THE RELATIONSHIP BETWEEN TEACHERS’ CAUSAL ATTRIBUTIONS FOR
STUDENT PROBLEM BEHAVIOR AND TEACHERS’ INTERVENTION
PREFERENCES

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How teachers respond to student problem behavior can impact the extent to which behaviors are maintained, intensified, or changed. Best practices suggest that teachers use effective, research-based behavioral interventions in their classrooms, but there are several key factors that influence if, when, and how teachers intervene. An examination of (a) teacher causal attributions or explanations for student problem behavior and (b) thinking that precedes intervention (or lack thereof) can help us understand why and how teachers intervene with students who display problem behaviors. This research study examined the causal attributions that teachers of various disciplines and grade levels hold for student problem behavior. The relationship between teachers’ beliefs about the causes of student problem behaviors and teachers’ willingness to implement supportive, research-based behavioral interventions was explored.

The participants in this study were 84 public school teachers in Ohio. Teachers completed the Teacher’s Attributions for Student’s Behavior measure. Multiple regression analysis was conducted to determine the relative contribution of three causal attributional dimensions on teacher intervention preferences. This study revealed that teachers’ causal attributions of student problem behavior are predictive of teachers’ intervention preferences. In particular, special education teachers’ causal attributions of
student problem behavior are predictive of special education teachers’ preference for use of unsupportive interventions. Potential benefits of teacher attribution training were discussed in light of these results.
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CHAPTER I

REVIEW OF THE LITERATURE

Introduction to the Study

Student problem behavior remains a challenging issue in schools (Lauer & Renk, 2013). A major concern for teachers and administrators is the far-reaching negative effect of problem behavior on both delivery of instruction and student learning outcomes (Byrne, 1999; Kendziora & Osher, 2009; Osher, Bear, Sprague, & Doyle, 2010). In fact, researchers have found that students who display problem behavior are difficult to teach, often segregated, and prone to school failure (Kauffman, 2001; Landrum, Tankersley, & Kauffman, 2003; Scott & Shearer-Lingo, 2002). A continuum of problem behaviors displayed in school can range from minor acts (e.g., pencil tapping during a whole-group lesson) to severe offenses (e.g., fighting, bullying), and can occur with varying degrees of intensity (e.g., mild, moderate, intensive). The most common problem behaviors in classrooms include being distracted from tasks, not following directions, displaying excessive movement, and talking without permission (Harrison, Vannest, Davis, & Reynolds, 2012). Granted, some problem behavior is typical during the developmental years (Last, Perrin, Hersen, & Kazdin, 1996), and certainly, such minor infractions and transient misbehavior is to be expected. However, left unchecked, milder and more common forms of child problem behavior can, in some cases, become increasingly severe and resistant to intervention (Conoley & Goldstein, 2004; Gresham, Cook, Crews, & Kern, 2004; Landrum et al., 2003; Walker, Ramsey, & Gresham, 2004). For some students, problem behaviors can become so chronic and so intense that they disrupt
relationships with peers, teachers, and parents and significantly interfere with important areas of functioning (Farrell, Smith, & Brownell, 1998; Walker et al., 2004).

Undoubtedly, every teacher will encounter a student who displays some type of problem behavior, but how teachers respond to problem behaviors can significantly impact the extent to which such behaviors are maintained or intensified (Lane, Gresham, & O’Shaughnessy, 2002; Lannie & McCurdy, 2007; Solar, 2011).

**Critical Challenges Facing Teachers of Students with Problem Behavior**

Persistent and more intense student problem behavior is a problem for teachers and students alike (Lane et al., 2002). Teachers have consistently reported that dealing with disruptive student behavior is one of the most difficult aspects of the teaching experience (Adelman & Taylor, 2002; Buchanan, Gueldner, Tran, & Merrell, 2009; Dunn & Baker, 2002; Hastings & Bham, 2003). Yet, many teachers have not been adequately prepared to implement effective behavior management. For example, using structured interviews, Merrett and Wheldall (1993) obtained the opinions of 176 secondary school teachers about training and practical experience in behavior management. Teachers were dissatisfied with their preparedness and felt that professional training focused on management of student problem behaviors could reduce stress among teachers and reduce inappropriate behavior among students. Likewise, Clunies-Ross, Little, and Kienhuis (2008) conducted a study with 97 elementary school teachers and found that there was a lack of teacher preparedness to deal with relatively minor forms of student problem behaviors, and that teachers spent a considerable amount of time on behavior management issues. Tillery, Varjas, Meyers, and Collins (2010) examined kindergarten
and first-grade general education teachers’ perceptions of using effective behavior intervention strategies (e.g., praise and rewards) and their knowledge about Positive Behavior Interventions and Supports (PBIS). The authors found that when addressing problem behavior, teachers gave little attention to implementing effective behavior management strategies, and that despite accessibility to training in PBIS, teachers were still not prepared to implement group or school-wide behavioral interventions. These studies demonstrate that teachers of students across age ranges may be unprepared to deal with problem behavior.

This lack of preparation to effectively address problem behavior is concerning because teacher behavior management is directly linked to students’ classroom behaviors (Leflot, van Lier, Onghena, & Colpin, 2010), and teachers’ use of effective behavior management is an important factor in both the development and prevention of fully developed emotional and behavioral disorders (Dunlap et al., 2006). Moreover, student problem behavior in the classroom is closely related to poor student academic achievement (Gunter & Coutinho, 1997).

**The Impact of Problem Behavior on Student Outcomes**

Not only do student problem behaviors present challenges for teaching, but for student learning as well. The relationship between problem behavior and student academic achievement has been explored, and researchers concur that student problem behavior is a strong predictor of how well students perform in school (Oliver & Reschly, 2010; Pastor & Reuben, 2002; Wehby, Symons, Canale, & Go, 1998). Evidence of this positive relationship between behavior and learning is presented in a large study.
conducted by Saleem and Mahmood (2012). The authors selected 1,571 adolescent students through multistage sampling, and administered the School Children Problem Scale (Saleem & Mahmood, 2011) to assess the emotional and behavioral problems of the students. After examining students’ results on the assessment in relation to their scores on a recent school-based academic examination, it was found that behavioral problems were, in fact, a strong predictor of poor exam performance (p<0.001). The relationship between problem behavior and academic attainment over time has also been examined in longitudinal studies. For example, researchers have found that teachers’ ratings of student behavior problems at age 6 significantly predicted poor student math and reading achievement at age 17 (Breslau et al., 2009).

Students who exhibit more severe and persistent patterns of problem behavior are not only more prone to academic failure, but they are also more likely to struggle with the development of social skills. Both general and special education teachers identify the skill of self-control as necessary for classroom success (Lane, Givner, & Pierson, 2004). However, limited social skills (e.g., inability to take turns, poor problem solving skills, misunderstanding neutral cues) impede students’ ability to develop appropriate relationships with teachers and peers (Gresham, 2002; Walker, Irvin, Noell, & Singer, 1992). Furthermore, antisocial behavior patterns in young children that are not altered at least by the end of third grade can become chronic and can place students at risk for developing emotional or behavioral disorders (Walker, Colvin, & Ramsey, 1995).

Unfortunately, many students with behavioral problems also frequently stay away from school. In fact, truancy has been identified as one of the greatest obstacles to
improving outcomes for students with behavioral problems (Marder, 1992). Teachers are unable to apply behavioral interventions to students who are not present, and sporadic attendance takes a toll on intervention implementation as well. Application of behavioral interventions to problem behavior in the school setting is critical, because students with behavioral problems are more likely to drop out of school at a rate that is almost doubled that of all students with disabilities (Marder, 1992; Wagner & Cameto, 2004). School dropout then leads to a host of other problems that could otherwise be avoided (e.g., increased substance abuse, decreased earnings, involvement in criminal activity).

The long-term effect of untreated problem behavior is great cause for concern. Inadequate provision of effective school-based behavioral interventions for students who display problem behavior has been shown to have negative effects on individuals even into adulthood. Students with problem behavior are at a much greater risk for having erratic employment profiles, earning wages lower than that of students in any other disability category, experiencing adjustment problems, and becoming involved in the juvenile, justice, and mental health systems (Frank & Sitlington, 1997; Wang et al., 2005). Teachers’ ratings of childhood behaviors at age 6 and age 10 in elementary schools have predicted criminal convictions up to age 24 among 1,593 males and 1,423 females (Hodgins, Larm, Ellenbogen, Vitaro, & Tremblay, 2013). There is also a substantial amount of financial burden that can be ascribed to chronic problem behavior. For example, the economic strain associated with challenges like mental health problems, substance abuse, school failure and dropout, delinquency, and criminality is significant; and this further highlights the need for early intervention (Quinn & Poirier, 2004).
School-Based Interventions to Address Student Problem Behavior

A number of effective responses are available to schools for addressing the academic, behavioral, and social needs of students with behavior problems (Greenwood & Abbott, 2001). Responses include identifying and addressing the conditions that prompt and reinforce problem behavior, teaching and reinforcing new skills to increase appropriate behavior, and modifying the classroom learning environment by clarifying expectations and establishing routines and structure (Epstein et al., 2008).

Because such a broad range of behavior problems affect a large number of students and create various kinds of challenges for all kinds of teachers, researchers have encouraged the implementation of a tiered approach in addressing problem behavior (Sugai & Horner, 2002). One such approach is Positive Behavior Interventions and Supports (PBIS). PBIS is a three-tier prevention model designed to meet the needs of all students with behavior problems (Horner, Sugai, Todd, & Lewis-Palmer, 2005). It is a comprehensive, team-based approach to addressing problem behavior that has been well tested in school settings (Conroy & Brown, 2004; Fox, Dunlap, & Powell, 2002; Stormont, Lewis, & Beckner, 2005). In fact, over the last 13 years, many studies have investigated the effectiveness of PBIS and results support significant reductions in inappropriate behaviors in general (e.g., Barret, Bradshaw, & Lewis-Palmer, 2008; Flannery Sugai, & Anderson, 2009), daily counts of problem behavior (e.g., Lewis, Sugai, & Colvin, 1998), office discipline referrals (e.g., Bohanon et al., 2006; Colvin & Fernandez, 2000; Lassen, Steele, & Sailor, 2006; Mass-Galloway, Panyan, Smith, & Wessendorf, 2008; Muscott, Mann, & LeBrun, 2008; Sprague et al., 2001; Sugai, Horner,
& Gresham, 2002; Turnbull et al., 2002), suspensions (e.g., Lassen et al., 2006; Muscott et al., 2008; Nelson, 1996; Scott, 2001; Turnbull et al., 2002), challenging behavior in early childhood settings (e.g., Benedict, Horner, & Squires, 2007), early removals (e.g., Nelson, 1996), length of time in referral rooms (e.g., Scott, 2001), and time outs (e.g., Turnbull et al., 2002). Furthermore, the research shows that behavior prevention strategies can be successful in all types of schools, including those with limited resources (Leedy, Bates, & Safran, 2004).

Although PBIS is an established and effective framework for implementing a continuum (less to more intensive) of research-based behavioral interventions, it may be the case that teachers do not see the need for it. In many schools, few features of PBIS have been implemented. For example, Benedict et al. (2007) assessed one region’s implementation of PBIS in 15 early childhood settings and found that, on average, only 31% of the features of PBIS were being implemented. Additionally, Kincaid, Childs, Wallace, and Blase (2007) found that schools implementing PBIS identified staff buy-in as the primary barrier to implementation efficacy. As a result, it is crucial that we examine teachers’ perspectives on employing approaches like PBIS, ecological classroom management practices, and social and emotional learning, which positively address student problem behavior (Osher, Bear, Sprague, & Doyle, 2010).

The Research to Practice Gap in Education

Unfortunately, while research has identified numerous effective strategies for managing a wide range of student problem behaviors, these strategies are not frequently implemented in schools (Fitzpatrick & Knowlton, 2009; Klingner, Ahwee, Pilonieta, &
Menendez, 2003; Spooner & Browder, 2003; Vaughn, Hughes, Schumm, & Klingner, 1998). There is a wide gap (or disparity) between what is known from research about effective behavior management and how problem behavior is actually addressed in most schools and classroom settings (Cook, Landrum, Tankersley, & Kauffman, 2003; Fitzpatrick & Knowlton, 2009; Landrum, Cook, Tankersley, & Fitzgerald, 2002). For example, ineffective discipline practices such as punishment, office referrals, suspensions, and expulsions are typically being used in schools despite the scarce amount of empirical evidence that support these approaches (Mayer, 1995; Osher et al., 2010; Skiba, Peterson, & Williams, 1997). The research shows that instead of decreasing student problem behavior, in many cases, punitive and exclusionary approaches actually increase and intensify student problem behavior (Dishion & Dodge, 2005; Dishion, Dodge, & Lansford, 2006; Gottfredson, Gottfredson, Payne, & Gottfredson, 2005; Mayer & Butterworth, 1995; Morrison et al., 2001; Osher, Morrison, & Bailey, 2003). The extent to which behavior management and discipline practices in schools are based on research findings continues to be explored (Cochran-Smith & Lytle, 2004; Cook et al., 2003; McIntyre, 2005), and efforts to increase the use of proven-effective strategies and decrease the use of ineffective practices for managing problem behavior persist.

**Implementation Factors**

Numerous possible contributing factors to this gap between research and practice in behavior management have been investigated (Spooner & Browder, 2003; Vaughn et al., 1998). For example, it is possible that a lack of teacher input or participation in behavioral intervention research contributes to the research-to-practice gap. Research
intended to effect change in the classroom often receives little or no input from the teachers who are expected to make use of the findings (Abbott, Walton, Tapia & Greenwood, 1999). As a result, researchers’ interests and investigations may not match what teachers view as important and motivating (Gersten, Vaughn, Deshler, & Schiller, 1997). This lack of relevance from teachers’ perspectives might account for teachers’ perceptions that research has no real meaning for them (Johnson, 1990). The notion that researchers are discoverers and solution providers, and that teachers are implementers has not been proven to reflect what is actually happening in practice (Gersten et al., 1997), suggesting that the roles of researchers and teachers in behavior management research should be revised in a way that supports teachers’ intentional involvement in the pre-research process.

Another possible reason for the disconnection between research and practice may be how research findings are presented to teachers. Researchers publish their findings, conclusions, and recommendations in professional journals with expectations that teachers will read their articles and implement suggestions in the classroom (Kaestle, 1993). However, research suggests that few teachers read research articles (Arends, 1990; Viadero, 1994) and that many teachers do not understand research articles or lack the confidence to explore research journals (Johnson, 1990). Though publication of intervention research in professional journals is an important means of communicating best practices within the field, this tool might not be the best way to introduce and guide teachers through the implementation of effective interventions for managing problem behavior in the classroom.
In addition to journal articles, evidence-based intervention strategies are commonly presented in brief professional development or workshop sessions. Typically, researchers maintain a heavy reliance on lectures (or presentations) in the dissemination process, which follows the formula of “teaching as telling.” However, the traditional approach of presenting lecture sessions about new interventions seldom leads directly to classroom implementation (e.g., Huberman, 1990; Joyce & Showers, 1995). Ironically, when used in isolation, this lecture approach is least supported by the field as an effective way to teach a concept (Casteel, & Bridges, 2007; Struyven, Dochy, & Janssens, 2010). Instead, researchers have consistently encouraged teachers to employ engagement and active learning procedures for achieving desired learning outcomes with their students (Campbell & Mayer, 2009; Delialioğlu, 2012; Gray & Madson, 2007; Manuguerra, & Petocz, 2011). In other words, when it comes to dissemination procedures, researchers do not practice what they preach. Workshop models that consist of a mixture of training, classroom consultation, feedback, and teacher collaboration over time appear to be a more effective way of influencing teacher-implementation of research-based practices (Benedict et al., 2007; Gersten, Morvant, & Brengelman, 1995; Huberman, 1990; Vaughn et al., 1998).

There is evidence that teachers prefer workshop and presentation delivery methods over journal articles. Landrum, Cook, Tankersley, and Fitzgerald (2002) examined practicing teachers’ assessments of the trustworthiness, usability, and accessibility of intervention information obtained from four sources: other teachers or colleagues, workshops and in-service presentations, college courses, and professional
journals. Specifically, they investigated the extent to which teachers trusted information from each source, believed they could obtain useful information from each source, and could gain access to each for retrieval of information. The results of the study conveyed that teachers rated workshops or in-services as more accessible sources of information and as providing more trustworthy and usable information than other teachers or colleagues, college courses, and professional journals.

Another factor contributing to the research-to-practice gap in implementation of effective behavior management strategies is teachers’ perceptions about meeting the needs of students who exhibit problem behavior in the general education classroom. Some teachers are primarily concerned about feasibility of instructional accommodations for typically-achieving and behaving students, and believe that adaptations and modifications for students with problem behavior would interfere with the academic achievement of their typical peers (Schumm & Vaughn, 1995). Teacher perceptions of the particular intervention advocated to be used can also influence implementation (Schoenwald & Hoagwood, 2001). Sustainability of the intervention to be implemented and the overall success of the intervention can be affected by teachers’ beliefs about how effective an intervention will be for the challenge at hand (Baker-Henningham & Walker, 2009). Other influential factors related to teacher perceptions that affect their buy-in include whether teachers perceive that an intervention has unplanned or unintended consequences, the extent to which an intervention is fully understood by teachers, and teachers’ willingness to let go of ineffective old methods in order to implement effective new ones (Baker-Henningham & Walker, 2009).
In addition to teacher and dissemination factors, successful implementation of an intervention can also be affected by elements of the intervention itself. For example, Witt (1986) discussed ecological intrusiveness, defining it as the extent to which an intervention alters or changes everyday classroom environments and routines. He maintained that, in practice, an intervention is ecologically intrusive and unfeasible if introducing it results in less time for instruction, disruption of class procedures, or disruption of the learning experience for other students. Gersten and Woodward (1990) suggested that instructional practices endorsed by researchers should fit well into the daily activities of the classroom and school in order for them to be used effectively. In other words, interventions need to be practical strategies that teachers can effortlessly fuse with regular routines and procedures. Likewise, Gersten et al. (1997) emphasized that change in teaching practice is more likely to be sustained if researchers or policy makers refrain from demanding radical, fundamental changes in teaching in short periods of time. The authors explained that teachers need sufficient time to train, practice implementing interventions, reevaluate their performance, and make necessary adjustments when needed.

An understanding of the research-to-practice gap as it relates to implementation of behavioral interventions is a necessary prerequisite to the employment of efforts to minimize disruptive behaviors that affect teaching and hinder student progress. We know that while some teachers incorporate effective behavior management strategies into their daily practice, many fail to do so (Sutherland & Wehby, 2001; Wehby, Lane, & Falk,
A number of reasons have been thoroughly examined in the literature base as to why teachers struggle to implement proven-effective strategies.

An important contributing factor to the implementation gap, which has not been explored as thoroughly as other factors, is teachers’ beliefs about the causes of student problem behavior and how these beliefs influence teacher decision making related to behavior management. Teachers’ decisions about how to respond to student problem behavior may depend on (a) who and/or what teachers view as the cause of student problem behavior; and (b) whether teachers believe that the problem behaviors displayed by students in their classrooms can be changed by using research-based interventions. This line of research is important to the field because no matter how robust and efficacious an intervention is proven to be, the intervention will not be of much benefit if it is not implemented effectively and consistently. As a result, there is a need to explore teachers’ beliefs about the causes of student misbehavior and their perceptions of the effectiveness of research-based behavioral interventions.

In the proposed study, I will examine various causes to which teachers attribute student problem behavior and consider how teacher perceptions of problem behaviors influence their decisions to use or not use research-based practices. As it stands, the literature on teachers’ causal attributions of student misbehavior is quite limited, but there has been much research describing parental causal attributions for child problem behavior and how these causal attributions influence parenting practices. Before examining the literature base of causal attributions, I will discuss attribution theory with regard to what
it is and its historical development. Next, I will review parental causal attribution research. Finally, I will describe teacher attribution research.

Causal Attributions

Attribution Theory

Attribution theory is a well-established theory of human motivation. It suggests that the cause or causes to which we attribute the actions or experiences of other people exert a considerable influence on our subsequent responses to those actions or experiences (Atkinson, 1957; Rotter, 1954; Tolman, 1932). Simply stated, attribution theory suggests that an individual’s responses are based on the causes that are attributed to the behavior or intentions of others (Bar-Tal, 1978; Weiner, 1976). Gilbert and Malone (1995) identified four steps that are involved when we draw a causal inference about observed behavior: (a) we perceive the person’s situation, (b) we form expectations for how the person should respond to the situation, (c) we interpret the person’s behavior, and (d) we infer the cause of the behavior, typically attributing it to some underlying personal characteristic. For example, a mother who observes her child taunting a sibling would first distinguish the situation. Her expectations for how both children should interact appropriately with each other sets precedence for her making an interpretation of the taunting behavior. In this case, the mother will likely feel that the child is behaving inappropriately and will attribute the taunting behavior to a reason that is related to something about the child (e.g., the child wants to annoy his sibling, the child is bored, or the child wants to gain attention).
Psychological research into causal attributions began in the early 20th century with the work of Fritz Heider, an Austrian psychologist. Heider’s (1958) exploration of the psychology of interpersonal relations led to the development of attribution theory, which was subsequently advanced by other researchers in the field (see Appendix A). Weiner (1976) described causal attributions as the perceived reasons or judgments of why an incident takes place. Similarly, Bar-Tal (1978) suggested that when an individual makes an "attribution," he or she is actually making an inference concerning the causes of the person's behavior. These inferences are then, according to Guttman (1982), likely to affect that individual’s own attitude and behavior towards the person. Therefore, Fiske and Taylor (1991) concluded that the process of causal attribution involves examining information gathered about an individual or situation and subsequently making causal judgments.

Several important explanatory models of human motivation and interaction are based upon attribution theory, including, for example, Heider’s (1958) naïve psychology, Kelley’s (1967) covariation principle and causal schemas, Jones and Davis’ (1965) correspondent inference, and Weiner's (1979) theory of motivation. In an effort to understand how causal attribution theory has developed throughout the literature base, it is important that we examine these significant explanatory models.

Heider’s (1958) naïve psychology theory is based on the belief that individuals naturally observe the behavior of other people and decide on causes for behaviors displayed. Heider viewed people as “naïve psychologists” who develop an understanding of the social world through causal relationships. His theory is built upon two main ideas
about how people explain behavior. The first idea is that people make internal attributions for the behavior of others. These internal attributions are causes that pertain to factors within the individual whose behavior is being observed (e.g., personality traits, disposition). The second idea is that people also make external attributions for the behavior of others (e.g., familial factors, ecological factors). External attributions are causes related to the environment or causes that are situational and occur outside of the individual displaying the behavior. Over time, many researchers tested Heider’s theory of naïve psychology, examining causal attributions with particular focus on internal and external attributions (e.g., Fielding & Head, 2012; Mcclure, Walkey, & Allen, 1999; Nasser & Abouchedid, 2006; Ramanaiah & Adams, 1981; Ruble, Feldman, Higgins, & Karlovac, 1979; Silvester, Mohamed, Anderson-Gough, & Anderson, 2002; Waldron et al., 2010; Weiner, Nierenberg, & Goldstein, 1976) and found that people do have a tendency to attribute the behaviors of others to either internal or external causes.

Additionally, Jones and Nisbett (1971) found that individuals are more inclined to make internal (or dispositional) attributions for the behavior of others, but to make external (or situational) attributions for similar behavior in themselves.

Kelley’s (1967) covariation principle and causal schemas present an expansion of Heider’s (1958) ideas about how people explain behavior. Kelley conducted an examination of people’s judgment of whether an action should be attributed to internal characteristics of the individual or to the environment. He maintained that in trying to ascertain the causes of behavior, people act like scientists, using three types of causal information when making judgments about the behavior of others. These categories of
information are consensus, distinctiveness, and consistency. Consensus refers to the extent to which people in similar situations behave the same way. A behavior is high in consensus if other people tend to display the same behavior in similar situations. Distinctiveness refers to the extent to which an individual behaves in the same way in similar situations. If the person’s behavior often occurs in similar situations, distinctiveness is low. If the behavior occurs only in one particular situation then distinctiveness is high. Consistency refers to the extent to which an individual behaves in the same way every time the situation occurs. If the behavior takes place every time the situation occurs then consistency is high. If the behavior only happens on one occasion then consistency is low. For example, consider a college student (Shauna) who is working on a class project in a group with other classmates. If Shauna calls the other members in her group and says she cannot make a group meeting scheduled for that evening, the causal attributions of the other group members can be influenced by three kinds of information—consistency information, distinctiveness information, and consensus information. Whether Shauna has made it to all the previous group meetings is consistency information. If she has attended the previous group meetings consistency would be high. Whether some members of the group have worked with Shauna in a different class and found that she was reliable is distinctiveness information. If she has not been reliable in other classes distinctiveness would be low. Whether there are other group members who also cannot make it to the meeting (maybe due to inclement weather) is consensus information. If two or more of the other group members can’t make the meeting consensus would be high.
Jones and Davis’ (1965) correspondent inference theory paralleled Kelley’s (1967) ideas about how people determine the causes of behaviors observed. Jones and Davis conducted research about how people attend to behavior and the inferences they make about behavior. One of the major ideas in correspondence inference theory is that people perceive behavior to be either intentional or accidental, and these perceptions influence causal attributions. The authors suggest that people give more attention to intentional behavior than they do to accidental or unthinking behavior and are likely to make internal attributions when they can clearly observe a connection between a person’s motive and the behavior he or she displays. For example, a teacher is likely to respond differently to a student’s absence from school on a day that a major class project is due, as opposed to the student’s absence from school on a day when no assignments are to be submitted. The teacher may infer that the student intentionally did not attend school because the project was not ready for submission on the due date. In this case, the teacher observes that the student’s motive (not turning in the assignment) is directly connected to his behavior (absence from school) and will therefore make an internal attribution for his absence.

Manusov and Spitzberg (2008) tested Jones and Davis’ (1965) theory of correspondence inference, and found that any action can be explained as a product of a set of characteristics and that correspondent attributions are particularly formulated based on information about a person’s nature or personality. For example, in the case of the student who was absent on the day that his major project was due, it is likely that the teacher will consider information about that student’s character or personality when
determining intent and attributing cause. However, when information about the
individual displaying the behavior is limited, then the observer is inclined to fall back on
past experience. For example, if the teacher does not know the student well, she might
consider that, typically, a student who does not have his or her project completed and
ready for submission is the kind of student who would stay home from school on the day
a major project is due, and as a result, the teacher may view the student’s behavior as
intentional and make internal attributions for the behavior. Since its development, Jones
and Davis’ correspondence theory has been tested in various contexts (e.g., Alicke,
Zerbst, & LoSchiavo, 1996; Bauman, & Skitka, 2010; Lawson, & Miller, 1996), and the
theory has been consistently validated.

Although several attributional models have been developed, Weiner's (1979,
1985) theory of motivation is the most comprehensive and most used by researchers in
psychology and education (Graham, 1991). In fact, over the years, empirical tests have
validated many aspects of Weiner’s (1979, 1985) version of attribution theory. Weiner’s
(1972, 1976, 1979, 1983, 1985, 1993) significant contributions to the body of research on
causal attributions began with the suggestion that there is a relationship between
underlying characteristics of causal attributions and psychological consequences (Weiner,
1976). According to Weiner (1972), an individual’s actions following an incident are
determined by the individual’s attribution of the incident. In other words, how an
individual responds to an event is influenced to a large degree by the causes the
individual attributes to that event. In many instances, both the automaticity with which
people ascribe reasons for an incident and the subconscious nature of the attribution
process are unrealized. Yet, judgments that are made in this way can and in most cases do have an effect on people’s responses to an event.

For the most part, Weiner’s (1976) theory of motivation has been based on three causal dimensions of behavior. The first dimension Weiner notes is Locus of Control (Weiner, 1983), which refers to the location of the cause—whether the cause of the behavior is internal or external to the individual. For example, teachers’ responses to a student failing a test vary depending on whether the teacher believes that the student failed because she did not try hard enough (an internal locus of control) or that she failed because the test was too difficult (an external locus of control). This dimension, Locus of Control, is linked to Heider’s (1958) earlier premise that people make internal and external attributions for the behaviors of others. Second is the causal dimension of Stability (Weiner, 1993), which refers to the likelihood that the cause of a behavior, situation, or event would change. For example, causal attributions that are related to an individual’s disposition are often perceived as stable causes, while causal attributions related to environmental factors are often perceived as unstable causes (Weiner, 1983). For instance, a teacher may attribute a student’s challenging classroom behavior to disability (a stable cause) as opposed to a change in the normal classroom routine (an unstable cause). Third is the causal dimension of Controllability (Weiner, 1993), which refers to whether the cause attributed to an occurrence is within the individual’s control. For example, aptitude is often classified as an uncontrollable attribution as opposed to effort which is viewed as a factor that is within an individual’s control (Weiner, 1983).
In his later work, Weiner (1995) proposed a fourth causal dimension that is closely related to the dimension of Controllability—*Blame and Intentionality* (sometimes referred to as *Intentionality* throughout attribution literature). He suggested that causal attributions influence the placing of blame or the drawing of conclusions about responsibility. For example, when failure is attributed to lack of effort, controllable causality is assumed and the individual is considered to be responsible for the occurrence. In this case, the person making the judgment is inclined to be angry and favor punishment as a justifiable consequence. On the other hand, when failure is attributed to lack of ability, uncontrollable causality is assumed and the individual is not perceived as being responsible. Therefore, the person making the judgment is likely to express sympathy and opt for no punishment.

**Measures in the Attributional Domain**

In the research base, most attributional studies used survey and vignette measures along with a type of scale (e.g., Likert) to measure attributions. Survey and vignette measures both have strengths and limitations in their use for assessing attributions.

**Survey measures.** Survey instruments are one of the most important measures used in applied social research (Trochim, 2006). Surveys encompass procedures that involve asking respondents questions through mediums such as paper and pencil formats, in-depth face-to-face interviews, and online questionnaires. In addition, they are often used to measure attitudes, beliefs, behaviors, learning outcomes, and satisfaction (Dilworth, Phillips, & Rose, 2011; Kiesa et al., 2007; Malinauskas, Aeby, Overton, Carpenter-Aeby, & Barber-Heidal, 2007).
Attributional surveys permit researchers to make generalizations about causal attributions that generate clearer understandings about causal relationships. Although information garnered via the survey method only provides estimates for the true population, and not exact measurements (Salant & Dillman, 1994), surveys do elicit information about attitudes (and attributions) that are otherwise difficult to measure using observational techniques (Bell, 1996; McIntyre, 1999). As a result, surveys are an ideal instrument for measuring and categorizing causal attributions from large samples of a population. They are also well-suited for the gathering of demographic data that describe these samples (McIntyre, 1999).

There are several limitations that can confound results in survey research (Salant & Dillman, 1994). One limitation of the written survey method is that written surveys are subject to item non-response where some questions may be inadvertently or intentionally skipped. In attributional survey research, another source of error in some cases is the intentional misreporting of behaviors by respondents to hide unconventional or socially undesired behavior. In other cases, respondents may have difficulty assessing their own behavior or may have poor recall of the circumstances surrounding their behavior.

Survey fatigue has become increasingly concerning for researchers over the years (Porter, Whitcomb, & Weitzer, 2004). Survey fatigue is the decline in survey response rates due to repeatedly surveying the same people (Porter, 2005). There is evidence that survey fatigue is a major cause of non-response and low response rates in studies using survey methods (Asiu, Antons, & Fultz, 1998; Goyder, 1986; Kalton, Kasprzyk, &
McMillen, 1989; Porter et al., 2004). It is the responsibility of survey designers and administrators to ensure both data and response quality while avoiding negative consequences caused by fatigue and other respondent factors (Biemer & Lyberg, 2003; Groves, 1987). For researchers who administer surveys to teachers, parents, and students in an attempt to measure their causal attributions, survey fatigue can be an issue because these groups are frequently targeted for many other types of survey research.

**Vignette measures.** Vignettes have a long history in qualitative and quantitative research. In qualitative research, the “vignette” refers to a scene created for participants by the researcher. This scene is a specially designed description from the investigator’s fieldwork. To preserve realism, qualitative vignettes are often based on situations to which the investigator became privy as she or he conducted research in the field. Vignettes are used to stimulate open-ended discussions with respondents exploring their reasoning and judgments. Quantitative researchers usually construct vignettes for reasons related to measurement rather than discussion purposes. By systematically manipulating features in a vignette, quantitative researchers can construct robust tools for measuring thoughts, feelings, and attributions. Such vignettes are controlled, and considered an experimental evaluation of the factors that affect respondents' judgments (Rossi & Anderson, 1982).

In qualitative or quantitative studies, participants may be asked to perform a task, such as ranking, rating, or sorting vignettes into categories, or projecting themselves into a vignette situation, to imagine what a vignette character would or should do or feel. Vignettes are useful tools that permit researchers to gather data that they might not be
able to acquire otherwise. Using brief stories or scenarios that describe hypothetical characters or situations, researchers explore sensitive subjects in less threatening ways (Finch, 1987). However, the question of whether evaluations of hypothetical situations relate to judgments in real life remains an issue (Martin, 2006). This reality issue, coupled with the fact that vignettes are widely used in psychological research justifies exploration of vignette use in comparison to “real” incident situations.

Several studies have examined vignettes versus reality in attribution research. Wanless and Jahoda (2002) conducted a study that employed both vignettes and real instances of problem behavior. They reported that staff’s causal attributions were consistent across both instances of problem behavior, but stronger emotional responses and more negative evaluations were made in response to real instances of problem behavior. Similarly, Lucas, Collins, and Langdon (2009) explored the use of vignettes as a tool in teacher attribution research. They found that the relationship between constructs investigated using vignettes was different from that detected when using real incidents of problem behavior. Results showed that stronger attributions of Controllability were endorsed in response to the real incidents of problem behavior as compared to the vignettes. The teaching staff indicated that they were significantly more sympathetic and more likely to help a child depicted in the vignette, as opposed to the child who had engaged in real aggressive behavior. In light of these findings, investigators should endeavor to have vignettes convey situations as they would occur in reality. The fact that vignettes depicting problem behavior resulted in different findings than that in real instances of problem behavior raises questions about the validity of vignettes.
It has been suggested that relying upon vignette methodology can reduce the ecological validity of studies (Grey, McClean, & Barnes-Holmes, 2002; Lord, 1997). Willner and Smith (2008) contend that individual characteristics may be significantly influential. For example, Tynan and Allen (2002) found that caregivers attributed a higher degree of control to a person described in a vignette as having a mild disability compared to an individual described as having a severe disability. Given that the majority of attribution research has been based upon vignette methodology (Dix, Ruble, & Zambarano, 1989; Hastings, Reed, & Watts, 1997; Hastings, Remmington, & Hopper, 1995; Johnston, Patenaude, & Inman, 1992; Mavropoulou & Padeliadu, 2002; Poulou & Norwich, 2002; Scott-Little & Holloway, 1994; Tynan & Allen, 2002), and given the findings that there are differences between responders’ responses to real incidents of problem behavior and vignettes depicting problem behavior, there is a strong case for advocating wider exploration of the validity of vignettes within psychological research.

As it stands, while vignettes might be a helpful tool in gathering information pertaining to attributional and attitudinal research, there remain criticisms and limitations of using vignettes that should not be ignored.

**Reliability and Validity**

As it stands, the current literature base lacks critical examination of the kinds of measures used in attributional research and only a few studies have considered the reliability and validity of these measures. For example, Elig and Frieze (1979) conducted an investigation that examined three kinds of attributional measuring instruments typically used by researchers: percent, scale, and open-ended response. Results indicated
that the open-ended response measure showed poorer interest correlation validity than did the structured measures. Rating scales showed a better fit to attribution concepts than did the percentage method, and overall, scale measures was the method of choice. Scale measures had moderately good inter-method correlations with percentage measures, did not force intercorrelations among attributions, and had good face validity. Elig and Frieze contended that the scale method provided better support for some of the basic theoretical relationships between causal attributions and future expectancies and affect than did percentage or open response methods. Elig and Frieze also suggested that researchers carefully consider reliability and validity issues before selecting the measures to be used in causal attribution investigations.

Measures in the attributional domain generally require respondents to indicate how they view an attribution in terms of Locus, Stability, and Intentionality (i.e., the causal dimensions in Weiner’s theory). Weiner (1983) identified a number of methodological errors in existing attributional research pertaining to his theory. In most studies about causal attributions, researchers use one of two approaches. Either researchers manipulate causal perceptions (experimental designs) or they ascertain them (correlational designs). Weiner observed methodological problems in both approaches, finding that investigators who attempt to directly manipulate causal perceptions by using experimental instructions and/or feedback (e.g., James & Rotter, 1958; Masterson, 1973; Riemer, 1975) have encountered some difficulties. He discovered that in some experimental studies about causal attributions, investigators’ instructions and participants’ feedback are called into question or negated by the objective characteristics
of the task, the life experience of the subject, or by the experience of the participant during the experiment (Weiner, 1983). In correlational designs researchers often ask participants to attribute causality with reference to specific attributional dimensions. Weiner pointed out that in some correlational studies investigators fail to consider the unique nature of causal beliefs associated with particular motivational concerns. He also emphasized the importance of taking personal interpretations into account and considering attributional situations from the participant’s point of view. As attribution theory remains an important focus of psychological research, considerable importance should be placed on how we measure causal attributions.

**Parent Attribution Research**

Much attention has been placed on research related to parental discipline over the years. Issues like parenting stress (e.g., Meijssen et al., 2011; Ponnet et al., 2013; Shreffler, Meadows, & Davis, 2011), emotional challenges experienced by parents of children with problem behavior (e.g., Beck, Daley, Hastings, & Stevenson, 2004; Woolfson, Taylor, & Mooney, 2011), acceptable and unacceptable parenting styles and practices (e.g., Berkien, Louwerse, Verhulst, & Ende, 2012; Healey, Flory, Miller, & Halperin, 2011; Ritchie & Buchanan, 2011), relationships between parental affect and parenting behaviors (e.g., Gerdes & Hoza, 2006; Rueger, Katz, Risser, & Lovejoy, 2011), and parental inconsistency (e.g., Dwairy, 2008, 2010) have been key areas addressed in parenting literature.

Factors that influence parents’ perceptions of their children’s behavior include characteristics of the child (e.g., age, disposition, disability), types of behavior displayed
(positive vs. negative behavior), contextual cues, and other sources of information about the behavior such as the level of frequency and the degree of intensity with which behaviors occur (Bugental & Happaney, 2002; Miller, S., 1995; Miller & Prinz, 2003). There have also been studies that examined links between parental thinking and parental responses to child problem behavior. Among these studies are those with particular focus on parental attributions (e.g., Recchia, Wainryb, & Howe, 2013; Maniadaki, Sonuga-Barke, & Kakouros, 2005).

The relationship between parental causal attributions and parental responses to child misbehavior has been established (e.g., Bugental & Happaney, 2002; Johnston & Freeman, 1997; Mash & Johnston, 1990; Miller, A., 1995). Parent causal attributions have been found to vary based on discipline styles that are associated with better or worse child outcomes. For example, Smith and O’Leary (1995) indicated that parents with lax discipline styles may be permissive and inconsistent, and more likely to make threats with which they do not follow through, while parents with harsh or over-reactive discipline styles are more inclined to yell and use physical punishment, and are more likely to rehash incidents of child misbehavior once the discipline encounter is over. Smith and O’Leary investigated the development and maintenance of over-reactive parental discipline and lax parental discipline using a sample of 40 mothers of toddlers. Their findings suggested a relationship between negative causal attributions of child behavior and maintenance of over-reactive or harsh parenting. Extremely lax or particularly harsh discipline styles, as opposed to a moderate variation of each, were both associated with development, maintenance, and intensification of child problem behavior.
Parental causal attributions also differ according to characteristics of the individual child. For example, child gender has a significant influence on parents’ causal attributions of the behavior of their children with Attention Deficit Hyperactivity Disorder (ADHD). In a study of 317 mothers and fathers of boys and girls aged 4–6 years with ADHD, Maniadaki et al. (2005) found that parents applied more internal and controllable attributions of problem behavior to boys than girls. In fact, parents considered biological dysfunction resulting from ADHD as the underlying cause of problem behavior displayed by girls. Parents also responded with stricter discipline towards boys than they did towards girls. These findings support Weiner’s (1976) notion that more internal and controllable attributions lead to application of responsibility and consequently, harsher discipline. As a result, causal attributions of Intentionality may be at the basis of negative interaction patterns between young boys and their parents, and intensification of such interaction patterns may make boys more vulnerable towards the development of secondary behavior problems (Maniadaki et al., 2005).

Parental causal attributions of child problem behavior, specifically in families with two or more children, have also been explored, and age has been identified as the primary determinant for parental attributions of responsibility resulting from sibling conflict. Recchia et al. (2013) investigated 61 parents’ attributions of responsibility and responses to sibling conflict. Parents judged who was at fault for a sibling conflict involving two of their children (aged 4-10 years). The smaller the age gaps between siblings, the more inclined parents were to blame either both children or neither child for the conflict. When the age gap was larger, parents were more inclined to place blame on
the older sibling. This insight into how parents’ attributions of responsibility vary based on the ages of their children is important because such attributions are linked to parental intervention preferences for older and younger siblings.

Not only has parental causal attributions been examined with reference to conflict between siblings, researchers have also investigated parental causal attributions in relation to parent-child conflict. Grace, Kelley, and McCain (1993) examined the attributions of 115 mothers and 122 adolescents as they related to conflicts between mothers and their children. The Issues Checklist (Prinz, Foster, Kent, & O’Leary, 1979), Conflict Behavior Questionnaire (Robin & Foster, 1989), and the Mother-Adolescent Attribution Questionnaire which is a modified version of the Marital Attribution Style Questionnaire (Fincham, Beach, & Nelson, 1987) were each administered to ascertain a measure of parent-adolescent conflict. The results of the study revealed that parent-adolescent conflict correlated with mothers’ negative attributions for their teenagers’ problem behavior.

Parental causal attributions also differ based on the type of problem behavior children display. In a study that examined the attributions, emotions, and behavioral responses of mothers whose children had an intellectual disability and displayed problem behavior, Armstrong and Dagnan (2011) found that when children displayed aggressive behavior, mothers were more inclined to feel significantly angry and apply causal attributions of Controllability, and Responsibility to the child. Mothers were also more likely to punish aggressive behavior than other types of problem behavior (e.g., self-
injurious behavior). This study offers further support for Weiner’s (1976) attribution model with this group of parents.

Research findings differ according to several characteristics: differences in parent participants (e.g., typical parents vs. those at-risk for whatever reason, abusive parents), differences in children (e.g., age, gender, disability status, presence of problem behavior), and, most importantly, by dimensions of causal attributions (Locus, Intentionality, Stability). Examination of these characteristics in parent attribution research can help to cultivate a better understanding of the role that causal attributions play in how parents respond to their children’s problem behavior. Some researchers (e.g., Leung & Slep 2006; Miller & Prinz, 2003; Pidgeon & Sanders, 2002; Slep & O’Leary, 1998; Snarr, Slep, & Grande, 2009) have examined parental causal attributions specifically based on Weiner’s (1976) three dimensions of causal attributions (Locus, Intentionality, and Stability). Locus refers to the location of the cause—whether the cause of the behavior is internal or external to the individual. The dimension of Intentionality is based on whether the behavior occurred on purpose. Stability refers to the likelihood that the cause of a behavior, situation, or event would change. Results of studies surrounding these three attributions are reviewed in the following sections.

**Locus.** Researchers have discussed the Locus dimension of parental attributions in relation to parental responses to child problem behavior. Findings suggest that parents who attribute their children’s problem behavior to internal causes (within-child factors like genetics) are likely to exhibit negative responses to their children when they misbehave (e.g., Montes, de Paul, & Milner, 2001). Snarr et al. (2009) tested parent-
causal and child-responsible attributions for child misbehavior in a sample of 453 community couples. The authors found that parents who attributed their child’s behavior to factors within the child were most likely to implement ineffective discipline practices, have emotional problems, experience parent-child aggression, and experience low parenting satisfaction.

Within-child attributions of behavior by parents are also related to an unwillingness to alter parenting practices. Miller and Prinz (2003) conducted a study in which 124 families of 5–to 9-year-old boys with conduct disorder were randomly assigned to receive treatments. Pretreatment attributional motivations that were external to the parents and internal to the child showed a clear association with parental termination of treatment prior to completion of the program. On the other hand, parents who attributed their children’s misbehavior to factors external to the child (unclear ground rules, or misinterpretation of parental directives) were more likely to respond with positive parenting practices (Dix & Reinhold, 1991; Dix, Ruble, & Zambarano, 1989; Geller & Johnston, 1995; Leung & Slep, 2006; Montes et al., 2001; Snarr et al., 2009).

Intentionality. Attributions of intentionality (deliberate disobedience) have been found to significantly influence whether parents respond to child misbehavior with anger and harsh discipline (Ateah & Durant, 2005; Bauer & Twentyman, 1985; Bradley & Peters, 1991; Bugental, Blue, & Cruzcosa, 1989; Dadds, Mullins, McAllister, & Atkinson, 2003; Larrance & Twentyman, 1983; Leung & Slep, 2006). For example, Slep and O’Leary (1998) examined mothers’ attributions for their toddlers’ misbehavior through experimental manipulation. Mothers and children were videotaped interacting in
typically challenging situations. Mothers who were told that their children had intentionally misbehaved were rated as significantly more angry and over-reactive in their discipline as opposed to mothers who were told that their children were not to blame for misbehaving. Similarly, Leung and Slep (2006) found that depressive symptoms of parents predicted child-centered responsibility attributions (i.e., controllable, intentional, and negative), and that these, in turn, related to over-reactivity. Anger predicted over-reactivity directly and the patterns of relations were similar for both fathers and mothers. These findings support the notion that parental attributions for children's problem behavior can determine the harshness of parentally enforced discipline. These findings also correspond with the conclusions of Pidgeon and Sanders (2002) that when parents perceived child misbehavior as being deliberate, their anger intensifies.

Ultimately, who do parents blame for their children’s problem behavior? Phares, Ehrbar, and Lum (1996) found that, overall, parents viewed themselves and their children as most responsible for the development and treatment of child behavior problems. Guttman (1982) noted a more complex pattern of parental causal attribution in which parents blamed the children, the teacher, and themselves equally for the misbehavior of their children. He proposed that this complexity may have derived from parents’ more complex motives when it comes to their child’s misbehavior. These may be comprised of parents’ initial desire to protect their children and blame others and a subsequent but equal desire to protect the teacher and blame the child.

**Stability.** A few studies in parent attribution research examined parents’ causal attributions of their children’s behavior with reference to stability. Most of these studies
revealed a connection between parental perceptions of disability and parents’ views about potential changes in their child’s behavior. For example, Armstrong and Dagnan (2011) examined the application of Weiner’s attribution model to mothers’ responses to the challenging behavior of their child with an intellectual disability. The authors found a relationship between mothers’ perception of their child’s disability and mothers’ causal attributions of their child’s behavior. Particularly, mothers who rated their child as more disabled expected challenging behaviors to be more stable. Similarly, Johnston and Freeman (1997) found that parents of children with ADHD perceived that the cause of their children’s behavior was internally located and believed that behaviors would remain stable across time. These findings emphasize a link between Locus and Stability, particularly for parents of children with a disability, which can hinder implementation of positive parental interventions for challenging child behaviors.

**Teacher Attribution Research**

To a lesser extent than that of parental attributions, teacher attributions of child misbehavior have also been explored in the literature. Researchers have examined teacher attributions in relation to a wide range of student problems and have found links between teachers’ causal attributions for students’ behavior problems and discipline-related practices (e.g., Arbuckle & Little, 2004; Bibou-Nakou, Kiosseoglou, & Stogiannidou, 2000; Bibou-Nakou, Stogiannidou, & Kiosseoglou, 1999; Brophy, 1996; Kulinna, 2008; Martin, Linfoot, & Stephenson, 1999; Poulou & Norwich, 2000, 2002; Soodak & Podell, 1994). However, the majority of studies in the research examining
teacher attributions of student behavior focused on teachers in general, with no distinction made between special and general education teachers.

Empirical evidence also shows a strong relationship between teacher causal attributions of student problem behavior and student academic achievement (Fang, 1996; Weiner, 1985). In a large-scale interview study with teachers, Brophy and Rohrkemper (1981) found that teachers who perceived the causes of student academic failure as uncontrollable (to the student) expressed sympathy and a greater commitment to help the student than when the causes of failure were believed to be within the student’s control. It is possible that the same relationship will hold true for teachers of students with behavior problems. In other words, teachers who perceive the causes of student misbehavior as uncontrollable to the student (as in the case of disability) will be more sympathetic and more inclined to offer help than teachers who perceive the causes of student misbehavior to be controllable by the student. As a result, examination of teacher attributions can be a significant focus point of future implementation research.

There are many interventions that can be efficiently applied in general classroom environments for the majority of students with challenging behaviors (Lewis & Sugai, 1999; Nelson, 1996). However, general education classroom teachers, in particular, tend to display little tolerance for student misbehavior (Chazan, 1994; Muscott, 1996; Shores et al., 1993). The research indicates that despite the positive effect of effective instruction on the prevention of student problem behavior, teachers frequently attribute the cause of students’ problems in school to factors other than adequacy of their

For example, Soodak and Podell (1994) conducted a study in which teachers provided suggestions on how to help failing students. They found that teachers generally looked outside the classroom to meet the needs of students who are “difficult to teach,” often ascribing students’ challenging school behavior to the home environment. Earlier, Medway (1979) also found that teachers often attribute serious school problems first to student variables, second to family/home factors, and last to teaching variables. Other studies revealed that teachers more readily accept credit for students’ success than they accept blame for students’ failures (Christenson, Ysseldyke, Wang, & Algozzine, 1983; Guttman, 1982; Mavropoulou & Padeliadu, 2002; Soodak & Podell, 1994; Wilson & Silverman, 1991), and that in some instances, perceived causes for students’ problem behavior resulted in teachers feeling like students were beyond helping (Andreou & Rapti, 2010).

**Purpose of the Study**

The research reviewed suggests that when teachers attribute students’ behavior problems to factors internal to their (the teachers’) control, they are more inclined to seek out strategies that can effectively remedy behavioral issues or improve student behavior in the classroom. However, when teachers attribute students’ challenges to factors external to their (the teachers’) control, teachers are less likely to intervene, or they intervene with interventions that have low efficacy. To date, researchers have been concerned primarily with whether teachers attribute student problem behaviors to factors
within the teachers’ control. There is room for us to consider the extent to which teachers attribute student problem behavior to factors within or outside of the students’ control. In this study, I examine the causal attributions of a sample of special education and general education teachers in relation to student problem behavior. I also examine how teachers’ causal attributions of student problem behavior relate to teachers’ preferences for using research-based intervention strategies for students with behavioral problems.
CHAPTER II

METHOD

Overview

Unfortunately, we know little about what teachers think about the problem behaviors displayed by students (Kulinna, 2008). Knowing more about teacher-perceived causes of student problem behavior is important because what teachers think about the causes of student behavior affect how they respond to students’ behavior intervention needs (Poulou & Norwich, 2000). The purpose of this study is to examine the causal attributions of general and special education teachers across Weiner’s (1985) causal attributional dimensions of Locus, Stability, and Blame and Intentionality. In addition, the relationship between teachers’ causal attributions for student problem behavior and teachers’ preferences for using research-based interventions in response to student problem behavior is explored. This chapter describes the method for the current study, including descriptions of the study participants, survey instrument, instrument adaptation procedures and rationale, study procedures, rationale for the mode of administration used, research design, and details about the data analysis. This study was conducted with permission from the Kent State University Institutional Review Board (see Appendix B).

Sampling Procedures

Power Analysis

I determined the desired sample size for this study by using the G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) stand-alone power analysis program. This program is frequently used to perform five different types of power analysis (i.e., a priori analysis,
compromise analysis, criterion analysis, post hoc analysis, sensitivity analysis) for many statistical tests commonly used in the social, behavioral, and biomedical sciences (Faul, Erdfelder, Buchner, & Lang, 2009). For this study, an *a priori* power analysis (see Bredenkamp, 1969; Cohen, 1988) was conducted. The necessary sample size was computed as a function of specified values for the required significance level (α), the desired statistical power (1 − β), and the to-be-detected population effect size. As a rule of thumb, power, equal to 1 − β, should be at least .80 for detecting a medium sized effect of .15 when employing the traditional .05 criterion of statistical significance (Cohen, 1988). The *a priori* power analysis that I conducted using the G*Power* program indicated that I needed to have at least 73 subjects to have 80% power if the population effect size is larger than .15. The sample size which was attained, that of 84 teachers, is adequate for this study.

**Recruitment**

Recruitment occurred in three steps. First, I obtained permission from district level administrators to contact school principals in their district. District administrators were provided with a description of the study and its purpose (see Appendix C). Six out of the fifteen district level administrators approached gave me permission to contact the school principals in their district. Second, I obtained permission from principals of schools in each of the six districts to recruit teachers in their schools to participate in the study. Principals were provided with a description of the study and its purpose. Twelve school principals consented to having me come in to recruit teachers. I recruited teachers by verbally inviting their participation. I obtained signed consent from the
principal of each school and each teacher participating in the study (see Appendices D and E). Overall, approximately 200 teachers had an opportunity to participate in this study, and 84 of them actually participated.

**Participants**

The participants for this study were a convenience sample of 84 elementary, middle, and high school classroom teachers from six school districts in the state of Ohio. Districts included in the sample varied according to size (number of students), average income, percentage of students in poverty, and percentage of students with a disability (see Table 1).

<table>
<thead>
<tr>
<th>School Districts</th>
<th>Year 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Av. Number of Students</td>
</tr>
<tr>
<td>District A</td>
<td>3,940</td>
</tr>
<tr>
<td>District B</td>
<td>2,155</td>
</tr>
<tr>
<td>District C</td>
<td>1,322</td>
</tr>
<tr>
<td>District D</td>
<td>5,492</td>
</tr>
<tr>
<td>District E</td>
<td>4,029</td>
</tr>
<tr>
<td>District F</td>
<td>2,229</td>
</tr>
</tbody>
</table>

The sample included a combination of males and females of various ethnic backgrounds and ages. Other demographic variables included the grade levels.
participants were currently teaching, teachers’ classification as either general or special education, and the academic content participants were currently teaching (see Table 2).

Table 2

*Participant Demographics*

<table>
<thead>
<tr>
<th></th>
<th>Teachers (N=84)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male 15, Female 69</td>
</tr>
<tr>
<td>Race</td>
<td>Caucasian 79, Missing 05</td>
</tr>
<tr>
<td>Teaching Grade Level</td>
<td>Kindergarten 02, Grades 1-5 27, Grades 6-8 44, Grades 9-12 11</td>
</tr>
<tr>
<td>Type of Teacher</td>
<td>Neither SPED/GENED 02, Special Ed 22, General Ed 60</td>
</tr>
<tr>
<td>Present Subjects Taught</td>
<td>Specialist 53, Generalist 31</td>
</tr>
</tbody>
</table>

*Instruments*

In this study, I am interested in the extent to which the attributor (the teacher) perceives that the causes for student problem behavior are controllable by the student. The instrument that was the best fit for this study was the Parent’s Attributions for Child’s Behavior Measure—PACBM (see Appendix F). The PACBM focuses on whether the attributor (the parent) perceives that causes for their child’s behavior are controllable by the child. As a result, it can be used to measure the extent to which
parental causal attributions of blame and intentionality are applied to the problem behavior displayed by children. For this study, I adapted the PACBM to create a similar instrument that measures teachers’ causal attributions of student problem behavior.

In addition to the PACBM, other measures have been developed and used with success over the years in other areas in the attributional domain. I examined these instruments to ensure that the adapted version of the PACBM was the most appropriate instrument for this study. The Locus of Control Scale (Rotter, 1996) measures generalized expectancies for internal versus external control of reinforcement. A low score indicates internal control while a high score indicates external control. More closely related to causal attribution research than the Locus of Control Scale are the Locus of Causal Attribution Questionnaire (Laird & Berglas, 1975), the Multidimensional Multiattributional Causality Scale (Lefourt, von Baeyer, Ware, & Cox, 1979), and the Attributional Style Questionnaire (Seligman, Abramson, Semmel, & von Baeyer, 1979). All of these measures were designed to assess an individual’s general or cross-situational perceptions of causality, and was therefore not appropriate for use in this study. The Causal Dimension Scale (Russell, 1982) was different from other measures in that it was developed to assess an individual’s perceptions of causes in a given situation. The original Causal Dimension Scale was later revised and titled, the Causal Dimension Scale II (McAuley, Duncan, & Russell, 1992). Although the Causal Dimension Scale assesses respondents’ perceptions of causes in a particular situation, the focus is on whether causes are controllable by the attributor. Therefore, the Causal Dimension Scale was not useful for answering my research questions.
Parent’s Attributions for Child’s Behavior Measure

The PACBM has been used consistently throughout parent attribution research. For this study, I adapted the PACBM for use with teachers. The adapted version of the PACBM was titled, “Teacher’s Attributions for Student’s Behavior Measure”—TASBM (see Appendix G). The PACBM was developed by Pidgeon and Sanders (2002) and published in the Practitioner Manual for Pathways Triple P (Sanders & Pidgeon, 2005).

Triple P: Positive Parenting Program is a multi-level, parenting and family support strategy, developed by Sanders and colleagues from the Parenting and Family Support Centre in the School of Psychology at The University of Queensland in Australia. The Family Support Centre provides training and support for parents directed towards preventing behavioral, emotional, and developmental problems in children.

The PACBM assesses parent’s attributions for children’s behavior. There are three attributional dimensions addressed: Blame and Intentionality, Stability, and Internal Causality. The Blame and Intentionality subscale assesses parents’ tendencies to attribute blame and mal-intent to their children’s actions. In other words, it measures the extent to which parent perceive that their children deliberately engage in inappropriate behavior. The Stability subscale assesses the extent to which parents feel that the causes of their children’s behavior are or are not likely to change. The Internal Causality subscale assesses parents thinking about whether the cause of their child’s behavior is something internal or external to the child.

In accordance with guidelines of the PACBM, after reading a scenario about a child who exhibits problem behavior, parents are asked to imagine their own child in the
situation and to indicate, using a 5 point Likert scale (1= strongly disagree; 5= strongly agree) the extent to which they believe that their child’s actions would have occurred as a result of various given causes. According to Pidgeon and Sanders (2004), the scale has an adequate internal consistency reliability (α=.83). The minimum score and maximum score that can be attained by participants for each subscale in the PACBM are as follows: Blame and Intentionality—12 (min) and 72 (max), Stability—6 (min) and 36 (max), and Internal Causality—6 (min) and 36 (max). I have obtained permission from Pidgeon and Sanders to adapt the PACBM so that it reflects school situations and to use it in my research. Pidgeon and Sanders reviewed the TASBM to ensure that it was similar to the PACBM and appropriate for use with teachers.

**Teacher’s Attributions for Student’s Behavior Measure**

The TASBM is an instrument that I created by adapting the PACBM to reflect school situations. The TASBM has two sections. Section A contains six brief descriptions of students displaying problem behavior (e.g., hitting others, destroying property, being non-compliant). Teachers in this study were asked to imagine a student that they have taught performing the problem behavior in each situation. Teachers completed the questionnaire by reading each of the six situations presented, and then circling a number on each scale for each of the four causal statements following each situation. The number circled indicated the extent to which the teacher disagreed or agreed with each statement. The rating scale was as follows: 1—disagree strongly; 2—disagree; 3—disagree somewhat; 4—agree somewhat; 5—agree; 6—agree strongly. For section A, there were 30 items in total (5 per problem behavior description) and three
attributional subscales. The first subscale measured the extent to which the behavior was blame-deserving and intentional; the second measured the extent to which the behavior was stable and not likely to change; and the third measured the extent to which the cause of the behavior was internal to the student. The minimum score and maximum score that could have been attained by participants for each attributional subscale in the TASBM were as follows: Blame and Intentionality—12 (min) and 72 (max), Stability—6 (min) and 36 (max), and Internal Causality—6 (min) and 36 (max).

Section B contained one situation for which teachers were asked to indicate the extent to which they thought that a given behavior management strategy would be effective for addressing the behavior problems of the student referenced in the situation. For the 12 responses listed, participants thought again about the first scenario (reprinted). For each item, teachers circled a number (1-6) to indicate the extent to which they felt the approach was effective for addressing the problem. The rating scale for this section was as follows: 1= very ineffective; 2= ineffective; 3= somewhat ineffective; 4= somewhat effective; 5= effective; 6= very effective. The minimum score and maximum score that could have been attained by participants for each type of intervention preference in the TASBM were as follows: Supportive Intervention Preference—6 (min) and 36 (max), Unsupportive Intervention Preference—6 (min) and 36 (max).

**Adaptations and corresponding rationale.** Adaptation of the PACBM for use with teachers to measure their causal attributions and intervention preferences began with making changes to each of the six scenarios presented. The scenarios were revised so that they reflected students exhibiting problem behavior in the school setting instead of at
home. The types of problem behaviors presented in the PACBM were also presented in the TASBM (i.e., hitting, throwing objects, non-compliance). Each type of problem behavior was represented in two different scenarios. For the TASBM, an added feature (not included in the PACBM) was an open-ended question for each situation. For this question, teachers were asked to describe how they would respond in the situation presented.

Section B was added to the instrument to measure teachers’ perceptions that particular strategies would or would not be effective. The twelve items in this section were approaches for addressing problem behavior. Six of these items were supportive teaching approaches suggested by Epstein et al. (2008) in their synthesis of research on effective behavior management. The other six approaches listed in section B were common punitive, but typically ineffective, strategies used by teachers when managing problem behavior.

Validity. It is necessary for researchers to assess the extent to which an instrument is truly measuring what the researcher intends for it to measure (Utwin, 1995; Banningan & Watson, 2009). Because validity is not absolute, (rather, it is a matter of degree (Carmines & Zellar, 1979)), McDowell and Newell (1996) advised that researchers use more than one procedure to establish validity as opposed to relying on one single validation process. As a result, I used two forms of measurement validation procedures for this study. First, I had the instrument assessed for face validity as suggested by Dempsey and Dempsey (1992). Face validity is directly related to participants’ understanding of the instrument and their acceptance of the content and
wording used in the scale (Gould, 1994; Payton, 1988). Second, the TASBM was assessed for content validity. Content validity pertains to the extent to which a scale has included all relevant issues and excluded irrelevant issues in terms of content (Bannigan & Watson, 2009).

In an effort to ensure both face validity and content validity, I asked experts in the field to review the TASBM and provide feedback regarding the clarity of the scenarios used, the relevance of items in the scale, and the extent to which the behaviors in the scenarios were sample behaviors representative of the range of problem behaviors typically displayed by students. The consensus was that the TASBM is valid for use with teachers and that it measures teachers’ causal attributions across the dimensions of Blame and Intentionality, Stability, and Internal Causality.

**Reliability of scoring.** Reliability of scoring was assessed for the rating scales used in the TASBM to ensure that scores for each participant were computed accurately. To assess the reliability of scoring, each participant’s score in each of the five categories on the survey (i.e., Blame and Intentionality, Stability, Internal Causality, Supportive Intervention Preferences, Unsupportive Intervention Preferences) was checked and rechecked by two individuals to address concerns about hand-scoring error.

**Procedures**

An administrator (e.g., the school principal) at each of the participating schools was provided with a packet at 8:00 a.m. on the day that was assigned for survey distribution. The packet included enough surveys for each participating teacher at the school along with a short form attached to each questionnaire on which teachers were
asked to indicate demographic information such as the number of years they have taught to date, the name of the school at which they teach, the subject they currently teach, their age and their gender. Upon receipt of the packets, the administrator informed teachers of the opportunity to participate in the study. The administrator distributed a survey and a demographic information form to each teacher who volunteered to participate in the study. Teachers completed the questionnaire and demographic information sheet. The administrator then collected completed forms from the teachers and kept them in the office in a locked drawer. Each administrator contacted me via e-mail when the forms were ready for collection. I returned to each school and retrieved the packets.

**Rationale for Mode of Administration**

Alternative methods for gathering data on teachers’ causal attributions for student misbehavior include conducting face-to-face or telephone interviews, circulating a questionnaire by mail, fax, or e-mail, use of web-based survey generation and delivery programs (e.g., SurveyMonkey, Qualtrics, SurveyGizmo), and survey administration via the paper-and-pencil format. The TASBM was administered using the paper-and-pencil format because this format has been proven to garner higher response rates than surveys administered online (Hayslett & Wildemuth, 2004; Wang, Liu, Cheng, & Cheng, 2013; Wyrick & Bond, 2011). In fact, it has been reported that participants completing web-based surveys were four times more likely to skip an item on the survey than participants completing surveys using the paper-and-pencil format (Wyrick & Bond, 2011). It was also reported that there has been less perceived privacy and anonymity among participants using web-based or online survey formats than participants using paper-and-
pencil formats (Denniston et al., 2010). Another reason why the paper-and-pencil format was deemed most appropriate for collecting data in this study is that the TASBM is an adapted version of a paper-based instrument (the PACBM) which has been already been validated. The PACBM has been consistently administered to parents via the paper-and-pencil format. Therefore, it is meaningful to use the same method of administration for the TASBM as was used for the PACBM.

In this study, the survey method was used to gather data because of the need to obtain information about teachers’ attributions of their students’ problem behaviors directly from the teachers. The survey method has been used repeatedly and successfully in parent attribution research to ascertain parental attributions of children’s behavior.

**Research Design**

In this study I examined the relationship between teachers’ causal attributions of students’ misbehavior and teacher intervention preferences for students who exhibit problem behavior. First, descriptive data were obtained for all teachers. Second, bivariate analyses were conducted. Third, multiple linear regression analyses were conducted. Before conducting multiple linear regression analyses, tests of statistical assumptions were administered. Scores on rating scales were analyzed using the Statistical Package for the Social Sciences, 19.0 version (SPSS; SPSS Inc., 2010).

**Multiple Linear Regression Analysis Procedures**

In quantitative research, a multiple linear regression analysis (Cohen & Cohen, 1983) is conducted to predict the values of a dependent variable, given a set of explanatory variables (Cohen, Cohen, West, & Aiken, 2003). In the case of this study,
regression analyses were used to examine the unique and combined variance in teachers’ intervention preferences accounted for by the three dimensions of teachers’ causal attributions (Blame and Intentionality, Stability, and Internal Causality). Because I had no theoretical basis for proceeding hierarchically, I entered all predictor (attribution) variables together and then examined unique and combined variance. I proceeded by splitting the data according to teacher type (special education vs. general education) and conducted additional regression analyses. This study met the criteria for multiple linear regression analysis outlined by Cohen, Cohen, West, and Aiken (2003) in that the dependent variable (teacher intervention preferences) was studied as a function of or in relationship to the independent variables of interest (causal attributions of Blame and Intentionality, Stability, and Internal Causality). This study also met the criteria for conducting multiple linear regression analysis outlined by Brace, Kemp, and Snelgar (2006) in that the number of participants targeted was substantially higher than the number of predictor variables in the study.

Before multiple linear regression analysis was conducted, the data were tested for violation of statistical assumptions, as suggested by Osborne and Waters (2002). Normality, linearity, and homoscedasticity are the assumptions that were tested. The normal probability plot (see Ryan & Joiner, 1976) was used to test whether or not the residuals were normally distributed (the assumption of normality). A scatter plot was used to examine each predictor variable separately for linearity with the dependent variable (Berry & Feldman, 1985; Cohen & Cohen, 1983; Pedhazur, 1997). A graph of the predicted variables vs. the residuals was used to determine whether there was a linear
relationship between the combination of the predictor variables and the dependent variable. An indication of homoscedasticity is that the variance of errors is the same across all levels of the independent variable. A difference in the variance of errors at different values of the independent variable indicates heteroscedasticity. Marked heteroscedasticity can lead to distorted findings and can weaken the analysis (Berry and Feldman, 1985; Tabachnick & Fidell, 1996). Osborne and Waters (2002) suggest that this assumption be tested through visual examination of plots. As a result, the plot of predicted values vs. the regression standardized residuals was examined to test the assumption of homoscedasticity.

In the following chapter, analysis of data for the current study will be presented in five steps. First, I will present exploratory data analyses. Second, I will present tests of the statistical assumptions of normality, linearity, and homoscedasticity as suggested by Osborne and Waters (2002). Third, I will present multiple regression analysis that accounts for all teachers in the study. Fourth, I will present multiple regression analysis that accounts for the subgroup of general education teachers. Fifth, I will present multiple regression analysis that accounts for the subgroup of special education teachers.
CHAPTER III
RESULTS

Overview

In this study I examined the relationship between teachers’ causal attributions of students’ problem behavior and teachers’ intervention preferences for students who exhibit problem behavior. The quantitative research design that was used to examine this relationship is multiple linear regression analysis. In this chapter, I present results of descriptives, results of bivariate tests, and results of three sets of multiple linear regression analyses. The first regression analysis includes both special and general education teachers. The second regression analysis includes general education teachers only. The third regression analysis includes special education teachers only.

Results From Descriptive Analyses

Univariate Descriptive Data

There were 84 respondents in this study comprising teachers of students from levels K-12. Two teachers taught kindergarten, 27 teachers taught at an elementary school, 44 taught at a middle school, and 11 teachers taught at a high school. There were 60 general education teachers and 22 special education teachers in this sample. As a result of the lack of distinction between special and general education teachers’ attributions in existing research, a special effort was made to examine special versus general education teachers’ causal attributions of student problem behavior as a factor in this study. It is plausible that the causal attributions each group (special and general education teachers) holds for student problem behavior will vary possibly as a result of
perceived differences in teacher training and preparation experienced by each group.

Table 3 presents descriptive statistics for each causal dimension subscale.

Table 3

*Mean Likert Ratings for Three Causal Dimension Subscales*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blame and Intentionality</td>
<td>84</td>
<td>1.00</td>
<td>6.00</td>
<td>4.08</td>
<td>.94241</td>
</tr>
<tr>
<td>Stability</td>
<td>84</td>
<td>1.00</td>
<td>5.00</td>
<td>2.60</td>
<td>.85106</td>
</tr>
<tr>
<td>Internal Causality</td>
<td>84</td>
<td>1.00</td>
<td>6.00</td>
<td>3.63</td>
<td>1.07800</td>
</tr>
</tbody>
</table>

*Note.* The rating scale for each causal dimension subscale was as follows: 1–disagree strongly; 2–disagree; 3–disagree somewhat; 4–agree somewhat; 5–agree; 6–agree strongly. Therefore, a rating closer to six indicates strong attributions of Blame and Intentionality, Stability, or Internal Causality towards the causes of student problem behavior.

It appears that, overall, teachers’ rating scores for attributions of Blame and Intentionality were slightly higher than their mean rating scores for attributions of Stability and their mean rating scores for attributions of Internal Causality. In other words, teachers appear to be more likely to blame a student for their problem behavior and to perceive student problem behavior as being intentionally displayed by the student than to attribute the causes of a student’s problem behavior to stable factors. Table 4 presents descriptive statistics for each Intervention Preference subscale.
Table 4

*Mean Likert Ratings for Intervention Preferences*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive</td>
<td>84</td>
<td>1.00</td>
<td>6.00</td>
<td>4.49</td>
<td>1.15592</td>
</tr>
<tr>
<td>Unsupportive</td>
<td>84</td>
<td>1.00</td>
<td>5.00</td>
<td>3.34</td>
<td>.92030</td>
</tr>
</tbody>
</table>

Note. To indicate intervention preferences, teachers circled a number (1-6) to indicate the extent to which they felt an approach or response to problem behavior was an effective strategy. The rating scale for this section was as follows: 1 = very ineffective; 2 = ineffective; 3 = somewhat ineffective; 4 = somewhat effective; 5 = effective; 6 = very effective.

It appears that, overall, teachers’ mean rating score on the Supportive scale was slightly higher than their mean score on the Unsupportive scale (see Table 4).

Seemingly, teachers in this study showed more support for research-based strategies than they did for strategies that were not proven-effective by research.

**Bivariate Correlation Tests**

To examine, in a preliminary fashion, relationships among teachers’ attributions of Blame and Intentionality, Stability, and Internal Causality and teachers’ intervention preferences, I first calculated bivariate correlations. According to Mertler and Vannatta (2002), the Pearson correlation coefficient is calculated to examine the linear relationship between two variables. Specifically, the Pearson correlation coefficient captures the strength and the direction of the linear relationship between two variables. The Pearson correlation coefficient \( r \) was used in this study to measure the association between teachers’ causal attributions of Blame and Intentionality, Stability, and Internal Causality.
and teachers’ preferences for either Supportive (empirically validated) or Unsupportive (not empirically validated) interventions or responses (see Table 5).

First, I examined correlations between the causal dimensions. Correlations among predictor variables can present problems when conducting multiple linear regressions if correlations are higher than .70 (Cohen & Cohen, 1983). In the case of this study, the predictor variables are not too highly correlated with each other because all correlations between predictor variables were less than .70. As a result, all predictor variables were eligible for inclusion in the regression analysis.

I then examined relationships between the causal dimensions and teacher preferences for Supportive and Unsupportive interventions. The only causal attribution dimension that correlated with intervention preference was Blame and Intentionality. Teachers’ causal attributions of Blame and Intentionality were significantly positively correlated with teachers’ preferences for using Unsupportive interventions in response to student problem behavior ($r = .31, p < .01$). There appears to be a slightly negative correlation between Supportive and Unsupportive intervention preferences ($r = -.206$). Correlation between predictor variables and dependent variables is appropriate for multiple linear regression analysis (Cohen & Cohen, 1983).
Table 5

*Bivariate Pearson’s Correlations Among Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Blame and Intentionality</td>
<td>Pearson Correlation</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Stable</td>
<td>Pearson Correlation</td>
<td>.416**</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Internal</td>
<td>Pearson Correlation</td>
<td>.515**</td>
<td>.485**</td>
<td>--</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Supportive</td>
<td>Pearson Correlation</td>
<td>-.098</td>
<td>.065</td>
<td>.038</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Unsupportive</td>
<td>Pearson Correlation</td>
<td>.309**</td>
<td>.068</td>
<td>.181</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* ** = *p < .01* (2-tailed). Teachers’ causal attributions of Blame and Intentionality were significantly positively correlated with their causal attributions of Stability (*r* = .42, *p* < .01) and causal attributions of Internal Causality (*r* = .52, *p* < .01). Teachers’ causal attributions of Stability were also significantly positively correlated with their causal attributions of Internal Causality (*r* = .49, *p* < .01).
Test of Assumptions

Before multiple regression analysis was conducted, the data were tested for violation of statistical assumptions. Normality, linearity, and homoscedasticity were the assumptions addressed.

Normality. Regression assumes that variables are normally distributed (Osborne & Waters, 2002). The assumption of normality was tested through visual inspection of data plots. Normal probability plots were created in SPSS and visually inspected to test whether residuals were normally distributed. For the most part, points lined up with the line on the plot, with few outliers present. Overall, it appears that the assumption of normality was not violated (see Figures 1-2).

Figure 1. Normal P-Plot for Supportive Preference
To further test the data for normality, I examined inferential statistics provided by the Kolmogorov-Smirnov and the Shapiro-Wilk tests of normality (see Table 6). The Kolmogorov-Smirnov and the Shapiro-Wilk tests of normality both revealed that participants’ scores for Supportive intervention preferences were normally distributed. It appears that the assumption of normality was not met by these tests for scores on Unsupportive intervention preferences. The small sample size used for this study is a likely contributor to the signs of non-normality that are present in these tests for scores on Unsupportive intervention preferences.
Table 6

Test of Normality

<table>
<thead>
<tr>
<th></th>
<th>Kolmogorov-Smirnov&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>Df</td>
</tr>
<tr>
<td>Supportive</td>
<td>.067</td>
<td>81</td>
</tr>
<tr>
<td>Unsupportive</td>
<td>.111</td>
<td>81</td>
</tr>
</tbody>
</table>

Note. Lilliefors Significance Correction (*). Lower bound of the true significance (*).

**Linearity.** Multiple regression analysis requires that the relationship between dependent and independent variables are linear in nature (Osborne & Waters, 2002). A scatter plot was used to examine the relationship between predictor variables and each independent variable for linearity. The three causal dimensions had a linear relationship with both Supportive and Unsupportive intervention preferences. As no curvilinear (non-linear) relationships were detected between the independent and dependent variables, the assumption of linearity was met. The graph of the predicted variables vs. the residuals was used to determine indication of a linear relationship between the combination of the predictor variables and the dependent variable (see Figures 3-4). Through visual inspection of each graph, it appears as though the assumption of linearity was met.
Figure 3. Scatterplot for Supportive Preference

![Scatterplot for Supportive Preference](image)

Figure 4. Scatterplot for Unsupportive Preference

![Scatterplot for Unsupportive Preference](image)

**Homoscedasticity.** Multiple regression analysis requires that the variance of errors is the same across all levels of the independent variable (Osborne & Waters, 2002). This is the assumption of homoscedasticity. The plot of predicted values vs. the
regression standardized residuals was also used to test the assumption of homoscedasticity. Through visual analysis of the plot, it appeared as though there was an equal scattering of points above and below the imaginary zero line. When residuals are randomly scattered around 0 (the horizontal line) a relatively even distribution is indicated. For the data in this study, the assumption of homoscedasticity was met.

**Multiple Regression Analysis**

**Overall regression equations.** Two dependent variables were examined separately using multiple linear regression—Supportive intervention preference and Unsupportive intervention preference (see Tables 7-10).

Table 7

**ANOVA\(^b\) for All Teachers—Supportive Preference**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>75.245</td>
<td>3</td>
<td>25.082</td>
<td>.726</td>
<td>.540(^a)</td>
</tr>
<tr>
<td>Residual</td>
<td>2660.755</td>
<td>77</td>
<td>34.555</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2736.000</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Internal Causality–Raw Score, Stable–Raw Score, Blame and Intentionality–Raw Score

b. Dependent Variable: Supportive Intervention Preference–Raw Score

The overall regression equation for Supportive intervention preference was not statistically significant.
Table 8

Coefficients for All Teachers—Supportive Preference

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>23.760</td>
<td>2.810</td>
<td>8.454</td>
</tr>
<tr>
<td></td>
<td>Blame and Intentionality</td>
<td>-.084</td>
<td>.062</td>
<td>-.182</td>
</tr>
<tr>
<td></td>
<td>Stable</td>
<td>.112</td>
<td>.148</td>
<td>.100</td>
</tr>
<tr>
<td></td>
<td>Internal Causality</td>
<td>.076</td>
<td>.126</td>
<td>.084</td>
</tr>
</tbody>
</table>

Table 9

ANOVA\textsuperscript{b} for All Teachers—Unsupportive Preference

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>224.814</td>
<td>3</td>
<td>74.938</td>
<td>2.932</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>1967.878</td>
<td>77</td>
<td>25.557</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2192.691</td>
<td>80</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{a}. Predictors: (Constant), Internal Causality–Raw Score, Stable–Raw Score, Blame and Intentionality–Raw Score

\textsuperscript{b}. Dependent Variable: Unsupportive Intervention Preference–Raw Score

The overall regression equation for Unsupportive intervention preference was statistically significant: \(F(3, 80) = 2.932; \ p < .05\). This suggests that teachers’ causal
attributions of student misbehavior can be used to predict their preference for using
Unsupportive interventions.

Table 10

*Coefficients for All Teachers—Unsupportive Preference*

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>19.154</td>
<td>2.417</td>
<td>7.925</td>
</tr>
<tr>
<td></td>
<td>Blame and Intentionality</td>
<td>.129</td>
<td>.053</td>
<td>.314</td>
</tr>
<tr>
<td></td>
<td>Stable</td>
<td>-.095</td>
<td>.127</td>
<td>-.095</td>
</tr>
<tr>
<td></td>
<td>Internal Causality</td>
<td>.053</td>
<td>.108</td>
<td>.065</td>
</tr>
</tbody>
</table>

**Amount of variance explained.** Approximately 10% of variance (see Table 11) in Unsupportive intervention preference is explained by all three independent variables ($R^2 = .103$). The *Blame and Intentionality* variable was the only variable in which its unique contribution was statistically significant. The statistically significant standardized regression coefficient for *Blame and Intentionality* was $.314 (t(77) = 2.417; p = .017)$.

This finding suggests that the causal dimensions of *Stability* and *Internal Causality* do not assist in improving the accuracy of the prediction of the regression equation. In other words, there is some redundancy with these variables and they are not predicting much.
Table 11

*Model Summary* for All Teachers—Unsupportive Preference

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.320$^a$</td>
<td>.103</td>
<td>.068</td>
<td>5.055</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Internal Causality–Raw Score, Stable–Raw Score, Blame and Intentionality–Raw Score

b. Dependent Variable: Unsupportive Intervention Preference–Raw Score

**Strongest causal dimensional predictor.** Of the three predictor variables, the *Blame and Intentionality* variable was found to be the only statistically significant predictor of Unsupportive intervention preference. This is evident through comparison of the standardized coefficients. The standardized coefficient for *Blame and Intentionality* is .314. The fact that this is the largest value, when all standardized coefficients are compared, suggests that the *Blame and Intentionality* variable has a stronger relationship with the criterion variable than the other predictor variables.

**Regression analyses for teacher subgroups.** To further examine the data in an effort to determine unique contributions based on the *type of teacher* variable, a series of regression analyses were conducted. First I examined scores for general education teachers only (see Tables 12-15). I then examined scores for special education teachers only (see Tables 16-19). The overall regression equation for Supportive intervention preference for general education teachers was not significant.
Table 12

**ANOVA\(^b\) for GENED Teachers—Supportive Preference**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>92.556</td>
<td>3</td>
<td>30.852</td>
<td>.970</td>
<td>.414(^a)</td>
</tr>
<tr>
<td>Residual</td>
<td>1685.654</td>
<td>53</td>
<td>31.805</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1778.211</td>
<td>56</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), Internal Causality–Raw Score, Stable–Raw Score, Blame and Intentionality–Raw Score

\(^b\) Dependent Variable: Supportive Intervention Preference–Raw Score

Table 13

**Coefficients for GENED Teachers—Supportive Preference**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>24.074</td>
<td>3.771</td>
<td>6.383</td>
</tr>
<tr>
<td></td>
<td>Blame and Intentionality</td>
<td>-.113</td>
<td>.085</td>
<td>-.215</td>
</tr>
<tr>
<td></td>
<td>Stable</td>
<td>.196</td>
<td>.162</td>
<td>.185</td>
</tr>
<tr>
<td></td>
<td>Internal Causality</td>
<td>.087</td>
<td>.155</td>
<td>.093</td>
</tr>
</tbody>
</table>

Table 14

ANOVA\textsuperscript{b} for GENED Teachers—Unsupportive Preference

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>45.692</td>
<td>3</td>
<td>15.231</td>
<td>.595</td>
<td>.621\textsuperscript{a}</td>
</tr>
<tr>
<td>Residual</td>
<td>1357.186</td>
<td>53</td>
<td>25.607</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1402.877</td>
<td>56</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{a} Predictors: (Constant), Internal Causality–Raw Score, Stable–Raw Score, Blame and Intentionality–Raw Score

\textsuperscript{b} Dependent Variable: Unsupportive Intervention Preference–Raw Score

Table 15

Coefficients for GENED Teachers—Unsupportive Preference

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>22.507</td>
<td>3.384</td>
<td>6.651</td>
<td>.000</td>
</tr>
<tr>
<td>Blame and Intentionality</td>
<td>.068</td>
<td>.076</td>
<td>.146</td>
<td>.896</td>
</tr>
<tr>
<td>Stable</td>
<td>-.141</td>
<td>.145</td>
<td>-.150</td>
<td>-.972</td>
</tr>
<tr>
<td>Internal Causality</td>
<td>.056</td>
<td>.139</td>
<td>.068</td>
<td>.403</td>
</tr>
</tbody>
</table>
The overall regression equation for Unsupportive intervention preference for
general education teachers was also not significant.

Table 16

ANOVA\(^b\) for SPED Teachers—Supportive Preference

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>101.209</td>
<td>3</td>
<td>33.736</td>
<td>.761</td>
<td>.531(^a)</td>
</tr>
<tr>
<td>Residual</td>
<td>798.064</td>
<td>18</td>
<td>44.337</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>899.273</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), Internal Causality–Raw Score, Blame and Intentionality–Raw Score, Stable–Raw Score

\(^b\) Dependent Variable: Supportive Intervention Preference–Raw Score

The overall regression equation for Supportive intervention preferences for
special education teachers was not significant.

Table 17

Coefficients for SPED Teachers—Supportive Preference

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>27.916</td>
<td>.5458</td>
<td>5.115</td>
<td>.000</td>
</tr>
<tr>
<td>Blame and Intentionality</td>
<td>-.100</td>
<td>.104</td>
<td>-.241</td>
<td>-.960</td>
</tr>
<tr>
<td>Stable</td>
<td>-.387</td>
<td>.404</td>
<td>-.245</td>
<td>-.958</td>
</tr>
<tr>
<td>Internal Causality</td>
<td>.154</td>
<td>.234</td>
<td>.176</td>
<td>.658</td>
</tr>
</tbody>
</table>
The overall regression equation for Unsupportive intervention preferences for special education teachers was significant (see Table 18): $F(3, 21) = 4.249; p < .05$. This suggests that special education teachers’ causal attributions of student misbehavior can be used to predict their preference for using Unsupportive interventions.

The overall regression equation for general education teacher was not statistically significant. Approximately 42% of variance (see Table 19) in Unsupportive intervention preference among special education teachers is explained by all three independent variables ($R^2 = .415$).
Table 19

Model Summary\(^b\) for SPED Teachers—Unsupportive Preference

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.644(^a)</td>
<td>.415</td>
<td>.317</td>
<td>4.955</td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), Internal Causality–Raw Score, Blame and Intentionality–Raw Score, Stable–Raw Score

\(^b\) Dependent Variable: Unsupportive Intervention Preference–Raw Score

The Blame and Intentionality variable was the only variable in which its unique contribution was statistically significant (see Table 20). The statistically significant standardized regression coefficient for Blame and Intentionality was .541 (\(t(18) = 2.647; p = .016\)). The standardized regression coefficient was not statistically significant for Stability or Internal Causality (See Table 20).

Table 20

Coefficients for SPED Teachers—Unsupportive Preference

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>12.781</td>
<td>4.062</td>
<td>3.147</td>
</tr>
<tr>
<td></td>
<td>Blame and Intentionality</td>
<td>.204</td>
<td>.077</td>
<td>.541</td>
</tr>
<tr>
<td></td>
<td>Stability</td>
<td>.281</td>
<td>.300</td>
<td>.194</td>
</tr>
<tr>
<td></td>
<td>Internal Causality</td>
<td>.013</td>
<td>.174</td>
<td>.017</td>
</tr>
</tbody>
</table>
CHAPTER IV

DISCUSSION

Overview

This chapter begins with a review of the research problem and rationale for the current study. It continues with a brief description of the study, a summary of the findings, and presentation of limitations that should be noted. I then present an interpretation of the findings in relation to extant research. The chapter concludes with implications for future research and current practice.

Review of Statement of Problem and Study Rationale

Given the likelihood that students who display problem behavior will experience a number of challenges both academically and socially (Adelman & Taylor, 2002; Buchanan et al., 2009; Dunn & Baker, 2002; Hastings & Bham, 2003; Kauffman, 2001; Landrum et al., 2003; Scott & Shearer-Lingo, 2002), the strongest and most effective interventions should be applied to situations in which problem behavior persists (Dunlap et al., 2006). In other words, research-based, proven-effective behavioral interventions should be used to address problem behavior instead of weaker, often punitive, strategies. Unfortunately, many teachers do not implement research-based strategies for students who exhibit problem behavior (Byrne, 1999; Sutherland & Wehby, 2001; Wehby et al., 2003). Instead, they continue to embrace ineffective practices that produce, at most, meager gains for students’ academic, social, or behavioral achievement (Kendziora & Osher, 2009; Osher et al., 2010). Teachers’ disuse of effective strategies for managing student problem behaviors is concerning (Fitzpatrick & Knowlton, 2009; Klingner et al.,
2003; Spooner & Browder, 2003; Vaughn et al., 1998), and it appears that the gap between research and practice is expanding (Cook et al., 2003; Fitzpatrick & Knowlton, 2009; Landrum et al., 2002). As a result, the need to address factors that influence whether teachers use research-based behavioral interventions in response to student problem behavior is essential to whether students with problem behavior are effectively served in the classroom.

Previous researchers (Andreou & Rapti, 2010; Christenson et al., 1983) found that teachers are more inclined to seek out and implement effective behavior intervention strategies when they attribute students’ challenges to factors internal to their (the teachers’) control than when they make external attributions for the causes of student problem behavior. In many cases, teachers are not only less likely to intervene, but they intervene with interventions that have low efficacy (Andreou & Rapti, 2010; Sutherland & Wehby, 2001; Wehby et al., 2003). In the existing literature base, there has been little attention placed on the extent to which teachers attribute student problem behavior to factors within or outside of students’ control.

In this study, I examined the causal attributions of 84 teachers in relation to student problem behavior. The causal attributional dimensions considered were Blame and Intentionality, Stability, and Internal Causality. I also investigated whether teachers’ beliefs about the causes of student problem behaviors influenced teachers’ perceptions of the efficacy of research-based practices. I explored how teachers’ causal attributions of student problem behavior were related to teachers’ preferences for using Supportive (i.e.
research-based practices) or Unsupportive (i.e. ineffective practices) intervention strategies in response to student problem behavior.

Conclusions

This study revealed that, in some cases, teachers’ causal attributions of student problem behavior were predictive of teachers’ intervention preferences. Specifically, the findings suggested that special education teachers’ causal attributions of Blame and Intentionality were predictive of special education teachers’ endorsement of Unsupportive interventions. This is an important finding in light of earlier findings that effective and consistent implementation of research-based interventions is vital to fostering and sustaining desired behavioral change in students who exhibit problem behavior (Dunlap et al., 2006; Gersten & Woodward, 1990). General education teachers’ causal attributions were found to not be predictive of general education teachers’ endorsement for Supportive or Unsupportive interventions. However, general education teachers scored slightly higher on Supportive intervention preferences than they did on Unsupportive intervention preferences.

The mean rating score attained by teachers in this study for the causal dimensions of Blame and Intentionality (4) support earlier findings that teachers often attribute school problems to student variables (Christenson et al., 1983; Guttman, 1982; Mavropoulou & P adeliadu, 2002; Medway, 1979; Soodak & Podell, 1994; Wilson & Silverman, 1991). Moreover, scores attained by special education teachers on Unsupportive intervention preferences support the suggestion that perceived causes for
student problem behavior can negatively affect teachers’ willingness to provide appropriate support for students who exhibit problem behavior (Andreou & Rapti, 2010).

The findings of this study may also be considered in light of existing literature that suggests that many teachers of students who exhibit problem behavior have not been adequately prepared to implement effective behavior management (Merrett & Wheldall, 1993). It might not be the case that teachers (especially special education teachers) are unprepared to effectively intervene. Instead, it might be that some teachers deem punishment rather than implementation of supportive interventions as the most appropriate response to problem behaviors exhibited by students. A prediction that special education teachers would score higher on Supportive intervention preferences than Unsupportive intervention preferences seems to be quite reasonable because of the training that special educators receive in delivery of effective behavior management. However, the present study revealed that special education teachers (not general education teachers) embraced unsupportive interventions more than they embraced supportive interventions.

Another reason why special education teachers might embrace unsupportive interventions in response to student problem behavior could be related to special education teachers’ daily or frequent, stressful experiences with more severe student behaviors (see Forness & Walker, 2012). Having to cope with chronic student behavior problems on a regular basis might be a factor that influenced special education teachers’ preference for punitive strategies in response to student problem behavior. Some special education teachers might be enticed by unsupportive strategies (e.g., sending a student to
the principal’s office) because of the immediate (though often not sustained) effect of such practices on externalizing behaviors in the classroom. This use of punishment to address student problem behavior is an ineffective behavior management technique because the effects of punishment-related discipline are often short-lived (Mayer, 1995; Osher et al., 2010; Skiba et al., 1997). Furthermore, punitive and exclusionary approaches to managing student problem behavior can actually be harmful to students, as they have been shown to increase and intensify student problem behavior (Dishion & Dodge, 2005; Dishion, Dodge, & Lansford, 2006; Gottfredson et al., 2005; Mayer & Butterworth, 1995; Morrison et al., 2001; Osher et al., 2003). We need to find ways help teachers understand that when it comes to responding to student problem behavior, gradual and sustained as opposed to instant and temporary should be the goal. Research suggests that research-based supportive interventions that usually show sustained success are those interventions that are implemented effectively and consistently over time (Landrum et al., 2002).

This study suggests that special education teachers’ attributions of Blame and Intentionality has an influence on special education teachers’ preferences for using Unsupportive strategies in response to student problem behavior. In the TASBM, students were not presented as having a disability. The missing “disability” factor could have influenced teachers’ responses to the behaviors students displayed in the scenarios presented. Teachers may have higher behavioral expectations for typical students than they do for students that have a disability, and therefore, might be more supportive of punitive measures. This idea of teachers being less inclined to embrace supportive
interventions for managing student behavior in the absence of disability aligns with earlier findings of Brophy and Rohrkemper (1981), and it is concerning because lack of support and effective intervention for typical students who display problem behavior can actually lead to students developing even more intensive behaviors problems that can hinder learning, impede the development of healthy relationship with teachers and peers, and possibly lead to a diagnosis of EBD (Forness & Walker, 2012; Lane et al., 2002; Lannie & McCurdy, 2007; Solar, 2011).

Cases in which teachers are genuinely unprepared to deal with problem behavior are also concerning. Earlier longitudinal studies, that have examined the relationship between problem behavior and academic attainment over time, have shown that when younger students’ problem behaviors persist without intervention, students struggle to achieve grade level success in both math and reading in later grades (e.g., Breslau et al., 2009). A logical conclusion is that this issue of teacher unpreparedness to effectively manage student problem behavior warrants professional development in behavior management. However, given the findings of this study that even special education teachers (most of whom should have received some training in behavior management) are applying attributions of Blame and Intentionality to student problem behavior and favoring Unsupportive interventions for managing problem behavior, it might be the case that something more than behavior management training alone is needed. Maybe professional development designed to help shape teachers’ causal attributions or to at least help teachers become aware of the causal attributions they assign to student problem behavior might help.
Limitations

There are a few limitations to be taken into account when considering the findings of this study. Instrumentation is one limitation because the survey instrument used (TASBM) is a researcher-adapted instrument, and at this point, psychometric properties are unknown. Therefore, the TASBM may not be a good measure of the constructs examined. For example, this study suggests that attributions of Blame and Intentionality are related to preferences for Unsupportive interventions. However, it could also be the case that special education teachers’ responses on the TASBM do not relate to or predict what special education teachers actually do when dealing with problem behavior. There is also a threat to internal validity in this study, in that teachers may have taken the opportunity to discuss questions on the survey with others (e.g., the teacher next door). This discussion may have resulted in similarities within or between individuals. Additionally, it should also be noted that by nature of the design, this study was low in internal validity overall because no variables were manipulated.

With reference to external validity, one must be cautious when seeking to generalize the results of this study because the sample includes intact groups of teachers within the six school districts. Approximately 200 teachers were asked to participate in the study and only 84 participants were successfully recruited. As a result, findings should not be extended to represent the population of teachers. Furthermore, I am limited in my ability to discuss the causal direction of any relationship that I have observed. For example, I cannot claim that teachers’ causal attributions for student problem behavior cause teachers to be more or less willing to implement unsupportive rather than
supportive interventions, or that teachers’ preference for using supportive or unsupportive interventions with students who exhibit problem behavior drive causal attributions.

**Implications for Future Research**

Future research in the area of teacher causal attributions as it relates to intervention provision for students who exhibit problem behavior is needed. The findings of this study support earlier assertions that despite meager support from the field for use of punitive approaches to managing problem behavior, teachers still demonstrate a preference for using punishment (Mayer, 1995; Osher et al., 2010; Skiba et al., 1997). We know that teachers’ causal attributions of student misbehavior are related to whether or not teachers intervene and the kinds of interventions with which they intervene. As a result, helping teachers to transform unhelpful attributions of student problem behavior can lessen their reliance on punitive responses to problem behavior and increase their use of proven-effective interventions that result in problem behavior prevention and behavior change.

**Attribution Retraining**

How can mal-adaptive causal attributions be transformed? One solution could be to include attribution retraining as a part of behavior modification professional development initiatives. Attribution retraining is a strategy used to promote future motivation for achievement and to encourage individuals who are unmotivated to push towards successful outcomes (Forsterling, 1985; Haynes, Perry, Stupnisky, & Daniels, 2009). Given that patterns of attribution are not fixed (i.e., they can be changed), attribution retraining can be used to change mal-adaptive attributional patterns to those
which are more adaptive (Perry, Hechter, Menec, & Weinberg, 1993; Perry, Hall, & Ruthig, 2005). For example, Zubrick et al. (2005) found that an enhanced group-administered behavioral family intervention based on the Triple P-Positive Parenting Program that incorporated attributional retraining was associated with lower levels of observed and parent-reported disruptive child behavior, lower levels of parent-reported dysfunctional parenting, greater parental self-efficacy, less parental distress, less relationship conflict, and high levels of consumer satisfaction.

Despite substantial research on the efficacy of attributional retraining (e.g., Chodkiewicz, & Boyle, 2014; Hall, Jackson Gradt, Goetz, & Musu-Gillette, 2011; Perry, Stupnisky, Hall, Chipperfield, & Weiner, 2010), few studies have investigated the effect of attributional retraining on teachers’ causal attributions of their students’ misbehavior (e.g., Zhou & Urhahne, 2013). However, given the success of this method with parent groups (e.g., Sanders, Pidgeon, Gravestock, Connors, Brown, & Young, 2004), we can deduce that attributional retraining can be beneficial for teachers who attribute student misbehavior to factors beyond their (the teacher’s) control, resulting in low motivation for implementing research-based interventions.

Teachers’ beliefs about causality with reference to student misbehavior can be improved by training teachers to embrace controllable as opposed to non-controllable attributions (Brophy & Rohrkemper, 1981). As a result, teachers who might otherwise embrace unsupportive interventions may be more open to implementing research-based interventions for students who exhibit problem behavior. For example, attribution retraining may garner a higher rate of teacher buy-in for behavior prevention initiatives.
that are not being fully embraced like Positive Behavior Interventions and Supports (PBIS). As it stands, despite the fact that it is a proven-effective intervention, few features of PBIS are being implemented in schools, and staff buy-in has been identified as the primary barrier to implementation efficacy (Kincaid, Childs, Wallace, & Blase, 2007).

**Thought Stopping and Thought Switching**

Thought stopping is a strategy that makes an individual aware of unhealthy thoughts and diverts attention from damaging, repetitive thought habits (Fulk & Mastropieri, 1990). Thought stopping fosters a sense of control as negative thought habits are broken and subsequently, replaced with thoughts that are more positive and realistic. This movement of focus from negative cognitions to positive thoughts is called thought switching. For teachers of students with behavioral problems, thought stopping and thought switching can be helpful interventions. If teachers are able to stop themselves and realize that they are making external attributions for student misbehavior, they may be more inclined to switch their thinking to embrace more internal controllable attributions (internal to themselves). Thought stopping and thought switching interventions that can foster teacher-controllable attributions of student problem behavior can also increase the likelihood that teachers will use instructional techniques and strategies that have been tried and proven effective.

**Measures**

As there exists a lack of instruments that have been developed and validated to measure teacher causal attributions of student problem behavior, a future undertaking
may involve working on the TASBM to have it more rigorously evaluated for content validity and inter-rater reliability. Including a mixture of vignettes that portray students with disabilities and students without disabilities may produce interesting findings. The instrument can then be piloted with a much larger sample of teachers. This process can result in the establishment of reliable tool for measuring teacher causal attributions and facilitate further research into the possible relationships between teacher attributions and intervention implementation.

Ways in which existing measures can be used to advance the work in teacher attribution research should also be explored. For example, the Locus of Control Scale (Rotter, 1996) might be fitting for use in a study that explores whether teachers who perceive the causes of student problem behavior as being internal and stable to the student also exhibit generalized expectancies for external control (score high on the scale). Consideration of the likelihood that these teachers would implement supportive interventions may follow.

In summary, teachers’ beliefs about the causes of student problem behavior appear to be predictive of the type of intervention strategies teachers prefer to use with students who display behavior problems. It also appears that teachers’ causal attributions of Blame and Intentionality influence the types of interventions teachers embrace. Special education teachers seem to embrace strategies that have not been supported by research more than they embrace research-based practices for managing student problem behavior. The fact that some teachers continue to respond to problem behavior by using ineffective strategies that are not supported by research (Mayer, 1995; Osher et al., 2010;
Skiba et al., 1997) is concerning because the needs of many students who exhibit problem behavior are not effectively being met or addressed in the classroom (Cook et al., 2003; Fitzpatrick & Knowlton, 2009; Landrum, Cook et al., 2002). Given the relationship between student problem behavior and lack of school success, which has already been established through previous research (Byrne, 1999; Kendziora & Osher, 2009; Osher et al., 2010), provision of supports, including attribution retraining, for teachers of students who exhibit problem behavior is essential.
APPENDICES
APPENDIX A

ATTRIBUTION THEORY TIMELINE
Appendix A

Attribution Theory Timeline

**Fritz Heider**: Common Sense (Naive) Psychology
- People naturally observe the behavior of other people and decide on causes for behaviors displayed. People are “naive psychologists” who develop an understanding of the social world through causal relationships.

**Harold Kelley**: Covariation Model of Attribution
- People act like “scientists” using consensus information, distinctive information and consistency information when making judgments.

1958

**Edward E. Jones and Keith Davis**: Correspondence Inference Theory
- People perceive behavior to be either intentional or accidental, and these perceptions influence causal attributions.

1965

**Bernard Weiner**: Three-dimensional Model of Attribution

1. stable theory (stable vs. unstable)
2. locus of control (internal vs. external)
3. controllability (controllable vs. uncontrollable)

Weiner’s (1976) theory further suggests that people’s causal attributions influence the placing of blame or the drawing of conclusions about responsibility.

1967

1972, 1976, & 1985
APPENDIX B

KENT STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD APPROVAL
Appendix B

Kent State University Institutional Review Board Approval

IRB Level I, category 2 approval for Protocol application #13-198 - please retain this email for your records

To: Andrew

Re: Protocol #13-198 - entitled "Teacher Causal Attributions for Student Misbehavior: An Examination of the Relationship between Attributions and Intervention"

I am pleased to inform you that the Kent State University Institutional Review Board has reviewed and approved your Application for Approval to Use Human Research Participants as Level I/Exempt research. This application was approved on April 10, 2013. Your research project involves minimal risk to human subjects and meets the criteria for the following category of exemption under federal regulations:

- Exemption 2: Research involving the use of educational tests, surveys, interviews, or observation of public behavior.

***Submission of annual review reports is not required for Level I/Exempt projects.***

If any modifications are made in research design, methodology, or procedures that increase the risk to subjects or includes activities that do not fall within the approved exemption category, those modifications must be submitted to and approved by the IRB before implementation. Please contact the IRB administrator to discuss the changes and whether a new application must be submitted. It is important for you to also keep a current transcript (i.e., Microsoft Word version) of your consent form for subsequent submissions.

Kent State University has a Federal Wide Assurance on file with the Office for Human Research Protections (OHRP). PWA Number: 00001855.

If you have any questions or concerns, please contact me by phone at 330.672.2704 or by email at ravaph@kent.edu.

Respectfully,
Kent State University Office of Research Compliance
224 Cartwright Hall | Fax 330.672.2098

Kevin McCready | Research Compliance Coordinator | 330.672.8058 | kmccready@kent.edu
Laurie Keil | Research Compliance Assistant | 330.672.2077 | lkeil@kent.edu
Paulette Wachio | Manager, Research Compliance | 330.672.2070 | pwachio@kent.edu
APPENDIX C

LETTER OF CONSENT FOR DISTRICT SUPERINTENDENT
Appendix C

Letter of Consent for District Superintendent

Date.

Name of Superintendent
District Superintendent
Name of School District
Address Line 1
Address Line 2

Dear Sir,

My name is Andrea Simms. I am a doctoral student at Kent State University and I am in the data collection phase of my dissertation research. I write to invite you to allow teachers in your school district to participate in a research study entitled, *The Relationship between Teachers’ Causal Attributions for Student Problem Behavior and Teachers’ Intervention Preferences*. Your permission for participation is voluntary.

The purpose of this research is to ascertain the extent to which teachers’ causal attributions of students’ misbehavior have an effect on teachers’ inclination to assist students who exhibit behavior problems. All teachers in your school district will have an opportunity to participate in this study. Participation requires that teachers complete a survey entitled *Teacher’s Attributions for Student’s Behavior Measure*. This survey has two sections—A and B. *Section A* contains six situations that involve different ways that students can behave (e.g. hitting others; destroying property; being non-compliant). Teachers are asked to imagine a student performing a behavior in each situation. They will complete the questionnaire by reading each of the six situations presented, and then circling a number on each scale for all four statements following each situation. The number circled will indicate the extent to which a teacher disagrees or agrees with each statement. *Section B* contains one situation for which teachers are asked to indicate the extent to which they think that a given approach would be effective for addressing the behavior problems of the student referenced. For the 12 responses listed, participants will think again about Situation 1 (reprinted). For each item, teachers will circle a number (1-6) to indicate the extent to which they think the approach would be effective for addressing the problem. A short form will be attached to the questionnaire. On this form, teachers will be asked to indicate demographic information such as the number of years they have taught to date, the subject they currently teach, their age, gender, etc.

I realize that the principal of each school may request slight variations to this, but here is what I am hoping to do with reference to administration of the survey: An administrator (e.g. the school principal) at each of the participating schools will be provided with a packet at 8am on the day that has been assigned by the principal for data collection. The packet will include enough surveys for each teacher at the school along with a short form...
attached to each questionnaire on which teachers will be asked to indicate demographic information. Upon receipt of the packets, the administrator will inform teachers of the opportunity to participate in the study. The administrator (or an employee assigned) will distribute a survey and a demographic information form to each teacher in the building. Teachers will complete the questionnaire and demographic information sheet. The administrator will collect completed forms from the teachers at the end of the school day in which distribution took place. The forms will be kept in the administrator’s office until I collect them between 3pm and 4pm (or another time advised) on the day of distribution.

Your permission for teachers to participate in this study will help to facilitate the collection of data that can cultivate a better understanding of the relationship between teachers’ causal attributions of students’ misbehavior, and teachers’ intervention preferences. It will also help as researchers consider potential benefits of attribution re-training in professional development initiatives for teachers of students who exhibit problem behaviors.

I assure you that the study related information collected will be kept confidential within the limits of the law. Any identifying information will be kept in a secure location and I am the only person who will have access to the data. Research participants will not be identified in any publication or presentation of research results; only aggregate data will be used. If you have any questions or concerns about this research, you may contact me, Andrea Simms, at 330-990-6738 (e-mail:asimms1@kent.edu) or Dr. Andrew Wiley, my KSU faculty advisor, at 330-672-2294 (e-mail:awiley5@kent.edu).

This project has been approved by the Kent State University Institutional Review Board. Please indicate your permission for me to approach the principals of schools in your district by signing the attached consent form.

I wish to thank you in advance for your kind consideration.

Sincerely,

Andrea Simms
Doctoral Candidate and Graduate Assistant (Instructor)
School of Lifespan Development and Educational Sciences
Kent State University
E-mail: asimms1@kent.edu
Phone (cell): 330-9906738
Mailbox: 405 White Hall
APPENDIX D

LETTER OF CONSENT FOR PRINCIPAL
Appendix D

Letter of Consent for Principal

Date.

Name of Principal
Principal
Name of School
Address Line 1
Address Line 2

Dear Madam,

My name is Andrea Simms. I am a doctoral student at Kent State University and I am in the data collection phase of my dissertation research. I received permission from the district superintendent, INSERT NAME, to approach you—seeking your consent. I would like to administer a survey to teachers in your school building as a part of my research study entitled, *The Relationship between Teachers’ Causal Attributions for Student Problem Behavior and Teachers’ Intervention Preferences.*

The purpose of this research is to ascertain the extent to which teachers’ causal attributions of students’ misbehavior have an effect on teachers’ inclination to assist students who exhibit behavior problems. All teachers in your school district will have an opportunity to participate in this study. Participation requires that teachers complete a survey entitled *Teacher’s Attributions for Student’s Behavior Measure.* This survey has two sections—A and B. *Section A* contains six situations that involve different ways that students can behave (e.g. hitting others; destroying property; being non-compliant). Teachers are asked to imagine a student performing a behavior in each situation. They will complete the questionnaire by reading each of the six situations presented, and then circling a number on each scale for all four statements following each situation. The number circled will indicate the extent to which a teacher disagrees or agrees with each statement. *Section B* contains one situation for which teachers are asked to indicate the extent to which they think that a given approach would be effective for addressing the behavior problems of the student referenced. For the 12 responses listed, participants will think again about Situation 1 (reprinted). For each item, teachers will circle a number (1-6) to indicate the extent to which they think the approach would be effective for addressing the problem. A short form will be attached to the questionnaire. On this form, teachers will be asked to indicate demographic information such as the number of years they have taught to date, the subject they currently teach, their age, gender, etc.

I realize that the principal of each school may request slight variations to this, but here is what I am hoping to do with reference to administration of the survey: An administrator
(e.g. the school principal) at each of the participating schools will be provided with a packet at 8am on the day that has been assigned by the principal for data collection. The packet will include enough surveys for each teacher at the school along with a short form attached to each questionnaire on which teachers will be asked to indicate demographic information. Upon receipt of the packets, the administrator will inform teachers of the opportunity to participate in the study. The administrator (or an employee assigned) will distribute a survey and a demographic information form to each teacher in the building. Teachers will complete the questionnaire and demographic information sheet. The administrator will collect completed forms from the teachers at the end of the school day in which distribution took place. The forms will be kept in the administrator’s office until I collect them between 3pm and 4pm (or another time advised) on the day of distribution.

Your cooperation will help to facilitate the collection of data that can cultivate a better understanding of the relationship between teachers’ causal attributions of students’ misbehavior, and teachers’ intervention preferences. It will also help as researchers consider potential benefits of attribution re-training in professional development initiatives for teachers of students who exhibit problem behaviors.

I assure you that the study related information collected will be kept confidential within the limits of the law. Any identifying information will be kept in a secure location and I am the only person who will have access to the data. Research participants will not be identified in any publication or presentation of research results; only aggregate data will be used. If you have any questions or concerns about this research, you may contact me, Andrea Simms, at 330-990-6738 (e-mail:asimms1@kent.edu) or Dr. Andrew Wiley, my KSU faculty advisor, at 330-672-2294 (e-mail:awiley5@kent.edu).

This project has been approved by the Kent State University Institutional Review Board. Please indicate your cooperation by signing the attached consent form, and designating dates for survey drop off and collection.

I wish to thank you in advance for your kind consideration.

Sincerely,

Andrea Simms
Doctoral Candidate and Graduate Assistant (Instructor)
School of Lifespan Development and Educational Sciences
Kent State University
E-mail: asimms1@kent.edu
Phone (cell): 330-9906738
Mailbox: 405 White Hall
APPENDIX E

LETTER OF CONSENT FOR TEACHER
Appendix E

Letter of Consent for Teacher

Informed Consent to Participate in a Research Study

Study Title: The Relationship between Teachers’ Causal Attributions for Student Problem Behavior and Teachers’ Intervention Preference.
Principal Investigator: Andrea Simms

You are being invited to participate in a research study. This consent form will provide you with information on the research project, what you will need to do, and the associated risks and benefits of the research. Your participation is voluntary. Please read this form carefully. It is important that you ask questions and fully understand the research in order to make an informed decision. You will receive a copy of this document to take with you.

Purpose: An examination of the factors that influence implementation of behavior management strategies causes researchers to consider how teachers think about interventions for students with behavior problems, but more so, how they think about misbehavior. As we encourage teachers to use proven-effective strategies and research based intervention techniques for students with behavior problems, we realize that no matter how robust and efficacious an intervention is proven to be, it cannot be of much benefit unless it is implemented effectively and consistently. As a result, there is a need to examine teachers’ causal attributions of students’ misbehavior and explore how these impact teachers’ tendency to intervene and provide help for students who exhibit problem behavior. The purpose of this research is to ascertain the extent to which teachers’ causal attributions of students’ misbehavior have an effect on teachers’ inclination to assist students who exhibit behavior problems.

Procedures: All teachers in your school will have an opportunity to participate in this study. Participation requires that teachers complete a survey entitled Teacher’s Attributions for Student’s Behavior Measure. This survey has two sections—A and B. Section A contains six situations that involve different ways that students can behave (e.g. hitting others; destroying property; being non-compliant). Teachers are asked to imagine a student performing a behavior in each situation. They will complete the questionnaire by reading each of the six situations presented, and then circling a number on each scale for all four statements following each situation. The number circled will indicate the extent to which a teacher disagrees or agrees with each statement. The rating scale is as follows: 1–Disagree strongly; 2–Disagree; 3–Disagree somewhat; 4–Agree somewhat; 5–Agree; 6–Agree strongly. Additionally, teachers will be required to explain how they would respond to the student in each situation. Section B contains one situation for which teachers are asked to indicate the extent to which they think that a given approach would be effective for addressing the behavior
problems of the student referenced. For the 12 responses listed, participants will think again about Situation 1 (reprinted). For each item, teachers will circle a number (1-6) to indicate the extent to which they think the approach would be effective for addressing the problem. The rating scale for this section is as follows: 1= very ineffective; 2= ineffective; 3= somewhat ineffective; 4= somewhat effective; 5= effective; 6= very effective.

A short form will be attached to the questionnaire. On this form, teachers will be asked to indicate demographic information such as the number of years they have taught to date, the subject they currently teach, their age and gender.

**Benefits:** This research will not benefit you directly. However, your participation in this study will help us to better understand the relationship between teachers’ causal attributions of students’ misbehavior, and teachers’ tendency to help students with behavior problems. It will also help us as we consider potential benefits of attribution retraining in professional development initiatives for teachers of students who exhibit problem behaviors.

**Risks and Discomforts:** There are no anticipated risks beyond those encountered in everyday life.

**Privacy and Confidentiality:** Your study related information will be kept confidential within the limits of the law. Any identifying information will be kept in a secure location and only the researcher will have access to the data. Research participants will not be identified in any publication or presentation of research results; only aggregate data will be used.

**Voluntary Participation**
Taking part in this research study is entirely up to you. You may choose not to participate or you may discontinue your participation at any time without penalty or loss of benefits to which you are otherwise entitled.

**Contact Information**
If you have any questions or concerns about this research, you may contact Andrea Simms at 330-990-6738 (e-mail: asimms1@kent.edu) or Andrew Wiley at 330-672-2294 (e-mail: awiley5@kent.edu). This project has been approved by the Kent State University Institutional Review Board. If you have any questions about your rights as a research participant or complaints about the research, you may call the IRB at 330-672-2704.
Consent Statement and Signature
I have read this consent form and have had the opportunity to have my questions answered to my satisfaction. I voluntarily agree to participate in this study. I understand that a copy of this consent will be provided to me for future reference.

_________________________________________  __________________
Participant Signature  Date
APPENDIX F

PARENT’S ATTRIBUTIONS FOR CHILD’S BEHAVIOR MEASURE
Appendix F

Parent’s Attributions for Child’s Behavior Measure

PARENT’S ATTRIBUTIONS FOR
CHILD’S BEHAVIOUR MEASURE

This questionnaire contains six situations that involve different ways that children can behave. You are asked to imagine your child performing each behaviour in each situation. Please complete the questionnaire by reading all of the six situations, and then circling a number on each scale for all the four statements following each situation that indicates how much you strongly disagree or agree with each statement.

SITUATION 1.
Imagine your child is playing with his/her friend in the next room and you think you hear them fighting. You ask your child what’s going on, but there is no reply. You go into the room to check, and at that moment your child hits their friend.

The rating scale is as follows:
1. Disagree strongly
2. Disagree
3. Disagree somewhat
4. Agree somewhat
5. Agree
6. Agree strongly

1. My child’s behaviour is due to something about my child; for example, because that’s the way he/she is. 1 2 3 4 5 6
2. My child intended to behave this way on purpose. 1 2 3 4 5 6
3. The reason my child behaved this way is unlikely to change. 1 2 3 4 5 6
4. My child deserves to be blamed for their behaviour. 1 2 3 4 5 6
SITUATION 2.
Imagine shortly after you punish your child, you tell them to play quietly with their toys. Very soon after this instruction your child stands up, looks you in the eye, throws a toy at an expensive ornament and breaks it, and then runs away.

1. My child’s behaviour is due to something about my child; for example, because that’s the way he/she is. 1 2 3 4 5 6

2. My child intended to behave this way on purpose. 1 2 3 4 5 6

3. The reason my child behaved this way is unlikely to change. 1 2 3 4 5 6

4. My child deserves to be blamed for their behaviour. 1 2 3 4 5 6

SITUATION 3.
Imagine after being told to come inside twice, your child responds angrily ‘No, I’m not coming, I don’t have to’.

1. My child’s behaviour is due to something about my child; for example, because that’s the way he/she is. 1 2 3 4 5 6

2. My child intended to behave this way on purpose. 1 2 3 4 5 6

3. The reason my child behaved this way is unlikely to change. 1 2 3 4 5 6

4. My child deserves to be blamed for their behaviour. 1 2 3 4 5 6

SITUATION 4.
Imagine you are in the supermarket and your child asks you for a ride on the merry-go-round. You say ‘No, I have not got any money for rides today’. Your child reacts by hitting you.

1. My child’s behaviour is due to something about my child; for example, because that’s the way he/she is. 1 2 3 4 5 6

2. My child intended to behave this way on purpose. 1 2 3 4 5 6

3. The reason my child behaved this way is unlikely to change. 1 2 3 4 5 6

4. My child deserves to be blamed for their behaviour. 1 2 3 4 5 6
SITUATION 5.
Imagine your child is playing outside with a friend, you call out to your child to come inside but he/she doesn't respond.

1. My child's behaviour is due to something about my child; for example, because that's the way he/she is.  
2. My child intended to behave this way on purpose.  
3. The reason my child behaved this way is unlikely to change.  
4. My child deserves to be blamed for their behaviour.

SITUATION 6.
Imagine you leave your child and his/her friend in the next room to play for a while. After a few minutes you decide to check and see how things are going with the kids. At that moment you see your child throw a toy which breaks an expensive ornament.

1. My child's behaviour is due to something about my child; for example, because that's the way he/she is.  
2. My child intended to behave this way on purpose.  
3. The reason my child behaved this way is unlikely to change.  
4. My child deserves to be blamed for their behaviour.
<table>
<thead>
<tr>
<th>SITUATION</th>
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<tr>
<td></td>
<td>Blame &amp; Intentional</td>
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<tr>
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<td>Statement 4</td>
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</table>

Sub scale totals

Scale Total = Total of Three Subscales
APPENDIX G

TEACHER’S ATTRIBUTIONS FOR STUDENT’S BEHAVIOR MEASURE
Appendix G

Teacher’s Attributions for Student’s Behavior Measure

TEACHER’S ATTRIBUTIONS FOR STUDENT’S BEHAVIOR MEASURE (Adapted from the PACBM)

This questionnaire has two sections. Section A contains six situations that involve different ways that students can behave. You are asked to imagine a student performing a behavior in each situation. Section B contains one situation for which you are asked to indicate the extent to which you think that the given approach would be effective for addressing the behavior problems of the student referenced.

Section A: Please complete this section by reading each of the six situations, and then circling a number on each scale for all four statements following each situation that indicates how much you strongly disagree or agree with each statement. Additionally, please answer the question posed following each situation. The rating scale is as follows:

1. Disagree strongly
2. Disagree
3. Disagree somewhat
4. Agree somewhat
5. Agree
6. Agree strongly

SITUATION I: Think about the student you’ve had recently, who is most likely to get into fights with others. Imagine that he is engaged with his friend at the back of the classroom and you think you hear them fighting. You ask the student what’s going on, but there is no reply. You walk to the back of the room to check, and at that moment the student hits his friend.

1. The student’s behavior is due to something about the student; for example, that’s the way he is. 
   1 2 3 4 5 6
2. The student intended to behave this way on purpose. 
   1 2 3 4 5 6
3. The reason why the student behaved this way is unlikely to change. 
   1 2 3 4 5 6
4. The student should be blamed for his behavior. 
   1 2 3 4 5 6

Describe how you would respond in this situation:

__________________________________________________________________________________________________________________________________________
SITUATION 2: Think about a student that you’ve had to punish recently. Imagine that shortly after you punished the student, you tell him to engage quietly with items in a learning center. Very soon after this instruction he stands up, looks you in the eye, then throws an object at the laptop on your desk and breaks it, and then runs away.

1. The student's behavior is due to something about the student; for example, that's the way he is.
   1 2 3 4 5 6

2. The student intended to behave this way on purpose.
   1 2 3 4 5 6

3. The reason why the student behaved this way is unlikely to change.
   1 2 3 4 5 6

4. The student should be blamed for his behavior.
   1 2 3 4 5 6

Describe how you would respond in this situation:

________________________________________________________________________

________________________________________________________________________

SITUATION 3: Think about a student you’ve encountered who is most likely to not follow your instructions. Imagine after being told to come inside the classroom twice, this student responds angrily, saying, “No, I'm not coming. I don't have to.”

1. The student's behavior is due to something about the student; for example, that's the way he is.
   1 2 3 4 5 6

2. The student intended to behave this way on purpose.
   1 2 3 4 5 6

3. The reason why the student behaved this way is unlikely to change.
   1 2 3 4 5 6

4. The student should be blamed for his behavior.
   1 2 3 4 5 6

Describe how you would respond in this situation:

________________________________________________________________________

________________________________________________________________________
**SITUATION 4:** Think about a student you’ve had recently who would often display aggressive types of behavior. Imagine you are on a field trip with your class at a museum and the student asks you if he can touch a painting. You say, “No, we are not allowed to touch any of the items on display.” The student reacts by hitting you.

1. The student’s behavior is due to something about the student; for example, that's the way he is.  
   
   | 1 | 2 | 3 | 4 | 5 | 6 |

2. The student intended to behave this way on purpose.  
   
   | 1 | 2 | 3 | 4 | 5 | 6 |

3. The reason why the student behaved this way is unlikely to change.  
   
   | 1 | 2 | 3 | 4 | 5 | 6 |

4. The student should be blamed for his behavior.  
   
   | 1 | 2 | 3 | 4 | 5 | 6 |

Describe how you would respond in this situation:

_____________________________________________________________________________________

_____________________________________________________________________________________

**SITUATION 5:** Think about a student you have had recently who is most likely to ignore requests. Imagine that student is engaged outside with a friend. You call out to the student to come inside the classroom, but he doesn’t respond.

1. The student’s behavior is due to something about the student; because that's the way he is.  
   
   | 1 | 2 | 3 | 4 | 5 | 6 |

2. The student intended to behave this way on purpose.  
   
   | 1 | 2 | 3 | 4 | 5 | 6 |

3. The reason why the student behaved this way is unlikely to change.  
   
   | 1 | 2 | 3 | 4 | 5 | 6 |

4. The student should be blamed for his behavior.  
   
   | 1 | 2 | 3 | 4 | 5 | 6 |

Describe how you would respond in this situation:

_____________________________________________________________________________________

_____________________________________________________________________________________

_____________________________________________________________________________________
SITUATION 6: Think about a student you have had recently who is most likely to display aggression. Imagine that you leave the student and his friend at a learning center at the back of the classroom engaged with objects in the center. After a few minutes you decide to check and see how things are going with them. At that moment you see the student throw an object which cracks the monitor frame on one of the class computers.

1. The student's behavior is due to something about the student; for example, that's the way he is.
   
   1  2  3  4  5  6

2. The student intended to behave this way on purpose.
   
   1  2  3  4  5  6

3. The reason why the student behaved this way is unlikely to change.
   
   1  2  3  4  5  6

4. The student should be blamed for his behavior.
   
   1  2  3  4  5  6

Describe how you would respond in this situation:

_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
Section B: For the 12 responses listed, think again about Situation 1 (reprinted below). For each item, circle a number (1-6) to indicate the extent to which you think the approach would be effective for addressing this problem.

The rating scale is as follows:
1 Very ineffective
2 Ineffective
3 Somewhat ineffective
4 Somewhat effective
5 Effective
6 Very effective

SITUATION 1: Think about the student you’ve had recently, who is most likely to get into fights with others. Imagine that he is engaged with his friend at the back of the classroom and you think you hear them fighting. You ask the student what's going on, but there is no reply. You walk to the back of the room to check, and at that moment the student hits his friend.

1. Ask the student’s parents to address this at home.
   1 2 3 4 5 6

2. Clarify your expectations for his behavior in your class.
   1 2 3 4 5 6

3. Send the student to the office.
   1 2 3 4 5 6

4. Take away time from recess, free time, or another favorite activity.
   1 2 3 4 5 6

5. Teach the student a different way to deal with his frustration or anger rather than hitting.
   1 2 3 4 5 6

6. Recognize the student when you see him engaging nicely with others.
   1 2 3 4 5 6

7. Recommend the student for suspension.
   1 2 3 4 5 6

8. Send the student to a time out area or away from the rest of the group.
   1 2 3 4 5 6

9. Lecture or verbally reprimand the student about this problem behavior.
   1 2 3 4 5 6

10. Try to identify factors in the environment that might cause or maintain the misbehavior.
    1 2 3 4 5 6

11. Determine if the student needs to be evaluated for a disability or a disorder (such as ADHD).
    1 2 3 4 5 6

12. Make changes to the routines, seating, schedule or instruction to prevent such behavior from occurring again.
    1 2 3 4 5 6
# SCORING KEY FOR TEACHER’S ATTRIBUTIONS FOR STUDENT’S BEHAVIOR MEASURE

## Section A: Causal Attributions

<table>
<thead>
<tr>
<th>SITUATION</th>
<th>Attributional Dimensions</th>
<th>Blame &amp; Intentional</th>
<th>Stable</th>
<th>Internal</th>
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<td>Nil statement</td>
<td>Statement 3 ..........</td>
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</tr>
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<td>2</td>
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<td>Scale Total = Total of Three Subscales</td>
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SCORING KEY FOR TEACHER’S ATTRIBUTIONS FOR STUDENT'S BEHAVIOR MEASURE

Section B: Intervention Preferences

S=Supportive    U=Unsupportive

1. Ask the student’s parents to address this at home. U
   1  2  3  4  5  6

2. Clarify your expectations for his behavior in your class. S
   1  2  3  4  5  6

3. Send the student to the office. U
   1  2  3  4  5  6

4. Take away time from recess, free time, or another favorite activity. U
   1  2  3  4  5  6

5. Teach the student a different way to deal with his frustration or anger rather than hitting. S
   1  2  3  4  5  6

6. Recognize the student when you see him engaging nicely with others. S
   1  2  3  4  5  6

7. Recommend the student for suspension. U
   1  2  3  4  5  6

8. Send the student to a time out area or away from the rest of the group. U
   1  2  3  4  5  6

9. Lecture or verbally reprimand the student about this problem behavior. U
   1  2  3  4  5  6

10. Try to identify factors in the environment that might cause or maintain the misbehavior. S
    1  2  3  4  5  6

11. Determine if the student needs to be evaluated for a disability or a disorder (such as ADHD). S
    1  2  3  4  5  6

12. Make changes to the routines, seating, schedule or instruction to prevent such behavior from occurring again. S
    1  2  3  4  5  6
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