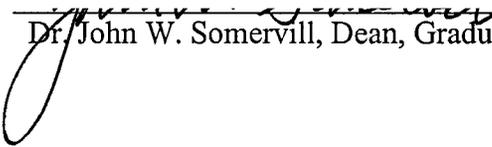
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## DEDICATION

Dedicated to the children who grow up in homes that do not promote or develop secure attachments to caring adults and to those adults who dedicate their lives to helping these children.

## TABLE OF CONTENTS

|   | PAGE |
|---|------|
| CHAPTER 1. INTRODUCTION .....                     | 1    |
| Theoretical Constructs .....                      | 3    |
| Attachment.....                                   | 3    |
| Attribution.....                                  | 3    |
| Statement of Problem.....                         | 5    |
| Significance of Problem.....                      | 6    |
| Definition of Terms.....                          | 8    |
| Organization of Thesis.....                       | 11   |
| CHAPTER 2. REVIEW OF LITERATURE .....             | 12   |
| Historical Background of Attachment .....         | 16   |
| Attachment Phases .....                           | 18   |
| Case Study .....                                  | 20   |
| Theoretical Perspectives of Attachment .....      | 21   |
| Theoretical Perspective of Attribution.....       | 26   |
| CHAPTER 3. METHODOLOGY, RESULTS, DISCUSSION ..... | 31   |
| Participants.....                                 | 31   |
| Instruments.....                                  | 31   |
| Procedure .....                                   | 34   |
| Results.....                                      | 35   |
| Discussion.....                                   | 35   |

|  | PAGE |
|--|------|
| REFERENCES .....   | 39   |
| APPENDIX A: Letters to Parents and Superintendents ..... | 45   |
| APPENDIX B: Script (Instructions To Students).....       | 50   |
| APPENDIX C: Raw Data Collection .....                    | 52   |

## CHAPTER 1

### INTRODUCTION

Children who grow up in homes that do not promote or develop secure attachments to caring adults, such as parents, may not develop the social competency that will help them become successful in school. Lacking success and feeling completely hopeless, children or adolescents may violently lash out at others whom they believe to be the *cause* of their pain.

Attachment theorists and researchers (Ainsworth & Bowlby, 1991) agree that both the quality and consistency of parent-child relationships in the first few months of life are very important for the formation of parent-child attachments. The predictability and reliability of the attachment figure(s) will in large part determine the parent-child attachment relationships, which will affect later relationships. Infants whose parents provide quality care, warmth and closeness, and reassurance will develop secure relationships. The infants can depend on their parents to be able and willing to respond to their signals when help is needed (Lamb, 1978). By contrast, infants who cannot rely on their attachment figures lack faith in the reliability and predictability of their attachment figures (Lamb, 1978). Such infants are often worried about their parents' whereabouts and their anxious behavior patterns can interfere with other important adaptive behaviors such as learning (Ainsworth, Bell, & Stayton, 1974). Insecurely-attached infants may become so engaged in assuring themselves that their attachment figures are close by, that their exploration and social interactions may be negatively

affected (Lamb, 1978). This early exploration and social interaction is the knowledge base on which later learning is built.

Brazelton and Greenspan's (2000) research with newborns demonstrates that a newborn baby will attempt to keep himself under control in order to look and listen to cues around him. He will put together four mid-brain reflexes- tonic neck, Babkin hand to mouth, rooting, and sucking, in order to stay alert. If he cannot succeed, and loses control, he will use human voice or touch to reinforce his effort to regulate his "state" toward alertness. The "regulatory" aspects of relationships help children stay calm and alert for new learning. At the most basic level, relationships foster warmth, intimacy, and pleasure; furnish security, physical safety, and protection from illness and injury. In general, there is a sensitive interaction between genetic proclivities and environmental experience. Experience appears to adapt the infant's biology to his or her environment. In this process, however, not all experiences are the same. Nurturing emotional relationships are the most crucial primary foundation for both intellectual growth and social growth (Brazelton & Greenspan, 2000).

The study is about the relationship between attribution and attachment in adolescents. The purpose of this study is to determine the relationship between attachment and attribution in adolescents. Although attachment theory has been largely substantiated by observations of infants and toddlers, evidence exists for its importance in developing social competence during the school years as well.

## Theoretical Constructs

### Attachment

Attachment, also known as bonding, refers to the process by which an individual “falls in love” with first his (or her) mother and then with other significant people in his life (Randolph, 1997). The critical periods when the capacity to develop healthy bonding and attachment is established occur in early infancy. In the very early stages attachment is a matter of survival for the infant, both physically and psychologically. Once love and trust are established, the emotional bonds formed are strengthened or weakened according to the events that occur in the child’s life (Randolph, 1997).

Attachment theory posits a biologically based system of specific behaviors organized to maintain or restore safety through proximity to a special and preferred other (the attachment figure; Stroufe & Waters, 1977). Attachment theorists have conceived of attachment as embracing behaviors, affects, and cognitions that are organized or patterned in response to common variations of the care giver’s sensitivity to a child’s signals for proximity (Ainsworth et al., 1974; Bowlby, 1969/1982, 1973, 1980; Stroufe & Waters, 1977).

### Attribution

Attribution is the way an individual thinks about or explains actions and outcomes; for example, a child’s attributing his or her school failure to lack of innate intelligence. Attribution in children may include their beliefs about their own control of reinforcements in intellectual-academic achievement situations (to whom do they *attribute* intellectual successes or failures). One form of attribution is to believe that the

locus of the consequences of behavior is internal and is a property on one's own actions. Another form is to believe that agents outside the person are responsible for the consequences of the person's actions. The consequences can be viewed as positive, desired by the individual, or negative, seen as undesirable by the person. Thus, an attribution for negative consequences may be different than the attribution for positive consequences.

According to Brazelton and Greenspan (2000), relationships and emotional interactions also teach communication and thinking. Relationships enable a child to learn to think. Emotions are actually the internal architects, conductors, or organizers of our minds. They tell us how and what to think, what to say, and when to say it, and what to do. We "know" things through our emotional interactions and then apply that knowledge to the cognitive world (Brazelton & Greenspan, 2000).

Current research on attribution has been largely based on Weiner's (1986) conceptualization of three bipolar dimensions of attribution: stability, locus, and controllability. Causes are typically classified as either stable (ability) or unstable (mood); internal (interest) or external (task difficulty); and controllable (effort) or uncontrollable (luck).

The child who feels responsible for his successes and failures should show greater initiative in seeking rewards and greater persistence in the face of difficulty (Crandall, Katkovosky, & Crandall, 1965). Students with attachment problems may exhibit undesirable or self-defeating attribution style that may negatively impact their academic achievement. Children learn specific skill as well as attitudes and beliefs regarding

schooling and school achievement through relationships with significant others like parents and teachers (Baker, 1999).

Masten and Coatsworth (1998) identified three key components to resilience within the personal adjustment domain—attachment, academic achievement, and self-regulation, with attachment being the most critical. Studies have clearly delineated that at all stages of development, the presence of key attachments to influential individuals underlie the development of resilience and competence in personal adjustment (Stroufe, Fox, & Pancake, 1983). Academic achievement appears to be another key indicator for building competence and resilience.

#### Statement of Problem

The purpose of this study is to determine the relationship between attachment, as measured by the Adolescent Attachment Questionnaire (West, Rose, Spreng, Sheldon-Keller, & Adam, 1998), and attribution, as measured by the Intellectual Achievement Responsibility Questionnaire (Crandall et al., 1965) in children.

Attachment relationships beyond childhood have an important functional role in overall adjustment of the individual (Ainsworth & Bowlby, 1991). Available research has consistently identified the quality of family relationships in the cause of emotional disorder in adolescence. Various writers have recognized that adverse family experiences pose a relentless threat to the consistent availability of parental care and emotional support and thus to the continuity of the adolescent's sense of secure attachment (Baumrind, 1991). However, although there is agreement that attachment is an especially

valuable conceptual tool for understanding parent-adolescent relations, empirical work has been hampered by lack of measures for its assessment (West et al., 1998).

The current study will attempt to determine the strength of the relationship between attachment and attribution in adolescent children. There is not enough data in the literature at the present time to clearly support whether or not there is a relationship.

### Significance of Problem

In the adolescent population, there is a need to know whether attribution and attachment are related. Erickson (1968) postulates that the adolescent period is one that entails a working out of trust in interpersonal relationships. One element of trust that could be considered is one in which adolescents who view themselves as being the primary source of their reinforcement are adolescents who also have positive attachments to their parents and can stand on that relationship as they explore less well known ones. Similarly, one could argue that an adolescent who has a very limited attachment to his parents would be deficient in taking responsibility for his own reinforcement and be reluctant to build trusting relationships with others. However, before the connection between adolescent trust, risk taking, intimacy, or friendship can be established, there is a preliminary research step that must be taken. It must be established that there is a relationship between attachment and attribution in the general population of adolescents before comparisons between sub-populations can be made. We cannot know if a difference between social and emotionally disturbed adolescents and non-clinically diagnosed adolescents is truly a function of attachment and attribution and not sampling bias without knowing what is the expected relationship between the two variables in the

general population. Thus, the first step in the research is to determine the currently unknown correlation between the two constructs.

Attachment is defined as the desire for persons to seek and maintain proximity with their primary caregivers, both individually and together. Primatologist Stephen Suomi (Wright, 1997) separated groups of monkeys into three different rearing environments. He found that monkeys raised parentless were more likely to be inhibited and fearful. His research found that temperament (i.e., inhibited or fearful) is reflected physiologically as well as behaviors exhibited: heart rate, immune response, stress-hormone levels. Currently, Wright (1997) is studying the role that early childhood environment plays in determining adult behavior. Effects of childhood environment, specifically that supplied by parenting is under renewed scrutiny in part due to recent neurological studies. These studies have revealed that the number of connections between nerve cells in an infant's brain grows more than 20-fold in the first few months of life. For example, a two year olds brain contains twice as many connections, called synapses, as an adult's brain. Throughout early childhood, synapses multiply and are pruned away at a furious pace. Something directs this dynamic change, and these researchers have concluded that that something is childhood experiences. These experiences can come in all shapes and sizes. But there is reason to believe that child's experience of his parents is especially powerful in development of emotion, personality, and behavior. Stroufe and his colleagues (1983) found that in a longitudinal study that children found to have a secure attachment to mother in infancy predicts less dependency

with teachers, less hostility with peers, and greater ego resilience in preschool classrooms.

### Definition Of Terms

**Attachment**--an affectionate emotional bond between parent (caregiver) and child, bonding them together in space, enduring over time, and having survival benefits (Bowlby, 1969). Attachment is a process that develops gradually from the first moment of contact between parent and child. As a stage of emotional development, it is stage five, lasting from 9 to 12 months, a time when infants display an exclusive preoccupation with their primary caregivers (Stroufe et al., 1983).

**Attachment behavior**--any form of behavior that results in a person attaining or retaining proximity to some other differentiated and preferred individual, usually conceived as stronger and/or wiser. Infant behaviors such as sucking, clinging, following, smiling, and crying tend to elicit protective responses from adult caregivers and bind the infant and caregiver to each other.

**Attachment theory**--a theory of personality and social development, which is tied to direct observations and scientific analyses of data. Attachment theory integrates insights and data from four domains; ethology (animal behavior in the natural habitat), control systems theory (how elements in a system influence each other), cognitive psychology (study of how people think), and psychoanalysis (study of unconscious affective and cognitive process and their effects on personality and behavior; Colin, 1996).

**Reactive Attachment Disorder (RAD)**--a condition believed to be caused by a lack of physical and/or emotional care giving. RAD is characterized by disturbed and

developmentally inappropriate social relatedness that begins before five years of age.

**Social competence**--ability to organize one's personal and environmental resources to influence positive developmental outcomes, as well as confidence and security in social situations.

**Strange Situation**--a procedure used by Ainsworth and associates (1974) to study infant/parent attachment. In the procedure, the caregiver and baby are brought into an observation room that is well supplied by toys. The parent puts the baby down and sits on a chair. After three minutes, a female stranger enters and begins a conversation with the mother. The stranger then tries to play with the baby, and the mother quietly leaves the room but leaves her handbag on the chair to signal that she will return. The mother is gone for three minutes, and during this time the stranger reacts to the infant either by giving comfort if it is protesting the parent's absence or by engaging it in play with the toys. Then the parent returns and the stranger leaves. After three minutes the parent leaves again; this time the infant is left alone in observation room. In the last six minutes of this standardized observation the stranger returns and again attempts to interact with the infant, after which the parent returns and the stranger departs. Throughout the 20-minute testing period, the infant's behaviors are observed and recorded by trained researchers (Ainsworth et al., 1974).

**Insecure anxious/resistant**--upset by separation, cry more, respond negatively both to physical contact and to its cessation. Insecure or anxious attachments are formed early in life.

**Insecure avoidant**--show little or no distress in the separation episodes, and avoid contact, proximity, or even interaction with the mother.

**Secure**--largest and normative group, explore actively, strongly attached to mother and desiring interactions with her.

**Attribution**--a student's beliefs about the control of reinforcements in intellectual-academic achievement situations (to whom do they *attribute* intellectual successes or failures).

**Confirmation**--a student expects that he will get an A because he is smart. If he gets an A, then the reason, ability, is both salient and sufficient to explain his behavior.

**Discounting**--a student expects to pass the test because he is smart and the test was easy. In this situation the student cannot deduce which is the main cause. Both causes are plausible.

**Augmentation**--If a student passes a difficult exam, he will be considered to have more ability than when he passes a difficult exam.

**Consensus**--To determine the cause of performance, the student compares his performance to that of other students in the class. If all students fail the test, then the student will reason that the most likely cause for his failure is the test's difficulty. If he is the only student to fail, then the cause is likely to be placed within the student.

**Distinctiveness**--If a student fails in all classes, then he is more likely to make a within-student attribution. If a student fails only in one subject, a more specific, environmental attribution is made.

**Consistency**--If a student's performance is consistently low over time, then a more internal, stable attribution will be made.

In an academic setting, research (Montecinos & Al-Mabuk, 1994) has shown that there are certain factors that students and teachers typically use to explain failure and success. It is believed that there is a relationship between ability, effort, self-concept, and achievement goals that form patterned ways of responding to failure that characterize self-defeating and self-enhancing attributional styles.

### Organization of Thesis

This paper consists of three chapters. In chapter one, attachment and attribution in children, especially adolescents, will be discussed in more detail. Chapter two will include a review of the literature. In chapter three, the methodology used in collecting the data will be presented as well as the analysis of the data. In addition, the author will discuss the results of the study and offer suggestions for future research.

## CHAPTER 2

### REVIEW OF THE LITERATURE

This chapter reviews the literature related to attachment and attribution, and consists of three parts. Part one deals with the definition of insecure attachment disorders and gives a historical overview. Part two reviews the literature that specifically looks at adolescent attachment issues and part three focuses on attribution. The current study focuses on adolescent attachment and the possible relationship to attribution style in adolescence. However, the beginning of parent-child attachment is formed in early childhood. Attachment theorists and researchers (Ainsworth et al., 1974; Bowlby, 1969) agree that the quality and consistency of parent-child relationships in the first few months of life are crucial for the formation of parent-child attachments. The predictability and reliability of the attachment figure(s) will in large part determine the parent-child attachment relationships, which will affect later relationships. Infants whose parents provide quality care, warmth and closeness, and reassurance will develop secure relationships with them. These infants can depend on their parents to be able and willing to respond to their signals when help is needed (Lamb, 1978). By contrast, infants who cannot rely on their attachment figures lack faith in the reliability and predictability of their attachment figures (Lamb, 1978). They are often worried about their parents' whereabouts, and their anxious behavior patterns can interfere with other adaptive behavior (Ainsworth et al., 1974). Insecurely attached infants may become so engaged in assuring themselves that their attachment figures are close by, that their exploration and social interactions may be negatively affected (Lamb, 1978). When parents are not a

reliable and vivid presence in the lives of their children, the emotional and social development of those children is adversely affected (Travis, 2000). In addition, a child's chances of gaining maximum benefits from schooling are adversely affected (Travis, 2000).

Insecure or anxious attachments are formed early in life. When this condition presents prior to the age of five, it is known as RAD. RAD is believed to be caused by a lack of physical and/or emotional care giving. RAD is characterized by disturbed and developmentally inappropriate experiences. Anxiety provoking events get assimilated to schemata associated with earlier anxieties that interfere with learning (Erickson, Stroufe, & Egeland, 1985). For example, children whose attachments in infancy have been anxious have less competent peer relations in preschool than do children whose attachments have been secure (Erickson et al., 1985). Evidence suggests that while maltreated children are more likely to exhibit insecure and confused patterns of relatedness, they do not necessarily develop a disorder of attachments (Lynch & Cicchetti, 1991). However, infants with RAD are more likely to have caregivers who are depressed, isolated, or indifferent to the child's basic physical and social needs for comfort, stimulation, and affection (Erickson, 1998). Detached or neglectful caregivers or repeated changes of the primary caregiver can prevent formation of stable attachments.

In the United States, children and youth with serious emotional disturbance range between 11-26% (Bird et al., 1988) with approximately 3-6% considered seriously emotionally disturbed (Kauffman, 1993). Prevalence rates for Reactive Attachment Disorder is estimated at 1% (Zeanah & Emde, 1994). Research by Erickson et al. (1985)

suggested that children categorized as anxious/avoidant in infancy have particular difficulty in preschool regulating their feelings and behavior. Their behavior is hostile and impulsive, and they give up easily. Children categorized as anxious resistant in infancy have particular difficulty with self-confidence and distractions. They behave passively and do not pay attention easily to classroom activities. Erickson and his colleagues (1985) noted clinical evidence that severe anxiety or its threat, inhibits recognition of new experience. Anxiety provoking events get assimilated to schemata associated with earlier anxieties. This interference with learning could be one reason for correlations between measures of social competence and anxiety. For example, children whose attachments in infancy have been anxious, have less competent peer relations in preschool than do children whose attachments have been secure (Erickson et al., 1985).

Although attachment theory has been largely substantiated by observations of infants and toddlers, increasing evidence exists for its importance in developing social competence during the preschool years. Researchers (Lieberman, 1977; Stroufe et al., 1983) have reported that security of attachment can predict social competence in preschool. Children who were more securely attached as infants were ranked as having more friends and were nominated as being more popular in preschool. They were also more empathetic toward peer distress. On the other hand, children who were insecurely attached as infants were less responsive to peer distress in preschool (Stroufe et al., 1983). Likewise, Lieberman (1977) has shown that peer competence was related to the mother-child relationship at home.

Pettit, Dodge, and Brown (1988), found a connection between mothers who had aggressive problem-solving styles, and their children receiving a low status ranking from their preschool peers. These children's social competence was lower due to limits in the child's repertoire of solutions to social problems. In general, being able to pick up the nuances within interaction depends on prior experience with similar interaction.

Adolescents and children whose scores are higher in use of aggressive conflict tactics manifest higher anxiety than do those whose scores are lower (Kashani, Deuser, & Reid, 1991). Anxiety could both hamper accurate social perception and stimulate dominant responses, which in the case of aggressive youngsters would be aggressive responses. These aggressive responses might include hitting, pushing, or even using weapons such as handguns. Since aggressive children tend to have more enemies than friends or maybe no friends at all, their resilience to interactions that they perceive as hostile may bring about the terrible results that we have witnessed in the recent increase of school shootings. Insecurely attached children when compared with their securely attached peers do not get along as well with their age-mates and teachers. Insecurely attached children have been found to avoid contact with peers (Bretherton, 1985). In other words, children who form anxious attachments are more likely than securely attached children to have difficulty in later interpersonal and social/emotional relationships.

Most babies are born with the behaviors necessary for attachment to occur (Bowlby, 1969). When babies smile, cling, suck, and coo, they are initiating a response that will lead to an interaction with their caretakers. If something goes awry, and this two-way interaction doesn't occur, neither will bonding between baby and caretaker.

Secure attachment is the base on which healthy human relationships and stable mental health rests. Parent-child attachment is the “nurture” environment that affects child development. It is a widely shared concept that secure attachments lead to optimal outcomes for most children. Although there are several reasons why this bonding does not occur, parental neglect and indifference seems to be the most prevalent (Rutter & Garmesy, 1983).

### Historical Background of Attachment

One of the most basic tenets of attachment theory (Bowlby, 1969, 1973, 1980) is that the early attachment relationship affects functioning throughout the lifespan. In the 1950s and 1960s, John Bowlby, a British psychoanalyst, developed attachment theory to account for phenomena in personality development and psychopathology that were not well recognized or explained by other psychoanalytic theories. Working in a child guidance clinic before World War II, Bowlby was struck by how often the early histories of apparently incorrigible juvenile thieves included severe disruptions in their relationships with their mother figures. He therefore focused research on the effects of the temporary separation of a child from his or her primary caretaker during the first five years of life (Colin, 1996). At that time, two widely accepted theories offered explanations for the child’s tie to the mother. Both were secondary-drive theories as psychoanalytic and social learning theorists alike proposed that the infant’s relationship with the mother emerges because she feeds the infant (Freud, 1957; Sears, Maccoby, & Levin, 1957). As Bowlby was developing attachment theory, he became aware of evidence stemming from animal studies that seriously called these two perspectives into

question. Lorenz (1935) noted that infant geese became attached to parents that did not feed them, but became attached by virtue of being familiar to them. Harlow (1958) observed that infant rhesus monkeys, in times of stress, preferred not the wire-mesh “mother” that provided food, but the cloth-covered “mother” that provided human contact. Because he found himself dissatisfied with traditional theories, Bowlby sought understanding through discussion with colleagues from evolutionary biology, development psychology, theology, cognitive science, and control systems theory (Bowlby, 1969/1982). He drew upon all these fields to formulate the innovative proposition that the mechanisms underlying the infant’s tie to the mother originally emerged as a result of evolutionary pressures. Bowlby believed this strong tie between mother and child originally emerged as a result of evolutionary pressures. Bowlby’s ideas were presented and later elaborated on in his book trilogy, Attachment and Loss (1969/1982, 1973, 1980).

Bowlby (1973) hypothesizes that attachment behavior forms an organized behavioral system. That is, a varied set of behaviors (e.g., smiling, crying, visual following) serves a single function (maintaining proximity to the caregiver). Bowlby sees the attachment system as one of several interlocking behavioral systems, including exploration, care giving, and sexual mating, designed to ensure survival. From the viewpoint of the outsider, the goal of the attachment system is to regulate behaviors designed to establish or maintain contact with an attachment figure; from the viewpoint of the attached person, the goal of the system is “felt security” (Feeney & Noller, 1996).

According to Colin (1996), contributions from ethology did not exclude psychoanalytic insights from the theory Bowlby was developing. On the contrary, attachment theory continues to share many important views with psychoanalytic theories. First, early adaptations have profound and long-lasting effects on the individual's personality, social relationships, thoughts, feelings, and behavior. Second, much of human motivation is unconscious. Third, development reflects a coherent underlying organization, even when surface manifestations in behavior change with age, state, and situation. Bowlby (1988) proposed that early relationship experiences influence later experience by means of working models. According to his theory of attachment, the infant builds an initial model of its attachment figure and self, based on treatment it receives from the attachment figure or caretaker. This model provides generalizations about the caretaker's past responses to the infant's needs for security, which create expectations for future responses by the caretaker when similar needs arise again. These expectations serve as guidelines for adapting to the caretaker because the infant learns to behave in anticipation of the caretaker's response—for example, by seeking proximity to the caretaker if it anticipates support and by distancing itself if it anticipates rejection. Expectations for support and rejection thereby are reinforced by the behavior of the infant. The behavior of the caretaker can, of course, change and lead to revision of the infant's expectations, which is indicated by the working model.

### Attachment Phases

Bowlby (1969) detailed four phases in the development of attachment; pre-attachment phase (0-3 months) in which the infant is interested in anyone; attachment-in-

the-making phase (3-6 months) in which the relationship is forming between the baby and primary caregiver; clear cut attachment phase (6-12 months) in which the infant acquires person permanence (infant now can keep this person in mind, even when that person is absent) and it is in this stage where an infant will protest when caregiver leaves (separation distress); and goal-corrected partnership phase (12-24 months), which represents a more complex interplay of cognitive, social, and emotional behavior. The attachment between the infant and caregiver becomes much more complicated and the infant may initiate attempts to influence the attachment figure in fairly sophisticated ways.

In 1973 Mary Ainsworth and her colleagues developed a method of studying attachment behaviors by observing the child with its parent, usually the mother, in specific situations. The Strange Situation was used to study hundreds of children at varying ages. On the basis of their research, they identified three categories of attachment behavior: secure attachment (Type B) and two varieties of insecure attachment: avoidant (Type A) and resistant (Type C). The securely attached infant (Type B) uses the parents as a base of security in the Strange Situation. The resistant, insecurely attached infant (Type C) is more likely to seem anxious or distressed even when its parent is in the room. This type of infant has trouble using the parent as a secure base for exploration. The avoidant, insecure attachment (Type A) also reflects some difficulty between parent and child. The infant seems to ignore the parent much of the time and does not use the parent as a secure base for exploration.

Attachment behavior has the predictable outcome of increasing proximity of the child to the attachment figure (usually the mother). Some attachment behaviors (smiling, vocalizing) are signaling behaviors that alert the mother to the child's interest in interaction, and thus serve to bring her the child. Attachment behaviors are thought to be organized into an attachment behavioral system. Bowlby (1969/1982) borrowed the concept of the behavioral system from ethology to describe a species-specific system of behaviors that leads to certain predictable outcomes, which contribute to reproductive fitness.

### Case Study

The following is a historical case study that demonstrates attachment behavior in humans. A case study (Freud & Dann, 1951) of six German-Jewish orphans, separated from their parents at an early age because of World War II and placed in an institution, tells how the children formed intense, protective attachments to each other while ignoring or being actively hostile to their adult caretakers. The children had lost their parents before the age of one, most commonly in gas chambers. When they were four, they arrived at Bulldog Banks, a small English country home that was now a nursery for war orphans. Their stay here was their first experience in an intimate, family type setting. At first, these children were uncontrollable, damaging furniture and toys. They ignored adults, but when angry, would spit, bite, and swear, often calling the adults *bloder echs* (stupid fools). However, their behavior toward each other, was a contrast to how they treated the adults. In one case, a caretaker accidentally knocked over one of the children, and two others threw bricks at her and called her names. The children resisted being

separated from each other even for special treats like pony rides. When one of the children was ill, the others wanted to remain with her. They helped and shared with each other more than is normal for this age, and demonstrated little envy, jealousy, or competition with each other. When positive relations with adults began to be formed, they were made on the basis of group feelings and had none of the demanding, possessive attitudes often displayed by young children towards their own mothers. They began to include adults in their group and to treat them in some ways as they treated each other. During their stay at Bulldog Banks, the intensity of the children's attachments to their surrogate mothers was never as intense as in normal mother-child relationships and never as binding as those to their peers.

#### Theoretical Perspectives of Attachment

The most fundamental aspect of attachment theory is its focus on the biological bases of attachment behavior (Bowlby, 1969/1982). Attachment theory is widely regarded as one of the most viable theories of personality development and intimate relationships ever proposed. Unlike any other similarly comprehensive theory, this theory has always been closely tied to objective observations of babies, children, and parents living their real lives in their natural social environments. According to Colin (1996), this theory is beneficial because it is so well grounded in scientific observations, and because it offers such a rich framework for understanding and solving problems for human beings. Parents who stimulate their infants--those who talk to, cuddle, and express warm positive emotions with their babies--generally have more responsive and socially competent children (Belsky, Rovine, & Taylor, 1984). Also, the more sensitive

attention and stimulation the infant receives, the earlier and more accelerated will be its performance on tests of cognitive development (Belsky et al., 1984). Infants who were talked to frequently and had a great deal of social interaction with adults were more advanced mentally and showed more positive emotions than infants who were less involved with people (Sigman & Mundy, 1989).

Research has shown that well attached infants and toddlers are more willing to comply with adult directives (Sigman & Mundy, 1989). A way of describing attachment is to say it is a quality relationship. When you really care for someone, they will be more likely to comply with your wishes, because they care about you and your feelings. If you desire better behavior from a child, work on building a better relationship with them. Social attachment theory argues that an infant's relationship with its caretakers evolves into a working model, which organizes behavior (Ainsworth & Bowlby, 1991; Bretherton, 1985; Main, Kaplan, & Cassidy, 1985). The attachment system thus becomes a component of the cognitive structure subject to developmental changes as well as environmental influence (Ainsworth, 1989). When the goal of attachment behavior becomes subjective, cognitive factors, including affect, become instrumental in promoting adaptive behavior (Stroufe & Waters, 1977). Some studies indicate that the strength of a child's bonding with his caregivers may increase his ability to learn and to cope with stress. Others show that childhood abuse and neglect can predispose the brain for a lifetime of inappropriate aggression and scattered attention. Although there is much in the literature about infants as well as preschool age children, less is written about the effects of attachment on adolescent age children.

### Adolescent Attachment Issues

Although Bowlby (1969) conceived of attachment theory as covering life-span personality development, early attachment research focused mainly on the first years of life. However, there are several studies more pertinent to the current study, which focus on adolescent attachment issues. The present study hypothesizes a possible relationship between attachment bonds and attribution styles adolescence. The following are studies that link adolescent attachment to caregivers, to quality of social interaction or relationships. One reason for these links may be that parental attachments may provide a set of expectations for how to relate to others and how to interpret others' actions (Bowlby, 1973). For example, a child who has experienced open communication and responsiveness to emotional needs from a parent may adopt these characteristics in other relationships. For these reasons, more secure attachments to parents may promote more rewarding interactions and relationships to teachers, peers, and others. Kobak and Sceery (1988) found that secure adolescents were more ego resilient and less hostile and anxious than insecure adolescents.

In reviewing the research on adolescent conduct disorders—those persistent behaviors that violate the basic rights of others and/or the norms of society we find certain things about the young people who so readily violate the norms of our society. Some come from divorced or single-parent homes characterized by high levels of family hostility and parental rejection and inconsistent discipline (Rutter & Garmesy, 1983). As a result, these adolescents generally fail to establish a normal degree of attachment to others, affection, or empathy. Research by Patterson, DeBaryshe, and Ramsey (1989),

found that they could trace the origin of antisocial adolescent behavior to poor parental discipline and monitoring during childhood. The study found that parents of delinquent boys were not interested in or aware of their son's whereabouts and behavior, suggesting that parental indifference may be a factor contributing to delinquent behavior. The single most predictive indicator of adolescent delinquency is the child's relationship with his parents. In general, the better children get along with their parents, especially fathers, the less likely it is that teens will engage in delinquent behavior. Parents whose children are offenders don't care or can't keep track of their child's whereabouts. When problems are brought to parent's attention, they are apathetic about rule breaking and tend to forego effective discipline in favor of lecturing, or threatening. Children of poor parent-child relations also affect delinquents' views of themselves. Juvenile offenders almost always have low self-esteem and a negative self-image, tending not to like or value themselves and to picture themselves as "lazy, bad, ignorant, or inadequate" (Patterson & Stouthamer-Loeber, 1984). Attachment to parents in adolescence has been found to relate to self-esteem, life satisfaction, affective status, psychological well-being, identity, and adjustment to college (Armsden & Greenberg, 1987; Armsden, McCauley, Greenberg, Burke, & Mitchell, 1990; Kobak & Sceery, 1988).

A related study (Kerns & Stevens, 1996) found that qualities of mother-child and father-child attachment were significantly related to reports of adolescent loneliness. Attachment to mother was related to quantity and quality of daily interactions. The researchers used 112 introductory psychology students, 61 females, and 51 males. Subjects were between the ages of 17 and 25 (84%) were under 21 years of age. The

instrument used to measure parent-child attachment was a revised version of the Adult Attachment Scale (Collins & Read, 1990). Loneliness was measured using the UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980). The Block Q-sort assessment was used as it had been used in an important study of attachment and personality (Kobak, & Sceery, 1988). Items that might be found in the Block Q-sort would be; (a) is productive; gets things done, (b) gives up and withdraws where possible in the face of frustration and adversity. The researchers found that parent-child attachments were related to loneliness and everyday social interactions with others. Within the domain of personality it was found that secure attachments promoted a more flexible, resourceful, and relaxed problem-solving style as well as ability to modulate affect with men only. In other words, father-child attachment, but not mother-child attachment was linked to the above issues in personality development in adolescents.

A related study (Mullis, Hill, & Readdick, 1999) was done using 144 male adolescents and 471 female adolescents, and focused on how adolescents classified as high or low in attachment to each of their parents differ in their reports of social support from different sources. Instruments used in this study included the Parental Attachment Scale (PAS; Walters & Hill, 1992), the Social Support Index (SSI; McCubbin, Larsen, & Olsen, 1987), and the Relative and Friend Support Scale (RFSS; McCubbin et al., 1987). The researchers results lent support for the validity of attachment theory and confirm the suggestion that perceived social support from friends and relatives is associated with perceived attachment to the mother, especially for younger adolescents (Cauce, Mason, Gonzales, Hiraga, & Liu, 1996).

Violato and Genuis (2000), found that the influence of childhood attachment on psychological adaptation in adolescence was strongly correlated. A single path from Childhood Attachment to psychological adaptation (Psychopathology) was confirmed by a significant path coefficient (.48,  $p < .01$ ). In this study, 40% of the adolescents were taken from a clinical sample and the remainder from the community. Adolescents completed the Adolescent Attachment Survey (AAS) along with the Parental Bonding Instrument (PBI) and the Youth Self Report (YSR), while their parents were administered the Child Behavior Checklist (CBCL). Main results in the study were that (a) a latent variable path model with three latent variables (Abuse, Childhood Attachment, Social/Emotional Isolation), (b) the latent variable path model fit the data very well and indicates that there is a direct link from childhood attachment to adolescent psychological adaptation, (c) clinician diagnosis for the adolescent clinical subjects was cross-validated with the CBCL and YSR, and (d) the type of outcome was not related to any specific risk factor in childhood. Researchers feel that their findings indicate that childhood attachments play a central role in subsequent psychological adaptation in adolescence.

#### Theoretical Perspectives Of Attribution

Martin Seligman (1995) defines attribution as optimism and feels that it can be measured through the use of a standardized questionnaire such as The Children's Attributional Style Questionnaire (CASQ; Seligman, 1995). According to Seligman, girls until puberty, are noticeably more optimistic than boys. The average eight to twelve year old girl has a G-B score of 6.5 (calculation of permanent good events minus pervasive bad events using the CASQ) whereas the average 8 to 12 year old boy has a

more pessimistic overall G-B score of 5.05 (Seligman, 1995). Pessimism is characterized by the lack of ability to “bounce back” from setbacks, generalizing setbacks from one realm to another, and blaming oneself too much when things go wrong (Seligman, 1995). Optimism is characterized by generalizing successes, for example, a child doing well with friends as well as doing better on schoolwork (Seligman, 1995).

Attribution is defined as the beliefs a person holds about their ability to influence the outcomes of situations (Crandall et al., 1965). They may believe that their actions produce the reinforcements which follow their efforts, or they may feel that the rewards and punishments meted out to them are at the discretion of powerful others or are in the hands of fate. In fact, the same reinforcement in the same situation may be perceived by one individual as within his own control and by another as outside his own influence. These personal beliefs could be important determiners of the reinforcing effects of many experiences. If, for example, the individual is convinced that he has little control over the rewards and punishments he receives, then he has little reason to modify his behavior in an attempt to alter the probability that those events will occur. Rewards and punishments, then, will have lost much of their reinforcing value, since they will not be as effective in strengthening or weakening the Ss responses (Crandall et al., 1965). These beliefs of internal (self) versus external (environmental) control are the basis for the current study.

### Adolescent Attribution Issues

Attributional thinking refers to the way in which we explain the causes of events. The fundamental assumption of attribution theory is that individuals seek explanations

for their own behaviors and those of others. Explanatory behaviors help people adapt to and survive in their environment by helping them better understand themselves and their environment. Unexpected failure at an important event is especially likely to elicit attributional thinking (Montecinos & Al-Mabuk, 1994).

A study that examined the relationship between several characteristics including cognitive attributional style and romantic attachment style found that in college freshman, individuals having a secure attachment style were less likely to have a depressive attributional style (Kennedy, 1999).

In an academic environment, students and teachers seek to explain the causes of success and failure, their own and that of others (i.e., “Why didn’t I get an A?”). Many behaviors, feelings, and thoughts are a consequence of the ways students and teachers explain the causes (attributions) of academic outcomes (passing/failing a test) and the ways students and teachers understand causes of these outcomes are much more important than the outcomes per se. What determines the amount of future effort on a task is not whether we succeed or fail, but why we think we succeeded or failed (Montecinos & Al-Mabuk, 1994). Some adolescent attributional styles can lead to adaptive coping responses characterized by challenge seeking, high and strategic persistence in the face of obstacles. Other adolescent attributional styles can lead to maladaptive coping responses characterized by challenge avoidance, low and ineffective persistence in the face of obstacles, (Montecinos & Al-Mabuk, 1994). In Montecinos and Al-Mabuk’s study (1994), they found that among students who had dropped out by the end of the year, there was a significant gender difference in attributional styles.

Compared to girls, boys who dropped out had both a lower internal negative and positive score. Boys who dropped out exhibited the lowest score in terms of ability to assume responsibility for negative outcomes.

Research results in a study (Dweck, 1975) that tried to determine whether altering attributions for failure would enable learned helpless children to deal more effectively with failure in an experimental problem solving setting. Results revealed that subjects who received Attribution Retraining Training maintained or improved their performance, as well as demonstrated an increase in the degree to which they emphasized insufficient motivation versus ability as a determinant of failure (Dweck, 1975). Results from research that examined factors in self-worth theory (Beery, 1975), indicated that inability attributions and negative affect were greatest when failure followed much effort (Covington & Omelich, 1979).

Expectations for future success are linked to how we explain our performance outcome. Attributing failure to stable, internal factors will reduce a person's intentions of engaging in the failed activity in the future (Montecinos & Al-Mabuk, 1994). Thinking that ability is something people are born with and cannot be changed (intelligence theory) is maladaptive and discourages putting forth effort when you think you lack the ability to do well. A more adaptive view would be to think of ability as something that can be increased through effort (mastery learning). Research has shown that certain factors are typically used to explain success and failure outcomes in achievement-related situations (Weiner, 1986). Listed below are the seven most common factors called causal attributions:

1. self-perceived ability (learned and aptitude)
2. immediate and long term effort
3. task characteristics
4. luck
5. teachers' competence
6. mood/health
7. intrinsic motivation

Research findings have shown that it is important that students not only think they can be successful if they put forth the effort, but also that they believe that it is necessary to develop the skills to engage in strategic effort (Cecil & Medway, 1986).

Consequences of attachment disorder may cause problems in the daily life of an individual student. Attachment problems may contribute to the lack of academic success experienced by some students. Due to the changing family dynamics, and its number of changing roles for girls, women, and mothers that influence family dynamics and structure, this is a timely area of research. Knowing the negative impacts on children from extensive non-maternal care would be clinically very helpful. However, before the clinical work can proceed, the theoretical and empirical relationship between attribution and attachment have to be firmly established. This study is a first step in establishing whether the two variables are related.

## CHAPTER 3

### METHODOLOGY, RESULTS, AND DISCUSSION

This chapter describes the methodology used in this study. There are five sections: (a) participants, (b) instruments, (c) procedure, and (d) results, and (e) discussion.

#### Participants

This study used a random cluster sample of three high schools, with a minimum of 100 students in the 10<sup>th</sup> grade, currently attending one of a possible 26 schools in Northeast Iowa. First, a list of all public schools located in Northeast Iowa that included high school students, was obtained. Schools were alphabetically assigned a 2 digit number and then randomly selected from an alphabetized list that corresponded to a number chosen from a Random numbers table (A Million Random Digits with 100,000 Normal Deviates by the Rand Corporation New York: The Free Press, 1955, 1983). Following school selection, notices were sent to the superintendent of each high school requesting permission to proceed with the study (see Appendix A). Included in the letter was an explanation of the purpose of the study and the procedure the researcher would follow. Permission slips were required of all 10<sup>th</sup> grade students included in the study (see Appendix A).

#### Instruments

Adolescent Attachment Questionnaire (AAQ; West et al., 1998). Measurement of attachment characteristics in adolescents. This measure was developed and validated in a large normative sample ( $n = 691$ ) and is valid and reliable instrument that can be used in

the assessment of adolescent attachment patterns. The AAQ is a self-report questionnaire consisting of 3 scales of 3 statements each; with Likert-type responses from strongly agree to strongly disagree. The Availability scale assesses the adolescent's confidence in the availability and responsiveness of the attachment figure. The Goal-Corrected Partnership scale assesses the extent to which the adolescent considers and is empathetic to the needs and feelings of the attachment figure. The Angry Distress scale taps the amount of anger in the adolescent-parent relationship. All scales demonstrate satisfactory internal reliability and agreement between scores for adolescents ( $n = 91$ ) from the normative sample who completed the AAQ twice. Adolescents in the clinical sample also completed the Adult Attachment Interview (AAI); the AAQ demonstrated high convergent validity with the AAI. The AAQ is based on dimensions identified as relevant to defining parent-adolescent attachment (Ainsworth, 1985; Weiss, 1982). The AAQ scales followed Loevinger's (1957) construct-oriented approach to scale development and was derived *a priori* from theoretical considerations rather than post hoc statistical manipulations such as factor analysis. However, statistical analyses were used to refine and confirm the psychometric strength of the theoretically based scales (West et al., 1998).

The AAQ is a short self-report nine question, questionnaire that is appropriate to adolescents and can be use in large scale studies as they further characterize phenomena associated with various attachment organization in adolescence.

The following questions from the Angry Distressed and Goal Directed Partnership scales similar to those found in the AAQ questionnaire:

- \_\_\_\_\_ a. My parents only seem to notice me when I am mad.
- \_\_\_\_\_ b. I feel for my parent when he/she is disturbed.

Intellectual Achievement Responsibility Questionnaire (IAR; Crandall et al., 1965).

Measurement of attributional style. The purpose of the IAR is to measure student beliefs in internal versus external reinforcement responsibilities in intellectual-academic achievement situations. In the attribution instrument for this study, the Intellectual Achievement Responsibility Questionnaire, only the internal locus for consequences will be used. Thus the scores will be an I+ score and an I- score, where plus is for positive consequences and minus is for negative consequences. It consists of 34 forced choice items. The stem of each item describes a positive or negative achievement experience. Two response alternatives are associated with the stem, one attributing causality to one's own behavior (internal responsibility) and one attributing causality to the behavior of another person (external responsibility). Two scores are obtained; internal responsibility for positive outcomes (1+) and internal responsibility for negative outcomes (1-). The maximum score on each scale is 17. The following is an item like those on the questionnaire: If a teacher passes you to the next grade, would it probably be

- \_\_\_\_\_ a. because she liked you, or
- \_\_\_\_\_ b. because of the work you did?

**Definitions:**

- Internal positive score reflects a tendency to think that one is responsible for a successful outcome (e.g., doing well on a test).

- Internal negative score reflects a tendency to think that one is responsible for a negative outcome (e.g., doing poorly on a test).

Crandall et al., (1965) reported the following psychometric properties for the instrument: Among ninth graders a test-retest reliability coefficient of .47 for 1+ and .69 for 1-; among 10<sup>th</sup> graders the correlation between 1+ and 1- was .43 and an internal consistency of .60 for both scales. Mean and standard deviations for 10<sup>th</sup> grade students were as follows: 1+, 13.21 and 2.41; 1-, 12.68 and 2.68 respectively.

### Procedure

This researcher met with the principals of the participating schools in order to determine a time in the school day that would be most beneficial to the school for the 10<sup>th</sup> grade students to complete the two (AAQ and IAR) questionnaires. Next, parental permission was obtained. (see Appendix A.) Students were told that the study in which they were participating was designed to examine the relationship between parental attachment and academic attribution. Following instructions (see Appendix B) the students completed the two questionnaires (AAQ and IAR) individually in their classroom. After completion of the questionnaires students were told that this study was done in order to determine if indeed there is a correlation between certain attachment types and student attribution styles, and they left the classroom.

Next, two scores were obtained from each participant, one a measure of attachment and the other a measure of attribution. Correlation methods were used to determine whether a relationship exists between or among variables. Then the researcher calculated the correlation coefficient, which is a quantitative measure of the existence,

direction, and strength of the relationship. Raw data collected for this study can be found in Appendix C. It was the goal of this study to determine whether any relationship exists, so that other hypotheses can be advanced.

### Results

This study looked at the relationship between attachment and attribution in adolescents. Results demonstrate that there is a statistically significant relationship between attachment and attribution. The magnitude of the relationship as measured by Spearman Rho is .224 which is significantly different from a chance relationship at the .05 level. This means that although many other factors are involved, this level of significance is greater than that which would result from a chance relationship alone.

The coefficient of determination for the correlation is  $(.224)^2 \times 100 = 5\%$ . Coefficient of determination indicates that only 5% of the total variance is common between the two measures. Insecure-avoidant parental attachment is linked with external negative attribution, and although the correlation is significantly different from chance, the relationship between the two variables is of very low order.

### Discussion

The author's personal interest is in whether attachment and attribution are separate constructs and, if so, whether they are differently combined in a diagnosed behavioral disorder group than in the general population. The current study was initiated to determine the relationship between the two variables with the idea that a high correlation would mean they were essentially the same construct and a low correlation meaning they were separate constructs. The correlation of .224 obtained in the study

yielded a coefficient of determination of 5%, which indicates that the two variables, while showing a small and non-chance common relationship, are heavily independent of each other as measured by the AAQ and the IAR.

As essentially separate constructs, attribution and attachment will be separately accounted for in further research on whether they are the same in behaviorally disordered students as compared to non-disordered students. For example, will adolescents who have been placed in institutional settings such as group homes or adolescent psychiatric wards, demonstrate a stronger link between insecure-avoidant parental attachment and external negative attribution or will it be the same as in the general population?

Available research has identified quality of family relationships in the cause of emotional disorders in adolescence. According to Brazelton and Greenspan (2000), the most crucial primary foundation for both intellectual and social growth is nurturing emotional relationships.

Students with attachment problems may exhibit undesirable or self-defeating attribution style, further negatively affecting their academic achievement. Due to increasing numbers of students living in foster homes, single-parent homes, or possibly even homeless, this research could provide timely information needed for school psychologists to create successful interventions. For example, before a school psychologist creates an academic intervention, she may need to first examine social/emotional needs of the student.

The author's clinical experience led her to believe that strong attachment to parents would affect the attributional style of students. Much of the research shows that

insecure attachment has an impact on adaptive behavior. The current study was exploratory and it only looked at the relationship between attachment and attribution. It was hypothesized that a strong correlation between the two constructs in the general population would be found. However, the results of this study did not confirm the hypothesis. Although a correlation that is significantly different from chance was found, the relationship between the two variables was low. However, the information about attachment and its relationship to attribution may serve as groundwork for further research in a clinical setting.

This study serves as a foundation upon which future researchers can build by further examining the relationship between attachment and attribution. Variables such as self-worth, self-efficacy, or self-regulation could be controlled, adding strength to the findings. Also, secure attachment attributes outcomes to controllable and stable high internal control, and insecure attachment attributes outcomes to learned helplessness. Future research may control for these or other factors adding to the research base in this area of study. This author is particularly interested in research findings that would help practitioners, such as school psychologists in setting up successful interventions for students. Baker (1999) reported that children learn specific skills as well as attitudes and beliefs regarding schooling and school achievement through relationships with significant others like parents and teachers. Further research may use Baker's findings to examine the effects of mentoring on a student's academic outcomes. Students with attachment problems may exhibit a self-defeating attribution style that will negatively impact their academic achievement. Simply implementing an academic intervention may not prove

successful unless the interventionist understands the impact of attachment on this “learned helplessness” attributional style.

Although the purpose of this study was to determine the relationship between attachment and attribution, it is this author’s hope that others who believe that attachment relationships have an important role in the attributional style of a student and hence, impact school success, will continue to build on this research. This more complete research base can then be used to assist practitioners to design and implement more successful academic student outcomes.

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APPENDIX A  
LETTERS TO PARENTS AND SUPERINTENDENTS

## LETTERS TO PARENTS AND SUPERINTENDENTS

### Parent Letter

Dear Parents,

I am a School Psychology graduate student conducting research to investigate the relationship between attachment and attribution style in adolescent students in the 10<sup>th</sup> grade. The purpose of this study is to determine whether there is a relationship between these two ideas. If there is, and I suspect there is, showing how strongly connected they are can help us do a better job of determining what some students may need in terms of social development. It is the researcher's goal to increase the chance of successful outcomes for students.

Students will be asked to complete two paper/pencil type questionnaires in class. One of the questionnaires deals with attribution and the other with attachment. The following is an item like the ones on the questionnaires:

If a teacher selects you for a special presentation, would it probably be

- \_\_\_\_\_ a. Because she cares about you, or
- \_\_\_\_\_ b. Because you really can do the work?

There are no embarrassing, intrusive, pathological, or sexual items on them. The student can choose not to participate by simply turning their paper over and sitting quietly. There will be no penalty to the student who does not wish to participate. The total time we anticipate using in your student's class is 35 minutes.

Names will **not** be written on papers, and there is little or no risk or discomfort to those students filling out the questionnaires. If you have questions about the research,

direct them to the researchers listed below (319-273-3384) or contact the Human Subjects Coordinator at the University of Northern Iowa (319-273-2748).

Kimberly Conrad, MAE  
School Psychology Graduate Student

Donald Schmits, EdD  
University of Northern Iowa

Please return the following signatures to school with your student. Thank you.

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I am fully aware of the nature and extent of my participation in this project as stated above and the possible risks arising from it. I hereby agree to participate in this project. I acknowledge that I have received a copy of this consent statement.

\_\_\_\_\_  
(Signature of parent or guardian or foster parent) Date

\_\_\_\_\_  
(Printed name of subject)

\_\_\_\_\_  
(Signature of investigator)

## Letter to Superintendent

Dear Mr. Superintendent,

I am a School Psychology graduate student conducting research to investigate the relationship between attachment and attribution style in adolescent students in the 10<sup>th</sup> grade. The purpose of this study is to determine whether there is a relationship between these two constructs. If there is, and I suspect there is, showing how strongly connected they are can help us do a better job of determining what some students may need in terms of social development. It is the researcher's goal to increase the chance of successful outcomes for students. This may be of benefit to your school system in the future, as there appears to be an increase in the number of children with attachment problems.

Your high school was one of five high schools randomly chosen from 26 public high schools in Northeast Iowa.

Students will be asked to complete two paper/pencil type questionnaires in class. One of the questionnaires deals with attribution and the other with attachment. The following is an item like the ones on the questionnaires:

If a teacher selects you for a special presentation, would it probably be

\_\_\_\_\_ a. because she cares about you ,or

\_\_\_\_\_ b. because you really can do the work?

There are no embarrassing, intrusive, pathological, or sexual items on them.

The student can choose not to participate by simply turning their paper over and sitting quietly. There will be no penalty to the student who does not wish to participate. The total time we anticipate using in your student's class is 15-25 minutes. All students who

participate will have signed permission forms from the parent or legal guardian prior to participation.

Names will **not** be written on papers, and there is little or no risk or discomfort to those students filling out the questionnaires. If you have questions about the research, direct them to the researchers listed below (319-273-3384) or contact the Human Subjects Coordinator at the University of Northern Iowa (319-273-2748) or my home phone (319-429-3591). I will bring parent permission forms to be distributed to the 10<sup>th</sup> grade class during a class that all 10<sup>th</sup> grade students attend.

I will contact you next Monday by phone, to set up a brief appointment if possible to answer any questions, in person. Thank you for your time.

Kimberly Conrad, MAE  
School Psychology Graduate Student  
Home Phone: 319-429-3591

Donald Schmits, EdD  
University of Northern Iowa

**APPENDIX B**  
**SCRIPT (INSTRUCTIONS TO STUDENTS)**

## **In Class Script for Attachment and Attributional Style Study**

Hello,

I am Mrs. Conrad and I am a graduate student from the University of Northern Iowa. I am conducting research that will examine the relationship between attachment and attribution style in adolescent students. I would like to thank you for sharing your time with me today.

Please fill out the two questionnaires in front of you using a pencil. If you do not have one, raise your hand and I will get one for you. (Take time to hand out pencils) Please begin with the questionnaire on top and when you are finished, turn it over and begin on the second one. For both questionnaires, read each question and put a check mark on the answer that best fits how you feel. If you do not understand the question, please raise your hand and I will come over and help to clarify it for you. If you prefer not to participate, simply turn the papers over and sit quietly. When you are finished, leave your questionnaires on your desk and wait for the bell to ring. Any questions?

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Thank you for completing these questionnaires. The information given may assist educators and other people who work with children to understand more about student attribution and how it relates to attachment issues. All information will be kept confidential. Thank-you, please go to your next class.

APPENDIX C  
RAW DATA COLLECTION

**Raw Data Collection**10<sup>th</sup> Grade Students in Northeast Iowa Schools

001 324523434 30 11  
002 542444444 35 15  
003 431423433 27 10  
004 443432323 28 15  
005 114131111 14 14  
006 142343444 29 12  
007 443244434 32 10  
008 523213213 22 15  
009 554454424 37 12  
010 554454544 40 14  
011 244234444 31 13  
012 443442434 32 13  
013 454244344 34 15  
015 443443224 30 15  
016 444544435 37 15  
017 453453553 37 11  
018 233143333 25 11  
020 443344344 33 13  
021 342244434 30 10  
022 334534324 31 10  
023 555244344 36 13  
024 443322433 28 11  
025 454445544 39 14  
026 343444344 33 09  
028 543433323 30 08  
029 434532334 31 16  
030 544443434 35 12  
031 444243454 34 09  
032 554443254 36 10  
033 555433344 36 10  
034 444345345 36 13  
035 544345344 36 15  
036 553555554 42 08  
037 324114414 24 15  
038 334133212 22 05  
039 454434435 36 13  
040 553353443 35 12  
041 343243334 29 14  
042 345345125 32 07  
043 554554555 43 09

044 332443423 28 12  
045 331333422 24 10  
046 442332332 26 08  
047 443344443 33 12  
049 214323222 21 10  
051 455454445 40 12  
052 442442433 30 13  
053 443434434 33 13  
054 444445324 34 14  
055 533353444 34 13  
056 55555255 42 09  
057 544545555 42 14  
058 453455444 38 12  
059 224514214 25 11  
060 454445345 38 12  
061 554543444 38 14  
062 433224233 26 13  
063 433443343 31 12  
064 453244424 32 15  
065 553454544 39 12  
066 543435354 36 14  
067 422124333 24 13  
068 444444455 38 16  
069 443334444 33 14  
070 542333533 31 11  
071 554555554 43 13  
072 543444554 38 10  
073 443344355 35 15  
078 554454434 38 13  
079 443443434 33 15  
080 454554544 40 16  
081 423412312 22 13  
082 234335434 31 13  
083 334234323 27 14  
084 453454544 38 12  
085 444433434 33 15  
086 423434434 31 16  
087 454443334 34 15  
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090 443443343 32 12  
091 553343443 34 11  
092 354354245 35 08  
093 342244444 31 07  
094 134143433 26 07

096 351342214 25 07  
097 523524513 30 09  
098 343223233 25 12  
099 455552555 41 17  
113 111132123 15 11  
114 554334334 34 11  
115 554455543 40 10  
116 553455554 41 15  
117 553544535 39 14  
118 555554555 44 16  
119 353343333 30 13  
126 554454544 40 12  
127 553433434 34 15  
128 114243234 24 07  
129 444245444 35 14  
130 343431313 25 15