TEACHERS' RESPONSES TO STUDENTS WITH BEHAVIOR PROBLEMS:
ATRIBUTIONS, AFFECT AND INTERVENTIONS

By

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ABSTRACT

School psychologists are often called upon to act as consultants for teachers in the development of intervention plans for students with behavioral difficulties in the classroom. Information about the antecedents which may influence teacher behavior (i.e., response and interventions), especially with regard to students with behavioral difficulties can be valuable for the psychologist to use in the development of the intervention plan. The purpose of this study was to examine teachers' causal attributions, affective reactions and behavioral responses (in the form of classroom interventions) from the theoretical perspectives of Weiner's attribution theory (1995) and Bandura's self-efficacy theory (1977). A primary assumption of the study was that teachers are responding to natural attributions (mediated by affect) when they intervene with students with behavioral difficulties in the classroom, and that teachers respond differently to students depending on the type of behavior problem.

Participants were 112 preservice elementary teachers at the end of a two year training program. Teachers were given one of three student-descriptions and vignettes depicting a student with defiant, hyperactive, or social rejection behavior difficulties. Measures included the Problem Behavior Scale (attributions), The Teacher Emotion Questionnaire, and the Teacher Interventions Rating Scale.

Results of analyses of variance and t-tests suggest different patterns of responses to each of the three problem-behavior students and significant differences by case on many of the dimensions measured. Correlational analysis suggests many significant inter-relationships between attributions, emotions and interventions. Results of stepwise multiple regression analysis indicate that punishment interventions are predicted by feelings of anger and pity, accounting for 43 percent of the variance; and counselling/supportive interventions are predicted by feelings of pity and hopelessness, accounting for 28 percent of the variance. In addition, results suggest that overall, teachers do respond to natural attributions, but this does not seem to be the only influence on their choice of interventions.

Implications for consultants and School Psychologists are discussed.
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CHAPTER 1

INTRODUCTION

Speak roughly to your little boy
And beat him when he sneezes.
He only does it to annoy,
Because he knows it teases

Lewis Carrol, Alice in Wonderland
(1832 - 1898)

Teachers' interactions with students with behavioral difficulties is an important area of concern for the psychologist or consultant working in the schools. Rubin and Balow (1978) indicate that teachers report prevalence figures of behavior problems between 10 to 30 times greater than official estimates, and based on an analysis of data collected over seven years, they concluded that approximately 60 percent of the school population is perceived as having problematic behavior by at least one teacher in the school.

Teachers have been found to resist placement in their classroom of students identified as having behavioral difficulties (especially aggression, and hyperactivity, e.g., Walker & Rankin, 1983); and behavioral difficulties have been cited as one of the most prevalent reasons for referrals and placement out of regular classrooms (e.g., Algozzine, Ysseldyke, Christenson, & Thurlow, 1983; Christenson, Ysseldyke, Wang, & Algozzine, 1983). In addition, research on teacher attitudes toward students with behavioral difficulties suggests that teachers are
"concerned" by students with internalizing disorders and "disturbed" by aggressive behaviors (Coleman & Gilliam, 1983; Hutton, 1984). Teachers' attitudes likely influence the way they interact with students in the classroom, and may greatly impact on students' academic future (as well as social-emotional health). Disruptive children are frequently rejected by teachers (Lewin, Nelson, & Tollefson, 1983). Similarly, research on teacher-student interaction suggests that the relationships between children with behavioral difficulties and their teachers (similar to findings of studies regarding peer relationships) are problematic (e.g., Brophy & McCaslin, 1992, Gunter, Denny, Jack, Shores, & Nelson, 1993).

Since the passage of Public Law 94-142 in 1975 in the United States, however, and its subsequent influence on the North American education system, teachers have been required to take on increasing responsibility for maintaining students with behavioral difficulties within the regular classroom (Safran & Safran, 1984). Landrum (1990) suggested that many regular classroom teachers are not prepared to deal with behavioral difficulties in the regular classroom, although they are required to do so, and that this may lead to coercive interactions in the classroom and a vicious cycle involving student and teacher aversive interactions (escape and avoidance behaviors). The psychologist must be aware of the social-psychological principles underlying teacher-student interaction, particularly in regard to students with behavioral difficulties, in order to be able to intervene and provide assistance to both teachers and students.
Justification of the Study

Research suggests that a teacher's perception of a child's behavior, rather than the actual behavior, influences the teacher's attitude and reaction towards the child (e.g., Good & Brophy, 1972; Jenkins, 1974). Studies of bias in attributions towards children by school psychologists, parents and teachers (e.g., Foster & Ysseldyke, 1976; Stevens, 1980) suggest that perceptions have a great influence on both expectations and behavior towards children; and these perceptions are often contradictory to the actual behavior displayed by the child when observed by a neutral party. In addition, perceptions and attitudes are often maintained regardless of any changes in child behavior. Silberman (1971) suggests that teachers form a rejection attitude towards children they perceive as having behavior problems. Research indicates that teachers' negative attitudes towards disruptive children (i.e., an attitude of rejection) are resistant to change even in the face of a change and improvement in student behavior (Foster & Ysseldyke, 1976; Lewin, Nelson, Tollefson, 1983; Stevens, 1980)! School psychologists are often called upon to work with students regarded by teachers as having behavioral problems; however the research suggests that it may be equally important to work with the child's teachers and the "dynamics" of the teacher-child relationship (Lewin, Nelson, & Tollefson, 1983). Information about the antecedents which may influence teacher behavior (i.e., response and interventions), especially with regard to students with behavioral difficulties, is extremely valuable for the psychologist to use in the development of a consultation plan with the teacher.
The Purpose of the Study

The purpose of the study is to analyze the dynamics of teacher-child interaction from an attribution theory perspective (e.g., Schmidt & Weiner, 1988; Weiner, 1986, 1995). Bernard Weiner suggests a cognitive-affective-behavioral link as a general psychological principal (to be described more fully in the subsequent section); and this theory is regarded as comprehensive and sound based upon the research evidence (Graham, 1991; Waguespack & Moore, 1993). Clearly the bulk of research has related attribution theory to achievement behavior, and this has been applied to the education domain (review in Graham, 1991). Although fewer studies have examined attribution theory in relation to problem behavior, Weiner (1995) presents an expanded analysis of attribution theory related to judgments of responsibility and social motivation. This theory as well as research related to helping behavior (e.g., Schmidt & Weiner 1988) seems to be relevant to the analysis of teachers' thoughts, feelings and actions towards students with behavioral difficulties. The purpose of this study, therefore, is to examine teachers' causal attributions, affective reactions, and behavioral responses (in the form of classroom interventions) from the theoretical perspective of Weiner's attribution theory.

Assumptions of the Study

A primary assumption of the study is that the interventions that teachers use in the classroom in response to problem student behavior are motivated from an attribution-affect antecedent sequence. Teachers are responding to "natural attributions" (Brophy & McCaslin,
1992; Brophy & Rohrkemper, 1981), and are guided by "intuition" (Kehle & Jenson, 1992) in their use of interventions in the classroom, especially when dealing with students with behavioral difficulties. Although some researchers have tested attribution theory with regard to teachers and students with behavioral difficulties (e.g., Aldrich & Martens, 1993; Brophy & Rohrkemper, 1981; Christenson, Ysseldyke, Wang, & Algozzine, 1983; Gutman, 1982; Gutkin & Ajchenbaum, 1984; Gutkin & Hickman, 1988; Medway, 1979), and have assumptions about the application of individual study results to the overall attribution sequence (i.e., attribution - affect - action), no study has directly tested all three dimensions of this theory with teachers. A major assumption of this study, therefore, is that support will be provided for this attributional sequence as applied to teachers' interactions with students with behavioral difficulties through directly testing the three components of the theoretical sequence. As found in studies of helping behavior from an attributional perspective (e.g., Schmidt & Weiner, 1988), it is assumed that teachers' affective responses to student behavioral difficulties will have the strongest direct relationship to their choice of interventions rather than their thoughts (attributions) about the causes of the student's difficulties. This study could be considered exploratory, however, as this relationship has never been tested with teachers.

Summary

It is apparent that there are a large number of students that teachers consider to have behavioral difficulties (Rubin & Barlow, 1978), and teachers are faced with the task of intervening
in the regular classroom with these students. It is also clear that many teachers form differential
atitudes towards students with various behavioral difficulties and that these attitudes may be
biased, but nevertheless resistant to change, even in the face of student behavioral improvement
(Coleman & Gilliam, 1983; Hutton, 1984; Lewin, Nelson, & Tollefson, 1983; Safran & Safran,
1984; Stevens, 1980). It is important, therefore for the psychologist working in consultation with
teachers to have an understanding of the attributional principles that may be guiding teachers'
actions in the classroom. Improving student behavior is often not enough to change a teacher's
perceptions about a child (and about there being a problem that needs to be fixed) (Foster &
Ysseldyke, 1976; Lewin, Nelson, & Tollefson, 1983). A psychologist may then work to change
attributions (e.g., Gutkin & Hickman, 1988), to help the teacher deal with the emotional response
toward the student, or to help a teacher understand the basis for the response (i.e., thoughts or
feelings), in order to improve the teacher-child dynamic (Lewin, Nelson, & Tollefson, 1983). In
addition, knowledge of teachers' preferred or usual strategies, and the attributional basis for these
choices, may help guide the psychologist in the suggestion of appropriate interventions that would
be acceptable to teachers (Brophy & Rohrkeper, 1981; Gutkin & Ajchenbaum, 1984;
Waguespack & Moore, 1993). This understanding may assist the psychologist in dealing with
resistance and in developing more appropriate pre-refereral intervention plans (Piersel & Gutkin,
1983). This study aims to gather evidence of an attribution-affect-action sequence (Schmidt &
Weiner, 1988; Weiner, 1986, 1995) with regard to teachers' interventions with students with
behavioral difficulties; and it is a goal of this study to contribute valuable knowledge through this analysis that may be beneficial to psychologists working in the schools. Moreover this information may ultimately lead to improvements in the school situation for the students who are perceived as having difficulties. A literature review and definition of terms related to this study follows in the next section.
CHAPTER 2

LITERATURE REVIEW

The purpose of this chapter is to review the literature on the theoretical frameworks relevant to the research study. Attribution theory (e.g., Weiner 1986; 1995) and the theoretical link between attributions-affect-and action will be explained and applied to the analysis of teachers' responses to students with behavior problems. The particular importance of attribution theory related to social motivation and help-giving behavior (e.g., Schmidt & Weiner 1988; Weiner, 1986) will be discussed. In addition the related theories of self-efficacy (e.g., Bandura, 1977) and learned helplessness (e.g., Abramson, Seligman, & Teasdale, 1978) will also be discussed in relationship to the construct of "control", and in order to provide an additional relevant perspective on this important construct. Specific questions will be identified within the review and summarized at the end of this chapter. Finally, specific experimental hypotheses are identified.

Attribution Theory

Weiner's (1985, 1986, 1995) model of attribution theory is considered as the most comprehensive (Graham, 1991). An "attribution" is an inference made by an observer concerning the causes of one's own or another's behavior (Bar-Tal, 1978). A central assumption of attribution theory is that the search for understanding is the basic "spring of action" (Weiner, 1979), and this search for understanding is most likely to occur after an unexpected, unusual, and important event.
(Weiner, 1986), or when events are particularly frustrating (Wong & Weiner, 1981). In the case of problem behavior in the classroom, a teacher is likely to undergo an attributional search for explanation (Waguespack & Moore, 1993). Causes are categorized into three dimensions: locus, stability, and control, and these dimensions have been demonstrated to be reliable and generalizable (Weiner, 1986).

**Locus of Causality**

Locus refers to the continuum between internal versus external causes. For example, ability may be characterized as an internal cause of student achievement, while effort may be characterized as external (e.g., Graham, 1991). With regard to behavioral difficulties, both parents and teachers tend to attribute children's behavioral difficulties to internal causes, such as temperament or underlying disorder (e.g., Brophy & McCaslin, 1992; Brophy & Rohrkemper, 1981; Christenson, Ysseldyke, Wang, & Algozzine, 1983; Compas, Bandes, Bastien, & Adelman, 1981; Medway 1979). In addition, causes external to the child and the classroom, such as "family problems" (as opposed to environmental or teacher variables within the classroom) tend to be attributed to students with behavioral difficulties demonstrated in the classroom (e.g., Christenson et al., 1983). Brophy and Rohrkemper (1981) concluded from their study of teachers' attributions towards students with behavioral difficulties that "teachers do not look to themselves as the causes, in whole or even in part, of classroom behavior problems" (p. 303).

This phenomenon has been termed "actor - observer differences" (Jones & Nisbett, 1971).
In this case the "actor" is the student and the "observer" is the teacher. The observer has been found in many studies to emphasize the dispositional properties of the actor, while the actor tends to emphasize the situational causes. Beckman (1976), based on the results of her study of teacher and parent attributions about student performance, suggests that teachers tend to accept credit for a student's success, but attribute the student's failure to dispositional characteristics of the student or situational variables (such as peers or family) in order to avoid personal blame. This tendency to attribute behavioral problems to internal (student) causes seems to be one factor influencing teachers' decisions to refer a student out for external placement (Christenson, Ysseldyke, & Wang, 1983; Medway, 1979). In addition, this may lead to resistance towards implementing environmentally based interventions or even a willingness to consult and engage in interventions (e.g., Piersel & Gutkin, 1983).

**Stability**

The stability dimension defines causes on a continuum between stable (invariant) versus unstable (variant) (Weiner, 1979). A teacher's perceptions of the stability of the problem behavior are likely to influence future outcome expectancies (Weiner, 1988). For example, if teachers believe that a child's behavior problem is stable, they would not expect the child's behavior to improve. This can lead to feelings of hopelessness (Weiner, 1986) and an attitude of rejection that is not likely to change (Lewin, Nelson, & Tollefson, 1983).
Causal Controllability

The controllability dimension refers to how amenable the cause is to "volitional change or willful regulation" (Weiner, 1995, p. 7). For example, lack of effort is perceived as controllable, while lack of aptitude is seen as uncontrollable (Weiner, 1986). Is the student's behavior, for example, considered by the teacher to be within the student's control? Brophy and Rohrkemper (1981) found that teachers tended to attribute problems such as defiance as "controllable" by the student, but teachers attributed problems such as peer rejection and shyness as "uncontrollable."

There is also the consideration as to whether the problem is controllable by the self or controllable by others (Weiner, 1986). It was suggested by McAuley, Duncan, and Russel (1992) in an article regarding measurement of causal attributions, that much measurement error of the dimension of causal controllability has arisen due to the lack of differentiation between "control by the person" and "control by others" (p. 567). They suggest that both personal control and external control should be evaluated as separate but related dimensions. Anderson and Arnault (1985) (whose research is primarily in the area of depression) similarly argue for the assessment of two separate dimensions of control, and they suggest that one dimension may be more important than the other, depending on the circumstances and event being studied.

With regard to the study of teachers' attributions, this argument seems to be salient. Brophy and Rohrkemper (1981) measured both teachers' perceptions of self control and their perceptions of student control, and they found that teacher control was related to expectations for
change, while perceptions of student control were related to perceptions of "blameworthiness."

Although no direct control-intervention link was assessed, relationships between perceptions of control and problem-type and problem type with interventions lead them to draw conclusions regarding an attribution-intervention link. The dimension of control seems to be the most powerful attribution influencing teachers' intervention choices in this study. Gutkin and Ajchenbaum (1984) and Gutkin and Hickman (1988) studied teachers' sense of their own control over children's behavior problems. They concluded that teachers' perceptions of control correlated significantly with preferences for service delivery. Namely, higher degrees of perceived control correlated with greater preference for consultation rather than referral. It is hypothesized that the two dimensions of control (teacher and student) will be the significant attribution variables related to teachers' use of interventions, whereas other attributions will not be significantly related in this study.

Relationships Between the Dimension of Control, Self Efficacy Theory, and Learned Helplessness Theory

Studies of the dimension of control (and to some degree the other dimensions of causality and locus) can be related to findings from studies from other theoretical perspectives, particularly self-efficacy theory (Bandura, 1977) and learned helplessness theory (Abramson, Seligman, & Teasdale, 1978). Christenson et al. (1983) suggest that teachers who believe they have little
control over the child's problem may view themselves in a state of learned helplessness, and this may result in decreased personal effort and a low sense of self efficacy. In a study of parenting behavior towards conduct disordered children, Baden and Howe (1992) found that parents of conduct-disordered children were more likely to consider the misbehavior of their children as intentional, and to attribute it to stable causes "beyond the parents' control" (p. 467). These parents also viewed their parenting skills as ineffective. Baden and Howe suggested that aversive parent-child interactions that are characterized by parent withdrawal when faced with escalating child aggression, are related to parents adopting a "cognitive stance of blame and helplessness" (p. 467). Albert Bandura (1977) stated: "Expectations of personal efficacy determine whether coping behavior will be initiated, how much effort will be expended, and how long it will be sustained in the face of obstacles and aversive experiences" (p. 191).

These research findings related to self-efficacy and control are relevant to the present study. For example, if a teacher believes that a child's behavior is dispositional (stable and internal), and therefore unlikely to change, and that the teacher has little control over the problem, the teacher may have low expectations of personal efficacy regarding personal abilities to change or control this child's behavior, may initiate few interventions, or perhaps, low effort interventions of brief duration in the face of the aversive experience of problem behavior. Brophy and Rohrkemper (1981) conclude, in fact, from the results of their study, that teachers who attributed student behavior problems (particularly "teacher owned", frustrating, acting out problems) to
internal-stable causes which they also determined to be controllable by the student and intentional, and about which they believed they had little personal control, tended to use only short term "control and desist" strategies. Teachers, on the other hand, were more likely to invest more time and energy into long term strategies with students for whom they held more hope in terms of change.

**Intentionality**

Intentionality is a construct that is related to attributions of controllability, and the two are often confounded. Intentionality is not considered by Weiner (1995) to be an attribution. He considers it to be separate from yet related to controllability. However, intention is related to judgments of responsibility and blame (e.g., in the courts), and it is likely to influence a teacher's actions towards a child's behavior. Weiner states that intention is at the opposite end of the continuum from negligence. An inference of intention implies that "the person wanted to perform the socially inappropriate behavior, engaged in the conduct with foresight and knowledge of its consequences, and may even have pursued a variety of means that were responsive to 'evasive' actions" (p. 13). For example, teachers in Brophy and Rohrkemper's (1981) study generally considered "hyperactive" students to be able to control their problems, but when the student knocked something over it was not considered intentional. Their interventions towards these students were generally not as punishing as those directed towards students whose difficulties were considered intentional (e.g., "defiant" or "hostile-aggressive"). In a study of parent
attributions regarding children's noncompliant behavior (Scott & Dembo, 1993), parents who considered their children's behavior to be intentional (e.g., defiance) rather than unintentional (e.g., passive noncompliance, possibly interpreted as forgetfulness) demonstrated more negative affect and more "power assertive behavioral responses" (p. 187). The additional impact of an intentional inference, especially in combination with student controllability, is likely to result in greater feelings of frustration, judgments of blame and actions of punishment (Weiner, 1995). This seems relevant to teachers' use of interventions.

Attributions and Affect

The attributional approach to emotions is from a cognitive perspective: "How we think influences how we feel" (Weiner, 1986, p. 119). Weiner and others from the cognitive school (e.g., Averill, 1982) define emotion as a complex composite of many interactions. "Emotions are presumed to have: 1) positive or negative qualities of 2) a certain intensity that 3) frequently are preceded by an appraisal of a situation and 4) give rise to a variety of actions" (Weiner, 1986, p. 119). From the cognitive perspective, five emotions have been identified as the most frequently experienced (e.g., Bottenberg, 1975; Davitz, 1969): anger, happiness, love, pity, and pride. Weiner (1986) contends that these emotions can be accounted for from an attributional perspective. The bulk of attribution-affect studies, however, have analyzed the links between attributions and the feelings of pride (self-esteem), anger, pity, guilt, shame, and hopelessness (e.g., Weiner, 1985).
Pride (Self-Esteem)

Weiner (1986) reviewed the literature that suggests that perceived locus of causality influences self-esteem and the feeling of pride. Weiner draws conclusions as to the basis of "hedonic bias" (e.g., Weary, 1979) and self-esteem needs. Specifically, hedonic bias presumes that people make internal attributions for positive outcomes and external attributions for failure in order to protect and enhance self-esteem. Pride is experienced when positive outcomes are attributed internally (e.g., ability, personality) rather than externally (e.g., luck). These principles may explain why teachers tend to look at causes external to themselves when explaining students' behavior problems in the classroom, in order for them to maintain pride and self-esteem as a teacher.

Anger

Averill's (1982, 1983) work laid the foundation for much of attribution theory related to anger. Averill asked respondents to describe a situation in which they were made angry. He concluded that the major issue is not the nature of the event, but the judgment of blame. Weiner, Graham, and Chandler (1982), in a replication of Averill's (1982) study, found consistent results. Weiner (1986) contends that anger, blame and aggression are linked with perceptions of causal controllability. Ferguson and Rule (1983) suggest the additional inference of intent as an antecedent to anger: "Malevolently intended harm most facilitates anger and aggression. When people receive information that another person deliberately intended harm, they become angrier
than if the other person did not intend harm but could have foreseen the harmful consequences" (p. 65). Weiner (1995) reviewed studies (e.g. Dyck & Rule, 1978; Epstein & Taylor, 1967; Nickel, 1974) which provide evidence for the influence of perceptions of intent on judgments of responsibility and the feeling of anger as well as aggressive intent. Research provides ample evidence of the link between feelings of anger as well as frustration (e.g., Berkowitz, 1962) and behavioral aggression. In summary, feelings of anger seem to be preceded by attributions of controllability, and inferences of intent may lead to heightened levels of anger. The feeling of anger then leads to a behavioral response (which may include aggression). Applied to the situation of teachers and students in the classroom, it is hypothesized that teachers who attribute student behavioral difficulties to causes controllable by the student will feel anger towards these students; the inference of intentionality will be even more highly related to anger; and this anger will influence their actions (in the form of punishment interventions) towards them. Although teachers' feelings in this situation have not been assessed in a prior study, research of the attribution-affect-link in other domains provides evidence for this hypothesis (to be explained in the sections on judgments of responsibility and helping behavior).

**Pity**

At the opposite end of the controllability continuum is uncontrollability, and Weiner (1985, 1986) suggests that attributions of uncontrollability are associated with feelings of pity.
Anger and pity, therefore can be viewed as opposite poles related to the controllability continuum.

Research provides evidence that situations which may be attributed as uncontrollable (e.g., difficulties because of a physical handicap) elicit pity (e.g., Weiner, Graham, & Chandler, 1982). Research in the achievement domain (Graham, 1991) suggests that teachers feel pity towards students who fail due to uncontrollable causes (e.g., low aptitude), but they feel anger towards students who fail due to controllable causes (e.g., lack of effort). It is likely, therefore, that teachers will feel pity towards students who they perceive as unable to control their behavioral difficulties (e.g., rejected students).

**Guilt**

While anger and pity are "other-directed" emotions, guilt is an inwardly directed emotion. Weiner (1986) reviewed the guilt literature and concluded that guilt is felt when one perceives oneself as personally responsible for a negative outcome (e.g., when caught cheating on an exam). Guilt is precipitated by the attribution of personal control. Guilt is associated with failure due to lack of effort. Guilt, then, is directed inward, while anger (also attributed to controllable causes but in others) is directed outward. Guilt related behaviors are approach behaviors and individuals who feel guilty may expect retribution (e.g., Hoffman, 1982). If a teacher were to feel personally responsible for a student's behavioral difficulties, then it is likely that the teacher would feel guilty and instigate approach behaviors. In this situation, a teacher would indicate a high degree of personal controllability with regard to the student's behavioral difficulties. Based on the research,
this outcome is likely to be very uncommon, as teachers tend to attribute student behavioral
difficulties to problems external to the teacher (e.g., Brophy & Rohrkemper, 1981; Christenson
et al, 1983). It is hypothesized that teachers will feel little guilt. The question should be
considered exploratory, however, as it has not yet been tested.

Shame

Shame is another inward directed affect. Weiner (1986), drawing from the guilt-shame
literature, contends that shame is associated with attributions that are self-related and
uncontrollable. Similar to guilt, it is a negative self-evaluation, and it is associated with lack of
ability. Shame is related to the feeling of helplessness. Wicker, Payne, and Morgan (1983) based
on their research in the guilt-shame domain conclude:

Shame causes one to lose control, to feel powerless and externally controlled,... the way
one appears in the eyes of others is...basic to shame;...with shame, one expects
abandonment and attempts to change the self, to hide, or to run away...there is a general
picture of greater helplessness in the shame situation (p.27).

With regard to teachers, it is feasible that teachers could experience the feeling of shame if they
felt that they should be able to control a student's behavior, but that the causes are beyond their
control. In this case, they would feel embarrassed that they are unable (perhaps due to personal
lack of ability) to manage the classroom situation. This is a self-directed emotion, and it may be
affected by the amount of other directed (i.e., anger or pity) felt towards the student. It is not
likely, however, that teachers will feel very much shame. Again, this is an exploratory question.

Hopelessness

Outcome expectancies regarding future success and failure are largely influenced by causal stability (Weiner, 1979). The affect of hopelessness or resignation has been found to be related to attributions of stable causes given a negative outcome (Weiner, 1979; 1985). In addition, the affects of pity and anger have been found to be exacerbated when they are also accompanied by stable attributions. Therefore, teachers are likely to feel hopeless about a change in student behavior if they perceive student difficulties as stable. In turn, their feelings of anger or pity (depending on the attributions of controllability) are likely to be heightened towards a student whose difficulties are perceived to be stable. Feelings of hopelessness are related to learned helplessness theory (Abramson et al., 1989). As explained in an earlier section, attributions of low teacher control may be related to feelings of hopelessness and pessimism about change, similar to a learned helplessness situation. Feelings of hopelessness are likely to influence teachers' behaviors towards students (e.g., avoidance, low investment of time and energy, "control and desist"), that is, punish/reject strategies.

The Attribution - Affect - Action Link

Judgments of Responsibility

Weiner (1995) presents evidence of studies across domains which demonstrate that causal beliefs and the assignment of responsibility generate feelings (specifically of anger and sympathy)
that direct social conduct toward others. Responsibility is "judged" based on causal beliefs and
inferences of intention, and these judgements lead to affective reactions that influence the
"sentence" (Weiner, 1993). Weiner uses the metaphor of "sin or sickness" to describe the
difference in perception of the problem behavior of another and the resultant feelings and reaction
depending on whether that problem is considered controllable or uncontrollable. Weiner
postulates that these judgments of responsibility influence help-giving behavior and other
eamples of social motivation. Social motivation refers to other-directed behavior which includes
help, flight, and aggression (Weiner, 1994). The causal attribution of controllability and the
resulting affects of pity and anger, therefore, are the constructs of concern in studying social
motivation. Social motivation and judgments of responsibility can be applied to the behavior of
teachers towards students with behavioral difficulties in the classroom.

Help-Giving Behavior

Weiner (1995) suggests that helping behavior "going toward others to administer aid and
support" and aggression "going against others to 'eliminate' them by imposing something negative
or withholding something positive" (p. 143) are at the heart of social motivation. Research
evidence clearly establishes an attribution - affect- action sequence. For example, when a person
is in need of help (a collapsed man, a student wanting to borrow notes), the prospective
help-giver will decide whether to offer or withhold help based on his attributions about the
victim's plight. Namely, perceptions of causal controllability lead to the affect of anger and the
actions of rejection, retaliation, or punishment; while perceptions of causal uncontrollability lead
to the affect of pity and help-giving behavior (e.g., Betancourt, 1990; Meyer & Mulherin, 1980;
Resenaein, 1986; Schmidt & Weiner, 1988). In some of these studies other causal dimensions
(locus and stability) have also been found to increase the magnitude of the effects. In addition,
through partial correlation analysis, affect has been found to be the proximal link to action, with
much weaker linkages between attribution and action. Teachers faced with a student having
difficulties in the classroom are likely to vary their responses towards that student according to
their attributional perceptions. Their perceptions, in particular, of student controllability, and their
feelings, in particular of anger and pity, are likely to determine whether they attempt to "support"
or "eliminate" the student.

**Aggression**

Similar results have been found in studies of aggression (e.g., Averill, 1983) and child
abuse (e.g., Bugenthal, Blue, & Cruzcosa, 1989). The inferences of intent in addition to causal
dimensions (particularly control) as well as the assessment of personal control are particularly
relevant in these areas. For example, abusive caregivers were found to have low perceived control
over their child's behavior, to attribute child misbehavior to causes controllable by the child and
intentional, and to feel frustrated with both their own inability to change the child's behavior and
irritation with the child for his "deliberately acting out" (Bugenthal et al. 1989, pp. 538 - 539).
This does not mean that teachers can be compared to abusive caregivers, but simply illustrates
that coercive and aversive relationships can result based on attributional judgments.

Application To The Present Study

How does Weiner's model of an attribution - affect- action link relate to the study of teachers' perceptions of and interactions with students with behavioral difficulties? I suggest that one way to research this topic is through an attributional analysis. As stated earlier, attribution theory has been applied within the education domain, particularly with regard to achievement-related behavior, student academic success and failure and motivation (review in Graham, 1991). In addition, teacher behavior in the achievement domain and its effects on student attributions of ability (i.e., praise versus blame, help versus neglect) have also been thoroughly studied. A relatively neglected area of research, however, has been teachers' attributions towards students with behavioral difficulties (rather than academic difficulties) and findings have been summarized in earlier sections (e.g., Aldrich & Martens, 1993; Brophy & McCaslin, 1992; Brophy & Rohrkemper, 1981; Christenson, Ysseldyke, Wang, & Algozzine, 1974; Guttman, 1982; Gutkin and Ajchenbaum, 1984, Gutkin & Hickman, 1988; Medway, 1979). The study of teachers' emotional reactions towards students with behavioral difficulties is also limited (e.g., Coleman, & Gilliam, 1983; Graham, 1984; Hutton, 1984; Lewin, Nelson, & Tollefson, 1983; Saffran & Safran, 1984). Studies often assume or infer the missing parts of the attribution-affect-action link when only attributions and action have been studied.

An often cited study, in support of Weiner's theory of an attribution - affect - action link,
with regard to help-giving behavior (e.g., Schmidt & Weiner, 1988; Weiner 1986, 1995) is Brophy and Rohrkemper (1981). This is also one of the few studies of the link between teachers' attributions for problem behavior and their use of classroom interventions to deal with these problems. Among the many findings of this study, Brophy and Rohrkemper documented that teachers who perceived the causes of student behavioral difficulties as uncontrollable and unintentional (e.g., shyness, peer rejection) were likely to respond to students with encouragement and support; but teachers who perceived the causes of the behavioral problem to be controllable and intentional (e.g., hostile-aggression, defiance) were likely to respond to the student with short-term control and punishment interventions. In addition, Brophy and Rohrkemper (1992) concluded that teachers seem to be responding to "natural attributions", and this is problematic as it can lead to self-defeating expectations and behavior, a poor student-teacher relationship and behavior problem escalation. Questions were raised by the authors about how prepared teachers are to deal with students with behavior problems. One assumption drawn from this study is that teachers' attributions (of controllability) and subsequent helping behavior are mediated by affect (e.g., Graham, 1984, Weiner, 1986). This assumption, however, has not been tested.

An additional area of research which Brophy and Rohrkemper integrated into their study is "problem ownership" (Gordon, 1974, 1989). Gordon (1970), through his work in conflict resolution between parents and children, developed a theory of the role of problem ownership in
analyzing adult-child conflict. With regard to teacher-child conflict, Gordon suggests three
problem types: (a) teacher-owned problems, which interfere with the teacher's needs and which
are related to feelings of anger and frustration in the teacher (e.g., defiance); (b) shared problems,
which jointly interfere with both teacher and student needs (e.g., hyperactivity); and (c)
student-owned problems, which primarily interfere with the student's needs, but not with the
teacher's needs (e.g., social rejection). Gordon suggests appropriate interventions for the three
types of problems; however, Brophy and Rohrkemper (1981) did not find any evidence of
teacher's knowledge of these suggested interventions in their responses.

Brophy and Rohrkemper found that interventions covaried with problem ownership, but
not in the way which would be suggested by Gordon. Instead, teachers seemed to assess problems
primarily from an attributional perspective with no consideraton of "problem ownership."

Students with "student-owned" problems (e.g., social rejection) were perceived as unable to
control their behavior, and not responsible for their problem; and the suggested interventions
were primarily nurturing and supportive. Students with "teacher-owned" problems (e.g., defiance)
were perceived as able to control their behavior, and "blameworthy"; and suggested interventions
were primarily punishing, rejecting and controlling. Perceptions regarding "shared-problems"
(e.g., hyperactivity) were mixed as were the suggested interventions, but they also included
teaching of alternate behaviors. In addition, teacher-owned problems were more likely to be
perceived as intentional. Teachers' perceptions of control (characterized as a belief in their
abilities to effect change) were not as clearly delineated. Teachers generally indicated that they could effect change, although they were more pessimistic about teacher-owned problems.

Although teachers' affective reactions to students' behavioral difficulties were not assessed in Brophy and Rohrkemper's study, this has been the most thorough application of Weiner's attributional analysis of help-giving behavior to date within the education domain. Weiner's (1995) most recent expansion to his theory, "judgments of responsibility", was published much later than this study; however, Brophy and Rohrkemper's study could be analyzed from that perspective also. Teachers make judgments of responsibility based on attributions of controllability, and inferences of intent which lead to feelings of anger and frustration and assignment of blame (controllable) or to feelings of pity and assignment of nonblame (uncontrollable). These judgments then lead to the action or "sentencing", either punishment and rejection (controllable-anger) or lack of punishment and support (uncontrollable-pity). As mentioned earlier, this study has been frequently cited in support of attribution theory, and the missing dimension of affect is usually inferred (e.g., Graham, 1984; Weiner, 1988). Clearly the additional analysis of affect with regard to teachers' responses to students with behavioral difficulties would provide better evidence of this link in the education domain, and perhaps additionally of the relative importance of affect (as compared to thought) in producing teachers' behavioral responses in the classroom. Are teachers responding to "natural attributions" as suggested (Brophy & McCaslin, 1992; Brophy & Rohrkemper, 1981; Graham, 1984)? If so, then
affect plays a more important role than thought (e.g., Schmidt & Weiner, 1988). This information is valuable for the consultant working with a teacher having difficulties with a student in his classroom, in order to determine possible avenues for therapeutic intervention.

Conclusions

The review of the literature highlighted specific links and inter-relationships between attributions-affect-and behavior. Findings of the literature review demonstrate links between attributions and affect, attributions and interventions, and affect and interventions, but all three dimensions have not been tested with teachers in response to students with behavior problems. In particular, the role of teacher affect and its relationship with teacher behavior have not been sufficiently addressed. In addition, there is a need to provide evidence of the inter-relationship of all three dimensions with teachers in one study. Attribution theory (e.g., Schmidt & Weiner, 1988; Weiner, 1995) as well as the related theories of self-efficacy (Bandura, 1977) and learned helplessness (Abramson, Seligman, & Teasdale, 1978) were discussed in the review and applied specifically to the analysis of teachers' interactions with students experiencing behavioral difficulties (e.g., Brophy & McCaslin, 1992; Brophy & Rohrkemper, 1981).

The literature reviewed provides evidence that teachers respond to perceived differences in levels of child control, intentionality, and teacher control. In addition, there is evidence that the attributions of locus and stability may contribute to teachers' responses, although teachers tend to attribute all problems to internal, stable causes.
There is strong evidence of the importance, perhaps the primary importance, of the emotions anger and pity in influencing help-giving behavior, and this can be applied to teacher interventions. From the self-efficacy perspective, there is evidence that the emotion of hopelessness is also likely to play a role in teacher behavior, that is, approach or withdraw, punish/reject or support. Teachers are not likely to feel guilt or shame related to problem behaviors in their students.

Two dimensions of interventions have been identified as related to attributions and affect, from a help-giving behavior perspective 1) punish/reject and 2) support. It is unclear whether or not instructional interventions or teaching related behaviors would be related to natural attributions.

Based on the findings of the literature reviewed several research questions and specific hypotheses are proposed. The research questions and hypotheses which follow were conceptualized from two inter-related perspectives.

1) Given the results of Brophy and Rohrkemper's study (1981), three problem-types were chosen to represent a continuum of problem-ownership, attributions of controllability and inferences of intentionality. These dimensions are expected to be significantly related to affect and interventions. The three problem-types are a) a defiant student (teacher-owned problem), b) a hyperactive student (shared problem), and c) a student rejected by peers (student-owned problem). Specific hypotheses refer to expected differences in teachers' attributions, affect and
interventions by case. In other words, teachers are expected to respond differently depending on
the type of behavior problem.

2) The second set of hypotheses and questions are concerned with specific relationships between
teachers' attributions, affect and interventions, based on the literature reviewed. Finally,
hypotheses are presented with regard to the prediction of teachers' interventions from an
attributional perspective.

Hypotheses

Given the three problems: "Roger, a defiant student", "Bill, a hyperactive student", and "Mark, a
student rejected by peers"

Attributions

1. Student problems will be perceived as internal.

2. Student problems will be perceived as stable.

3. There will be differences in perceived child control by case.
   a) The defiant case will be perceived as the most controllable,
   b) The hyperactive case will be perceived as partially controllable, and
   c) The rejected case will be perceived as the least controllable.

4. There will be differences in perceived intentiality by case.
   a) The defiant case will be the only case perceived as intentional,
   b) and moreso than the hyperactive or rejected case.

5. Exploratory question. Teacher control will vary by problem type.
**Emotions**

1. There will be differences in anger by case.
   a) The most anger will be directed towards the defiant case,
   b) then the hyperactive case,
   c) and the least anger directed towards the rejected case.

2. There will be differences in pity by case.
   a) The most pity will be directed towards the rejected case,
   b) then the hyperactive case,
   c) and the least pity directed towards the defiant case.

3. Teachers will express low levels of guilt and shame.

**Interventions**

1. There will be differences in punish/reject interventions by case.
   a) The most punish/reject interventions will be chosen for the defiant case,
   b) then the hyperactive case,
   c) and the least for the rejected case.

2. There will be differences in counsel/support interventions by case.
   a) the most counsel/support interventions will be chosen for the rejected case,
   b) then the hyperactive case,
   c) and the least for the defiant case.
3. Exploratory question. Are there any differences in instructional interventions by case?

Are more instructional interventions chosen for the hyperactive case?

**Relationships**

**Attributions and Emotions**

1. Attributions of stability will be positively related to feelings of hopelessness.

2. Attributions of teacher control will be negatively related to feelings of hopelessness.

3. Attributions of child control will be positively related to inferences of intentionality.

4. Attributions of child control will be positively related to feelings of anger and negatively related to feelings of pity.

5. Inferences of intentionality will be positively related to feelings of anger and negatively related to feelings of pity.

6. Exploratory question. What is the relationship between the feelings of guilt and shame and the attributions?

**Attributions and Interventions**

1. Attributions of child control will be significantly positively related to interventions of punish/reject.

2. Inferences of intentionality will be significantly positively related to interventions of punish/reject.
3. Attributions of child control will be significantly negatively related to interventions of counsel/support.

4. Attributions of intentionality will be significantly negatively related to interventions of counsel/support.

5. Exploratory question. Attributions of teacher control will be significantly negatively related to interventions of punish/reject.

6. Attributions are not expected to be related to instructional interventions.

**Emotions and Interventions**

1. Anger will be significantly positively related to interventions of punish/reject.

2. Pity will be significantly positively related to counselling/supportive interventions.

3. Exploratory question. Instructional interventions are not expected to be related to emotions.

4. Exploratory question. Hopelessness will be positively related to interventions of punish/reject.

**Attributions and Emotions with Interventions: Significant Relationships**

**Prediction of Teachers' Interventions**

1. Given the most important attributions and emotions related to the interventions of punish/reject versus counsel/support, which variables are the most important in predicting Teachers' interventions?

   Hypothesis: the emotions of anger and pity will be the most important.
a) Anger will be the most important variable in predicting punishment interventions

b) Pity will be the most important variable in predicting counsel/support interventions

The following chapter presents the methodology used to explore the identified research questions and experimental hypotheses. In addition, the next chapter will explain the rationale behind the methodology used.
CHAPTER 3

METHODOLOGY

Introduction

The intention of this study was to replicate and extend the findings of a portion of the study conducted by Brophy and Rohrkemper (1981) and written about as part of a larger study referred to as the Classroom Strategy Study (Brophy & McCaslin, 1992). Although the general purpose of the replication was similar to that proposed by Brophy and Rohrkemper, most of the methodology was different. The Classroom Strategy Study was a large scale interview format study which was conducted over three years. Ninety-eight teachers participated in their study. Teachers were presented with brief case studies describing 12 different problem-type students. They were interviewed individually at length by several researchers regarding their strategies for dealing with each of the student problems. Through an open ended interview, information was additionally gathered about teachers' beliefs and attitudes towards these 12 problem type students. This information yielded a great deal of descriptive data that was later transcribed and coded with regard to "beliefs, attitudes, expectations, and coping strategies" (Brophy & McCaslin, 1992). Among the coded information was an analysis of teacher attributions. Analysis of variance (ANOVA) results indicated differences in teachers' strategies and attributions by problem-ownership level (e.g., Teacher-owned, student owned, shared problem). In addition percentages of teacher's responses to each problem-type were calculated. Based on these results
they inferred a relationship between teachers' attributions and strategies and made several conclusions about differences in teachers' response pattern by case (results described in the previous section).

The present study focussed on three problem-types: "defiant student" (see Appendix A), "hyperactive student" (see Appendix B), and "student rejected by peers" (see Appendix C). Teachers were presented with one of the three student descriptions and vignettes, and information was subsequently gathered through a questionnaire format with regard to 1) attributions about student problem behavior, 2) feelings generated by the problem behavior, and 3) preferred strategies to use with a student with the problem behavior. Data were then analyzed through an analysis of variance and t-tests to determine differences in Teachers' responses by case, and correlational, multiple regression analyses were used to determine the relative strength of the relationships between the three links in the attribution-affect-action sequence and to predict teachers' interventions.

Measures

Problem-Types and Vignettes

The present study focussed on only three problem types: "Roger, a defiant student" (teacher-owned problem), "Bill, a hyperactive student" (shared problem), and "Mark, a student rejected by peers" (student-owned problem). Teachers in this study were presented with a student description and vignette describing a hypothetical student exhibiting each problem-type behavior.
The student descriptions and vignettes used were adapted from those used in the Brophy and Rohrkemper (1981) study (Appendices A, B, and C). The rationale for using problem vignettes rather than actual case studies is explained in Brophy and McCaslin (1992). They had initially intended to use real case studies, but in a pilot study using actual problem students they found that there were too many confounding variables that made results too difficult to group and analyze. The use of vignettes made it possible to gather information about teachers' responses to specific problem types. Each of the problem types is defined to be mutually exclusive (although several problems could exist in a real problem student). Brophy and McCaslin describe the development of the problem types and vignettes (p. 5, pp. 9 - 10). Teachers were interviewed about typical problem behavior exhibited in the classroom, and then this information was expanded and refined into categories based on studies of chronic childhood behavior problems (e.g., Lambert & Nicoll, 1977; Miller, 1972; Peterson, 1961; Stott, Marston, & Neill, 1975; Werry & Quay, 1971). Each vignette depicts a student engaging in behavior typical of each problem-behavior type. Brophy and McCaslin explain that the behaviors depicted are within contexts that are familiar and realistic to elementary teachers, and are noticeable enough that a teacher would feel compelled to respond to them. Vignettes are written to depict a student at the K - 6 range, but they contain no references to the student's age or grade. Common names were assigned for realism, and according to the gender distribution of the problem behavior. The present study included three problem-types with male names, and this is likely to avoid confounding gender effects. Brophy
and McCaslin comment on the validity of these vignettes (p. 9), stating that teachers commented that the vignettes were familiar and realistic. Problem-types were also coded according to Gordon's (1974) system of problem ownership for the purpose of data analysis. One problem-type from each of Gordon's three problem-types was chosen for this study a) "Roger, defiant", teacher-owned, b) "Bill, hyperactive", shared problem, and c) "Mark, rejected", student-owned.

According to the results found in Brophy and Rohrkemper's (1981) analysis, teachers attributed controllability and intentionality to students presenting "teacher-owned problems" (e.g., "defiant"), and uncontrollability and a lack of intentionality to students presenting "student-owned problems" (e.g., "student rejected by peers"). Responses to "shared problems" (e.g., "hyperactivity") were mixed, but they generally considered these problems controllable but unintentional. Patterns of strategies also covaried with each of these problem-types. The three specific problem-types chosen for use in this study, therefore, represent three points in the continuums of both problem-ownership and the attributions of controllability.

Assessment of Attributions

Several methods have been used to assess causal attributions. Among these are a) forced choice, b) open-ended response (which is later coded), and c) dimensional assessment.

a) Forced Choice Measures

Examples of forced choice measures are the Multidimensional-Multiattributional Causality
Scales (MMCS) (Lefcourt, 1981) and the Trent Attributional Profile (TAP) (Wong & Sproule, 1984). Both scales measure locus. The MMCS is not generalizable outside of the academic setting (related to achievement) and it is considered to have problems due to its factor structure (Hyman, Stanley, & Burrows, 1991). The TAP also measures achievement attributions and is considered a less than adequate measure (Hymen et al., 1991). These measures do not assess the important dimension of controllability.

b) Free-Response Measures

As an alternative to rating scales, free responses can be coded. This is the methodology that was used in Brophy and Rohrkemper's (1981) study. An example of a free response coding system is the Elig and Frieze (1975) Coding Scheme of Perceived Causality (CSPC). This system allows the researcher to code responses according to three dimensions of causality: locus, stability, and intentionality. Inter-coder reliability (after extensive training) is reported to be around .85 (Elig & Frieze, 1975). Brophy and Rohrkemper developed their own coding system (described in Brophy & McCaslin, 1992). The coding of free responses has been criticized however (e.g., McAuley, Duncan & Russell, 1992). The coder may have difficulty interpreting the intended meaning of a free response. Russell (1982) has called this the "fundamental attribution researcher error", and he contends that it is improper for researchers to assume that they perceive causes in the same way as does the respondent.
c) Dimensional Assessment

Dimensional assessment directly assesses attributions according to a pre-determined factor structure. A scale with relatively high reliability is the Revised Causal Dimension Scale (CDSII) (McAuley, Duncan & Russell, 1992). This scale is a revision of the Causal Dimension Scale (Russell, 1982), and it assesses self-attributions according to the dimensions of locus, stability, personal control and external control. Subjects are required to generate their own causes and then rate them according to the various dimensions. This method is considered the most valid way of assessing attributions (e.g., Benson, 1988; McAuley, Duncan & Russell, 1992). Reliability is reported to range from .60 to .71 on the locus dimension, from .65 to .68 on the stability scale, from .71 to .90 on the personal control dimension, and from .71 to .91 on the external control dimension. This scale does not assess other-directed attributions however.

The Teacher Attributions Scale (TAS) / Problem Behaviors Scale (PBS)

Teacher's attributions were measured in this study by the Problem Behavior Scale (PBS) (Appendix D). The PBS was adapted from The Teacher Attributions Scale (TAS). The TAS was developed by Teresa George (1994) to assess specifically teachers' attributions about student problem behavior. Only minor modifications were made to the TAS. Specifically, some items were reworded by the present researcher. In the TAS the terms "behavior problem" and "misbehavior" were re-worded as "problem behaviors" in order for the scale to apply to both externalizing (defiant, hyperactive) as well as internalizing (rejected) problems. A rejected child is
not usually considered to be "misbehaving", but rather to have behavior problems. In addition, one item was removed from the scale "This child misbehaves intentionally". This item was included in the TAS under the scale "Child Control", and it was the researcher's decision to rate inferences of intentionality separately from attributions of child controllability, consistent with Weiner's (1995) position that intentionality should not be confounded with controllability. The assessment of teacher's inferences of intentionality separately from controllability was important to this study in order to test the hypothesis that intentionality would add to teacher frustration and anger and lead to more power assertive interventions than attributions of child controllability alone (e.g., Brophy & Rohrkemper, 1981). Several additional intentionality items were created by the researcher and her supervisor and were included with the one removed item from the TAS to rate teachers' inferences of intentionality.

The unique purpose of this scale was to assess other-directed attributions (as opposed to self-directed attributions), specifically relevant to teachers. The PBS is considered a direct dimensional assessment. Four factors (dimensions) were measured by the TAS/PBS: 1) "Teacher Control" measured the teacher's perceptions of the amount of control he/she has over the child's behavior problem; 2) "Locus" measures whether the teacher perceives the cause of the child's behavior problem to be internal or external to the child; 3) "Child Control" measures the teacher's perceptions of the child's control over his own problem behavior; and 4) "Stability" measures whether the teacher perceives the behavior problem to be constant or variable over time. The
The importance of measuring both aspects of control (teacher and child) has been discussed earlier (e.g., McCauley, Duncan, & Russell, 1992) and is critical to this particular study. In addition, four items were created for the PBS to measure inferences of intentionality as a separate dimension from child control.

Reliability was estimated by the use of Cronbach's coefficient alpha. The following reliabilities were reported by Terry George (1994) for the TAS: An overall estimate of internal consistency was an alpha of .69 for the total 20-item scale. The reliabilities for the individual factors were as follows: .70 for "Teacher Control", .69 for the "Child Control" factor, .66 for the "Stability" factor, and .66 for the "Locus" factor. Reliability may be considered in the moderate range; however, these estimates are greater than the reliability reported in the majority of attributional scales, and not much lower than that reported for the CDSII.

Evidence of divergent validity was found for the original TAS in the nonsignificant correlations between the Beck Depression Inventory and the factor scores of the TAS. Evidence of concurrent validity was initially unclear. Correlations between the TAS and the Attributional Style Questionnaire (ASQ) (Peterson, Semmel, Von Baeyer, Abramson, Metalsky, & Seligman, 1982) were nonsignificant. It must be considered, however, that the ASQ measures "attributional style" and is self-directed. The concept of a consistent trait-like attributional style has been challenged (e.g., Anderson, Jennings, & Arnoult, 1988). In addition, the ASQ has only moderate reliability (.40 to .70). These considerations may account for the lack of convergent validity.
between these two measures. In a recent study (Witt & Colleagues, personal communication, 1995), the TAS was found to discriminate between teachers who implemented treatment interventions with integrity, and those who did not, according to their attributions regarding student problem behavior. In other words, teachers' attributions about student behavior problems influenced whether they followed the treatment intervention plan as discussed in consultation, or whether they chose instead not to follow the treatment plan. These findings are supportive of the validity of the TAS in its use with teachers' assessment of student-directed attributions. The revised TAS used in this study was found to discriminate between the three behavior problems, consistent with attribution theory. This provides additional support for the validity of the TAS as an assessment of teachers' attributions about student behavior problems.

Reliability of the Problem Behavior Scale (PBS)

Since some minor modifications were made to the TAS and the dimension of intentionality was added, reliability analyses were conducted for the PBS used in the present study. The following estimates of reliability were found for the 112 participants in the present study. An overall estimate of internal consistency for the entire 19 item scale was .68. The reliabilities for the individual scales were as follows: .76 for Locus, .75 for Child Control, .67 for Stability, and .65 Teacher Control. The reliability of the four item intentionality scale developed for this study was .89 (see Table 1). Although minor modifications were made, the reliabilities found for the PBS are very similar to those found by Terry George in her original study with the TAS.
**TABLE 1**
The Problem Behavior Scale (Subscales and Reliabilities)

| Locus                                      | 6. This child's parents cause his problem behaviors. |
|                                           | 8. Others cause this child's problem behaviors.     |
|                                           | 12. Other people are responsible for this child's problem behaviors. |
|                                           | 15. Factors in the environment cause this child's problem behaviors. |
|                                           | 19. The cause of this child's problem behaviors is external to the child. |
|                                           | 23. This child's problem behaviors are influenced by others. |
|                                           | Alpha = .78                                         |

| Child Control                          | 5. This child can control his behavior.        |
|                                         | 7. This child is responsible for his problem behaviors |
|                                         | 9. This child's problem behaviors are caused by something he can control. |
|                                         | 18. This child can stop this problem behavior if he wants to. |
|                                         | Alpha = .75                                        |

| Stability                                  | 13. Time will solve these problem behaviors.    |
|                                          | 17. This child's problem behaviors will go away with time. |
|                                          | 21. The cause of this child's problem behaviors will change in the future. |
|                                          | Alpha = .67                                        |

| Teacher Control                          | 1. Even with assistance from a consultant, this child's problem behaviors cannot be controlled. (reverse scored) |
|                                         | 2. No matter what changes I make, this child will continue to exhibit these problem behaviors. (reverse scored) |
|                                         | 4. I can influence this child's behavior in the classroom. |
|                                         | 10. This child's problems are too severe/complicated for me to handle. (reverse scored) |
|                                         | 16. I could manage this child's behavior if someone could tell me what might work. |
|                                         | 20. I can manage this child's problem behaviors.  |
|                                         | Alpha = .65                                        |

| Intentionality Scale                   | 3. This child engages in the problem behavior because he wants to. |
|                                         | 11. This child's problem behaviors are on purpose. |
|                                         | 14. This child means to engage in the problem behaviors. |
|                                         | 22. This child's problem behaviors are intentional. |
|                                         | Alpha = .89                                        |

Note: N = 112
Assessment of Affect

Development of the Teacher Emotion Questionnaire (TEQ)

The affects assessed included the basic emotions of anger (frustration, irritation, annoyance), pity (sympathy, empathy), guilt (regret), shame (embarrassment), and hopelessness (pessimism). These specific affects were chosen because they are supported in the research literature as being related to specific attributions and inferences of intentionality (e.g., Weiner, 1985, 1995).

The principal method that has been used in attributional studies to assess affect is through a Likert type rating scale (e.g., Schmidt & Weiner, 1988; Weiner, 1995). In this study, teachers were asked to rate the amount of each emotion they were likely to experience when confronted with this problem behavior in their classroom. Similar to the rating system used by Weiner and his colleagues, participants were asked to rate each of 12 emotions on a 5-point Likert scale ranging from 1 (none) to 5 (a great deal) on a measure developed by the researcher for the purposes of this study (The Teacher Emotion Questionnaire [TEQ], Appendix E). More than one word was used to describe each basic emotion. It is suggested by research on the semantics of emotion (e.g., Johnson-Laird & Oatley, 1989) that although there are basic emotion terms, different terms denote slightly different subjective meanings. In this study several different terms were included for each basic emotion. Alternate terms for the emotions assessed were taken from Johnson-Laird and Oatley's semantic analysis of "words denoting emotions" (pp. 108 - 122).
Inter-item correlational analysis revealed that the various terms for each emotion were highly inter-correlated, and it was decided, therefore, to group the similar terms into 4 scales: anger, pity, hopelessness and guilt/shame for the purposes of data analysis (Item intercorrelations and subscale reliabilities are summarized in Table 2). Although the guilt and shame items were initially intended to represent different emotions, they are the two self-directed emotions (the rest are other-directed), and they are closely related emotions. It was found that the various items which represented guilt and shame were highly inter-correlated, and it was decided to keep these items together on one self-directed guilt/shame scale.

Reliability of the Teacher Emotion Questionnaire (TEQ)

Reliability was established for each of the four scales. Cronbach's coefficient alpha was used to estimate an internal reliability for each of the scales as follows: .85 for the Anger scale, .79 for the Pity scale, .73 for the Hopelessness scale, and .82 for the Guilt/Shame scale.
<table>
<thead>
<tr>
<th>Scale Item Inter-Correlations and Scale Reliabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anger Scale</strong></td>
</tr>
<tr>
<td>TEQ 1 (anger)</td>
</tr>
<tr>
<td>TEQ 6 (frustration)</td>
</tr>
<tr>
<td>TEQ 11 (irritation/annoyance)</td>
</tr>
<tr>
<td>p &lt; .01, Alpha = .85</td>
</tr>
<tr>
<td><strong>Pity Scale</strong></td>
</tr>
<tr>
<td>TEQ 2 (pity)</td>
</tr>
<tr>
<td>TEQ 7 (sympathy)</td>
</tr>
<tr>
<td>TEQ 12 (empathy)</td>
</tr>
<tr>
<td>p &lt; .01, Alpha = .79</td>
</tr>
<tr>
<td><strong>Guilt/Shame Scale</strong></td>
</tr>
<tr>
<td>TEQ 3 (guilt)</td>
</tr>
<tr>
<td>TEQ 8 (regret)</td>
</tr>
<tr>
<td>TEQ 4 (shame)</td>
</tr>
<tr>
<td>TEQ 9 (embarrassment)</td>
</tr>
<tr>
<td>p &lt; .01, Alpha = .82</td>
</tr>
<tr>
<td><strong>Hopelessness Scale</strong></td>
</tr>
<tr>
<td>TEQ 5 (hopelessness)</td>
</tr>
<tr>
<td>TEQ 10 (pessimism)</td>
</tr>
<tr>
<td>p &lt; .01, Alpha = .73</td>
</tr>
</tbody>
</table>

TABLE 2
The Teacher Emotion Questionnaire (TEQ)

46
Teacher Interventions

Brophy and McCaslin (1992) published the entire descriptive findings with regard to teachers' self-generated intervention ideas for use with students with specific behavioral difficulties. Teachers were interviewed about the interventions they would use with each specific behavior type, and then these results were coded according to two coding systems developed for this project by the researchers: "the rewards and punishments coding system" and "the universal coding system." Brophy and McCaslin (1992) explained how they developed the coding system, trained objective coders and checked for inter-coder reliability. In addition they provided details of the rationale behind each category throughout their article. Results of the study suggest that overall, teachers chose short term "control and desist" strategies when the problem type was "teacher-owned" (e.g., defiant); they chose longer term supportive and nurturant strategies when the problem was "student-owned" (e.g., student rejected by peers). Their responses to "shared problems" (e.g., hyperactive) were mixed, but also included more teaching strategies aimed at replacing problem behavior with more appropriate behavior.

Development of the Teacher Interventions Rating Scale (TIRS)

The aim of the study with regard to intervention choices was not to list all possible interventions nor to have teachers generate extensive lists of possible interventions but rather to assess the relationship between the attribution-affect responses and the continuum of reject/punish versus support/nurture. This is an applied test of the attribution theories of helping behavior and judgments of responsibility (Weiner, 1995; Weiner & Schmidt, 1988). For this purpose this
researcher chose several interventions which reflected this continuum based on the actual responses of teachers in Brophy and McCaslin's (1992) and Brophy and Rohrkemper's (1981) studies (Teacher Interventions Rating Scale, Appendix F). Some supportive strategies recommended by Brophy and McCaslin (e.g., Gordon, 1974, 1989), but not mentioned by the teachers in their study were also included in the support/nurture category and in a third "instruction" category (environmental manipulation and teacher direction). Instructional strategies were not expected to be related to attributions or feelings, nor were major differences expected between problem-student types in teacher endorsement of instructional interventions.

These strategies were included for the additional purpose of gathering information about teachers' use of strategies which may not be directly related to natural attributions.

The items of the TIRS were a) adapted from actual teacher responses which were coded in Brophy and McCaslin's (1992) study as either punish/reject or support/nurture, and b) adapted from Gordon's (1974, 1988) suggested interventions. Three interventions subscales were developed by the researcher and her supervisor by conceptual grouping 1) Punish, 2) Counsel/Support, 3) Instruct. Consistent with the other two scales used in this study, a Likert-type rating method was used. Teachers were asked to rate to what extent they would be likely to use each of the strategies in response to the student's behavior depicted in the student description and vignette. The rating system ranged from 1 "not at all likely" to 5 "highly likely."
Reliability of the Teacher Interventions Rating Scale (TIRS)

Reliabilities were estimated by the use of Cronbach's coefficient alpha for each of the three scales (see Table 3). Of the 20 original items included in the TIRS (appendix F) and distributed to teachers as part of the questionnaire package, all except item 6 were included in final data analysis. By eliminating item six the reliability of the Punish subscale was raised and a more homogenous scale was created. Reliabilities for each of the three scales were as follows: .83 for the Punish scale, .70 for the Counsel/Support scale, and .60 for the Instruct scale.

Subscale content and scale reliabilities are summarized in Table 3. As presented in the summary, the subscales have adequate internal reliability.
### TABLE 3
The Teacher Interventions Rating Scale (TIRS)
Subscales Items and Reliabilities

**Punish Subscale**

1. Loss of Privileges.
3. Extra time (e.g., staying in at recess or after school).
8. Give a verbal reprimand.
13. Use a "time-out" technique.
14. Extra requirements.
17. Referral to principal.

*Alpha = .83*

**Counsel/Support Subscale**

2. Comfort or reassure the student.
11. Use active listening or empathy techniques to reflect student's feelings.
12. Spend extra time with the student to build a relationship.
16. Negotiate with the student/ Reach a compromise.
20. Support the student in developing his own solutions to the problem.

*Alpha = .70*

**Instruct Subscale**

4. Use "I" messages to express teacher needs and/or feelings.
5. Praise specific behavior.
7. Make changes in the physical environment.
10. Provide instruction on appropriate behavior.
18. Make changes in the social environment/peer grouping.
15. Involve peers to provide support.

*Alpha = .60*

Note:  \( N = 112 \)
Participants

Participants were 112 pre-service elementary teachers (see Table 4). Teachers were recruited through the Faculty of Education at the University of British Columbia. All preservice teachers at the end of a 2-year Bachelor of Education program were solicited. At this point in their program, the preservice teachers had completed the majority of their coursework and their major school-based practica. The participants agreed to act as volunteers for this project.

Pre-service teachers at the end of their education program and about to begin their teaching careers were chosen for this study for several reasons. First, teachers with less experience, at the beginning of their teaching careers have been found to be those teachers most likely to seek consultation (Hughes, Grossman, & Barker, 1990). In addition they have also been found to prefer consultation over referral (Gutkin & Bossard, 1984). It is likely, therefore, that this group of teachers represents a large population with whom the school psychologist will meet and consult, and it is important for the psychologist to understand the perceptions of this group of teachers. New teachers have reported feeling inadequately prepared for dealing with problem behaviors in the classroom (Housego, 1990b; Lasley & Applegate, 1985), and it is important to examine the types of strategies they choose and what determines these strategies. Finally, Brophy and McCaslin (1992) based the results of their study on data gathered in 1977 - 1981; however they suggest that their study would yield the same findings if it were repeated today. It is important to use an updated sample, in particular a group of new teachers who are immersed in
recent learning strategies and pedagogical theory and who have been exposed to a more inclusive school system than that of the late seventies and early eighties.

Although the sample can not be considered as completely random, all students who were in attendance at their UBC Education class on the day of data collection agreed to participate. Demographic information was missing for 3 participants on all questions and for 4 participants on the question of age. The mean age of the participants was 28 (standard deviation = 5.84), with a minimum age of 22 and a maximum age of 51. The sample was primarily female, including 91 females and 18 males. The average years of post secondary education was 6, the minimum being 5 and the greatest being 9. This suggests that most participants had a four year undergraduate degree followed by the two-year bachelor of education program in progress at the time of data collection. The majority of participants (88.4 percent) had no formal teaching experience other than their supervised practicum, although some participants indicated previous teaching experience ranging from one to more than 10 years. Most participants (82.1 percent) had no specific coursework on behavior disorders. Of those that indicated they had completed some coursework on behavior disorders (15.2 percent), this coursework was generally described as one or two specific courses or workshops at the undergraduate level. No one indicated any extensive training in behavior disorders. Teachers received and were asked to sign consent letters. They were assured that all information would be coded and kept confidential. All teachers participating in this study were guaranteed anonymity. Characteristics of the sample are summarized in Table 4.
**TABLE 4**  
Demographic Characteristics of Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Min</th>
<th>Max</th>
<th>(Missing Data)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
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<td>27.72</td>
<td>5.84</td>
<td>22</td>
<td>51</td>
<td>(4 Missing Data)</td>
</tr>
<tr>
<td>Years Post-Secondary Education</td>
<td>109</td>
<td>6.39</td>
<td>.93</td>
<td>5</td>
<td>9</td>
<td>(3 Missing Data)</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16.1</td>
</tr>
<tr>
<td>Female</td>
<td>91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>81.3</td>
</tr>
<tr>
<td>Missing Data</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.7</td>
</tr>
<tr>
<td>Specific Coursework on Behavior Disorders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>92</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>82.1</td>
</tr>
<tr>
<td>Yes</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15.2</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>2.7</td>
</tr>
<tr>
<td>Teaching Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>up to 6 months</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>88.4</td>
</tr>
<tr>
<td>1 year</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.5</td>
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<td>3 - 5 years</td>
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<td></td>
<td>1.8</td>
</tr>
<tr>
<td>5 - 10 years</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.8</td>
</tr>
<tr>
<td>&gt; 10 years</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.9</td>
</tr>
<tr>
<td>Missing data</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.7</td>
</tr>
<tr>
<td>Problem Behavior Case</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bill (hyperactive)</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33.9</td>
</tr>
<tr>
<td>Mark (Rejected)</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33.0</td>
</tr>
<tr>
<td>Roger (Defiant)</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33.0</td>
</tr>
</tbody>
</table>
Design

The study included three case studies, Roger (defiant student), Bill (hyperactive student) and Mark (student rejected by peers). Within each of three intact classes, participants were given one of the three case studies. All of the dependent measures (PBS, TEQ, TIRS) were within counterbalanced order. There was essentially an equal number of cases within each class, and across classes.

After establishing reliabilities for each of the rating scales used in this study, four primary types of data analyses were conducted.

1) Analysis of variance was used to determine any significant differences by case (i.e., problem-behavior type student) for each of the rating scales (PBS, TEQ, TIRS).

2) T-Tests were conducted to examine significant directions on each of the rating scales for each of the problem-type students (e.g., internal or external locus, angry or not).

3) Correlational analyses were conducted to examine the inter-relationships between the five subscales of the Problem Behavior Scale (PBS): "locus", "stability", "teacher control", "student control", and "intentionality", the four emotions assessed on the Teacher Emotion Questionnaire: "anger", "pity", "guilt/shame", and "hopelessness", and the three types of interventions from the Teacher Interventions Checklist: "punish", "counsel/support", and "instruct."

4) After establishing significant correlations, and based on expectations from the literature
(as expressed in the hypotheses and questions), multiple regression analyses were used to
determine the relative importance of attributions and affects in determining types of interventions.

Setting

The study was conducted at the University of British Columbia in the Faculty of
Education. Teachers completed the questionnaires during a quiet block of time in a regularly
scheduled educational psychology classroom with the permission of their instructors. This setting
allowed teachers the time to concentrate on their responses without interruptions and without
feeling pressured to complete the questionnaire in a hurry.

Procedures

The researcher personally contacted each of the three UBC Faculty of Education
professors teaching a required educational psychology course in the teacher education program,
asking for their willingness to participate in this study by allowing their students to complete a
research questionnaire. Following the personal communication with the instructors, a letter was
sent to each instructor (appendix G). Each of the instructors consented to participation.

On the day of data collection, each participant received a package. The package included
a consent form (appendix H) outlining the general purposes of the study, and guaranteeing
anonymity to each participant. The researcher spoke briefly to each classroom about the study and
emphasized the importance of genuine responses. It was emphasized that individual responses
would be kept confidential and that no individual judgments would be made. Teachers were each be given a package containing the following: a consent form (appendix H), an introduction and instruction sheet (appendix I), a demographic information form (appendix J), one "student description and vignette" depicting one of three problem-types: 1) "Roger", a defiant student (appendix A), 2) "Bill", a hyperactive student (appendix B) or 3) "Mark" a student rejected by peers (appendix C), The Problem Behavior Scale (appendix D), The Teacher Emotion Questionnaire (appendix E), and The Teacher Interventions Rating Scale (appendix F).

Teachers were asked (in a standardized paragraph) to imagine that the child depicted in the student description and vignette was a child in their classroom and that they were the child's teacher. After reading the vignette, they were asked to respond to the questionnaires in the package, as honestly as possible, without consulting any sources, but just responding according to what they would likely think, feel, and do. The order of the three questionnaires (attributions, emotion, interventions) was varied in each package in order to counter any effects of the order of presentation. The administration time was approximately 20 minutes.
CHAPTER 4

RESULTS

The results chapter is organized according to the research questions and specific experimental hypotheses proposed in chapter 2. For the purposes of analysis of case differences it is important to recognize that Roger is the defiant case, Bill is the hyperactive case, and Mark is the rejected case. These cases will sometimes be referred to as R (Roger), B (Bill) and M (Mark).

Specific Responses to Student Problem Behaviors

Attributions

1. **Student problems will be perceived as internal.**

   In order to determine if participants rated student problems as internal versus external in locus, responses to the Locus subscale of the Problem Behavior Scale (PBS) were analyzed using one sample t-tests for each case. The locus subscale contains 6 items rated from 1 (internal) to 5 (external). The possible range of scores is from 6 to 30. Obtained means for each case were tested against a neutral rating of 18 as the population mean (μ = 18). Results of the analysis of the Locus subscale are presented in Table 5.
Results of the t-test indicate that Bill's behavior was perceived as internal, but Roger's and Mark's behavior was perceived as caused by more external influences.

Analysis of Variance (ANOVA) and post hoc analysis using Tukey's HSD test indicated that Bill's mean locus score was significantly lower than that of either Mark or Roger, (F (2,107) = 5.9677 , p < .0035). Bill's locus score suggests that teachers perceived his hyperactive problem as more internal than either the rejected or defiant problems. Teachers did not rate Mark or Roger as differing in terms of locus of problem.

**2. Student problems will be perceived as stable.**

In order to determine if participants rated student problems as stable versus unstable, responses on the Stability subscale of the PBS were analyzed using one sample t-tests for each case. The Stability subscale contains 3 items rated from 1 (stable) to 5 (not stable), with a possible
range of 3 to 15 for the entire scale. Obtained means for each case were tested against a neutral rating of 9 as the population mean (μ = 9). Results of the analysis of the Stability subscale are presented in Table 6.

**TABLE 6**

**T - Tests for Case Differences on the Stability Subscale of the PBS**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>For entire population</td>
<td>7.6071</td>
<td>1.8617</td>
<td>112</td>
<td>-7.80* stable</td>
</tr>
<tr>
<td>Bill (hyperactive)</td>
<td>8.0263</td>
<td>1.7932</td>
<td>38</td>
<td>-2.77* stable</td>
</tr>
<tr>
<td>Mark (rejected)</td>
<td>7.3243</td>
<td>1.9868</td>
<td>37</td>
<td>-5.09* stable</td>
</tr>
<tr>
<td>Roger (defiant)</td>
<td>7.4595</td>
<td>1.7732</td>
<td>37</td>
<td>-5.22* stable</td>
</tr>
</tbody>
</table>

* p < .05

Results of the t-test indicate that the behavior problems of all students were perceived as stable.

Analysis of variance indicated that there were no significant differences between cases. The hypothesis was supported. All student problems were perceived as stable.

3. **There will be differences in perceived child control by case.**

   a) The defiant case will be perceived as the most controllable.

   b) The hyperactive case will perceived as partially controllable, and

   c) The rejected case will be perceived as the least controllable.
In order to determine if participants rated student problems as controllable by the child or uncontrollable by the child, responses on the Child Control subscale of the PBS were analyzed using one sample t-tests for each case. The Child Control scale contains 4 items rated from 1 (can't control own behavior) to 5 (can control own behavior). The possible range of scores for the entire scale was between 4 and 20. Obtained means for each case were tested against a neutral rating of 12 ($\mu = 12$). Results of the analysis of the Child Control subscale are presented in Table 7.

**TABLE 7**

**T-Tests for Case Differences on the Child Control Scale of the PBS**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>For entire population</td>
<td>11.2432</td>
<td>2.6499</td>
<td>111</td>
<td>-3.04* can't control</td>
</tr>
<tr>
<td>Bill (hyperactive)</td>
<td>10.0526</td>
<td>2.6807</td>
<td>38</td>
<td>-4.48* can't control</td>
</tr>
<tr>
<td>Mark (rejected)</td>
<td>11.7297</td>
<td>2.4681</td>
<td>37</td>
<td>-.66 ns neutral</td>
</tr>
<tr>
<td>Roger (defiant)</td>
<td>12.000</td>
<td>2.4142</td>
<td>36</td>
<td>0.0 ns neutral</td>
</tr>
</tbody>
</table>

* $p < .05$

Results of the t-test indicate that teachers perceived Bill as significantly unable to control his own behavior, while they had neutral perceptions about both Mark and Roger.

Analysis of variance (ANOVA) and post hoc analysis using Tukey's HSD indicated that there were significant differences between Bill and both Roger and Mark: ($F(2, 108) = 6.5221,$
Bill, the hyperactive student was perceived as significantly less able to control his behavior than either Roger or Mark. The hypothesis was supported to the extent that there were differences in perceived child control by case, but the hypothesized specific differences were not supported.

4. There will be differences in perceived intentionality by case.

The defiant case will be the only case perceived as intentional, and moreso than the hyperactive or rejected case.

In order to determine if participants rated student problems as intentional versus unintentional, responses on the Intentionality subscale of the PBS were analyzed using one sample t-tests for each case. The Intentionality scale is a 4 item scale rated as 1 (not intentional) to 5 (intentional). The possible range of scores is between 4 and 20 for the entire scale. Obtained means for each case were tested against a neutral rating of 12 (μ = 12). Results of the analysis of Intentionality subscale are presented in Table 8.
TABLE 8
T-Tests for Case Differences on the Intentionality Subscale of the PBS

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>For entire population</td>
<td>9.3036</td>
<td>3.0575</td>
<td>112</td>
<td>-.933*</td>
</tr>
<tr>
<td>Bill (hyperactive)</td>
<td>8.3684</td>
<td>2.2351</td>
<td>38</td>
<td>-10.0*</td>
</tr>
<tr>
<td>Mark (rejected)</td>
<td>8.0270</td>
<td>2.2421</td>
<td>37</td>
<td>-10.8*</td>
</tr>
<tr>
<td>Roger (defiant)</td>
<td>11.5405</td>
<td>3.3048</td>
<td>37</td>
<td>-.85ns</td>
</tr>
</tbody>
</table>

* p < .05

Results of the t-test indicate that teachers rated Bill and Mark's behavior as significantly unintentional. Their ratings of Roger were more mixed (neutral), neither intentional nor unintentional.

Analysis of Variance (ANOVA) and post hoc analysis using Tukey's HSD indicated significant differences between the means by case, (F = (2, 109) 20.0101 , p < .0000). Roger's defiant behavior was perceived as significantly more intentional than either Bill or Mark. No significant differences are indicated between Bill and Mark. While Roger's behavior was considered to be neither intentional nor unintentional, both Bill's and Mark's behavior was considered unintentional. The hypothesis is supported.
5. Exploratory question. Will teacher control vary by problem type?

In order to determine if participants rated student problems as controllable by the teacher or uncontrollable by the teacher, responses on the Teacher Control subscale of the PBS were analyzed using one sample t-tests for each case. The Teacher Control subscale contains 6 items rated from 1 (uncontrollable by the teacher) to 5 (controllable by the teacher). The possible range of scores is from 6 to 30. Obtained means for each case were tested against a neutral rating of 18 as the population mean ( \( \mu = 18 \)). Results of the analysis of the Teacher Control subscale are presented in Table 9.

<table>
<thead>
<tr>
<th>Case</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>For entire population</td>
<td>19.5982</td>
<td>3.4103</td>
<td>112</td>
<td>4.97*</td>
</tr>
<tr>
<td>Bill (hyperactive)</td>
<td>19.1316</td>
<td>2.7916</td>
<td>38</td>
<td>2.94*</td>
</tr>
<tr>
<td>Mark (rejected)</td>
<td>20.7838</td>
<td>3.6903</td>
<td>37</td>
<td>4.58*</td>
</tr>
<tr>
<td>Roger (defiant)</td>
<td>18.8919</td>
<td>3.4704</td>
<td>37</td>
<td>1.56 ns</td>
</tr>
</tbody>
</table>

* p < .05

Results of the t-test indicate that teachers perceived Bill's and Mark's behavior as significantly controllable. Their perceptions about their abilities to control Roger's behavior were mixed (neutral).
The analysis of variance and post hoc analysis using Tukey's HSD indicated significant differences by case: (F (2, 109) = 3.5402, p < .0324). Specifically, teachers indicated significantly greater perceived control over Mark, the rejected child's behavior, compared to their perceived control over Roger, the defiant child's behavior. No other significant differences were indicated.

**Summary of Differences in Attributions by Case**

Table 10 presents a summary of the results of post hoc comparisons among cases on the dimensions of the PBS. For the purposes of comparison, since different scales contained different numbers of items, mean item scores were calculated for each scale by dividing the mean score on each scale by the number of items on that scale. In addition, Figure 1 presents a visual display of mean attributions (as measured by the PBS) by case.
### TABLE 10
**Summary of Mean Item Scores and Post Hoc Comparisons**
**For The Problem Behavior Scale (PBS) by Case**

<table>
<thead>
<tr>
<th>Attribution</th>
<th>Mean Item Score</th>
<th>PostHocs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intentionality</td>
<td>R = 2.9</td>
<td>R B M</td>
</tr>
<tr>
<td></td>
<td>B = 2.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M = 2.0</td>
<td></td>
</tr>
<tr>
<td>Child Control</td>
<td>R = 3.0</td>
<td>R M B</td>
</tr>
<tr>
<td></td>
<td>M = 2.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B = 2.5</td>
<td></td>
</tr>
<tr>
<td>Teacher Control</td>
<td>M = 3.5</td>
<td>M B R</td>
</tr>
<tr>
<td></td>
<td>B = 3.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R = 3.1</td>
<td></td>
</tr>
<tr>
<td>Stability</td>
<td>B = 2.7</td>
<td>B M R</td>
</tr>
<tr>
<td></td>
<td>R = 2.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M = 2.4</td>
<td></td>
</tr>
<tr>
<td>Locus</td>
<td>R = 3.2</td>
<td>R M B</td>
</tr>
<tr>
<td></td>
<td>M = 3.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B = 2.8</td>
<td></td>
</tr>
</tbody>
</table>

R = Roger, defiant student  
B = Bill, hyperactive student  
M = Mark, rejected student  

Item score ranges from 1 to 5  

___ means these scores are not significantly different
FIGURE 1

Differences in Teachers' Attributions by Problem-Type

Attributions

- Intentional
  - Roger
  - Bill
  - Mark
- Child Control
- Teacher Control
- Stability
- Locus
Emotions

Teachers' emotions were measured with the Teacher Emotion Questionnaire (TEQ).

1. There will be differences in anger by case.

   a) The most anger will be directed towards the defiant case,

   b) then the hyperactive case,

   c) and the least anger will be directed towards the rejected case.

In order to determine if participants felt angry or not in response to student problems, responses on the Anger subscale of the TEQ were analyzed using one sample t-tests for each case. The Anger subscale contains 3 items rated from 1 (no anger) to 5 (a great deal of anger). The possible range of scores is from 3 to 15. Obtained means for each case were tested against a neutral rating of 9 as the population mean (μ = 9). Results of the analysis of the Anger subscale are presented in Table 11.
TABLE 11
T-Tests for Case Differences on the Anger Scale of the Teacher Emotion Questionnaire (TEQ)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>For entire population</td>
<td>9.3661</td>
<td>3.1336</td>
<td>112</td>
<td>1.25 ns</td>
</tr>
<tr>
<td>Bill (hyperactive)</td>
<td>9.1316</td>
<td>2.8205</td>
<td>38</td>
<td>.284 ns</td>
</tr>
<tr>
<td>Mark (rejected)</td>
<td>7.2162</td>
<td>2.4623</td>
<td>37</td>
<td>-4.40* not</td>
</tr>
<tr>
<td>Roger (defiant)</td>
<td>11.7568</td>
<td>2.3143</td>
<td>37</td>
<td>7.26* angry</td>
</tr>
</tbody>
</table>

* p < .05

Results of the t-test indicate that teachers felt significantly angry towards Roger, the defiant student, and significantly not angry towards Mark, the rejected student. Their reactions towards Bill were mixed (neutral).

Analysis of variance (ANOVA) indicated significant differences in teachers' anger by case, supporting the first part of the hypothesis: \( F(2, 109) = 29.7112, p < .0000 \). Tukey's HSD test indicated that each of the three cases (R, B, and M) were significantly different from each other. The most anger was felt towards Roger, the defiant student, then Bill, the hyperactive student, and the least anger was felt towards Mark, the rejected student. The second part of the hypothesis was also supported.
2. There will be differences in pity by case.

a) The most pity will be directed towards the rejected case,

b) then the hyperactive case,

c) and the least pity directed towards the defiant case.

In order to determine if participants indicated feeling pity or not in response to student problems, responses on the Pity subscale of the TEQ were analyzed using one sample t-tests for each case. The Pity subscale of the TEQ contains three items rated from 1 (no pity) to 5 (a great deal of pity). The possible range of scores is from 3 to 15. Obtained means for each case were tested against a neutral rating of 9 as the population mean (μ = 9). Results of the analysis of the Pity subscale are presented in Table 12.

TABLE 12
T-Tests for Case Differences on the Pity subscale of the TEQ

<table>
<thead>
<tr>
<th>Case</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>For entire population</td>
<td>9.9640</td>
<td>2.8250</td>
<td>111</td>
<td>3.57* pity</td>
</tr>
<tr>
<td>Bill (hyperactive)</td>
<td>9.6486</td>
<td>2.4177</td>
<td>37</td>
<td>1.63ns neutral</td>
</tr>
<tr>
<td>Mark (rejected)</td>
<td>12.0811</td>
<td>2.3378</td>
<td>37</td>
<td>8.00* pity</td>
</tr>
<tr>
<td>Roger (defiant)</td>
<td>8.1622</td>
<td>2.2424</td>
<td>37</td>
<td>-2.28* not</td>
</tr>
</tbody>
</table>

* p < .05

Results of the t-test indicate that teachers felt significant amounts of pity for Mark, the
rejected student, but they felt a significant lack of pity for Roger, the defiant student. Reactions
towards Bill were mixed (neutral).

Analysis of variance (ANOVA) indicated significant differences by case supporting the
first part of the hypothesis: \( F = (2, 108) \, 26.5898 \, p < .0000 \). Tukey's HSD test indicated that
each of the three cases was significantly different from the others. The most pity was felt towards
Mark, the rejected student, then towards Bill, the hyperactive student (neutral response), and the
least pity was felt towards Roger, the defiant student. The second part of the hypothesis was also
supported.

3. Teachers will express low levels of guilt and shame.

In order to determine if participants felt significant amounts of guilt and shame or not in
response to student problems, responses on the Guilt/Shame subscale of the TEQ were analyzed
using one sample t-tests for each case. The Guilt/Shame subscale is a four item scale rated from 1
(no guilt or shame) to 5 (a great deal of guilt or shame). The possible range of scores for the
complete scale is between 4 and 20. Obtained means for each case were tested against a neutral
rating of 12 as the population mean ( \( \mu = 12 \) ). Results of the analysis of the Guilt/Shame subscale
are presented in Table 13.
TABLE 13
T-Tests for Case Differences on the Guilt/Shame Scale of the TEQ

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
<th>t</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>For entire population</td>
<td>8.7946</td>
<td>3.8977</td>
<td>112</td>
<td>-8.70*</td>
<td>not</td>
</tr>
<tr>
<td>Bill (hyperactive)</td>
<td>7.2895</td>
<td>2.8371</td>
<td>38</td>
<td>-10.22*</td>
<td>not</td>
</tr>
<tr>
<td>Mark (rejected)</td>
<td>9.7054</td>
<td>4.0390</td>
<td>37</td>
<td>-3.46*</td>
<td>not</td>
</tr>
<tr>
<td>Roger (defiant)</td>
<td>9.4054</td>
<td>4.3106</td>
<td>37</td>
<td>-3.66*</td>
<td>not</td>
</tr>
</tbody>
</table>

* p < .05

Results of the t-tests indicate that for all three cases, teachers felt a significant lack of guilt and shame, although they felt the least guilt/shame towards Bill, the hyperactive student. The hypotheses were supported.

Hopelessness

Although not presented as a research question or hypothesis, levels of hopelessness and significant differences by case were examined. In order to determine if participants felt hopeful or hopeless about the likelihood of change in student problems, responses on the Hopelessness subscale of the TEQ were analyzed using one sample t-tests for each case. The Hopelessness subscale contains 2 items rated from 1 (hopeful) to 5 (hopeless). The possible range of scores is from 2 to 10. Obtained means for each case were tested against a neutral rating of 6 as the
population mean (μ = 6). Results of the Hopelessness subscale are presented in Table 14.

**TABLE 14**

T-Tests for Case Differences on the Hopelessness subscale of the TEQ

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>For entire population</td>
<td>4.5982</td>
<td>1.9703</td>
<td>112</td>
<td>-7.53* hopeful</td>
</tr>
<tr>
<td>Bill (hyperactive)</td>
<td>4.7895</td>
<td>1.7577</td>
<td>38</td>
<td>-4.23* hopeful</td>
</tr>
<tr>
<td>Mark (rejected)</td>
<td>3.6757</td>
<td>1.5995</td>
<td>37</td>
<td>-9.03* hopeful</td>
</tr>
<tr>
<td>Roger (defiant)</td>
<td>5.3243</td>
<td>2.1865</td>
<td>37</td>
<td>-1.88ns neutral</td>
</tr>
</tbody>
</table>

* p < .05

Results of the t-tests indicate that overall, teachers felt hopeful about the likelihood of all student behavior problems changing. For Mark, the rejected student, and Bill, the hyperactive student, they felt significantly hopeful, however their reactions towards Roger were mixed (non significant).

Results of the ANOVA indicate significant difference by case, (F (2, 109) = 7.5426, p < .009). Post hoc analysis reveals that teachers felt significantly more hopeful about Mark's behavior changing than they did about Roger's or Bill's behavior changing.

**Summary of Differences in Teachers' Emotional Response by Case**

Table 15 summarizes the results of post hoc comparisons among cases on the dimensions of the TEQ. For the purposes of comparison, since different scales contained different numbers of
items, mean item scores were calculated for each scale by dividing the mean score on each scale by the number of items on that scale. In addition, Figure 2 presents a visual display of differences in emotions (as measured by the TEQ) by case.

### TABLE 15
Summary of Mean Item Scores and Post Hoc Comparisons for TEQ by CASE

<table>
<thead>
<tr>
<th>Emotion</th>
<th>Mean Item Score</th>
<th>Post Hocs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger</td>
<td>R = 3.9</td>
<td>R B M</td>
</tr>
<tr>
<td></td>
<td>B = 3.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M = 2.4</td>
<td></td>
</tr>
<tr>
<td>Pity</td>
<td>M = 4.0</td>
<td>M B R</td>
</tr>
<tr>
<td></td>
<td>B = 3.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R = 2.7</td>
<td></td>
</tr>
<tr>
<td>Hopeless</td>
<td>R = 2.7</td>
<td>R B M</td>
</tr>
<tr>
<td></td>
<td>B = 2.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M = 1.8</td>
<td></td>
</tr>
<tr>
<td>Guilt/Shame</td>
<td>M = 2.4</td>
<td>M R B</td>
</tr>
<tr>
<td></td>
<td>R = 2.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B = 1.8</td>
<td></td>
</tr>
</tbody>
</table>

R = Roger, defiant student  
B = Bill, hyperactive student  
M = Mark, rejected student  
NB: Item score ranges from 1 (none) to 5 (a great deal)  
_____ means that these two scores are not significantly different.
FIGURE 2

Differences in Teachers' Emotions by Problem-Type

Emotions

- Roger
- Bill
- Mark

anger  pity  hopeless  guilt/shame
Interventions

Teachers' preferred interventions were measured using the Teacher Intervention Rating Scale (TIRS).

1. There will be differences in punish/reject interventions by case.

   a) The most punish/reject interventions will be chosen for the defiant case,
   b) then the hyperactive case,
   c) and the least for the rejected case.

In order to determine if participants were likely to use punish interventions or not in response to student problems, responses on the Punish subscale of the TIRS were analyzed using one sample t-tests for each case. The Punish scale is a six item scale rated from 1 (not at all likely to punish) to 5 (highly likely to punish). The possible range or scores is from 6 to 30. Obtained means for each case were tested against a neutral rating or 18 as the population mean (μ = 18).

Results of the analysis of the Punish subscale are presented in Table 16.
TABLE 16
T-Tests for Case Differences on the Punish Scale of the TIRS

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>For entire population</td>
<td>15.8091</td>
<td>5.8787</td>
<td>110</td>
<td>-3.88*</td>
</tr>
<tr>
<td>Bill (hyperactive)</td>
<td>15.7838</td>
<td>4.5652</td>
<td>37</td>
<td>-2.95*</td>
</tr>
<tr>
<td>Mark (rejected)</td>
<td>11.0000</td>
<td>4.6660</td>
<td>36</td>
<td>-9.00*</td>
</tr>
<tr>
<td>Roger (defiant)</td>
<td>20.5136</td>
<td>4.0935</td>
<td>37</td>
<td>3.73*</td>
</tr>
</tbody>
</table>

* p < .05

Results of the t-tests indicate that overall, teachers are significantly unlikely to use punishment interventions with students. However, teachers were significantly likely to punish Roger, the defiant student, while they were significantly unlikely to punish either Bill, the hyperactive student or Mark, the rejected student.

Analysis of variance (ANOVA) indicates there were significant differences in teachers' decision to punish by case: (F (2, 107) = 41.7648, p < .0000). The first part of the hypothesis was supported. Post hoc analysis using Tukey's HSD test indicated that all three cases were significantly different from each other. The most punish interventions were chosen for Roger, the defiant case. Next is Bill, the hyperactive case (unlikely to punish), and teachers were least likely to use punish interventions with Mark, the rejected case. The second part of the hypothesis was
2. There will be differences in counsel/support interventions by case.

   a) The most counsel/support interventions will be chosen for the rejected case,

   b) then the hyperactive case,

   c) and the least for the defiant case.

   In order to determine if participants were likely to use counsel/support interventions or not in response to student problems, responses on the Counsel/Support subscale of the TIRS were analyzed using one sample t-tests for each case. The Counsel/Support subscale is a 5 item scale rated from 1 (not at all likely to counsel/support) to 5 (highly likely to counsel/support). The possible range of scores is from 5 to 25. Obtained means for each case were tested against a neutral rating of 15 as the population mean (μ = 15). Results of the analysis of the Counsel/Support subscale are presented in Table 17.
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>For entire population</td>
<td>20.3036</td>
<td>3.4428</td>
<td>112</td>
<td>16.31*</td>
</tr>
<tr>
<td>Bill (hyperactive)</td>
<td>19.5263</td>
<td>3.2444</td>
<td>38</td>
<td>8.61*</td>
</tr>
<tr>
<td>Mark (rejected)</td>
<td>21.9730</td>
<td>2.0479</td>
<td>37</td>
<td>20.68*</td>
</tr>
<tr>
<td>Roger (defiant)</td>
<td>19.4324</td>
<td>4.1536</td>
<td>37</td>
<td>6.49*</td>
</tr>
</tbody>
</table>

* p < .05

The results of the t-tests indicate that overall, teachers were significantly likely to use counselling/support interventions with all students.

Analysis of variance (ANOVA) indicated that there were significant differences in teachers' choices of counsel/support interventions by case: (F (2, 109) = 7.2329, p < .0011). The first part of the hypothesis was supported. Tukey's HSD test indicated that teachers were significantly more likely to counsel/support Mark (the rejected student) than either Bill or Roger. Teachers did not differentiate between Bill (the hyperactive student) and Roger (the defiant student). The second part of the hypothesis is partially, but not completely, supported.
3. Exploratory Question. Are there any differences in instructional interventions by case?

Are more instructional interventions chosen for the hyperactive case?

In order to determine if participants were likely to use instructional interventions or not in response to student problems, responses on the Instruct Subscale of the TIRS were analyzed. The Instruct scale is a six item scale rated from 1 (not at all likely to instruct) to 5 (highly likely to instruct). The possible range of scores is from 6 to 30. Obtained means for each case were tested against a neutral rating of 18 as the population mean ( \( \mu = 18 \)). Results of the analysis of the Instruct Subscale are presented in Table 18.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>For entire population</td>
<td>24.108</td>
<td>3.6813</td>
<td>111</td>
<td>17.51*</td>
</tr>
<tr>
<td>Bill (hyperactive)</td>
<td>23.297</td>
<td>3.1346</td>
<td>37</td>
<td>10.27*</td>
</tr>
<tr>
<td>Mark (rejected)</td>
<td>24.918</td>
<td>3.9043</td>
<td>37</td>
<td>10.80*</td>
</tr>
<tr>
<td>Roger (defiant)</td>
<td>24.108</td>
<td>3.8714</td>
<td>37</td>
<td>6.45*</td>
</tr>
</tbody>
</table>

* p < .05

Results of the t-tests indicate that overall teachers were significantly likely to use instructional interventions with all students.

Analysis of variance (ANOVA) indicated no significant differences by case.
Summary of Differences in Teachers' Interventions by Case

Table 19 summarizes the results of post hoc comparisons among cases on the dimensions of the TIRS. For the purposes of comparison, since different scales contained different numbers of items, mean item scores were calculated for each scale by dividing the mean score on each scale by the number of items on that scale. In addition, Figure 3 presents a visual display of differences in interventions (as measured by the TIRS) by case. As is presented in Table 19 and Figure 3, teachers endorsed using both counsel/support and instructional interventions with all students. There were no differences in their use of instructional interventions, but they did endorse using significantly more counsel/support interventions with Mark, the rejected student. There were also significant differences between each case in the use of punishment. Teachers were the most likely to punish Roger, the defiant student, then Bill, the hyperactive student was next, and the least amount of punishment was used with Mark, the rejected student. In fact, only for Roger, the defiant student, were punishment interventions rated above the mean.
<table>
<thead>
<tr>
<th>Intervention</th>
<th>Mean Item Score</th>
<th>Post Hocs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punish</td>
<td>R = 3.4</td>
<td>R B M</td>
</tr>
<tr>
<td></td>
<td>B = 2.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M = 1.8</td>
<td></td>
</tr>
<tr>
<td>Counsel/Support</td>
<td>M = 4.3</td>
<td>M B R</td>
</tr>
<tr>
<td></td>
<td>B = 3.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R = 3.9</td>
<td></td>
</tr>
<tr>
<td>Instruct</td>
<td>M = 4.2</td>
<td>M R B</td>
</tr>
<tr>
<td></td>
<td>R = 4.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B = 3.9</td>
<td></td>
</tr>
</tbody>
</table>

R = Roger, defiant student  
B = Bill, hyperactive student  
M = Mark, rejected student

Item score ranges from 1 (not at all likely to use this intervention) to 5 (highly likely to use this intervention).

___ means that these two scores are equal, or not significantly different.
FIGURE 3

Differences in Teachers' Use of Interventions by Problem-Type

Interventions

punish  counsel  instruct

Roger  Bill  Mark
Summary of Specific Differences in Attributions, Emotions and Interventions by Case

Figure 4 presents a visual display of several important differences in teachers' attributions, emotions and interventions by case. The dimensions represented in this figure will be explained from a theoretical perspective and will be referred to in the discussion section.
FIGURE 4

Specific Attributions, Emotions and Interventions: Differences by Problem-Type

Attributions-Emotions-Interventions

- Roger
- Bill
- Mark

Intentional  Anger  Hopeless  Punish  Teacher Control  Pity  Counsel

5
4
3
2
1
0
Relationships

Attributions and Emotions

The relationships between teachers' attributions as measured by the Problem Behavior Scale (PBS) and teachers' emotions as measured by the Teacher Emotion Questionnaire (TEQ) were analyzed by examining the correlation coefficients between each of the attribution and emotion scales (see Table 20).

**TABLE 20**
Correlation Coefficients Between Attributions (PBS) and Emotions (TEQ)

<table>
<thead>
<tr>
<th></th>
<th>Anger</th>
<th>Hopeless</th>
<th>Pity</th>
<th>Guilt/Shame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Control</td>
<td>.0987</td>
<td>-.0813</td>
<td>-.0774</td>
<td>.1712</td>
</tr>
<tr>
<td>Intentionality</td>
<td>.3964**</td>
<td>.2881**</td>
<td>-.3446**</td>
<td>.2881**</td>
</tr>
<tr>
<td>Locus</td>
<td>.0362</td>
<td>.1478</td>
<td>.0052</td>
<td>.2831**</td>
</tr>
<tr>
<td>Stability</td>
<td>.0789</td>
<td>.0229</td>
<td>.0231</td>
<td>-.0738</td>
</tr>
<tr>
<td>Teacher Control</td>
<td>-.2727**</td>
<td>-.3514**</td>
<td>.2322*</td>
<td>.0879</td>
</tr>
</tbody>
</table>

* p < .05  ** p < .01

1. **Attributions of stability will be positively related to feelings of hopelessness.**

The correlation between the PBS "Stability" scale and the TEQ "Hopelessness" scale was nonsignificant (r = .0229). The hypothesis is not supported as this is a nonsignificant relationship.
2. **Attributions of teacher control will be negatively related to feelings of hopelessness.**

   The correlation between the "Teacher Control" scale of the PBS and the "Hopelessness" scale of the TEQ was significant and negative ($r = -.3514, p < .01$), indicating that low teacher control was related to high levels of hopelessness. The more control teachers perceived, the more hopeful they were. The hypothesis is supported.

3. **Attributions of child control will be positively related to inferences of intentionality.**

   The correlation between the "Child Control" scale of the PBS and the "Intentionality" scale of the PBS was significant and positive ($r = .4978, p < .01$) indicating a positive relationship between the attribution of child control and the inference of intentionality. The hypothesis is supported.

4. **Attributions of child control will be positively related to feelings of anger, and negatively related to feelings of pity.**

   Because there were no significant relationships between "Child Control" and either the "Anger" or "Pity" scales, neither of these hypotheses were supported.

5. **Inferences of intentionality will be significantly positively related to anger and significantly negatively related to pity.**

   The correlation coefficients between each of the two scales of the TEQ, "Anger" and "Pity" with the intentionality scale of the PBS were examined.

   With the emotion of anger (TEQ) the inference of intentionality had a significant positive
correlation (r = .3964, p < .01). The only other significant correlation between "Anger" and the PBS was with the attribution of "Teacher Control" (r = -.2727, p < .01).

With the emotion of pity (TEQ), there was a significant positive correlation with the inference of intentionality (r = .3446, p < .01), and a significant positive correlation with "Teacher Control" (r = .2322, p < .05).

The hypothesis is supported.

6. Exploratory Question. What is the relationship between guilt/shame and the attributions?

The "Guilt/Shame" scale of the TEQ was significantly positively correlated with two scales of the PBS. The correlation between 'Guilt/Shame" and "Intentionality" was positive (r = .2881, p < .01). The correlation between "Guilt/Shame" and "Locus" was positive (r = .2831, p < .01). No other significant correlations were indicated.

Attributions and Interventions

The relationships between teachers' attributions as measured by the Problem Behavior Scale (PBS) and their interventions as measured by the Teacher Interventions Rating Scale (TIRS) were analyzed by examining the correlation coefficients between each of the PBS and TIRS scales (see Table 21).
### TABLE 21
Correlation Coefficients Between Attributions (PBS) and Interventions (TIRS)

<table>
<thead>
<tr>
<th></th>
<th>Punish</th>
<th>Counsel/Support</th>
<th>Instruct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Control</td>
<td>.1128</td>
<td>-.0182</td>
<td>.0012</td>
</tr>
<tr>
<td>Intentionality</td>
<td>.3908**</td>
<td>-.2057*</td>
<td>-.1112</td>
</tr>
<tr>
<td>Locus</td>
<td>-.0828</td>
<td>.0791</td>
<td>.1177</td>
</tr>
<tr>
<td>Stability</td>
<td>.1471</td>
<td>.0455</td>
<td>.0369</td>
</tr>
<tr>
<td>Teacher Control</td>
<td>-.2588**</td>
<td>.2015*</td>
<td>.0164</td>
</tr>
</tbody>
</table>

* p < .05  ** p < .01

1. Attributions of child control will be significantly positively related to interventions of punish/reject.

   The "Child Control" scale was positively, but not significantly correlated with the "Punish" scale.

2. Inferences of intentionality will be significantly positively related to interventions of punish/reject.

   The "Intentionality" scale was significantly and positively correlated with the "Punish" scale (r = .3908, p < .01). The hypothesis was supported.
3. Attributions of child control will be significantly negatively related to interventions of counsel/support.

The "Child Control" scale was negatively, but not significantly, correlated with the "Counsel/Support" scale (r = -.0182, ns).

4. Attributions of intentionality will be significantly negatively related to interventions of counsel/support.

The "Intentionality" scale was significantly and negatively correlated with the "Counsel/Support" scale (r = -.2057, p < .05). The hypothesis is supported.

5. Exploratory question. Attributions of teacher control will be significantly negatively related to interventions of punish/reject

"Teacher Control" was significantly and negatively related to "Punish" (r = -.2588, p < .01). "Teacher Control" was also significantly and positively related to "Counsel/Support" (r = .2015, p < .05). The exploratory hypothesis is supported.

6. Attributions are not expected to be related to instructional interventions.

There were no significant correlations between the "Instruct" scale and any of the PBS scales. The hypothesis is supported.

Emotions and Interventions

The relationships between teachers' emotions as measured by the Teacher Emotion Questionnaire (TEQ) and teachers' interventions as measured by the Teacher Intervention Rating
Scale (TIRS) were analyzed by examining the correlation coefficients between the scales of the TEQ and the scales of the TIRS (see Table 22).

**TABLE 22**  
Correlation Coefficients Between Emotions (TEQ) and Interventions (TIRS)

<table>
<thead>
<tr>
<th></th>
<th>Punish</th>
<th>Counsel/Support</th>
<th>Instruct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger</td>
<td>.6289**</td>
<td>-.3010**</td>
<td>-.0445</td>
</tr>
<tr>
<td>Hopeless</td>
<td>.2750**</td>
<td>-.3311**</td>
<td>-.0338</td>
</tr>
<tr>
<td>Pity</td>
<td>-.4482**</td>
<td>.4640**</td>
<td>.2139*</td>
</tr>
<tr>
<td>Guilt/Shame</td>
<td>-.0149</td>
<td>-.1101</td>
<td>-.0005</td>
</tr>
</tbody>
</table>

* p < .05  ** p < .01

1. **Anger will be significantly positively related to punish/reject.**

The correlation coefficient between "Anger" and "Punish" was significant and positive (r = .6289, p < .01), and it appears to be the largest correlation between any of the TEQ scales and "Punish". The hypothesis is supported.

"Anger" was also significantly negatively correlated with "Counsel/Support" (r = -.3010, p < .01).

2. **Pity will be significantly positively related to counsel/support.**

The correlation between "Pity" and "Counsel/Support" was significant and positive (r = .4640, p < .01), and it appears to be the highest correlation between any of the TEQ scales and "Counsel/Support".
and "Counsel/Support". The hypothesis is supported.

"Pity" was also negatively correlated with "Punish" (r = -.4482, p < .01).

3. Exploratory question. Instructional interventions are not expected to be related to emotions.

"Pity" was the only emotion related to "Instruct". The correlation was significant and positive (r = .2139, p < .05).

4. Exploratory question. Feelings of hopelessness will be significantly positively related to interventions of punish/reject.

"Hopeless" was significantly and positively correlated with "Punish", (r = .2750, p < .05). The more hopeless teachers felt, the more likely they were to punish. "Hopeless" was also significantly negatively correlated with "Counsel/Support" (r = -.3311, p < .01). The more hopeful teachers felt, the more likely they were to counsel or support. The hypothesis is supported.

Attributions and Emotions with Interventions: Significant Relationships

A summary of the attributions and emotions significantly related to teachers' decisions to intervene are presented in Tables 23 and 24. The results indicate that for each of the two types of interventions, the same emotions and attributions are significantly correlated, but in different directions. Also, the magnitude of the relationships differ depending on the intervention. The TEQ dimensions: anger, pity and hopelessness, and the PBS dimensions: teacher control and intentionality are significantly related with both punish/reject and counsel/support interventions.
### TABLE 23
Attributions (PBS) and Emotions (TEQ) Significantly Correlated with Punishment Interventions (TIRS)

<table>
<thead>
<tr>
<th>Attributions</th>
<th>Punishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger</td>
<td>.6289**</td>
</tr>
<tr>
<td>Pity</td>
<td>-.4482**</td>
</tr>
<tr>
<td>Intentionality</td>
<td>.3908**</td>
</tr>
<tr>
<td>Teacher Control</td>
<td>-.2588**</td>
</tr>
<tr>
<td>Hopeless</td>
<td>.2750**</td>
</tr>
</tbody>
</table>

### TABLE 24
Attributions (PBS) and Emotions (TEQ) Significantly Correlated With Counsel/Support Interventions (TIRS)

<table>
<thead>
<tr>
<th>Attributions</th>
<th>Counsel/Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pity</td>
<td>.4640**</td>
</tr>
<tr>
<td>Hopelessness</td>
<td>-.3311**</td>
</tr>
<tr>
<td>Anger</td>
<td>-.3010**</td>
</tr>
<tr>
<td>Intentionality</td>
<td>-.2057*</td>
</tr>
<tr>
<td>Teacher control</td>
<td>.2015*</td>
</tr>
</tbody>
</table>

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

* Note only "Pity" was significantly correlated with Instructional Interventions (r = .2139)
Prediction of Teachers' Interventions

1. Given the most important attributions and emotions related to the interventions of punish/reject versus counsel/support, which variables are the most important in predicting choice of intervention?

Hypothesis: Emotions will be the most important.

a) Anger will be the most important variable in predicting punishment interventions,

b) and pity will be the most important variable in predicting counselling/support interventions

The correlations explained earlier and exhibited in Tables 20 to 24 shed some light on the relationships between attributions and emotions, attributions and interventions, and emotions and interventions. However, the correlation procedure does not take into account the degree of inter-correlation between the various attributions and emotions in predicting interventions. Stepwise multiple regression analyses were conducted using the most highly correlated attributions and emotions as predictors (i.e., Tables 23 and 24) of each of the criteria, the interventions "Punish" and "Counsel/Support". Table 25 presents the multiple regression analyses for the criterion "Punish" from the TIRS with the predictors "Intentionality", "Teacher Control" (PBS), and "Anger", "Hopeless", "Pity" (TEQ). Table 26 presents the multiple regression analyses for the criterion "Counsel/Support" from the TIRS with the predictors "Intentionality", "Teacher Control" (PBS), and "Anger", "Hopeless", "Pity" (TEQ).
TABLE 25
Stepwise Regression for Significantly Related Attributions (PBS) and Emotions (TEQ)
(Predictors: Intentionality, Teacher Control, Anger, Hopeless, Pity)
with the Criterion "Punish" (TIRS)

<table>
<thead>
<tr>
<th>Step No.</th>
<th>Variable</th>
<th>Multiple R</th>
<th>df</th>
<th>F Value</th>
<th>Signif Level</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Anger</td>
<td>.39406</td>
<td>1,107</td>
<td>69.58</td>
<td>p &lt; .0000</td>
<td>.534</td>
</tr>
<tr>
<td>2</td>
<td>Pity</td>
<td>.43323</td>
<td>2,106</td>
<td>40.51</td>
<td>p &lt; .0000</td>
<td>-.219</td>
</tr>
</tbody>
</table>

As can be seen from Table 25, anger as measured by the TEQ was the best predictor of punishment as measured by the TIRS (F (1, 107) = 69.58, p < .0000), accounting for over 39 percent of the variance. The additional emotion of pity accounted for an additional 4 percent of the variance, yielding a significant two-variable model (F (2, 106) = 40.51, p < .0000). The addition of the variables: "Intentionality", "Teacher Control", and "Hopelessness" did not add significantly to the prediction. With regard to the teachers' decision to punish, the hypothesis is supported. Anger is the most important emotion predicting punishment, and as expected, the emotion of pity (negative relationship) acts as a moderator against the decision to punish.
TABLE 26
Stepwise Regression for Significantly Related Attributions (PBS) and Emotions (TEQ) (Predictors: Intentionality, Teacher Control, Anger, Hopeless, Pity) with the Criterion "Counsel/Support" (TIRS)

<table>
<thead>
<tr>
<th>Step No.</th>
<th>Variable</th>
<th>Multiple R</th>
<th>df</th>
<th>F Value</th>
<th>Signif Level</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pity</td>
<td>.215</td>
<td>1, 109</td>
<td>29.91</td>
<td>p &lt; .0000</td>
<td>.4104</td>
</tr>
<tr>
<td>2</td>
<td>Hopeless</td>
<td>.277</td>
<td>2, 108</td>
<td>20.68</td>
<td>p &lt; .0000</td>
<td>-.2539</td>
</tr>
</tbody>
</table>

As can be seen from Table 26, pity as measured by the TEQ was the best predictor of counselling/support interventions as measured by the TIRS (F (1, 109) = 29.91, p < .00), accounting for 22 percent of the variance. The addition of the emotion hopelessness accounted for an additional 6 percent of the variance, yielding a significant two-variable model (F (2, 108) = 20.68, p < .00). The addition of the variables "Intentionality", "Teacher Control", and "Anger" did not add significantly to the prediction. With regard to teachers' decisions to use counselling/supportive interventions the hypothesis is supported.

In addition to the expected importance of pity in predicting counsel/support interventions, the multiple regression highlights the additional importance of the emotion of hopelessness (negative relationship) in predicting counsel/support interventions. Feelings of hopelessness moderate against initiating counselling or supportive interventions.
CHAPTER 5
DISCUSSION

The purpose of this chapter is to summarize and discuss the results of the study from two interconnected perspectives. First of all, teachers' responses to the three problem behaviors (defiant, hyperactive, and rejected) will be discussed. Overall patterns of attributions, emotions and interventions as well as differences specific to each problem type will be considered. The second part of the discussion will focus on the inter-relationships between attributions-emotions-and interventions from the perspective of social motivation and help-giving behavior theories (e.g., Schmidt & Weiner, 1988; Weiner, 1994, 1995). These two perspectives are interconnected, however, because the three problem types were chosen to represent a continuum of attributions of controllability and inferences of intentionality (Brophy & Rohrkemper, 1981), key elements in the attributional analysis of help-giving behavior. Throughout the discussion, the participants in this study will be referred to as "teachers"; however there will be reference to and discussion of possible differences in results due to the fact that these teachers are inexperienced, about to embark on their teaching careers, and at the end of their preservice training.

Teachers' Responses to Different Behavior Problems

The three behavior problems chosen for this study were: 1) Roger, a defiant student; 2) Bill, a hyperactive student; and 3) Mark, a rejected student. Roger represents a "teacher-owned
problem". His defiance would interfere with the teacher's needs. Bill represents a "shared problem", jointly interfering with the teacher's and the student's needs. Mark represents a "student-owned problem", primarily interfering with the student's, but not the teacher's, needs. A major question of this study is "How would teachers' attributions, emotions and interventions vary in response to each of the problem-types?"

Attributions

Results presented in the previous chapter showed that teachers in this study discriminated between problem-types based on all attributions except the attribution of stability.

Stability

All problems behaviors were seen as stable, consistent with Brophy and McCaslin (1992). As suggested by Brophy and McCaslin, the vignettes and problem-descriptions were written to describe chronic behavior problems, and it is likely that this would have influenced teachers' attributions of stability.

Locus of Control

It was expected that the teachers in this study would attribute behavior problems as internal to the student, consistent with earlier studies with teachers and parents (e.g., Brophy & McCaslin, 1992; Compas, Bandes, Bastien, & Adelman, 1981) as well as preservice teachers (Cunningham & Sugawar, 1989). Overall, the responses of teachers in this study were close to the mean. This may suggest that the teachers in this study were unclear about the causes of problem
behavior. Alternately, it may suggest that they considered the causes of the problem behavior to be influenced by both internal as well as external variables. The teachers in this study may have been acknowledging the important influences of the environment and peers on behavior problems (something not acknowledged in most earlier studies with teachers). Bill, the hyperactive child's behavior was perceived, however, as significantly more internal than that of the other two students. These results also suggest that the teachers in this study, with more recent knowledge about the causes of hyperactivity, may perceive this "disorder" as more dispositional in nature.

Child Control

Bill, the hyperactive student, was also perceived as the least able to control his own behavior, while Mark and Roger were seen as equally capable of controlling their behavior. This result was somewhat unexpected. It was expected that defiant behavior would be perceived as the most controllable, then hyperactive behavior, and least social rejection, consistent with Brophy and Rohrkemper (1981). Teachers in this study, again perhaps with a better knowledge of hyperactivity, see that behavior as truly more difficult to control as they also consider it to be the most internally caused behavior.

Inferences of Intentionality

In addition, an interesting finding of this study is the importance of the inference of intentionality. As suggested by Weiner (1995), intentionality is often confounded with attributions of control. This study separated intentionality from child control. Intentionality implied a behavior
engaged in with foresight "on purpose". Child control implied responsibility for one's own behavior and an ability to control behavior. In many studies these two constructs are not separated, and it is likely that the consistent findings in the attribution literature linking "causal controllability" to defiant behavior have confounded this with intentionality. For example, Cunningham and Sugawara (1989) in a study of preservice teachers' attributions state "more controllability or intentionality was attributed to social defiance behavior" (p. 38). Controllability and intentionality were confounded. In this study, teachers considered Roger's defiant behavior to be the most intentional, while Bill's and Mark's behavior was considered equally unintentional.

The teachers in this study, therefore, differentiated between their inferences of intentionality and their attributions of child controllability. Roger and Mark, for example, were perceived as equally able to control their behavior (or assume responsibility for their behavior), yet Roger's behavior was perceived as more intentional. Brophy and Rohrkemper (1981) found that both attributions of child control and inferences of intentionality tended to covary with problem-type, however they also found that even when student-owned or shared problems were considered controllable, they were usually not seen as intentional (consistent with this study).

**Teacher Control**

Overall, teachers in this study rated their attributions of "teacher control" above the mean suggesting that they felt relatively confident in their abilities to control or manage the behavior problems. This is consistent with Brophy and Rohrkemper's (1982) results on teachers' beliefs in
their abilities to effect change, although Brophy and Rohr kemper suggest that most of the
teachers in their study indicated that change would be possible only with extra resources and help
from other personnel. Housego (1990b) in a study of preservice teachers' feelings of preparedness
to teach (at the same university in which this study was conducted) found that, overall, preservice
teachers at the beginning of their education degree program felt least prepared to deal with
classroom behavior problems, but throughout the program they showed great increases in their
personal teaching efficacy related to managing classroom behavior. The results of this study
(which included preservice teachers) suggests a similar level of personal teaching efficacy. It was
also suggested by Housego (1990a) that it may be that preservice teachers are overestimating
their abilities to manage behavior problems as a result of their limited experience dealing with
difficult and complex behavior problems. Housego's suggestions may explain the relatively high
degree of teacher control or personal teaching efficacy felt by the particular sample in this study,
preservice teachers, rather than experienced teachers.

With regard to differences by problem-type, teachers in this study felt significantly more
confident in their abilities to control or manage the behavior of Mark, the socially rejected child,
than Roger, the defiant child. This is consistent with the finding by Brophy and Rohr kemper
(1981) that teachers were most confident about being able to improve students who had
student-owned problems (e.g., rejected).
Conclusions about Teachers' Attributions in Response to Different Problem Behaviors

Brophy and Rohrkemper (1981) found in their study that teachers' attributions clearly covaried with problem-ownership levels (teacher-owned, student-owned, and shared). In this study significant differences in teachers' attributions were found to vary by problem-type overall for all attributions except stability (as expected), but differences were not observed between each problem-type on every dimension. In addition, many of the responses from the teachers in this study were close to the mean and differences were found between one problem-type and the other two without clearly distinguishing each of the three problem-types on every dimension.

There are a number of hypotheses explaining the less discriminating differences in this study. One possibility is that preservice teachers with limited experience have more difficulty in identifying causal attributions to problem behavior. It may be, as suggested by Cunningham and Sugawara (1989), that preservice teachers have a "one-dimensional" view of problem-behaviors and are lacking in awareness of the complexity of the causes of behavior. Alternately, preservice teachers, unlike more experienced teachers may not have formed stable "judgements" about the causes of problem-behavior, and this may be a benefit to consultants working with new teachers, suggesting more flexibility and an openness to persuasion in a positive direction. Another issue is that this study contained only one example of each level of problem-ownership, unlike Brophy and Rohrkemper's study which contained 8 or 9 examples of each problem-type. In Brophy and Rohrkemper's study they do not clearly delineate significant response differences by each
problem-behavior-type (i.e., defiant, hyperactive, and rejected), but rather by problem-ownership level (i.e., teacher-owned, student-owned and shared). In addition, Brophy and McCaslin (1992) explain the measurement of attributions by coded interview. In this study teachers were asked to respond to a questionnaire containing more possibilities. It may be that the teachers in this study may have responded differently if they had to generate their own responses.

Some interesting patterns did emerge, however, and teachers in this study made some clearly different responses to each of the three behavior problems. Roger's defiant behavior is clearly perceived as the most intentional. Bill's hyperactive behavior is clearly seen as the most internally caused and the most difficult for the child to control. Teachers feel considerably more confident in their abilities to control Mark's behavior compared to Roger.

**Emotions**

Teachers' emotional response to each of the problem-type students was not examined in Brophy and McCaslin's (1992) and Brophy and Rohrkemper's (1981) studies, although assumptions have been made about teacher emotional response based on their attributions and interventions (Graham, 1984). The additional assessment of emotional response was intended to enhance and clarify previous results and to provide support for the assumptions of attribution theory (e.g., Schmidt & Weiner, 1988; Weiner, 1995).

Results presented in the previous chapter showed that teachers had discriminating emotional reactions based on the problem-type.
Guilt/Shame

As expected teachers expressed low levels of guilt and shame. They felt significantly less guilt and shame about Bill's hyperactive behavior. This is perhaps because they also perceived his behavior to be the most internal, possibly due to a medical condition.

Hopelessness

Overall, teachers in this study felt hopeful about change or improvement in the child's behavior, although they felt the most hopeful about changes in Mark's socially rejected behavior. This finding is interesting given that they also expected the problem to be stable. According to Weiner (1979, 1985) hopelessness has been related to attributions of stability. In this study teachers perceived the problem to be stable, yet they were hopeful about change. Perhaps this hopefulness might be specific to preservice teachers who may at the beginning of their careers feel optimistic, possibly about their own abilities to help bring about this change (e.g., Housego, 1990b). They felt the most hopeful about Mark's behavior changing, just as they felt the most confident in their abilities to control and influence Mark's behavior. Similarly, Brophy and Rohrkemper (1982) found that the majority of teachers in their study believed that change was possible, although not necessarily easy to achieve. Teachers in their study also felt most confident in their abilities to effect change in student-owned problems.

Anger and Pity

As expected, there were differences in anger by case, with the most anger directed
towards Roger (defiant), then Bill (hyperactive), and the least anger directed towards Mark (rejected). An opposite pattern emerges for the emotion of pity, as expected with the most pity directed towards Mark (rejected), then Bill (hyperactive), and the least pity directed towards Roger (defiant). The differences in these two emotions by case is, as expected, the most significant.

These two emotions are the most important according to attribution theory specific to help-giving behavior (Schmidt & Weiner, 1988). These two emotions, according to attribution theory, are assumed to be related to attributions of controllability and intentionality. The relationships will be discussed in a later section.

Conclusions about Teachers' Emotional Response to Different Problem Behaviors

An interesting finding is that although there were not clear distinctions between each and every one of the three problem behaviors on the dimensions of child control, teacher control and intentionality (as had been expected), there were clear distinctions, as expected, on the emotion scales. There was also much greater variability in response to the emotion scale compared to the attribution scale with less of a tendency to respond close to the mean. This suggests that the teachers in this study were more able to clearly identify their emotional response to these students than they were able to differentiate their attributions about the causes of the student's behaviors. Perhaps this is a function of their being preservice teachers, with less experience formulating causes for behavior problems, but with a better ability to relate to their emotions. In addition,
these results highlight the importance of considering teachers' emotional response to students, as they are clearly not neutral. Teachers appear to be emotionally affected in different ways by specific behavior.

**Interventions**

Results presented in the preceding chapter suggest that teachers make discriminating decisions about choices in interventions based on problem-type.

**Punishment**

The most significant differences by problem-type are related to teachers' use of punishment. As expected, teachers chose the most punishments for Roger the defiant student, then Bill, the hyperactive student, and the least for Mark, the rejected student. In fact, only for Roger was the average item score on the Punishment scale above the mean.

**Counselling and Support**

With regard to use of counselling or supportive techniques, teachers were significantly more likely to counsel or support Mark, the rejected student, than either Roger or Bill. This was expected, although differences were also expected between Roger and Bill. In addition, lower levels of counselling were expected for Roger in particular. Brophy and McCaslin's (1992) suggest that teachers, when asked how they would intervene with a defiant student, responded primarily with punishing or rejecting interventions, mentioning few supportive techniques. Responses to the hyperactive student were mixed in their study, similar to this study.
Instruction

Teachers in this study did not differentiate between problem-types with regard to instructional interventions. Major differences were not expected, as instruction is not particularly linked to attributions. However, Brophy and McCaslin indicated that teachers tended to generate more environmental and teaching related responses to the hyperactive child in their study.

Conclusions about Teachers' Interventions in Response to Different Problem Behaviors

Overall, the teachers in this study seemed to prefer the counselling and instructional interventions for all students and to least prefer punishment techniques based on the average item score. This is consistent with the literature on acceptability of interventions with preservice teachers (Witt, Elliott, & Martens, 1984; Witt & Martens, 1983) and with experienced teachers (Elliott, Witt, Galvin, & Peterson, 1984) which suggests that both experienced and preservice teachers prefer positive or reinforcing interventions to negative or reductive interventions. In addition, Ringer, Doerr, Hollenshead, and Wills (1993), in a survey of interventions used by teachers, found that elementary and female teachers were much less likely to indicate using punishments than middle school and male teachers. The sample in this study was primarily elementary and female. An additional consideration is that teachers in this and other studies may be responding in socially accepted ways. This study examined what preservice teachers say they will likely do, not what they have been observed to do in a classroom.

Nevertheless, even though, overall, the teachers in this study don't seem to like
punishment, they use it more frequently with the defiant student than with the other two students. And, even though they indicate that they would use counselling/supportive techniques with all students, they use it more with the rejected student. These results are consistent with the results of Cunningham and Sugawara (1989) in their study of preservice teachers' choices of interventions for socially defiant and socially immature students. Similar to the findings of this study, the preservice teachers in Cunningham and Sugawara's study preferred positive interventions for both types of students but they chose significantly more restrictive strategies for the defiant student and significantly more supportive strategies for the socially immature student.

Brophy and McCaslin (1992) suggest more clearly delineated differences in teachers' use of interventions by problem-type and this may suggest differences between teachers with experience and preservice teachers (who are not recalling what they have done time and time again through years of experience). However, another consideration is that differences may in part be due to the methodology used. In Brophy and McCaslin's study teachers were asked to generate on their own the interventions they would use. Brophy and McCaslin suggest that teachers were not aware of some instructive or counselling techniques, and in addition, that they rarely indicated using supportive techniques with defiant problems. In this study preservice teachers responded to a rating scale including positive as well as negative techniques, and perhaps this prompted them to include many of the positive techniques.
Summary of Differences by Problem-Type

A pattern or trend of responses (attributions, emotions and interventions) can be seen on several important dimensions measured in this study for each of the three students or problem-types. Figure 4 presented a visual display of preservice teachers' responses to the three students, Roger, the defiant student; Bill, the hyperactive student; and Mark, the socially rejected student. Visually, a clear pattern emerged showing Roger at one end of a continuum, Mark at another end, and Bill in the middle.

Roger, the Defiant Student (Teacher-Owned Problem)

Teachers in this study perceived Roger's behavior as the most intentional. They felt the most anger towards him. They felt as hopeless or pesimistic about improvement in his behavior as did about improvement in Bill's behavior, and more hopeless than they did about improvement in Mark's behavior. Corresponding to these high levels of perceived intentionality, feelings of anger, and hopelessness, are the highest amounts of punishment. Conversely, preservice teachers felt the least confident in their abilities to control Roger's behavior in the classroom, the least amount of pity, and they were less likely to counsel Roger than they were to counsel Mark.

Mark, the Socially Rejected Student (Student-owned problem)

Mark, as can be seen visually on Figure 4, is at the opposite end of the continuum on most dimensions compared to Roger. Teachers believed his behavior was unintentional. They felt the least anger towards him, and they were the most hopeful about change occuring in his behavior.
Correspondingly, they used the least amount of punishments with him. Conversely teachers felt most confident in their abilities to control Mark's behavior. They felt the most pity for him, and they were more likely to counsel him than either Roger or Bill.

Bill, the Hyperactive Student (Shared problem)

Bill lies in the middle between Roger and Mark on several dimensions. Similar to Mark, his behavior is seen as unintentional, however more anger is felt towards him than towards Mark. Teachers are less hopeful about his behavior changing (similar to Roger). He is punished more than Mark, but less than Roger. Similarly, he is between Roger and Mark in terms of teachers' perceptions of their confidence in controlling his behavior in the classroom. Teachers feel more pity for him than they do Roger, but less than Mark. Interestingly, they are as likely to counsel him as they are to counsel Roger.

Relationships Between Attributions, Emotions and Interventions

The primary goal of this study was to examine the link between teachers' attributions, emotions and interventions (in response to students with behavioral difficulties) from the perspective of attribution theory, specifically related to help-giving behavior (e.g., Schmidt & Weiner, 1988; Weiner 1995). A key assumption was that the interventions that teachers use with students in response to problem behavior are motivated from an attribution-affect antecedent sequence. Brophy and Rohrkemper (1981) and Brophy and McCaslin (1992), based on the results
of their study, suggest an attribution-intervention link. An important goal of the present study was not only to replicate their findings, but more importantly, to provide evidence for the primary role of affect in predicting teachers' interventions. The focus of this section of the discussion is an examination of the inter-relationships found between the attributions, emotions and interventions measured in this study. Although each of the dimensions measured (attributions, emotions, and interventions) are linked to some extent to the three problem-behavior types (defiant, hyperactive, rejected), the inter-relationships between dimensions are not dependent on them. In other words, regardless of problem-type, the questions of interest here are 1) What is the relationship between teachers' attributions, emotions and interventions, and 2) What best predicts teachers' interventions with students experiencing behavioral difficulties.

**Attributions and Emotions**

According to the cognitive school, "How we think influences how we feel" (Weiner, 1986, p. 119). In the present study, support was found for the relationship between several attributions and feelings.

**Relationships with Guilt/Shame**

The role of the emotion guilt/shame was exploratory in this study as it had not been measured previously with teachers. It was found that, overall, teachers felt low amounts of guilt/shame, as expected. In order to feel guilt or shame one must assume responsibility for a situation (Weiner, 1986), and research with teachers suggests that teachers do not feel
responsibility, even in part for behavior problems in the classroom (Brophy & Rohrkemper, 1981; Christenson et al., 1983). Both inferences of intentionality and locus of control were found to be related to feelings of guilt/shame.

The link between intentionality and guilt/shame is not clear. Wicker, Payne, and Morgan (1983) suggest that people feel shame when they feel powerless and externally controlled. It may be, as suggested by Brophy and McCaslin (1992), that teachers feel threatened by behavior they think is intentional, that this makes them feel "powerless." Subsequently, they feel shame.

In addition, teachers also felt guilt/shame in relationship to locus. When teachers believed the child's behavior was caused by external influences (others, the environment) they felt more guilt/shame. Perhaps this indicates that teachers (at least in this study) assumed some responsibility for the environment. If the environment was causing the child's behavior problem, as teachers they felt guilty about (responsible for) the problems in the environment.

These interpretations must be considered with caution, however, as there is no major literature with teachers to support this. In addition, the constructs of guilt and shame, which are theoretically different, were found to be very highly related in this study and combined into one construct for the purposes of measurement. Further work is needed for refinement of the measurement of guilt and shame before clear interpretations can be made.
The Importance of Inferences of Intentionality

Inferences of intentionality were positively related to anger, as expected; however, attributions of child control were not related to anger, as had been expected. Interestingly, attributions of child control were found to be related to inferences of intentionality, but clearly there were differences between these two related constructs. In this study, it seems that teachers had relatively neutral ratings of Roger and Mark's abilities to be "responsible" for their behavior and to control their behavior, although they rated Bill as unable to control his behavior. In addition, they believed (surprisingly) that all behavior problems were unintentional, although Roger's defiant behavior was considered the most intentional on the continuum, and the most anger and use of punishment was expressed towards Roger. Child control and intentionality seem to be related constructs, but there are different nuances in meaning which seemingly account for different emotional responses.

As suggested earlier, this finding provides support for Weiner's (1995) latest perspective that inferences of intentionality are often confounded with controllability in many studies, but they should not be. In addition, Weiner (1995) in his conceptualization of "judgments of responsibility" suggests that the inference of intentionality leads to judgments of blame (and actions of punishments). Ferguson and Rule (1983) similarly highlight the importance of intentionality as an antecedent to anger. The results of this study suggest, therefore, the importance of intentionality as a key link to anger, rather than the more global construct, "attributions of child control."
Inferences of intentionality were also found to be related to each of the emotions measured. The more intentional teachers believed the behavior to be, the more hopeless they felt, the more guilt/shame they felt, and the less pity they felt towards the student.

The negative relationship between intentionality and pity is consistent with attribution theory and was expected. Again, intentionality, but not child control, is related to pity, highlighting the importance of this inference.

The relationship between intentionality and hopelessness was not considered at the onset of this study; however it is explainable. Brophy and Rohrkemper (1981) suggest that when teachers believe behavior is intentional, they associate this with resistance towards the teacher and consequently believe that that the behavior is more difficult to change. They feel less hopeful about the prospect of change. Brophy and McCaslin (1992) suggest that teachers perceive intentional misbehavior as threatening to them. This set of beliefs can be linked with self-efficacy theory (e.g., Bandura, 1977). If teachers feel more threatened by a behavior problem that they believe will be difficult to change, their expectations of personal efficacy (similar to personal teaching efficacy, Housego, 1990a, 1990b) may be limited, and they may feel hopeless about change.

**Teacher Control**

The only hypothesized relationship between teacher control and emotion was with the emotion of hopelessness. As expected, a negative relationship was found. The more control the
teachers believed they had over the child's problem behavior, the less hopelessness (more hopeful) they felt. In other words, if teachers thought they had little control over the child's behavior they would feel hopeless, but if they thought they had a lot of control over the child's behavior (i.e., they could influence or manage the child's behavior) then they felt hopeful about the possibility of change in the child. This link is consistent with Bandura's (1977) self-efficacy theory.

Teacher control was also found to be negatively related to feelings of anger, and positively related to feelings of pity. If teachers felt they were able to control the child's behavior then they felt pity towards the child, but if they felt they were unable to control the child's behavior they felt anger towards him. Attributions of teacher control seem to make an important contribution to the feeling (anger, pity) link hypothesized in help-giving theory (e.g., Schmidt & Weiner, 1988; Weiner, 1995).

Conclusions About the Relationships Between Attributions and Emotions

As suggested by McAuley, Duncan, and Russel (1992) there is a differentiation between "control by the person" and "control by others" and both should be measured, and Anderson and Arnault (1985) suggest that one dimension may be more important than another, depending on the circumstances being studied. According to studies from the attribution theory framework of help-giving behavior (e.g., Schmidt & Weiner, 1988) the attribution of "control" has been considered the most important attribution related to the feelings of anger and pity (and subsequently the actions of punish or support). In this study it was found that the inference of
intentionality and the attributions of teacher control, specifically, but not attributions of general child control, are the most important attributions linked to the emotions of anger and pity. In addition, relationships were found between these two attribution/inference dimensions and the feeling of hopelessness. Although not considered within the attribution framework, this connection can be supported from a self-efficacy theory framework.

Attributions and Interventions

Brophy and Rohrkemper (1981) and Brophy and McCaslin (1992) discuss the relationships between teachers' attributions and interventions. Consistent with attribution theory, they suggest that teachers' attributions of child controllability and inferences of intentionality lead to punishment, and attributions of child uncontrollability as well as lack of intentionality lead to support. No direct examination was made in their study, however, of the actual relationships between attributions and interventions. They suggest such a link because they found (through analysis of variance) a relationship between attributions and problem-type (i.e., teacher-owned, shared, and student-owned) and a relationship between interventions and problem-type. The present study sought to examine the direct relationship between attributions and interventions (regardless of problem-type).

Punishment versus Counsel/Support

Similar to the emotion link, inferences of intentionality and attributions of teacher control were found to be related to interventions. Specifically, when teachers believed that the student's
problem-behavior was intentional they were more likely to punish (positive relationship), and less likely to counsel (negative relationship). When teachers felt they were able to control the child's behavior they were less likely to punish (negative relationship), but more likely to counsel. Attributions of child control were not related to interventions as, similarly, they were not related to emotions. The results of this study provide support for the attribution theory link between attributions and behavior. As discussed in the previous section, help-giving behavior or the lack thereof (i.e., punish or counsel) seems to be related specifically to the inference of intentionality and the attribution of teacher control but not simply the more generally construct of "control."

**Instructional Interventions**

As expected, there were no attributional links with instructional interventions. The instructional interventions in this study represent teaching related behaviors, as opposed to "control and desist" or "support" strategies which are theoretically linked to natural attributions.

**Conclusions about Attributions and Interventions**

Brophy and Rohr kemper (1981) and Brophy and McCaslin (1992) suggest that the strategies that teachers use are primarily a reflection of their natural attributions (i.e., punish or support), and that they seldom use strategies that represent a more professional commitment towards teaching. In the present study a clear link was found between teachers' attributions and their use of interventions. It was also found that there is no significant link between attributions and instructional interventions, but (as discussed in the first part of this chapter) the teachers in
this study chose to use instructional strategies to a large degree without regard to the problem type. This suggests that teachers are influenced by their attributions about child behavior, but they also are able to look beyond their attributions and consider interventions from their professional repertoire that are not simply "natural" social behavior responses. This pattern of response, however, may be specific to preservice teachers, and it may also reflect socially desirable choices.

Emotions and Interventions

Consistent with attribution theory, the emotions of anger and pity were expected to be related to the interventions of punish and counsel/support. These relationships were found, in the expected direction, but the role of the emotion hopelessness was also highlighted.

Anger and Interventions

As expected, when teachers felt angry, they were likely to punish (positive relationship) and unlikely to counsel or support (negative relationship). Of all the emotions, anger appeared to have the strongest relationship with punishment. This is consistent with the ample research in social psychology relating feelings of anger and frustration to behavioral aggression and retaliation (e.g., Berkowitz, 1962; Weiner, 1995). This is also consistent with the attributional perspective of help-giving behavior (e.g., Schmidt & Weiner, 1988).

Pity and Interventions

When teachers felt pity towards the student they were unlikely to punish (negative relationship) and likely to counsel or support (positive relationship). Again, this relationship is
consistent with attribution research linking feelings of pity and help-giving behaviors (e.g., Schmidt & Weiner, 1988). Feelings of pity were also positively related to instructional interventions, even though there was no significant attribution-instructional link. This suggests that feelings of pity may have some influence on teachers' decisions to instruct, even though there is no clear attribution-emotion-intervention sequence.

Hopelessness and Interventions

The importance of the emotion hopelessness is also revealed in this study. Feelings of hopelessness had a relationship to both punishment and counselling/supportive interventions in the same direction as anger. When teachers felt hopeless or pessimistic about change in the student's behavior they were more likely to use punishing or rejecting interventions. Conversely, when they were hopeful about the likelihood of change, they were more likely to initiate counselling or supportive interventions. Although this relationship was not anticipated from an attribution theory framework, it is explainable from a self-efficacy theory framework (e.g., Bandura, 1977). As suggested by Christenson et al. (1983), perhaps when teachers (or preservice teachers in this study) feel hopeless about their abilities to change a student's behavior, similar to a state of learned helplessness (Abramson, Seligman, & Teasdale, 1978), they experience a low sense of self-efficacy. This low self-efficacy may lead the teacher to use "control and desist" strategies. Higher levels of self-efficacy are related to interventions of greater effort and longer duration (Bandura, 1977). Feelings of hopefulness may lead the teacher to initiate more
counselling/supportive interventions which involve more teacher involvement and time commitment than a "time-out" or referral to someone else.

**Prediction of Teachers' Interventions**

The results of the many correlations examined revealed several significant relationships between attributions and emotions, attributions and interventions, and emotions and interventions. A primary purpose of this study was to determine which of the variables examined predicted teachers' use of interventions with students with behavioral difficulties. As is clear, both attributions and emotions play a role. The attribution theorists claim that attributions are related to action, and some researchers suggest (e.g., Brophy & Rohrkemper, 1981; Brophy & McCaslin, 1992) that attributions lead to action, interventions in the case of teachers. Similarly, attribution theory suggests a link between attributions and emotions. The most recent perspective, however, is that although attributions and emotions seem to influence action, affect has a proximal link to actions with much weaker linkages between attributions and action (Weiner, 1995). The final question, and perhaps the most important in this study then, is whether it is teachers' attributions or emotions that determine their choice of interventions. Clearly, from the results reviewed, both attributions and emotions seem to play a role, and are likely interconnected. Which of these related variables is most important, however, in predicting teachers' interventions with students with behavioral difficulties? It was expected that, consistent with studies of other populations, affect would be most important in predicting teachers' use of interventions of punishment and
Prediction of Punishment

When all variables that were significantly correlated and theoretically related to punishment interventions were entered into a stepwise multiple regression, two variables emerged as predictors of teachers' use of punishment. Anger was the best predictor of punishment, and pity acted as a mediator (negative relationship) against punishment. Consistent with research in help-giving behavior (Schmidt & Weiner, 1988), when teachers feel angry they are likely to punish, and if they feel pity or empathy, they are unlikely to punish. These results also provide support for the premise that affect is proximal to action. Even though the attribution of teacher control and the inference of intentionality were related to punishment interventions, (and these related to the emotions of anger and pity), it is the emotions that best predict teachers' use of punishment, accounting for a substantial proportion of the variance.

Prediction of Counselling/Support

When all variables that were significantly correlated with and theoretically related to counselling/supportive interventions were entered into the stepwise multiple regression, again, two variables, emerged as the best predictors of teacher's use of counselling/supportive interventions. Pity is the best predictor of teachers' use of counselling/supportive interventions, and feelings of hopelessness emerged as the second predictor mediating against (negative
relationship) teachers' use of counselling/supportive interventions. Similar to the prediction of punishment, even though the attribution of teacher control and the inference of intentionality are related to teachers' decisions to counsel/support, it is emotion that best predicts teachers' use of counselling/support interventions, accounting for a substantial proportion of the variance.

**Conclusions About The Study**

The results of this study extend the work of Brophy and Rohrkemper (1981) and Brophy and McCaslin (1992) by providing evidence of the role of affect (e.g., Graham, 1984; Weiner, 1986) in the attribution-affect-intervention sequence. Although the results of this study cannot determine a causal-unidirectional link (which has been hypothesized by attribution theorists) it does provide evidence of the primary role of affect in predicting action, specifically preservice teachers' interventions with students with behavioral difficulties.

The results also suggest that teachers do not simply make black or white decisions (i.e., punish or counsel/support) based on experiencing only one emotion in response to one attribution to student behavior. For example, the majority of attribution research in help-giving behavior asks respondents whether they think the person's behavior was controllable or uncontrollable, whether they felt anger or pity, and whether they would assist or not (e.g., Schmidt & Weiner, 1988). This type of question format led to the hypotheses that attributions of controllability lead to feelings of anger and actions of punish/reject, while attributions of uncontrollability lead to feelings of pity.
and actions of assisting or helping. The results of this study suggest that the decision is more complex.

With regard to teachers' decisions to punish, the results of this study suggest that:

1) Inferences of intentionality, attributions of teacher control, and the feelings of anger, hopelessness and pity are all related to the decision to punish or not.

2) Anger was the best predictor of punishment, but

3) feelings of pity mediated against decisions to punish.

Similarly with regard to teachers' decisions to counsel/support, the results of this study suggest that

1) Inferences of intentionality, attributions of teacher control, and the feelings of anger, hopelessness and pity are also all related to the decision to provide counselling/supportive interventions.

2) Pity was the best predictor of counsel/support interventions, but

3) feelings of hopelessness mediated against the decision to counsel/support.

Beyond attributions, the importance of teacher self-efficacy (teacher control and feelings of hopelessness), a construct not always measured in other studies from an attributional perspective, was highlighted.

Finally with regard to teachers' decisions to provide instructional interventions, there was no clear attributional link, but there was a small, positive relationship with feelings of pity.
These findings suggest that the decision to either punish or counsel/support (give help or not) although influenced primarily by one emotion can also be mediated against if a person also experiences another, somewhat conflicting emotion. Teachers may feel angry, for example and decide to punish, but if they can also feel pity or empathy for the student, then they may decide not to punish or, in addition, to use counselling/supportive interventions. Similarly, teachers may feel pity or empathy towards a student and decide to counsel/support him, but if they also feel hopeless about the likelihood of his behavior actually changing, they may not instigate as many interventions, or may give up, having low expectations of personal teaching efficacy.

An important finding of this study is that teachers didn't only punish when they primarily felt angry, and considered behavior to be intentional and difficult for them to control (i.e., with Roger, the defiant student). Nor did they only counsel/support when they primarily felt pity, and considered behavior to be unintentional and relatively easier to control (i.e., with Mark the rejected student). Brophy and McCaslin (1992) suggest that teachers are responding primarily to natural attributions (which are linked theoretically to emotions) with no consideration of other more professionally motivated interventions. Although the teachers in this study did respond to natural attributions, their choice of interventions suggests that they preferred to use counseling/supportive and instructional interventions with all students.

Some inconsistencies in results may be partially due to differences in methodology as discussed earlier (e.g., use of an intervention rating scale rather than self-generated interventions).
They may also be due to the social desirability factors. Another consideration is that this is consistent with preservice teachers specifically (e.g., Cunningham & Sugawara, 1989) who are open to using a variety of techniques, have been exposed to a wider selection of techniques through their recent training, and perhaps are more hopeful (or naive about) of their abilities to impact on student behavior. Results of this study may be cautiously generalized to preservice teachers, and to teachers early in their teaching careers, with little experience. However, many of the responses of the preservice teachers in this study (specific to use of interventions) are also consistent with results of studies using experienced teachers when rating scale methodology was used (e.g., Elliott, Witt, Galvin, & Peterson, 1984).

Implications for Consultants and School Psychologists

Results of this study provide important information about some of the antecedents that may influence teachers' interventions with students experiencing behavioral difficulties. When working with a teacher, it may be important for the consultant to ask the teacher not only to describe the specific behavior of the child, but also to ask the teacher her attributions about the causes of the child's behavior and, perhaps more importantly, how she feels when the child behaves this way, and finally, how she typically intervenes in response to this behavior. If teachers can reflect on their own, very human, response to student behavior problems and can be made to understand the also very human social reaction motivated from these attributions and feelings,
then perhaps they may better understand the differences between a typical, but not necessarily constructive, reaction and a more appropriate intervention. One strategy that consultants might be able to utilize is to help the teacher identify her attributions and emotions, to utilize a form of cognitive restructuring, and to help her experience some of the conflicting emotions that help to mediate against a particular reaction.

For example, a teacher may refer a defiant student to a consultant, and in the interview with the consultant indicate that she has been using many punishments to "extinguish" the behavior. Likewise she may state that she believes this behavior is intentional, that the student is doing this on purpose to annoy her, and that she doesn't believe she has much control over this student's behavior. Frankly, she states, she is not too hopeful about any improvement in his behavior. When the consultant asks her how she feels about this student's behavior, the teacher replies that she "has had it", and feels very angry every time he talks back to her or refuses to complete an assignment. Since she has tried lots of behavior reduction techniques, and this hasn't worked, the only solution left, she suggests, is to refer this student to a special classroom.

The consultant might work with this teacher to help change some of her attributions about the student's behavior. The consultant could ask the teacher to consider the influences of some environmental factors (e.g., Is the material too difficult? Does the student have any learning difficulties? Does he have any social support in the classroom or at home? Are there specific times when his behavior is worse? How do the other students react? What does the teacher do
when the student behaves appropriately? ) The consultant could suggest that perhaps this
behavior is not always intentional, or at least an attempt to annoy the teacher (e.g., Is the student
behaving out of frustration? Is this the only way he gets any attention in the class? Does the
student have a need for some power or autonomy that is not currently being met?). To enhance
perceptions of low levels of control, the consultant could help the teacher generate strategies she
has tried that have worked in the past with other students, perhaps focussing on some positive
reinforcement techniques, negotiations or supportive strategies she has used with less defiant
students.

It is very important that the consultant also help the teacher to vent her own feelings of
anger and to identify the link between anger and punishment. In addition, if the consultant can
help the teacher to feel some pity for this student, to identify with some of the pain he may be
feeling, to have empathy for him, then this may motivate the teacher to use more positive
interventions.

The results of this study suggest that when school psychologists have students with
behavior problems referred to them, they must not simply work one-to-one with the student, but
more importantly they must act as consultants to teachers. It is clear that teachers respond
differently to different types of behavior problems and their attributions and emotions influence
the types of interventions they use with the student. Knowledge of an individual teachers'
attributions and emotional reactions (as well as the theory behind social motivation and
help-giving behavior) can be of assistance to school psychologist in developing the intervention plan with teachers and in attempting to change the dynamics of the teacher-student relationship through influencing the perceptions of the teacher.
REFERENCES


APPENDIX A

Student Description and Vignette

Directions: Presented below is a description of a child with chronic behavioral difficulties that most teachers would identify as problematic. Use this description to create an image of this child in your head. Imagine that this child is a student in your classroom, and you are this child's teacher. After reading about this child, please complete the following attached questionnaires responding as if you were this child's teacher.

Roger

Roger resists authority and carries on a power struggle with you. He wants to have his own way and not be told what to do. He resists verbally by saying "You can't make me"; saying "You can't tell me what to do"; and by making derogatory statements about the you (the teacher) and others. Roger also resists nonverbally by frowning, grimacing and mimicking you (the teacher); posturing with arms folded, hands on hips and foot stomping; looking away when being spoken to; laughing at inappropriate times; and deliberately doing what you (the teacher) say not to do.

The following depicts an event that has just occurred in your classroom:

Roger has been fooling around instead of working on his seatwork for several days now. Finally, you tell him that he has to finish or stay in during recess and work on it then. He says, "I won't stay in!" and spends the rest of the period sulking. As the class begins to line up for recess, he quickly jumps up and heads for the door. You tell him that he has to stay inside and finish his assignment, but he just says "No I don't!" and continues out the door to recess.

(adapted from Brophy & McCaslin, 1994)

* Complete the following questionnaires in order. You may re-read this description and vignette at any time.
APPENDIX B

Student Description and Vignette

Directions: Presented below is a description of a child with chronic behavioral difficulties that most teachers would identify as problematic. Use this description to create an image of this child in your head. Imagine that this child is a student in your classroom, and you are this child's teacher. After reading about this child, please complete the following attached questionnaires responding as if you were this child's teacher.

Bill

Bill moves excessively and almost constantly, even when sitting. Often his movements appear to be without purpose. He squirms, wiggles, jiggles, and scratches. He is easily excitable. He also blurts out answers and comments.

The following depicts an event that has just occurred in your classroom:

Bill is an extremely active child. He seems to burst with energy, and today he is barely "keeping the lid on". This morning, the class is working on their art projects and Bill has been in and out of his seat frequently. Suddenly, Roger lets out a yell and you look up to see that Bill has knocked Roger's sculpture off his desk. Bill says he didn't mean to do it, he was just returning to his seat.

(adapted from Brophy & McCaslin, 1994)

* Complete the following questionnaires in order. You may re-read this description and vignette at any time.
APPENDIX C

Student Description and Vignette

Directions: Presented below is a description of a child with chronic behavioral difficulties that most teachers would identify as problematic. Use this description to create an image of this child in your head. Imagine that this child is a student in your classroom, and you are this child's teacher. After reading about this child, please complete the following attached questionnaires responding as if you were this child's teacher.

Mark

Mark seeks peer interaction but he is usually rejected, ignored or excluded. He is forced to work and play alone. He lacks social skills, and he is often picked on or teased.

The following depicts an incident that has just occurred in your classroom:

Mark is not well accepted by his classmates. Today he has been trying to get some of the other boys to play a particular game with him. After much pleading the boys decide to play the game, but exclude Mark. Mark argues, saying that he should get to play because it was his idea in the first place, but the boys start without him. Finally, Mark gives up and slinks off, rejected again.

(adapted from Brophy & McCaslin, 1994)

* Complete the following questionnaires in order. You may re-read this description and vignette at any time.
APPENDIX D

Problem Behaviors Scale

Directions: The purpose of this questionnaire is to obtain information about your perceptions concerning the child's problem behaviors in the "Student Description and Vignette" that you just read. Please circle the number which best describes your agreement or disagreement with each of the following statements.

1. Even with assistance from a consultant, this child's problem behaviors cannot be controlled.
   1 2 3 4 5
   never true  infrequently true  sometimes true  often true  always true

2. No matter what changes I make, this child will continue to exhibit these problem behaviors.
   1 2 3 4 5
   never true  infrequently true  sometimes true  often true  always true

3. This child engages in the problem behavior because he wants to.
   1 2 3 4 5
   never true  infrequently true  sometimes true  often true  always true

4. I can influence this child's behavior in the classroom.
   1 2 3 4 5
   never true  infrequently true  sometimes true  often true  always true

5. This child can control his behavior.
   1 2 3 4 5
   never true  infrequently true  sometimes true  often true  always true

6. This child's parents cause his problem behaviors.
   1 2 3 4 5
   never true  infrequently true  sometimes true  often true  always true

7. This child is responsible for his problem behaviors.
   1 2 3 4 5
   never true  infrequently true  sometimes true  often true  always true
8. Others cause this child's problem behaviors.

1 2 3 4 5
never true  infrequently true  sometimes true  often true  always true

9. This child's problem behaviors are caused by something he can control.

1 2 3 4 5
never true  infrequently true  sometimes true  often true  always true

10. This child's problems are too severe/complicated for me to handle.

1 2 3 4 5
never true  infrequently true  sometimes true  often true  always true

11. This child's problem behaviors are on purpose.

1 2 3 4 5
never true  infrequently true  sometimes true  often true  always true

12. Other people are responsible for this child's problem behaviors.

1 2 3 4 5
never true  infrequently true  sometimes true  often true  always true

13. Time will solve these problem behaviors.

1 2 3 4 5
never true  infrequently true  sometimes true  often true  always true

14. This child means to engage in the problem behaviors

1 2 3 4 5
never true  infrequently true  sometimes true  often true  always true

15. Factors in the environment cause this child's problem behaviors.

1 2 3 4 5
never true  infrequently true  sometimes true  often true  always true

16. I could manage this child's behavior if someone could tell me what might work.

1 2 3 4 5
never true  infrequently true  sometimes true  often true  always true

17. This child's problem behaviors will go away with time.

1 2 3 4 5
never true  infrequently true  sometimes true  often true  always true
18. This child can stop this problem behavior if he wants to.

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19. The cause of this child's problem behaviors is external to the child.

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<tbody>
<tr>
<td></td>
<td>never true</td>
<td>infrequently true</td>
<td>sometimes true</td>
<td>often true</td>
<td>always true</td>
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</table>

20. I can manage this child's problem behaviors.

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<tbody>
<tr>
<td></td>
<td>never true</td>
<td>infrequently true</td>
<td>sometimes true</td>
<td>often true</td>
<td>always true</td>
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</table>

21. The cause of this child's problem behaviors will change in the future.

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<tr>
<td></td>
<td>never true</td>
<td>infrequently true</td>
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<td>often true</td>
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22. This child's problem behaviors are intentional.

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<tr>
<td></td>
<td>never true</td>
<td>infrequently true</td>
<td>sometimes true</td>
<td>often true</td>
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</table>

23. This child's problem behaviors are influenced by others.

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<td></td>
<td>never true</td>
<td>infrequently true</td>
<td>sometimes true</td>
<td>often true</td>
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</tbody>
</table>

(adapted from George, 1994)
APPENDIX E

Teacher Emotion Questionnaire

Directions: Given that the student described earlier and depicted in the vignette is a student in your classroom, and you are his teacher, please indicate to what extent you would experience each of the following emotions in response to his behavior.

1. anger

   1  2  3  4  5
   none ................................................................. a great deal

2. pity

   1  2  3  4  5
   none ................................................................. a great deal

3. guilt (about the situation occurring in your classroom)

   1  2  3  4  5
   none ................................................................. a great deal

4. shame (about the situation occurring in your classroom)

   1  2  3  4  5
   none ................................................................. a great deal

5. hopelessness (about the likelihood of improvement)

   1  2  3  4  5
   none ................................................................. a great deal
6. frustration

1 2 3 4 5
none .................................................. a great deal

7. sympathy

1 2 3 4 5
none .................................................. a great deal

8. regret (about the situation occurring in your classroom)

1 2 3 4 5
none .................................................. a great deal

9. embarrassment (about the situation occurring in your classroom)

1 2 3 4 5
none .................................................. a great deal

10. pessimism (about the likelihood of improvement)

1 2 3 4 5
none .................................................. a great deal

11. irritation or annoyance

1 2 3 4 5
none .................................................. a great deal

12. empathy (with the student)

1 2 3 4 5
none .................................................. a great deal
APPENDIX F

Teacher Interventions Rating Scale

Directions: Given that the student described earlier and depicted in the vignette is a student in your classroom, and you are his teacher, please rate to what extent you would be likely to use each of the following strategies in response to his behavior. Your responses should indicate your usual or typical use of interventions with such a child. If you have never heard of a strategy listed, or would not usually use it please indicate "(1), not at all likely".

1. Loss of privileges.

   1 2 3 4 5
   not at all likely ........................................... highly likely

2. Comfort or reassure the student.

   1 2 3 4 5
   not at all likely ........................................... highly likely

3. Extra time (e.g., staying in at recess or after school).

   1 2 3 4 5
   not at all likely ........................................... highly likely

4. Use "I" messages to express teacher needs and/or feelings.

   1 2 3 4 5
   not at all likely ........................................... highly likely

5. Praise specific behavior.

   1 2 3 4 5
   not at all likely ........................................... highly likely

6. Referral to parents.

   1 2 3 4 5
   not at all likely ........................................... highly likely

7. Make changes in the physical or teaching environment.

   1 2 3 4 5
   not at all likely ........................................... highly likely

8. Give a verbal reprimand.

   1 2 3 4 5
   not at all likely ........................................... highly likely

9. Use "kid gloves treatment".

   1 2 3 4 5
   not at all likely ........................................... highly likely

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10. Provide instruction on appropriate behavior.
   1  2  3  4  5
   not at all likely .......................................................... highly likely

11. Use active listening or empathy techniques to reflect student's feelings.
   1  2  3  4  5
   not at all likely .......................................................... highly likely

12. Spend extra time with the student to build a relationship.
   1  2  3  4  5
   not at all likely .......................................................... highly likely

13. Use a "time out" technique.
   1  2  3  4  5
   not at all likely .......................................................... highly likely

14. Extra requirements, assignments or restitution.
   1  2  3  4  5
   not at all likely .......................................................... highly likely

15. Involve peers to provide support.
   1  2  3  4  5
   not at all likely .......................................................... highly likely

16. Negotiate with the student/ Reach a compromise.
   1  2  3  4  5
   not at all likely .......................................................... highly likely

17. Referral to principal.
   1  2  3  4  5
   not at all likely .......................................................... highly likely

18. Make changes in the social environment/ peer grouping.
   1  2  3  4  5
   not at all likely .......................................................... highly likely

19. Defend the student against taunts or criticism.
   1  2  3  4  5
   not at all likely .......................................................... highly likely

20. Support the student in developing his own solutions to this problem.
   1  2  3  4  5
   not at all likely .......................................................... highly likely
Dear Instructor:

I am a graduate student in EPSE in the School Psychology program, working under the supervision of Dr. William McKee. I am writing to ask for your support with a research project I am conducting with Dr. McKee, as partial fulfillment of my Masters degree (the thesis). I would like to request your permission to distribute a questionnaire to your class of pre-service teachers in the "two-year program", who will be taking your EPSE 423 class beginning in January, 1996. Specifically, the questionnaire will take approximately 20 minutes to complete, and I am asking that students be given class time to participate. Participation would be voluntary, and signed consent would be given by those students who agreed to participate. Anonymity and confidentiality would be guaranteed. I would like to distribute this questionnaire as early in the second term as would be convenient for you.

The purpose of this research study is to analyze the types of interventions that pre-service teachers would use to manage behavior problems from the perspective of attribution theory (e.g., Weiner, 1986, 1995). Weiner suggests a cognitive-affective-behavior link as a general psychological principal, and this theory is regarded as comprehensive and sound based upon research evidence (Graham, 1991). Although it has been tested across domains, attribution theory has been applied in relatively few studies with regard to teachers and student behavior problems. Assumptions have been made about the application of individual study results to the overall attribution sequence, but no study has directly tested all three links with teachers. Pre-service teachers are the target of this study as research suggests that they often feel unprepared to deal with students with behavior problems, and, in addition, as new teachers, they are among those most likely to request consultation services. This research has the potential to contribute to knowledge about important theoretical applications of social psychological principles to education, and it could impact on teacher and consultant training programs.

I am contacting you now with the hope that you could consider my request while planning for your course which will begin next term. The request for ethical review has been submitted, and I am awaiting approval. I would be very appreciative of your assistance in conducting this research, and I would be happy to meet with you or speak with you in order to provide more details of the project, should you desire this. In addition, I would also be willing to speak to your class at some point, or to make a presentation regarding this research if you wish. With your permission, I would like to be present during the collection of the data, and I will be able to answer questions for the class.
Could you please respond by December 15th advising me of your decision about whether or not you are able to support this research study? My E-mail address is: mciver@unixg.ubc.ca, and my phone number is: 222-0777. Dr. McKee can be contacted at E-mail address: mckeew@unixg.ubc.ca, or telephone number: 822-6572. Thank you for considering my request.

Yours sincerely,

Georgina McIver Robinson
APPENDIX H

INFORMED CONSENT

Teachers' Responses to Students with Behavior Problems:
Attributions, Affect and Interventions

This research is being completed by Georgina Robinson in partial fulfillment of the requirements for the Master of Arts in School Psychology at the University of British Columbia, under the supervision of Dr. William McKee.

The purpose of this research is to gather important information that will add to knowledge about teachers interventions with, and their thoughts and feelings generated in response to students with behavior problems.

You will be asked to complete a questionnaire with five parts: a brief "Demographic Information Form"; a brief "Student Description and Vignette" will be read; followed by the completion of "The Problem Behaviors Scale"; "The Teacher Emotion Questionnaire"; and "The Teacher Interventions Rating Scale". The questionnaire will take approximately 20 minutes to complete.

You are assured that all information you provide will be remain anonymous and results will be kept confidential. Your identity is not requested on the questionnaire, and each questionnaire will be identified by a code known only to the researcher. Information that you provide will in no way be used to form individual judgements, nor will it be used to adversely affect your academic standing. The questionnaires will be viewed only by me and my thesis supervisor.

Your participation in this study is entirely voluntary and you may exercise your right to withdraw at any time without jeopardy. Completion of the questionnaire constitutes your consent to participate. If you wish to discuss the study or the questionnaire, you may contact me, Georgina Robinson, at (604) 222-0777, or Dr. William McKee at (604) 822-6572.

___________________________________________________________________________

My signature below certifies that I have received a copy of this form and that I consent to participate in the project entitled "Teachers' Responses to Students with Behavior Problems: Attributions, Affect and Interventions" by Georgina Robinson as described above.

Name: ____________________________
Signature: ____________________________ Date: ____________________________
APPENDIX I

Teachers' Responses to Students with Behavior Problems:
Attributions, Affect and Interventions

Introduction and Instructions

The purpose of this research is to gather important information that will add to knowledge about teachers' interventions with, and their thoughts and feelings generated in response to students with behavior problems.

Please read the "Student Description and Vignette", and while you are reading it, try to create a picture of this child in your mind, imagining that this is a real child in your classroom and you are this child's teacher. The student described may remind you of another student you have worked with, as the behaviors described represent a typical pattern of chronic behavioral difficulties often identified by teachers as problematic.

After reading the "Student Description and Vignette", please complete the questionnaires in the order that they are presented. Once you have completed a questionnaire, please do not refer back to it or make any changes. The order of completion and first responses are important to this study. You may, however, re-read the "Student Description and Vignette" as many times as you like.

When completing the questionnaires, please complete them as honestly as possible. The information you provide should reflect what you would actually or typically think, feel and do. This is an important distinction that could have serious influences on the outcome of this study.
APPENDIX J

Demographic Information

Age: ____________________  Gender: { } male  { } female

Number of years of Post Secondary Education: ______________

Teaching Experience (check one)  { } none  { } 3 - 5 years
{ } up to 6 months  { } 5 - 10 years
{ } 1 year  { } greater than 10 years
{ } up to 3 years

Teaching Area/ Specialization: ____________________________________

Grade Level(s) (training and/or experience): __________________________

Specific coursework on behavior disorders and interventions? { } yes  { } no

Name(s) of course(s) and number of credits: _________________________

__________________________________________
__________________________________________
__________________________________________