An Exploratory Study of the Relationships between Teachers' General Attributions, Specific Attributions for Reading Difficulties and Treatment

A DISSERTATION
SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL
OF THE UNIVERSITY OF MINNESOTA
BY

Chee Soon Tan

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

Advisor: Prof James Ysseldyke

June 2009

Acknowledgements

I would like to thank God for sustaining me throughout the process of gathering data, analyzing the data and writing the results of the study. It has been a long journey and I know that He has always been here with me.

I would also like to express my heartfelt appreciation to my advisor, Prof James Ysseldyke, for his support and encouragement throughout my entire Ph.D. program. Words cannot fully express my gratitude to Prof Ysseldyke for mentoring me and for generously providing me opportunities to learn. His suggestion to examine teacher attributions planted the seed of this dissertation. His invaluable guidance and inspiring encouragement have been instrumental to the successful completion of this dissertation.

I would also like to thank my family and my friends for their love, patience, support and prayers. I want to specially acknowledge my mother for her unfailing belief in and unwavering love for me. And to my dear brothers and sisters, nieces and nephews, thank you for taking care of matters back home while I was away. To my friends, Pastor Kathleen, Margaret Taylor and Yoon Kee Tan, thank you for being my second family over here in Minnesota. Your friendship and prayers have seen me through many difficult trials. Barbara and Vivian, thank you for praying for me when I went through a dry spell and was not making any progress in my data analyses. Well, God has answered your prayers.

I would also like to thank my wonderful mentors – Dr Christine Hurley, Mrs. Mary Jo Tein, Mrs. Colleen Feldman and Mrs. Mary Amaya – you went out of your way to make my practicum/internship a most fulfilling one and I have learned so much from each one of you. I have the highest regard for your work in the schools. I would also like to express my

appreciation to Dr David Heistad and Dr Alex Chan for teaching me how to identify the "Beat the Odds" teachers using a regression-based value-added model.

Finally, I would like to express my gratitude to the "Beat the Odds" teachers in Minneapolis Public Schools who kindly consented to participate in my study. I have been greatly inspired by their dedication to their students and their commitment to their work.

Dedication

To God who gives me strength

Abstract

Unlike the ample research on general attributions for student failure, causes for poor reading performance among students have attracted little attention. The purpose of this descriptive, exploratory study was to investigate the extent to which specific attributions teachers held for reading difficulties were related to the interventions they used to address them. Teachers' attributions for the magnitude of student progress were also examined. The study also identified school and district supports and professional development activities which benefited teachers in their work with struggling readers. Seven first-grade teachers and 9 fifth-grade "Beat the Odds" teachers who were identified as being effective in raising student reading performance were interviewed. The data were analyzed to identify patterns that emerged from teacher responses and descriptive statistical methods were used to summarize teacher responses.

Results of the study indicated that study participants across both grades were more likely to make self-serving attributions, rather than counter-defensive attributions, for general student problems. When student reading difficulties were attributed to within-student factors, first-grade teachers tended to use instructional strategies while the use of affective strategies was more common among fifth-grade teachers. The school where the teachers taught appeared to be a more important factor in determining whether teachers used home-related interventions than home-related attributions held by teachers. No clear attribution-intervention link was evident when teachers made school-related attributions. Unlike first-grade teachers who were more likely to attribute reading progress to instructional interventions, fifth-grade teachers were more likely to attribute both progress and lack of student progress to within-student factors.

A strong belief in the importance of their work, a systematic approach in analyzing student difficulties, compassion for and acknowledgement of the uniqueness of individual students, holding all students to high expectations and willingness to tailor instruction to student needs were the hallmarks of the "Beat the Odds" teachers. They were supported by systems within the school and the district which identified students with difficulties. Opportunities to exchange ideas with colleagues and in-service training were most commonly cited as being the most beneficial and relevant to these teachers' work with struggling readers.

Table of Contents

List of Tables

CHAPTER 1: INTRODUCTION

Since the publication of the Nation at Risk in 1983 which sounded alarm bells on the quality of education in American schools, the U.S. federal government has taken steps to restructure the education system. Myriad factors have been cited as contributing to academic failure in popular literature such as "Why Johnny can't read" and "Savage Inequalities". These include social-related issues, such as poverty and overcrowding and destructive family situations, as well school-related factors, such as inappropriate and inadequate instruction and the lack of school engagement among students.

Nationwide reading performance has been dismal; 33% of the nation's fourth graders and 26% of the nation's eight graders performed at below basic level in the 2007 National Assessment of Education Progress (Lee, Grigg, & Donahue, 2007). Yet, this is not due to lack of effort to boost reading proficiency in the schools. Since 2002, $1 billion a year has been spent in the Reading First program as part of the No Child Left Behind Act to help children in kindergarten through third grade develop stronger reading skills (Gamse, Jacob, Horst, Boulay, & Unlu, 2008). While it might be premature to judge the effectiveness of the Reading First programs, earlier education reforms such as Head Start programs and programs funded under Title 1 were deliberate endeavors to boost academic achievement, including reading proficiency. The alarmingly poor performance in reading begs the question "Why are students not reading even at a basic level?"

Attribution Theory in Achievement Contexts

An "attribution" refers to the inference that an observer makes about the causes of behavior – either his own or another person's (Bar-Tal, 1978). Causal attribution answers 'why questions' such as "Why did I fail this exam?" and "Why are students not succeeding in schools?" (Graham, 1991). The attribution approach to achievement-related behavior in the school setting has been well researched and can be taken from a personal perspective or from the viewpoint of an observer (Bar-Tal, 1978). Attributions made by students may not be similar to those of teachers and parents (Guttman, 1982). For example, students are more likely to explain their lack of achievement as a result of being misunderstood by their teacher, teacher's attitudes toward them, and having bad examples at home. Parents tend to assign equal degree of responsibility to the child, to teachers, to other children, as well as to themselves as parents (Guttman, 1982).

The search for causes led to a great deal of interest in attribution research in 1970s and 1980s. Attributions can be categorized according to dimensions such as locus of causality, stability, controllability, intentionality and globality (Abramson, Seligman, & Teasdale, 1978; Weiner, 1979). Factors which influence teacher attributions include the level the teacher teaches, individual students' prior performance, and students' diagnostic labels and ethnicity (Burger, Cooper, & Good, 1982; Cooper, Baron, & Lowe, 1975; Hall, Villeme, & Burley, 1989; Rejeski & McCook, 1980; Wood & Benton, 2003).

The research is mixed on whether teachers tend to be self-serving or counter-defensive in their attributions for student failure. Some studies found that teachers show a self-serving bias, that is, they tend to attribute student failure to factors other than themselves (Beckman, 1970; Brandt, Hayden, & Brophy, 1975; Johnson, Feigenbaum, &

Weiby, 1964; Wiley & Eskilson, 1978). Others report that teachers are counter-defensive, that is, they tend to attribute students' failures to themselves (Ames, 1975; Ross, Bierbrauer, & Polly, 1974). However, a review of the literature suggests that teachers are more likely to attribute student failure to home and within-child factors than teacher-related factors (Christenson, Ysseldyke, Wang, & Algozzine, 1983; Medway, 1979; Poulou & Norwich, 2000; Soodak & Podell, 1994).

Earlier attribution research studies mostly involved simulated teaching simulations and these tended to yield results which indicated that teachers were self-serving in nature (Beckman, 1970; Brandt, Hayden, & Brophy, 1975; Johnson, Feigenbaum, & Weiby, 1964; Wiley & Eskilson, 1978). But some studies which employed an actual confederate indicated that teachers were counterdefensive in their attributions (Ames, 1975; Ross, Bierbrauer, & Polly, 1974). More recent studies on teachers' attributions moved away from contrived laboratory settings to real world classroom settings, often gathering information from actual referrals made for special education evaluations (Christenson, Ysseldyke, Wang, & Algozzine, 1983; Medway, 1979). These studies also indicated that teachers tend to make self-serving attributions. There has been scant research on teacher attributions for student failure prior to referral.

The area of teacher attributions is an important one to study. If teachers are indeed self-serving and fail to accept their responsibility for students' failure and do not see the relationship between their behavior and student performance, they would be less likely to work to improve their students' performance in the classroom. However, if the relationship between teacher attributions and intervention can be clearly established,

greater attention may be paid to challenging teacher attributions which may negatively influence teacher behavior and practice through preservice teacher training, mentoring relationships with new teachers and on-going professional development programs of experienced teachers.

Also, most of the attribution research has focused on student failure in general, or having academic or behavioral difficulties. Student difficulties in specific academic area such as mathematics or reading have not received as much attention. I have chosen to look at the area of specific teacher attributions for reading difficulties in view of the attention this area has received as a result of the focus on literacy. Under the No Child Left Behind Act, all children are expected to read at proficient level by 2014. It seems worthwhile to investigate teacher attributions in such an education landscape and to examine their effects on what teachers do to help children become successful readers.

Teachers' attributions influence their affective reactions and behavior in the classroom (Brophy & Good, 1974; Cooper & Baron, 1977; Tollefson & Chen, 1988). Some studies provide evidence that there is a link between teachers' attributions and the interventions they used (Gutkin & Ajchenbaum, 1984; J. N. Hughes, Barker, Kemenoff, & Hart, 1993; Soodak & Podell, 1994). When home factors were perceived to be the cause of student problems, teachers were more likely to seek parental involvement (Soodak & Podell, 1994). On the other hand, teachers who attributed school-related factors as the cause of the problem were more likely to school teacher-based interventions. Many of these studies used vignettes which have criticized as having limited external validity. Teachers' decision on whether to refer a student for evaluation

or for consultation is influenced by their attributions and perception of their own control over the student's problem (Gutkin & Ajchenbaum, 1984; J. N. Hughes, Barker, Kemenoff, & Hart, 1993). There is a lack of information on the intervention strategies used by teachers prior to referral or consultation, and how the teachers' attributions and sense of efficacy influence the choice of strategies attempted. The relationship between teacher attributions and teacher intervention in the specific area of reading difficulties has yet to be examined.

As mentioned earlier, one of the benefits of this study is the possible impact its findings might have on preservice teacher training, mentoring of teachers and on-going professional development programs. In the search for best practices, studies have focused on both evidence-based practices (Foorman & Torgesen, 2001; Swanson, 1999; Vaughn, Wanzek, & Fletcher, 2007; Ysseldyke & Taylor, 2007) and exemplary teachers who have been effective in raising student reading proficiency (Heistad, 1999; Pressley, Yokoi, Rankin, Wharton-McDonald, & Mistretta, 1997; Wharton-McDonald, Pressley, & Hampston, 1998) This study will examine the characteristics of teachers who have been recognized as those who have 'beaten the odds' in raising student reading achievement in a large urban school district with a highly diverse student population. Research has shown that effective teachers do not work in isolation but in school communities which promote teacher collaboration and ongoing professional development (Taylor, 2007; Taylor, Pearson, Clark, & Walpole, 2000; Taylor, Pearson, Peterson, & Rodriguez, 2005). Hence, this study will take an ecological approach and look at the structures which support the work of these teachers with respect to struggling readers.

Purpose of the Study and Research Questions

The purpose of this descriptive, exploratory study is to examine teacher attributions of student performance in their classrooms. Unlike studies which relied on referral information, this study will document the teacher attributions for student difficulties prior to referral. It will look specifically at effective first- and fifth- grade teachers who have been successful in bringing about growth in their students' reading performance. These two grades were selected because the research suggests that there is a change in student motivation and attitude towards reading as students move from first grade to sixth grade (Parker & Paradis, 1984; Parker & Paradis, 1986).

The teachers in this study have been identified by the Minneapolis Public School as those who have beaten the odds in increasing student reading proficiency. They were identified by a value-added model which isolated teacher effects from child demographic variables such as gender, race, poverty and special learning needs. The perspectives of these teachers are very important as their beliefs and practices can be emulated by other teachers to promote student learning and success.

There are five objectives in this study. The first objective is to identify the general attributions these teachers hold for students who have difficulties in school, as well as specific attributions for students who are struggling in reading. These teachers will be asked to identify the causal ascriptions they make for two students with reading difficulties in their classroom and to describe their intervention efforts to address individual student problem.

The second objective is to investigate the extent to which specific attributions for reading difficulties and interventions are related. The third objective of the study is to

find out the nature of attributional patterns of teachers in the sample; whether these teachers tend to demonstrate a self-serving bias or are counterdefensive.

The fourth objective is to document the attributes of these teachers who have been effective in raising student achievement in reading. The last objective is to find out the layers of support teachers receive in providing interventions to students.

The research questions of this study are as follows:

1. What general attributions for student problems do teachers hold?
2. What is the relationship between specific teacher attributions for reading difficulties of individual students and interventions used?
3. What attributions do teachers hold for the magnitude of student progress?
4. What are the characteristics of the teachers in the "Beat the Odds" sample?
5. What types of supports do teachers find most beneficial and relevant to their work with struggling readers?
6. What types of training and learning opportunities do teachers find most beneficial and relevant to their work with struggling readers?

CHAPTER 2: LITERATURE REVIEW

Attribution research has been applied in education settings to analyze how achievement-related behavior is determined by causal perceptions of successes and failure. As stated in the previous section, the area of teacher attribution prior to referral to special education and its relationship with teacher intervention in the classroom has received very little attention. This literature review sets the stage for an investigation of the link between teachers' attributions for student failure (in general and in reading) and the interventions teachers are willing to or actually do implement. In this section, I review how attribution research has been applied in educational settings.

The literature review is organized into six sections. The first section, "Teachers' attributions for student failure", begins with a description of how attribution research has been applied in the classroom context. Theories and empirical findings on teachers' attributions for student failure in school are presented. In the second section, "Measuring teachers' attributions", I discuss the different research designs and instruments used to measure teachers' attributions. This is followed by the section, "Teachers' attributions and teacher interventions" which is a review of the literature on the relationship between teachers' attributions and what teachers do to address difficulties faced by their students. The problem-solving model is used as a framework to systematically examine this relationship. In the fourth section, I narrow the focus to the specific attributions teachers hold for reading difficulties. I also present different evidence-based interventions used to address reading difficulties. As teacher and school variables affect teachers' sense of responsibility, in the fifth section, I examine the characteristics of effective teachers and

the layers of professional support that facilitate teacher effectiveness. In the final section of the paper, I present a summary of the issues that have emerged from the review of the studies and the implications of these issues.

Teachers' General Attributions for Student Failure

I describe in the sections that follow factors which influence teachers' attribution and teachers' ascription of the common causes of student failure. It will include an analysis of attribution patterns of teachers for general poor academic performance. Research on the effects of teachers' attributions on their affective reactions is also presented.

Student Factors Affecting Teachers' Attributions

Teachers had greater confidence in their beliefs about causes when student performances were extreme, especially in the positive direction and when students' grades were consistent with their perceptions of the students' ability (Felson & Bohrnstedt, 1980). However, there are variations in the teachers' attribution during the school year. A study reported that ability attributions decreased as the school year progressed and successful outcomes were more frequently attributed to tasks assigned by the teacher (Burger, Cooper, & Good, 1982). It is possible that as the school year progressed, teachers saw students acquiring habits and attitudes emphasized in their class replacing or compensating for the students' innate abilities.

The student's past performance and diagnostic label are likely to influence the development of a teacher's attribution and have been found to be correlated with attributions to ability (Frieze & Weiner, 1971). An expected outcome such as success by

a student perceived as high in ability is likely to be attributed by the teacher to a stable factor, such as ability. However, an unexpected outcome, such as success by a student perceived as low in ability, is likely to be attributed to an unstable factor, such as luck (Bar-Tal, 1978). In the study by Burger and colleagues (1982) study, participants were asked to rate students according to the students' "probable success at verbal tasks" and their "general academic potential". The participants tended to attribute the success of high-success-rate students to stable internal characteristics more frequently than low-success-rate students. Conversely, the failure of low-success-rate students was more likely to be attributed to stable factors. A study by Rejeski and McCook (1980) reported similar results When elementary school teachers were told that a student was high in ability, they attributed the student's success (an expected event) to ability (a stable factor) and the student's failure (an unexpected event) to task difficulty and lack of effort (unstable factors). However, when they were told that a student was low in ability, they were more likely to attribute the student's success (an unexpected event) to student effort (an unstable factor) and failure (an expected event) to task difficulty and lack of ability (stable factors).

Teachers respond to different diagnostic labels in different ways. One study reported that teachers believed that a student with a behavior disorder was more likely to fail in the future than students with either a learning disability or no disability (Wood & Benton, 2003). The results of the study by Clark (1997) suggested that the label of having a learning disability had a moderating effect on teachers' attributions. Teachers rewarded the student with learning disabilities more and felt less anger and more pity

following test failure. Another study reported that teachers seemingly did not regard pupils' educational background when making attributional judgments as long as the pupil was performing at grade level (Palmer, 1997). However, if the pupil was performing below grade level, information on educational history affected teachers' attributional beliefs.

Teachers also use information about a student's ethnicity to form attributions for the student's successes and failures (Peterson & Barger, 1985). However, research studies have yielded mixed findings. In some studies, teachers are more likely to attribute the performance of African Americans students to external factors and the performance of Caucasian American students to internal factors (Cooper, Baron, & Lowe, 1975; Wiley & Eskilson, 1978). In other studies, teacher trainees attributed students' successes and failure to effort significantly more often for African American students than for Caucasian American students (Domingo-Llacuna, 1976). In contrast, the gender of students has not been shown to be a significant factor affecting teacher attributions (Wiley & Eskilson, 1978). Although one study reported that teachers are more likely to attribute failure to a lack of effort for boys than for girls (Dweck, Davidson, Nelson, & Enna, 1978), other studies failed to replicate this finding (Heller & Parson, 1981).

Teacher Variables Affecting Teachers' Attributions

Researchers report a correlation between teaching level and the teachers' attribution for students' academic failure. Compared to high school teachers, elementary and middle school teachers placed greater importance on internal factors, such as ability,

effort concentration, and work habits and external factors, such as task difficulty and home influence, for the success and failure of individual students. The authors suggest that the greater importance placed by elementary and middle school teachers on internal factors may be due to the emphasis in their training on student individual differences and a greater sensitivity to the complexity of children's problems. On the other hand, there may also be less variability among students in high school courses due to the higher incidence of ability grouping and self-selection by students at this level.

Teacher efficacy has been defined as "the extent to which the teacher believes he or she has the capacity to affect student performance" (Berman, McLaughlin, Bass, Pauly, & Zellman, 1977, p. 137) or as "teachers' belief or conviction that they can influence how well students learn, even those who may be difficult or unmotivated" (Guskey & Passaro, 1994, p. p.4). The relationship between teacher attribution and teacher efficacy has not always been clear. This could be partially due to the fact that the one strand of research on teacher efficacy was grounded on Rotter's (1966) social learning theory while the other conceptual strand grew out of Bandura's (1977) social cognitive theory and his construct of self-efficacy. Teacher efficacy was first conceived, using Rotter's (1966) social learning theory, as the extent to which teachers believed whether factors under their control had greater impact on the results of teaching than do the factors in the environment or in the student (Tschannen-Moran, Hoy, & Hoy, 1998). Teachers who are confident in their ability to teach difficult or unmotivated students, believe that reinforcement of teaching activities lies within their control, i.e., the reinforcement is internal. These teachers believe that they have a strong influence over

student achievement and motivation. Concepts that are related to this definition of teacher efficacy include teacher locus of control and sense of responsibility for student achievement. Studies on teachers' sense of responsibility found that teacher responsibility for positive and negative performance outcome represent different dimensions, not opposite ends of a single continuum, and operate independently in their influence on teacher perception of efficacy (Guskey, 1982, 1987). In general, teachers were more confident in their ability to influence positive outcomes than to prevent negative ones.

However, Bandura (1997) argues that self-efficacy is different from Rotter's internal-external locus of control. The distinction lies in that self-efficacy is related to the belief about whether one can produce certain actions. These are not the same as beliefs about whether one's action affects outcome (locus of control). Hence, Rotter's scheme of internal-external locus of control is related to causal attributions about the relationship between actions and outcomes, not with personal efficacy. Instead, self-efficacy is defined by Bandura as "beliefs in one's capabilities to organize and execute the course of action required to produce given attainment" (Bandura, 1997, p. 3)

Gibson and Dembo (1984) applied Bandura's definition to the concept of teacher efficacy and defined it as "the degree to which teachers believed that environment could be controlled, that is, the extent to which students can be taught given such factors as family background, IQ, and school conditions" (Gibson & Dembo, 1984, p. 570). Based on their work, two independent dimensions of teacher's sense of efficacy were identified: sense of teaching efficacy and sense of personal teaching efficacy. While sense of

teaching efficacy refers to teachers' expectation that teaching can influence student learning, sense of personal teaching efficacy refers to an individual teacher's assessment of his or her own teaching competence (Gibson & Dembo, 1984).

Instead of the two factors (personal efficacy and teaching efficacy) used by Gibson and Dembo, Guskey and Passaro (1994) proposed that an internal versus external dimension structure be applied to teacher efficacy. They developed a teacher efficacy scale adapted from those developed by Gibson and Dembo (1984) and Woolfolk and Hoy (1990). Their study found that the items of their scale loaded on internal and external factors. However, Guskey and Passaro cautioned that the internal versus external distinction in teacher efficacy was different from the internal versus external locus-of-control dimensions of attribution theory. According to the attribution theory, internal and external attributions are opposite poles in a bipolar, locus-of-control continuum (Weiner, 1974). The more an individual attributes cause to internal factors, the less he or she will attribute cause to external factors. However, the two factors in the Guskey & Passaro (1994) study appear to operate independently of each other. The internal factor in teacher efficacy represents teachers' perceptions of personal influence while the external factor relates to elements such as demographic characteristics and economic factors that lie outside the classroom and are beyond the direct control of individual teachers. As these two factors are independent of each other, teachers' perceptions of their personal influence on student learning are not related to their perception of the influence of external environment conditions. For example, some teachers might believe that even

though external environmental factors may be strong, they still have a powerful influence over their students.

It has been suggested that teachers' sense of efficacy and sense of responsibility are likely to mediate the process by which teachers' attributions affect student achievement (Ashton & Webb, 1986). For example, teachers with a high sense of personal efficacy may attribute the failure of students to understand a concept to their own inadequate lesson preparation. As these teachers believe that they can bring about student learning, they will put in more effort when preparing for the next lesson. On the other hand, teachers with a lower sense of efficacy may accept responsibility for their students' failure to learn but may doubt their ability to improve student learning. As a result, they may not put in additional efforts in their lesson preparation.

Patterns of Teachers' Attributions

Teachers' general attributions for the performance of their students can be categorized into two different patterns: (a) ego-enhancing or self-serving attributions and (b) counter-defensive attributions. According to Peterson and Barger (1985), ego-enhancing attributions lead teachers to attribute their student's successful performance to themselves as teachers and a student's failure to factors other than themselves. Thus, teachers enhance their egos by taking credit for their students' success while blaming their students for their failure. In contrast, teachers who make counter-defensive attributions accept responsibility for students' failures and give credit to the students themselves for successes.

Whether teachers engage in ego-enhancing or counter-defensive attributions was a subject of controversy in the 1970s. Findings which supported both attributional patterns were reported in a review of different studies (Peterson & Barger, 1985). Peterson and Barger postulated that the differences in findings could be due to methodological differences. The studies which found evidence of self-serving attributions (Beckman, 1970; Brandt, Hayden, & Brophy, 1975; Johnson, Feigenbaum, & Weiby, 1964; Wiley & Eskilson, 1978) had used simulated teaching situations with participants being assigned to teach fictitious students. However, in the two studies (Ames, 1975; Ross, Bierbrauer, & Polly, 1974) which reported counter-defensive attributional patterns, the experimenters used a teaching task in which the student was an actual student confederate of the experimenter.

Peterson and Barger (1985) proposed that teachers are less self-serving in more naturalistic situations. They argue that the two studies (Ames, 1975; Ross et al., 1974) that employed an actual student confederate were more similar to the situation a teacher faces in an actual classroom and the results indicated that teachers were counter-defensive in their attributions rather than self-serving. From these studies, Peterson and Barger inferred that actual teachers in real-world classroom settings are more likely to be counter-defensive than self-serving in their attributions for the causes of students' performance. This is consistent with the suggestion that teachers may be reluctant to make self-serving attributions because they identified with their students (Zuckerman, 1979). If the teacher assumes credit for success, he denies it to his student. Teachers may also be reluctant to take advantage of their position as teachers. Another reason for

teacher counter-defensiveness could be the normative requirement that teachers are accountable for pupil failure (Tetlock, 1980). Tetlock hypothesized that teachers who make self-serving attributions may be perceived as failing to fulfill their obligations of the teacher role. On the other hand, people may perceive teachers who make counter-defensive attributions as being sincere in identifying their own limitations. His hypotheses were confirmed by findings in his study that teachers who made moderately counter-defensive attributions were evaluated more positively than highly defensive teachers.

Teachers may attribute the failure of their students to make progress to the following sources: the students, the parents, the school, the society, and teacher training programs (Denham & Michael, 1981). Teachers hold differing attributions for student deficits, disabilities, and academic difficulties (Quay, 1973; Ysseldyke & Taylor, 2007). Teachers' causal attributions for difficulty or failure can be categorized into four groups: (1) within-student deficits or disorders, (2) experiential defects, (3) home and family factors, and (4) inappropriate, inadequate, or ineffective instruction. In a survey of elementary teachers' beliefs about why children do poorly in school, 81% of teachers attributed academic and behavioral difficulties to the child's home life, 14% to within-student characteristics, 4% to the school system, and only 1% to inappropriate instruction (National Education Association, 1979).

Other studies also reported that teachers are more likely to attribute causes of student failure to within-child and family agents (Brophy & Rohrkemper, 1981; Christenson, Ysseldyke, Wang, & Algozzine, 1983; Ho, 2004; Mavropoulou &

Padeliadu, 2002; Medway, 1979; Poulou & Norwich, 2000; Soodak & Podell, 1994) and that there is a relationship between the type of problem presented by the student and the teacher's view as to the cause of the difficulty (Medway, 1979). Medway investigated elementary and middle school teachers' attributions for students referred for special education services. He found that ability factors were cited as the major causes for 67% of the children with learning problems. On the other hand, the main cause for 67% of the children with behavior difficulties were attributed to home problems as compared with 10% of the students referred for academic problems.

In another study, student (53.7%) and home causes (35.6%) comprised almost 90% of teacher attributions (Christenson et al., 1983). Teacher and school causes were mentioned by less than 3% of the teachers. The three highest ranking factors, which comprised over half of the within-student causes (52.6%), related to factors for which teachers perceived as having fewer intervention strategies (birth defects, low academic potential, psychological process deficits). Over 60% of the home causes were related to family difficulties that required more intensive (probably non-school-based) interventions.

More recent studies using different research methods reported similar findings (Mavropoulou & Padeliadu, 2002; Soodak & Podell, 1994). A study by Mavropoulou and Padeliadu (2002) involved 305 Greek teachers who were asked to evaluate each of 12 factors as the possible causes of a child's problems described in a vignette. Teachers perceived that the pupil and his family were the main causal factors of behavior problems.

Soodak and Podell (1994) also used a case study of an elementary student with multiple problems to elicit teacher attributions. Over 62% of the teachers cited problems related to home as the cause of the difficulties faced by the student. Just over half of the teachers believed that the problems were intrinsic to the students. The common within-child problems cited were emotional difficulties or lack of self-esteem (32.7%) and learning disability (20%). Only 9% of the teachers attributed the student's problem to the school. However in another study involving 391 Greek teachers' evaluations of six types of behavior problems, attributions to school and teacher factors were consistently higher than family and child factors (Poulou & Norwich, 2000). A cross-cultural study involving 204 Australian high school teachers and 269 Chinese high school teachers reported that regardless of cultural background, teachers held students most responsible for displaying inappropriate behavior (lack of effort or self-discipline) and themselves as least responsible (Ho, 2004).

These studies suggest that contrary to Peterson and Barger's (1985) argument that teachers are less self-serving in more naturalistic situations; teachers may have a self-serving bias when making attributions for the achievement of individual students in naturalistic settings. Teachers may deny personal responsibility for failure to preserve their self-image (Medway, 1979).

A similar pattern was observed when teachers made attributions for the achievement of groups of students. In one study, 184 teachers were asked for the possible causes for a classroom situation in which they were (a) particularly successful with a class of students and (b) particularly unsuccessful with a class of students

(Guskey, 1982). Findings from the study indicate that when teachers were more successful with a class of students, they were more likely to attribute success to their own ability and effort than to the abilities or skills students might have had upon entering the class. When unsuccessful with the class, teachers placed greater emphasis on external attributions, primarily the difficulty of the task in teaching a particular group of students. When teachers made internal attributions for the lack of success with the class, they tended to emphasize insufficient effort on their part slightly more than they did deficient teaching abilities.

Research literature also indicates that teachers' attributional patterns differ when accounting for poor student performance of individual students compared to a group of students. Poor performance on the part of a single student was generally attributed to situational factors outside the teacher's control (Guskey, 1987). However, when an entire class of students fails to perform, teachers accepted greater personal responsibility.

Significant differences between grade levels were reported by the Guskey (1982) study. Elementary teachers were more likely to attribute their lack of success with a group of students to internal causes, especially their own effort as teachers, than were secondary teachers. Compared to elementary teachers, secondary teachers attributed more significance to the difficulty of the task (entry skills of students) rather than their own abilities and efforts in explaining poor learning outcomes among the students. This could be because secondary teachers perceived that their students to be older and have firmly-established learning patterns which are more difficult to change than the younger, less-experiences students in the elementary classes.

The Relationship between Teachers' Attributions and Their Behavior

Throughout the professional literature, it is argued that teachers' causal attributions for their students' academic performance may lead to different teacher behaviors. A teacher's beliefs about problem causality and controllability of the student may be linked to the teacher's use of criticism (Peterson & Barger, 1985) and reward (Meyer, 1979) and is likely to influence the teacher's sense of control of the situation (Medway, 1979). Students who are perceived as expending effort (internal and controllable cause) are rewarded more and punished less than those perceived as not trying. Teachers are more likely to criticize and express anger to students they view as expending low effort than to students they believe have low ability (Georgiou, Christou, Stavrinides, & Panaoura, 2002; Peterson & Barger, 1985; Tollefson & Chen, 1988). They are also more willing to help a student with low ability and less likely to praise the student viewed as expending low effort (Tollefson & Chen, 1988). Teachers who perceive that the causes of their students' problem are uncontrollable (e.g. shyness, poor self-concept) are more likely to provide encouragement and support and develop long-term goals with the students, than when the cause of the behavior is perceived as controllable (e.g. lack of effort, disruptive behavior) (Brophy & Rohrkemper, 1981).

In summary, teacher attributions vary, depending on student factors (student performance, diagnostic label and ethnicity) and teacher variables (teaching level, teacher's sense of efficacy and sense of responsibility). From the literature, it appears that the distinction between teacher attributions for outcome in terms of the locus of control and teacher efficacy has not always been clear. Two concepts are sometimes

intertwined although researchers such as Bandura and Guskey have attempted to distinguish the two concepts. Most of the studies have found that teachers tend to show a self-serving bias across cultures and are more likely to attribute student failure to within-child and family factors, rather than to teacher or school factors. However, the specific causal ascriptions teachers made depend on the type of student problem and the grade they teach. When teachers do bear responsibility for the lack of student success, they tend to place emphasize on the insufficient effort on their part, rather than poor teaching abilities. The importance of research on teachers' attribution is supported by findings that teacher attributions are likely to affect their behavior towards their students.

Measuring Teachers' Attributions

The second section of this review documents the history of efforts to measure causal attributions. The study of teacher beliefs is fraught with difficulties because it involves making inferences about individuals' underlying states and individuals are often unable or unwilling, for many reasons, to accurately represent their beliefs (Pajares, 1992). As causal attributions refer to mental states that are not observable but which are presumed to exist because their effects are observable (Whitley & Frieze, 1985), they have to be measured indirectly with psychometric instruments. It is difficult to measure attributional judgments in real classroom environments due to the complex and dynamic interactions that occur in the classroom. Many variables may contribute to a teacher's attributions, subsequent behavior and choice of intervention.

Research Designs Used to Measure Teachers' Attributions

Different research designs have been used to measure attributions: simulated teaching situations, analysis of vignettes and case studies, and interviewing of or administering surveys to teachers when they make referrals of students for special education services. A review of attributional studies by Peterson and Barger (1985) suggests that the type of research design and participants involved in the study can influence research findings and lead to different conclusions.

Use of Simulated Teaching Situations vs. Naturalistic Situations

Studies which were conducted in more naturalistic situations, such as the use of an actual student confederate in a simulated teaching situation, reported that teachers were counter-defensive in their attributions (Peterson & Barger, 1985). In contrast, when simulated teaching situations required participants to play the role of a student or a teacher, results showed that teachers were perceived to be more self-serving. However, Guskey (1982) has criticized the utility and generalizability of studies using simulated teaching situations for two reasons. The first is that the subjects involved in most of the studies were undergraduate students rather than experienced classroom teachers. He proposed that classroom experiences might likely alter teachers' perception of responsibility and attributional patterns. The second reason he was skeptical of the findings of these studies was that all the studies had been conducted under artificially constructed, laboratory teaching conditions which were different from the interactions in real classroom situations.

Use of Vignettes

There are merits and limitations in the use of vignettes. The use of vignettes permits the researcher to control relevant and extraneous variables (Hughes et al., 1993). Teachers' cognitive processes are elicited over a wider range of classroom problems. Hughes and colleagues (1993) defended the use of vignettes to be valid if they were rated by teachers as realistic portrayal of classroom problems.

However, the use of vignette has been criticized as they do not represent real people (Farr & Anderson, 1983). The information gathered from vignettes is often exaggerated due to the contrived nature of the vignettes, limiting the external validity of the findings (Hughes et al., 1993). Responses to vignettes measure the cognitive process involved but not how people are actually perceived. Other critics argue that vignettes do not provide the rich context that surrounds classroom interactions between teachers and students who have shared experiences together (Brophy & Rohrkemper, 1981). Teachers' vignette responses may be more positive than their responses to students with problems, partly because of social desirability and partly because it is easier to formulate an effective response in an interview or a survey than in a classroom situation. In addition, teacher perceptions of normative requirement of the teacher role may also influence their responses (Tetlock, 1980). Despite their limitations, vignettes have widely been used in attribution research to study student difficulties ranging from academic to behavior problems (Brophy & Rohrkemper, 1981; Poulou & Norwich, 2000; Soodak & Podell, 1994) and across cultures (Ho, 2004).

Use of Referral Information

Information collected from actual referral decisions as in the studies by Medway (1979) and Christenson and colleagues (1983) are likely to have greater external validity. In the study by Medway (1979), teachers were asked to identify the primary cause of a student that they referred for special education assistance. Teachers were then presented with a list of six causal factors and were asked to indicate the importance of each in contributing to the problem on a 3-point scale. The causal categories were (a) deficiencies in student intelligence (ability), (b) poor student motivation or attention (effort), (c) adjustment or personality problems, (d) poor home situation, (e) poor student educational preparation and (f) inadequate or inappropriate teaching.

However, the information gathered in the study may be skewed as it only captures teacher attributions of students whose problems teachers consider as beyond their ability to resolve. A teacher initiates a referral for special education determination only when pre-referral interventions have failed to effect change in a student. It is possible that by this stage, the teacher may externalize blame by attributing the problem to child or home factors (Hughes et al. 1993). Hughes and colleagues (1993) suggest that if consultative assistance could be made available to teachers early in their efforts to resolve classroom learning, teachers may be willing to consider their own role in contributing to the development of the child's problem and to its resolution.

Instruments for Measuring Teachers' Attributions

Most of the studies reviewed used vignettes to elicit responses from teachers and teachers' attribution were inferred from these responses. There are very few instruments

developed to measure teachers' attributions which do not involve the use of vignettes. However, due to the validity issues related to the use of vignette, the following section will only describe instruments that do not rely on vignettes to gather information on teachers' attributions.

One instrument, the Teacher Attributions for Academic Performance (TAAPS), comprise 10 factors which were developed based on the categories found by Cooper and Burger (1980). The 10 causal factors include six internal influences (Students' Level of Ability, Students' Typical Effort, Students' Level of Concentration or Attention, Students' Level of Interest in the Subject Matter, Students' Work Habits or Attitudes, and Students' Previous School Experience) and four external influences (Degree of Difficulty of the Task, Characteristics of the Instructional Program, Influence of Other Students, and Home Influence). Respondents are asked to rate the importance of each of the 10 factors that may influence the successful academic performance of three students who are performing well academically. They are also asked to rate the importance each factor plays in the poor academic performance of three students who have not been performing well.

Another instrument used to measure teacher attributions for student failure was developed by Georgiou and colleagues (2002). It consists of 30 Likert-type statements. Respondents are asked to indicate how each item affects the selected student's school failure on a 5-point scale. Some items used in this questionnaire are: "The student fails at school because of his/her limited intelligence", "The student fails at school because of

his/her parents' educational background," and "The student fails at school because of the ineffective teaching methods that I used as a teacher".

The Attribution Inventory, developed by Poulou and Norwich (2000) is a questionnaire which elicits teachers' rating on a 5-point scale on four causes of the student' problems: family environment, child factors, teacher factors, and school factors. Family factors include parents' educational background and income, marital conflicts between parents, and parental discipline. Within-child factors include the child's innate personality, intelligence level, and ability to control behavior. The teacher's teaching style, ability to manage the class and personality were some teacher-related factors considered in the questionnaire. School factors were related to the curricula adopted by the school, the support services available and overall school organization and management.

The review of studies of the measurement of teacher attributions suggests that the research design used in a study has a bearing on research findings. In the review, I also discussed the merits and limitations of different research designs. Very few instruments used to measure teacher attributions in a quantitative manner were identified.

Teachers' Attributions and Teacher Interventions

The study of teachers' attributions is important because teacher attitudes toward a particular student guide the teaching strategies that would be selected and used for instructing the student. The first part of the third section of the review describes how teachers select interventions. This is followed by an examination of the relationship

between teachers' attributions and teacher interventions using the problem solving model as an organizing framework.

Teachers' Selection of Interventions

Teachers decide to use certain interventions because they believe that these interventions will improve students' academic performance or behavior. However, interventions may also be selected as a result of the "bandwagon effect", tradition, cash validity, a "doctor-tested" claim, research findings, or for no known reasons (Ysseldyke, Algozzine, & Thurlow, 2000). Teachers may adopt instructional interventions which suddenly become popular and gain momentum rapidly (the "bandwagon effect"). They may also use certain interventions because of tradition ("We've always done it this way") or because of history ("The treatment worked before"). Teachers may also use interventions because they have been "doctor tested", even when there is no evidence of their effectiveness. Interventions should be selected based on evidence that they are effective but there have been few research findings to support specific interventions. In the area of reading, teachers' use of selected instructional strategies have been influenced by a number of factors: district curriculum policy, teachers' previous experiences, teachers' beliefs about teaching and learning, and professional development programs (Nichols et al., 2005).

Teachers' Attributions and Problem Solving

In recent years, the problems presented by conventional referral, assessment, classification, and placement practices have led to a call for a paradigm shift in the field of school psychology (Reschly, 2008). The problem solving approach provides an

overall structure for an alternative delivery system which can be varied according to individual student needs (Tilly, 2008). There are typically three or four levels of problem solving involving different degrees of intensity and different levels of special education and support services.

A problem is defined as an "unacceptable discrepancy between what is expected and what is observed" (Christ, 2008, p. 159). In the first level of problem solving, teachers and parents collaborate to address student problems. Parents and teachers discuss the nature of a problem and consider strategies that may be effective (Tilly, 2008). A teacher's attributions are likely to influence the decision-making process a teacher uses to intervene regarding a presenting problem. In a study by Brophy and Rohrkemper (1981), elementary school teachers responded to vignettes depicting incidents involving students who presented chronic behavior problems by describing what they would do if the incidents had occurred in their classroom. They reported that teacher attributions affected the types of goals the teacher set for the student, the way the teacher managed the student's behavior and the type of educational practices the teacher used with the student.

In the next section, I discuss the influence of the teacher attributions on their selection of interventions during the problem solving process using the major problem solving steps: problem identification, problem analysis, plan implementation, and problem evaluation (Bergan & Kratochwill, 1990).

Problem Identification

The first step in the problem-solving process is to identify and define the problem. How a student's problem is defined is likely to be influenced by teacher beliefs about the student. As mentioned earlier, one of the factors which influence teacher attributions is assessment information collected throughout the school year. Teachers use information cues about a student and search for patterns to determine possible causes influencing student success or failure. In a study involving teachers and non-teachers, subjects were given 16 scenarios describing a fictitious student (Borko & Shavelson, 1978). They were also given initial information which was typical of information available to a teacher in the beginning of the school year. Additional information described the same student about half way through the school year. When positive information on a student was presented to teachers, teachers attributed the student's successful performance to ability and effort. When they were presented with negative information on the student such as lack of effort and ability, teachers attributed increased importance to luck and decreased importance to ability. The researchers related these findings to the discounting principle which predicts that the role of a given cause may be discounted if other plausible causes are also present (Kelley, 1973).

Problem Analysis

Problem analysis is a systematic process of assessment and evaluation to identify and understand causal and maintaining variables associated with a problem (Christ, 2008). The goal of problem analysis is to identify alterable variables, i.e., variables that can be immediately changed or manipulated over time within the context of practice.

Alterable variables are usually in the ecology and not in the student/learner. Christ recommends that alterable variables associated with instruction, curriculum and environment be assessed as they can be modified to have an impact on the learner. Other than biological interventions, the only way to change the learner is to change instructional, curricular and environmental demands. The learner is assessed to determine how the alterable variables can be changed in the learner. However, as discussed in an earlier section of this review, teacher are more likely to attribute student difficulties to within-student factors or factors which as beyond their influence, primarily, variables related to the students' homes.

The attributions that teachers make for students' failure determine the goals of teachers' responses to failing students (Reyna & Weiner, 2001). Reyna and Weiner (2001) proposed an implicit framework used by teachers in the structuring of class norms. Failure due to causal factors that are perceived as controllable, elicit more punitive, retributive acts such as sending the student out of the class. Failure attributed to uncontrollable and unstable factors elicit utilitarian interventions such as giving the student make-up work or encouraging the student with praise.

Brophy and Rohrkemper (1981) suggested a possible decision-making model that linked attributional patterns and the decision-making process teachers used to construct strategies for managing students with problems. Teacher's perceptions of an event are interpreted against a background of previous beliefs and experiences, leading to an attributional analysis of the student and the teacher's potential involvement. Real world cost factors will determine subsequent teacher behavior and action. These cost factors

include (a) costs to the teacher, who needs to balance the social demands of the teacher role and personal expectations involving investments of time, energy, and emotional involvement; (b) costs to the problem student, whose present and future progress may be affected by any action or non action, (c) costs to the class in terms of lost teacher time or unintended ripple effect; and (d) potential costs in other areas such as relationships with the student's family or with the school administration.

Plan Implementation and Problem Evaluation

There seems to be some correspondence between teachers' attributions and their attempts to address the problems faced by their students. Teachers who saw home factors as the cause of student problems were more likely to seek parental involvement, and those who attributed the problem to schools were more likely to choose teacher-based interventions (Soodak & Podell, 1994). Teachers frequently made non-teacher-based suggestions to meet the needs of students whom they found difficult to teach and seldom consulted with their own colleagues (Soodak & Podell, 1994).

When a student presents academic difficulties, teachers are more likely to handle the problem on their own or refer the problem (J. N. Hughes, Barker, Kemenoff, & Hart, 1993). If they perceive a child's behavior as stable and resistant to change (Gutkin & Ajchenbaum, 1984) or as due to intellectual ability (Hughes et al., 1993), teachers are also less likely to prefer consultation over referral. Teachers who perceived that they had a greater control over a problem prefer consultation to referral services (Gutkin & Ajchenbaum, 1984). Hughes and colleagues (1993) posit that teachers do recognize the importance of teaching factors but not when they are personally involved in the problem.

The relationship between teacher attributions and their evaluation of their intervention efforts has received very little attention in the literature. The current emphasis on formative evaluation and progress monitoring in school (Deno, 1986, 2002) to assess if students are responding to interventions may perhaps stir an interest in this area of research.

In summary, there is evidence in the literature that teachers' attributions influence their affective reactions and behavior in the classroom. Studies using information given by teachers who had made student referrals provide evidence that there is a link between teacher attributions and the interventions they used. However, there is a lack of information on the intervention strategies used by teacher prior to referral or consultation, and how the teachers' attributions influence the choice of strategies attempted.

From the review, there is some evidence that teachers' attributions influence how a student's problem is identified and analyzed and the plan that is subsequently implemented. The effect of teachers' attributions on the decisions teachers make when selecting interventions during the problem-solving process has not been extensively studied. Information on the extent to which teachers' attributions influence the evaluation of interventions is limited.

Teachers' Specific Attributions and Interventions for Reading Difficulties

Teachers' Specific Attributions for Reading Difficulties

As in general attributions, the factors which are believed to contribute to reading difficulties are related to internal student factors, environment factors, and instructional factors (Ysseldyke & Taylor, 2007). Under within-child factors, educators blame the

child for reading problems by attributing those problems to medical labels (e.g., attention-deficits, perceptually handicapped), classification for special education programs (e.g., learning disabled) or intelligence (Klenk & Kibby, 2000). When children who were failing in reading had intellectual abilities that surpassed their reading abilities, the cause of their reading difficulties was attributed to visual acuity, auditory acuity, general physical status, neurological factors, and emotional/psychiatric factors. Despite the absence of definitive research linking reading problems to internal deficits, disabilities, and process dysfunctions (Arter & Jenkins, 1979; Mann, 1979; Vellutino, 1979; Ysseldyke, 1973), these beliefs continue to persist among teachers (Allington, 1982). The study by Allington reported that 40% of classroom and specialist teachers believed that "visual perceptual handicaps are the most prevalent cause of reading disability"; 52% believed that reversal of words are indicators of "disturbed visual perceptual processes"; and 49% believed that children with reading difficulties "who have a strength in the visual modality learn most effectively when reading instruction focuses on the visual aspects of words". Reasons offered by Allington for the persistence of these erroneous teacher beliefs in the 1980s include the possibility that teachers were not keeping abreast with research studies, the continued inclusion of outdated information in current professional texts, and the fact that these beliefs provide a rational and straightforward explanation, even if they are not substantiated by empirical evidence.

Evidence-based Interventions Used to Address Reading Difficulties

Effective school-wide instruction in reading can be effective in supporting a large percentage of students (Fletcher, Denton, Fuchs, & Vaughn, 2005). In 1997, the National

Reading Panel, was charged with the task of evaluating the effectiveness of various approaches to teaching children to read. The panel concluded that reading intervention programs should include the critical components of reading instruction: phonemic awareness, phonics, fluency in word recognition and text processing, vocabulary and text comprehension (National Reading Panel, 2000). Reading instruction should be print-based as there is no reliable evidence that non-print based programs such as perceptual training and the use of medications are effective in ameliorating reading difficulties (Klenk & Kibby, 2000).

However, there will be students who will require additional instruction to either prevent or remediate reading difficulties (Denton & Mathes, 2003; Torgesen, 2000). These students usually benefit from instruction which is more explicit and more comprehensive, more intensive, and more supportive than that required by the majority of children (Foorman & Torgesen, 2001). A combination of explicit and strategic instruction in both word recognition and reading comprehension, with scaffolded instruction that provides modeling and feedback and the opportunity to practice have been found to be the most effective form of instruction (Foorman & Torgesen, 2001; Vaughn, Wanzek, & Fletcher, 2007). To accelerate their learning, these students typically receive small-group or individual tutoring and instruction is scaffolded to provide increasingly more difficult instruction with many opportunities for success (Vaughn, Wanzek, & Fletcher, 2007). In addition, secondary reading interventions should include the following elements: appropriate group format; targeted instruction three to five times a week; alignment with core reading instruction; ongoing and

systematic corrective feedback to students; extended practice in the critical components of reading instruction based on student need; increased time for word study, fluency and comprehension; and systematic classroom-based instructional assessment to document student growth and to inform instruction (Vaughn & Roberts, 2007). Teachers must also integrate instruction that involves different domains of reading (Vaughn, Wanzek, & Fletcher, 2007).

Successful reading intervention programs include components such as repeated reading, systematic word recognition instruction, appropriate texts, fast-paced instruction, ongoing assessments, guided writing, one-on-one reading practice, and home connections (Ysseldyke & Taylor, 2007). In another review of reading intervention programs, it was reported that successful supplementary interventions for helping children with reading difficulties in grades 1 to 3 generally occur on a daily basis for the duration of a school year, involve more time in reading and writing, are phonologically oriented, and include an array of reading and writing activities (Snow, Burns, & Griffin, 1998). Careful attention is paid to the materials used (whether they are characterized as predictable, patterned, and sequenced from easy to more difficult) and each child's response to intervention is closely monitored.

Some reading programs identified as being effective in increasing reading skills include Accelerated Reader/Reading Renaissance, Peer-Assisted Learning Strategies (PALS), Read Naturally, Reading Recovery, and Success for All (Institute of Education Sciences, 2007). A study by the American Federation of Teachers identified remedial reading interventions as effective if they showed evidence of high standards,

effectiveness, replication and if they provided ongoing implementation support and professional development (American Federation of Teachers, 1999). Five remedial programs were identified as being promising using these criteria: Direct Instruction, Early Steps, Exemplary Center for Reading Instruction, Lindamond-Bell and Reading Recovery.

Based on a meta-analysis of reading intervention research for students with learning disabilities, Swanson (1999) reported that effect sizes for measures of word recognition were higher when teachers used strategies such as breaking down a task, matching the difficulty level of the task to that of the student, sequencing short activities, segmenting component parts, and directing students to focus on particular information. First graders who receive increased amounts of time in small groups, increased systematic phonics instruction, increased amounts of time spent on active reading engagement, and higher levels of teacher praise received higher scores in early literacy skills (Kamps & Greenwood, 2005).

Interventions to address reading difficulties are not limited to the classroom. A review of 24 studies on parent involvement was conducted using the guidelines set forth by the American Psychological Association's Division 16 Task Force on Evidence-Based Intervention (Fishel & Ramirez, 2005). It reported that the strongest evidence for parent involvement was provided for programs that implemented parent tutoring in the home and targeted a single academic problem of the elementary school-aged children, primarily in reading and mathematics skills. Two studies which used in-home parent tutoring reported large effect size in improving reading problems (Duvall, Delquadri, Elliott, &

Hall, 1992; Hook & DuPaul, 1999). However, the evidence base for the effectiveness of parent involvement as an intervention for children's academic problems was inconclusive due to methodological weaknesses in the studies reviewed (Fishel & Ramirez, 2005). Other effective home-school collaborative interventions include dialogue about educational programming and two-way communication/monitoring of children's school performance, parent education programs that target specific behaviors to be learned, and parent consultation (Christenson & Carlson, 2005).

This section of the review indicates that the area of specific teachers' attributions for their students' reading difficulties has not received as much attention as teachers' general attribution for student failure. Erroneous teachers beliefs on why students have difficulties in reading continued to persist in 1980's but there is a lack of recent research in this area. On the other hand, reading interventions have received a great deal of attention from researchers. There are ample studies on the features of evidence-based interventions and reading programs. There is evidence in the literature that both quality instruction in the classroom and parent involvement at home are critical in improving reading problems among students.

Effective Schools and Accomplished Teachers

The task of helping students to learn to read is a complex one and requires highly coordinated, comprehensive efforts (Valli, 2000). Preservice teacher education programs are often inadequate in preparing beginning teachers in the challenging task of helping all students to become successful readers (Snow, Burns, & Griffin, 1998). Opportunities for professional development need to be provided throughout a teacher's career and in the

context of practice. Although the relationship between teachers' attribution and intervention has not been clearly defined, Guskey (1981) postulated that teachers who adopt more effective instructional practices and observe an improvement in their students' performance are more likely to assume greater self-responsibility for the academic successes and failures of their students. Teachers in less effective schools tended to feel less responsible for the learning of their students than did those in more effective schools (Brookover & Lezotte, 1979). Hence, it is important to gain an understanding of the factors that facilitate teacher effectiveness in raising reading achievement. This section will examine the literature on what makes an effective teacher in the area of reading and the layers of professional support that promote ongoing professional development of teachers. It will also present features of quality inservice teacher education and professional development programs.

Both effective teachers in the primary and intermediate grades use diverse instructional activities; provide ample opportunities to read; and use instruction which integrated different skills or literacy and content-area. Effective teachers of beginning reading identified based on their students' reading and writing achievement, demonstrated instructional balance (focusing on both literature and skills); taught decoding skills explicitly and also provided many opportunities to engage in authentic, integrated reading and writing activities (Wharton-McDonald, Pressley, & Hampston, 1998). Second-grade teachers identified as "exceptional" through value-added analysis used more explicit and direct phonics instruction and individual student oral reading (Heistad, 1999). A survey of the reading instruction of fifth grade teachers nominated for

being effective in promoting literacy reported the following practices: extensive reading, diverse instructional activities; teaching of both word-level and higher order; development of student background knowledge and student writing; extensive evaluation of literacy competencies using diverse assessment; integration of literacy and content-area instruction; and commitment to practices that promote student motivation for reading and writing (Pressley, Yokoi, Rankin, Wharton-McDonald, & Mistretta, 1997).

How do teachers become effective in teaching their students to become successful readers? There has been little research on the effect of preservice teacher education on teaching effectiveness. While studies indicate that teachers' philosophies (Noe, 1994), theoretical orientations (Bacharach, 1993; Shaw, 1994; Wham, 1993) and practice (Hermann & Sarracino, 1992; Shefelbine & Shiel, 1990; Strickler, 1976) were influenced by preservice teacher education programs, the impact of these programs on teaching effectiveness in the area of reading has not been adequately addressed (Anders, Hoffman, & Duffy, 2000). A review by the Committee on the Prevention of Reading Difficulties in Young Children found that the course work in preservice teacher education programs is inadequate to equip beginning teachers with sufficient skills and knowledge to enable them to help all students to become successful readers. Very little time is allocated for preparing teachers to teach reading (Snow, Burns, & Griffin, 1998).

On the other hand, the effectiveness of inservice teacher education in supporting teachers and changing teacher thinking and practices has been demonstrated by various studies. Positive effects of inservice teacher education have been demonstrated across a variety of areas, ranging from instructional practices (Conley, 1986), teacher attitudes

(Stieglitz & Oehlkers, 1989), and beliefs (Bean, Bishop, & Leuer, 1981). Teachers who engage in action research develop greater ownership of new instructional practices adopted (Gove & Kennedy-Calloway, 1992). The use of reflective practice through journaling has proven to be effective in the implementation of a new conception of literacy (Botel, Ripley, & Barnes, 1993). Research has also demonstrated the positive effect of inservice teacher education on student growth in decoding (Strickler, 1976) and comprehension (Miller & Ellsworth, 1985). Quality teacher education programs at the inservice level are characterized by intensive levels of support, with sustained and concentrated effort, in the context of practice; opportunities and tools for teachers to reflect on their own practices systematically; opportunities to deliberate, dialogue and collaborate with other colleagues; and voluntary participation (Anders, Hoffman, & Duffy, 2000).

Many successful schools have placed a high emphasis on ongoing professional development in which teachers learn together and collaborate to improve their instruction (Taylor, Pearson, Peterson, & Rodriguez, 2005). They plan together with a focus on how to best meet the needs of students. By sharing expertise and supporting one another, teachers within a school develop a greater sense of collective efficacy which in turn results in greater sense of self-efficacy in individual teachers (Taylor, 2007). Taylor advocates that professional learning be intellectually stimulating and the school culture be one which encourages teachers to strive to continually improve themselves. A variety of ways have proven to be effective in achieving teacher engagement in learning which is

intellectually challenging: participation in focused study groups, discussion of video-taped lessons, peer coaching and self-reflection (Taylor, 2007).

In schools which operate as strong professional learning communities, teachers systematically examine student assessment data, use the data to modify their instruction, and work with colleagues to refine their teaching practices (Fullan, 1999). An example of an initiative which resulted in a change in teaching practice is the CIERA School Change Framework. Teachers in these schools which were striving to "beat the odds" in terms of their students' reading achievement, changed their teaching in the direction of more high-level questioning and more coaching (Taylor, Pearson, Peterson, & Rodriguez, 2005). They became more attuned to effective reading practices as they engaged in study-group activities and were committed to collective problem solving. They reflected on their classroom instruction and implemented research-based practices that promote student involvement in high-level cognitive tasks, and developed and maintained high expectations for student learning.

From the review, it appears that inservice teacher education programs and schools with strong professional learning communities are important factors in supporting teacher effectiveness in reading. The research on the effectiveness of preservice teacher education in promoting reading performance is not as clear in demonstrating the effectiveness of these programs.

Summary and Implications for Research

From a review of these studies, what has emerged is an understanding of teachers' causal attributions for student failure and success. A variety of student factors affect

teachers' ascriptions for student failure: student current and past performance, disability designations assigned to students, and student ethnicity. The grade level that the teacher teaches is also an important factor. While elementary school teachers are more likely to attribute lack of success experienced by their students to themselves (especially their lack of effort as teachers), secondary teachers are more emphasis on the difficulty of the task due to the entry skills of their students to account for poor student performance.

The link between teachers' attributions and teacher efficacy has not been clearly defined. While Rotter's concept of internal-external locus of control is related to causal attributions between actions and outcomes, Bandura defines teacher efficiency in terms of teachers' beliefs in their ability to attain a certain outcome. Guskey and Passaro contributed to the knowledge base in this area by distinguishing internal and external factors of teacher efficacy from the internal versus external locus of control dimensions of the attribution theory. Unlike the internal versus external locus of control dimensions of the attribution theory which are opposite poles of a bipolar continuum, the two factors of teacher efficacy operate independently. Using this definition of teacher efficacy, a teacher may believe that external factors have a strong influence on a student's learning but also believe in his or her capability to influence student learning. Teachers' sense of efficacy is believed to have a mediating effect on teacher attributions.

From the literature, it appears that teachers are more likely to make self-serving attributions and this is true across cultures and across the period from 1960s to recent years. Teacher attributions were affected by the nature of student problem: learning problems were more likely to be attributed to within-child factors while behavioral

difficulties were attributed to home problems. Teacher and school causes accounted for a very small percentage of teacher attributions for student difficulties in most studies. The likelihood of a teacher bearing responsibility for poor student performance increased when an entire class failed to perform compared to the situation when an individual student performed poorly.

The nature of the research design seems to play an important role in determining the results of attribution research. Some researchers who have reviewed the literature suggest that studies conducted using simulated teaching situations reported that teachers were likely to make self-serving attributions but that teachers were more likely to counterdefensive when the studies involved naturalistic situations. However, more recent studies which used actual referral information continued to support the finding that teachers do tend to make self-serving attributions.

The study of teachers' attributions in real-world setting remains a challenge. It is difficult to find reliable and valid measures of teachers' attributions. Most of the studies reviewed used vignettes to elicit responses from teachers and teachers' attribution were inferred from these responses. Information gathered from vignettes has been criticized as being exaggerated due to the contrived nature of the vignettes, limiting the external validity of the findings. The utility and generalizability of studies using simulated teaching situations has also been criticized. Data gathered from referral information may be skewed as it only captures teacher attributions of students whose problems teachers consider as beyond their ability to resolve. There has been scant research on teacher attribution prior to referral for special education determination.

There is evidence in the literature that supports the hypothesis that teachers' attributions influence how they identify and analyze a student's problem. Teachers use student information to determine possible causes influencing student success or failure. The literature suggests that there is some link between teacher attribution and teacher behavior. For example, students who are perceived to be able to control their problem are more likely to be punished. Teachers' attributions affected teacher decision on whether to seek referral or consultation services. Studies which examine how these attributions have directed teacher interventions in the classroom and how teachers evaluate the effectiveness of these interventions have been limited. What information do teachers collect to assist them in making instructional decisions? How do their attributions affect what they look for? How do they analyze the information gathered in the light of these attributions? To what extent do teachers' attributions affect selection of interventions? How do intervention outcomes affect previously held beliefs?

Unlike general teachers' attributions for student failure which have been extensively researched, specific teachers' attributions for students' reading difficulties have received much less attention. A disconcerting finding is that many teachers hold on to erroneous beliefs of the causes of student reading problems in 1980s in spite of the existence of abundant research studies challenging these beliefs. Whether these beliefs continue to persist today in the midst of the extensive research and literacy training available is unknown. What we do know is that struggling readers benefit from instruction which is more explicit, intensive and scaffolded to provide increasingly greater difficulty with many opportunities for success. There is also evidence that parent

involvement is also an important factor in raising student reading proficiency. The relationship between teachers' specific attribution for reading difficulties and interventions implemented has yet to be established.

Consistent with the ecological approach is the recognition that teachers do not work in isolation and that it is important to understand the contextual factors that influence them. One factor is the layers of professional support teachers receive during teacher preparation programs and from ongoing professional development programs. While the literature seems to indicate preservice teacher education is limited in its effectiveness in the area of reading, there is evidence to support the effectiveness of inservice teacher education in promoting student growth. The second factor is the context in which teachers work in. The literature indicates that successful schools place a premium on collaboration and intellectually stimulating professional development of their teachers. This is usually achieved through creating professional learning communities which make data-driven decisions to inform their instructional practices.

CHAPTER 3: METHOD

This study is a qualitative study involving a description of the attributions for student performance of teachers who have been successful in raising student achievement. It focuses on reading interventions used by teachers who have demonstrated competence in increasing reading proficiency among their students. These teachers were identified by a 'Beat the Odds Study' conducted by Minneapolis Public Schools (MSP) using a regression value-added model that isolated teacher effects from child demographic variables.

A semi-structured interview protocol, a measure of teachers' attributions and a teacher efficacy scale were used. Participants were interviewed to capture a rich description of their attributions and intervention practices. The study analyzed the nature of teachers' attributions for student problems and for student progress. A cross-case analysis was conducted to find out if there was a significant relationship between teachers' specific attributions for reading difficulties and the kinds of interventions they implemented. The study also documented the characteristics of teachers in the "Beat the Odds" sample. In addition, it examined the type of supports which teachers considered most beneficial to their work with struggling readers. Finally, professional development opportunities reported by teachers to be beneficial were described.

Setting and Participants

Minneapolis is a large upper Midwest metropolitan city with students from diverse ethnic and linguistic backgrounds. In the 2006-2007 school year, 24% of students in the school district qualified for free or reduced priced lunch (FRL). Sixteen percent of the students in the district received special education services. The

demographic characteristics of the student population in terms of ethnicity were as follows: African American (40%), White American (30%), Hispanic American (17%), Asia American (9%), and Native American (2%). The composition of teachers in terms of ethnicity was as follows: White American (78%), African American (13%), Hispanic American (4%), Asian American (4%), and Native American (1%).

This study was conducted with approval from the Research, Evaluation and Assessment (REA) office of MPS. All teacher names were kept strictly confidential. Participants were first-grade and fifth-grade general education teachers who have been identified as those who have beaten the odds in bringing about exceptional growth in reading among their students. There are three reasons why teachers teaching first and fifth grades are of interest in this study. The first reason is that while the literature suggests that elementary and middle school teachers placed greater importance on internal student factors for student failure compared to high school teachers, there has been little research on the teachers' attributions across grades among elementary school teachers. This study examined the extent to which there is a difference between teachers who teach primary grades and those who teach the intermediate grades.

The second reason is that the reading abilities of students in the lower grades are different from those in the higher grades. In the lower grades, students are learning to read and developmentally appropriate accomplishments in these grades include phonemic awareness, letter knowledge, knowledge of sound-symbol associations, word recognition (Learning First Alliance, 1998). As they progress in the higher grades, students must apply their decoding skills to fluent, automatic reading of text, widen their vocabulary

and demonstrate text comprehension. As expectations of what students should be able to accomplish in reading change across the grades, one would expect that teacher interventions in the higher grades to look different from those used by teachers in the first grades. The third reason is that the literature indicates that there is a change in student attitude and motivation towards reading as students move from the lower grades to the upper grades in elementary school (Eccles, Wigfield, & Schiefele, 1998; Parker & Paradis, 1984; Parker & Paradis, 1986).

The REA office had identified first-grade teachers whose students made great academic improvements in reading in the school year 2005-2006. Student academic growth was measured by computing the difference in student reading proficiency in the beginning of the school year and at the end of the school year. A fixed effect regression value-added model was developed and student growth was adjusted for factors that teachers could not control in the classroom, such as poverty, race, gender, English language proficiency, special education status and prior achievement. A list of 24 first-grade teachers was provided by the REA office. Prior to the school year 2007-2008, six schools in MPS had been closed. As a result, 4 first-grade teachers could not be traced. Thirteen teachers were unwilling to participate in the study for various reasons. Only 7 teachers agreed to participate in the study.

A similar model was developed to identify fifth grade teachers who have 'beaten the odds' in the school year 2006-2007 for the purpose of this study. A regression-based value-added model was adopted to evaluate the effectiveness of individual teachers in improving reading achievement. The outcome variable was the Spring 2007 MCA-II

reading scores and the predictors included the Fall 2006 NALT/CALT reading scores, ethnicity, gender, English Language proficiency status, special education status and socio-economic status (i.e., whether students received FRL). This regression model allows us to compare teacher effectiveness, after adjusting for prior achievement and students' demographic characteristics. Only teachers whose class sizes exceeded 10 students were included in the sample. A total of 25 fifth-grade teachers were identified. Four fifth-grade teachers could not be located as their schools had been closed. Another 12 teachers did not wish to be interviewed. Nine fifth-grade teachers agreed to participate in the study and were interviewed.

Measures

Demographic information (gender, ethnicity, the total number of years of teaching experience, the number of years of teaching in the current grade and involvement in professional development activities) of teacher participants was collected. Information on pre-service training and on-going support received by the teacher was also sought. In addition, data collection included information on school-related factors procedures on selection and implementation of reading interventions and parental involvement programs, and district policies on interventions for students with reading difficulties.

Semi-structured Interview Protocol

A semi-structured interview was used to elicit teachers' attributions. Teachers were asked to explain how they selected treatments to address student difficulties (see Appendix 1).

Measure of Teachers' Specific Attributions for Reading Difficulties (MTSARD)

A modified version of the Teacher Attributions for Academic Performance Scale (TAAPS) (Hall, Villeme, & Burley, 1989) was used in this study (see Appendix 2). The TAAPS comprises 10 items, representing categories identified by Cooper and Burger (1980) as being descriptive of the attributions that teachers hold to account for students' academic performance. Six attributions were considered to reflect internal factors (Students' Ability, Typical Effort, Concentration or Attention, Interest in the Subject Matter, Work Habits or Attitudes, and Previous School Experience). Another four factors were considered as external influences (Task Difficulty, Characteristics of the Instructional Program, Influence of Other Subject, and Home Influence). In completing the TAAPS, each teacher was first asked to provide the initials of three students who had been performing well academically in their classes. The teacher was then directed to indicate the importance each factor played in these students' successful academic performance on a 6-point scale. They were to do the same for three students who had not been performing well in their classes. On each item, respondents were asked to indicate on a 6-point scale, how important a role the attribution played in explaining the academic performance of their students as a group.

The measure used in this study, MTSARD, only focused on students who have not been performing well. Unlike TAAPS which requires teachers to think of the three identified students as a group, the current study required teachers to identify causal attributions for the individual reading performance of two students. The factors in the measure also incorporated attributions identified in other studies (Medway, 1979; Quay,

1973; Snow, Burns, & Griffin, 1998). Due to the lack of psychometric information on the current measure, the MTSARD was used as a checklist to elicit teachers' attributions during the interview. No statistical analysis was conducted on the data gathered using the MTSARD.

Survey of Teacher Efficacy

Teacher efficacy was measured using an altered form of the original Teacher Efficacy Scale (Gibson & Dembo, 1984) (see Appendix 3). Guskey and Passaro (1994) modified the Teacher Efficacy Scale to reflect four efficacy dimensions: personal-internal orientation, personal-external orientation, teaching-internal orientation, and teaching-external orientation. Guskey and Passaro reported that while there was no evidence to indicate the distinction between two dimensions which relate to personal efficacy versus teaching efficacy, there was an internal versus external distinction. The internal factor represents the perception of personal influence and impact in teaching and learning situations. The external factors relates to perceptions of influence of elements outside the classroom. Factor analytic procedures were used to generate a two-factor solution that accounted for 32% of the variance in scale scores. In this study, a modified version of the Teacher Efficacy Scale by Guskey and Passaro was used. The means and standard deviations of teacher ratings on items which loaded on internal and external factors were calculated for each grade. No statistical procedure was applied to the data gathered using this instrument.

Procedure

Participants were interviewed using the Semi-structured Interview Protocol. The protocol was used to guide the interview but the researcher was free to explore, probe, and ask questions that elucidate and illuminate issues related to the study. The participants were interviewed in English. The duration of the interviews ranged from 60-90 minutes and the interviews were audio taped. The interviews were conducted over a three-month period, spanning from February to May 2008.

Participants were asked to identify the general causes of student difficulties in schools. They also stated their expectations of what an average student should be able to do in terms of reading performance in their class. Then, they were asked to identify two students in their classrooms who were struggling in reading and complete the MTSARD for each student. They described each student's presenting problem and provided student information (age, gender, ethnicity, mother's educational background, family income). After the participants had completed the MTSARD, the interviewer referred to the factors that participants had given a rating of either 4 or 5 (5 being extremely important) in contributing to a student's reading difficulties. Participants were encouraged to explain how these factors had contributed to the student's reading difficulties. They also described the interventions the student was currently receiving and the factors which had influenced their choice of intervention. In addition, participants described their assessment of the student's response to the intervention and the evidence they used to support their assessment. Participants' expectations as to whether the student was likely to respond to the intervention were also elicited. Ecological variables such as support from the school and parents and district policies which could have influenced the

selection of interventions were elicited. After the interview, participants provided information on their teaching experience and professional training and development in a survey and completed the modified Teacher Efficacy Scale.

Data Analysis

In order to analyze the interviews, I transcribed the 16 audio-taped interviews verbatim. An inductive approach going from the detailed data to the general codes and themes was used. All responses to a given question were read and ideas or concepts that emerged from the data were listed explicitly. I located text relevant segments and assigned a code to them. Both teachers' general attributions for student failure and teachers' specific attributions for students who are struggling in reading were coded and categorized. Three categories were used: within-student attributions, home-related attributions, and school-related attributions. To reduce bias in the coding, the data of 2 first-grade teachers and 3 fifth-grade teachers who had been randomly selected were recoded. I used Cohen's kappa to compute the reliability of the two codings. Kappa is defined as

$$\kappa = \frac{\sum f_0 - \sum f_E}{N - \sum f_E}$$

where *N* represents the number of cases, f_0 the observed frequencies and f_E the expected frequencies. A 91% agreement between the two codings was established.

A cross-case analysis as described by Patton (2002) was used. Text segments of answers from different participants to the same question were grouped together and tabulated. I then identified patterns and regularities that emerged from the responses

across participants. Descriptive statistical methods were used to summarize teacher responses.

Relationships between variables were validated by searching for confirming and disconfirming examples in the data (Strauss & Corbin, 1990). The data was analyzed to find out the extent to which specific attributions teachers held for reading difficulties were related to the interventions they used to address reading difficulties among students. Participants' assessment of student progress in response to current and prior interventions was analyzed to see if teachers' attributions differed when they perceived students to have made progress or not. Finally, the data was analyzed to identify school and district supports thought to be beneficial to participants' work with struggling readers.

CHAPTER 4: RESULTS

Teacher Participants

In total, 16 teachers in the MPS "Beat the Odds" sample were interviewed for the study. Seven are first-grade teachers and 9 are fifth-grade teachers. Most of the participants in the study are Caucasians (13); 2 are Asian Americans and 1 is an African American. Among the first-grade teachers, 3 teachers teach in a school which has a higher percentage of students who qualify for free or reduced lunch (FRL) than the average percentage in the school district. The other 4 teachers teach in schools where the percentage of students who qualify for FRL is lower than the district average. Among the fifth-grade teachers, 7 teachers teach in schools where the percentage of students who qualify for FRL is above the district average. The other 2 teachers teach in schools where there is a lower percentage of students on FRL compared to a typical school in the district.

Of the 16 teacher participants, 6 are grades K-3 classroom teachers, 9 are grades 4-6 classroom teachers and 1 is a special education teacher. Four teachers hold a bachelor's degree, 2 an education specialist degree and 10 a master's degree. The number of years of teaching experience individual teachers had, ranges from 11 years to 31 years. The number of years individual teachers have taught the grade they are currently teaching ranges from one year to 21 years. Fifteen teachers participate in professional development activities more than three times a year and 1 teacher do so twice a year. Ten teachers read professional journals more than three times a year, 4 three times a year and 2 twice a year.

Individual Case Analysis

For the purpose of analysis, the teachers were categorized according to the grade that they teach. Individual teachers who were teaching first grade were coded as Tr 1, followed by a letter assigned to the teacher. Individual fifth-grade teachers were coded as Tr 5, followed by a unique letter. The following section provides a summary of individual teacher's perceptions of the challenges faced by students and the factors affecting reading proficiency, and his or her attributions for student problems.

Tr 1A

Tr 1A is a K-3 classroom teacher who holds a Bachelor's degree with an additional 70 credits. She has taught 17 years, all of which have been in the first grade. She identified immaturity as the biggest cause of student behavior problems because "if children are too young, they don't line up with their peers; then generally, they're impulsive, and they can't make friends". When it came to reading difficulties, Tr 1A spoke at length about the importance of the research in the area of dyslexia. She cited the research by Sally Shaywitz as reporting that 25% of the population is dyslexic and 1% of the population as being severely dyslexic. She advocated the use of Reading Mastery as an effective approach to prevent reading difficulty because it was a "highly structured and comprehensive reading curriculum" which uses direct instruction. She also felt strongly that the factors which affect a student's ability to read are "proper instruction, the time on task, and recognition if they are dyslexic". According to Tr 1A, the role of the teacher is to identify where students are at and to work with them where they are. She did not think that parents are responsible when students fail to read.

Tr 1B

Tr 1B, a K-3 class teacher, holds a Master's degree. She has taught for 25 years, 20 of which are in the first grade. In her opinion, the troubled home lives of students are a major factor contributing to student academic or behavior problems. This is because these homes are very different from the schools the students attend. Parents often do not set expectations or if they do, they do not follow through when their children do not meet expectations. Student home environments also affect their reading achievement. According to Tr 1B, among students who are poor readers, there is a "lack of experiences with books and lack of talking about books in the house … there's not a lot of conversation between kids and family members".

Tr 1C

Tr 1C who holds a Master of Art degree, has taught for 25 years. She spent 10 years of those years teaching first grade and another four years as a coordinator in that grade. She has also taught in bilingual settings in California. When asked to suggest reasons why students faced academic or behavior problems, she identified immaturity, home background, diverse needs of students, and the lack of student engagement as the primary causes. Tr 1C pointed out that as there can be as much as a year's difference in ages among first graders, students enter first grade at different levels of maturity. According to Tr 1C, school teachers also face the "tricky business of trying to figure out which avenue will engage a child". This is because students have different learning styles; i.e., "some kids get it better when it's explained to them; some kids get it better

when they can visualize it, and some kids get it better when they can have some kind of kinesthetic experience".

Tr 1C next analyzed the differences in home environments between students from low-income homes she had taught in California and those of students in her current school who mainly come from above-average to high-income homes. In her current school, students come from enriched home backgrounds and have been exposed to diverse learning opportunities provided by their families:

> The students talk about their skiing trip, their trips to Caribbean, trips to Mexico, they are very familiar with technological types of things they probably have in their homes and their parents use. Many of their parents are professionals; the kids get to visit those environments by simply going to mom's and dad's work. Kids often come to us with vocabulary and understanding that's way above other children I have met at the same age.

In contrast, the students coming from low-income homes were different in that "their vocabularies are far smaller and their experiences, which are closely related, you know, are far less comprehensive, global and varied".

Tr 1D

Tr 1D, a Master of Education degree holder, has taught 20 years, 11 of which are in the first grade. She attributed student reading difficulties among English Language Learners (ELLs) primarily to the lack of language experience in their home environment, either in English or in their native language. She observed that there are students who are immature and not ready to read. No matter how hard she works with them individually, these students are "not going to see the words and be able to read them". She also believes that TV and video games interfere with student learning as students are often

preoccupied with them even while they are in school. Finally, there are students who are handicapped by a learning disability.

Tr 1E

Tr 1E holds a Bachelor's degree and has taught 20 years in the first grade. Like Tr 1B, 1C, and 1D, she attributed student academic or behavior problems primarily to home factors. She thought that some parents do not realize the impact of everyday conversation and learning opportunities at home on their children's development. As a result, these children enter school without the prerequisite vocabulary and experience. In the area of reading, Tr 1E thought that students who are good readers have "heard more English language" and have had more stories read to them.

Tr 1F

Tr 1F holds a Master's degree in curriculum and instruction. She has taught for 22 years, 12 of which are in the first grade. She is currently teaching at a school with a student population with family income that is generally higher than average family income in the school district. Tr 1F thought that some students entering first grade have difficulties in school because the expectations placed on them in first grade are higher than those in kindergarten. For example, first graders have a longer school day than kindergarteners and are expected to have a "strong set of pre-literacy skills" when they enter first grade. Tr 1F attributed student reading problems to physiological causes such as vision, hearing and sensory processing problems, and attention difficulties.

Tr 1G

Tr 1G holds a Master's degree with an additional 65 credits. She has taught for 31 years, 18 of which are in the first grade. She believes that a challenge faced by students is the rigidity in some schools which have not met the Adequate Yearly Progress under the No Child Left Behind Act. Consequently, these schools focus on math and reading and "let go of recess time, art and music and science". Schools are also not able to provide students with enough supplies because funds have been channeled to special education.

When asked to identify the primary causes of student academic or behavior problem, Tr 1G replied that the causes are unique to each individual person. Tr 1G attributed the difference between a good and a poor reader primarily to the type of instruction a student receives. Thus, teachers should assess students to find out their level of proficiency, teach students basic reading skills and provide them opportunities to read and to be read to in school. Tr 1G's philosophy towards teaching reading are undergirded by two principles: "children who are read to become better readers" and "you learn to read by reading".

Tr 5A

Tr 5A holds a Master of Art degree and out of the her 11 years as a teacher, she taught 8 years in the fifth grade. She identified poverty as the primary cause of student problems. The need for parents to spend most of their time on "basic survival" and the lack of money and resources mean that they have less time to read to their children and are not able to provide them with ample learning experiences. As a result, these children

come to school with limited experiences and vocabulary. This impacts their achievement as they are less able to relate what they have learnt to their own life experiences. Tr 5A gave the following analogy to illustrate the importance of having rich learning experiences. When students encounter new experience, they create mental structures in their brain. The structures are like trees. When students come across new words, they are able to build these new words on the existing mental structures, like birds build their nests on trees. But students with limited experience have "no trees in that brain for those little birds that you're reading about to come and nest in; they are not going to nest". As a result, the new words are "just going to go through" and are not retained by the student.

Tr 5B

Tr 5B, a Master's degree holder, has 13 years of teaching experience. He has taught fifth grade reading for six years. His attributions for student learning difficulties are similar to Tr 5A's as he believes that students are the "victims of the happenstance that they are born into". Student problems are primarily caused by the home backgrounds they come from: either families who are the "working poor" or families who experience "generational poverty". Among the students who come from "working poor" families, some miss schools because they are babysitting their younger siblings when their parents are working two to three jobs. Students whose families face "generational poverty" need extra support because their parents may not be highly educated. According to Tr 5B, such families have "completely different language, completely differently rules in terms of survival". Hence students coming from these homes struggle in school because of the chasm that exists between their homes and the middle-class

culture in school. Tr 5B attributed reading difficulties faced by poor readers to the lack of exposure at home because parents who "are openly neglectful in terms of their child's education". Although he acceded that parents want the best for their children, he said that they "don't necessarily have the tools to do it".

Tr 5C

Tr 5C has been a teacher for 18 years and has taught fifth grade for five years. She has recently been appointed as an assistant principal. She identified large class sizes and the background of the students' families as challenges faced by schools. When there are large class sizes, teachers are not able to pay adequate attention to individual students. Tr 5C noted that the socio-economic status of families may affect the amount of print material students are exposed to at home. When it comes to reading difficulties, Tr 5C identified learning disabilities as an important cause of reading difficulties. This belief may have been influenced by her personal experiences. Tr 5C herself struggled with reading and had to be taught how to read. When she was young, she was always in the slowest reading group. She could not decode words but memorized how words looked. A number of her siblings had been diagnosed with dyslexia. One of Tr C's own children had dyslexia and another was in special education because she struggled with reading and writing. It is likely that Tr 5C's personal experience might have shaped her belief in the importance of instructional strategies in alleviating reading difficulties. She said that lessons should be structured so that students experience success, which will in turn, build their confidence. She also emphasized the importance of relating what students were

learning in the classroom to their lives, in order to sustain their interest in learning. When a teacher keeps lessons relevant, the students "just want to keep learning".

Tr 5D

Tr 5D, a Master's degree holder, has taught 13 years, eight of which are in the fifth grade. She perceived student behavior, student ability, and student mobility to be factors contributing to student academic or behavior problems. The behavior of some students interferes with their learning. Conversely, students with low ability sometimes manifest inappropriate behavior to cover up their learning difficulties. The families of some students move homes frequently and that mobility affects their progress. Many students come to school without basic skills and knowledge. Some students have never been to school. The lack of an enriched literary home environment and home support also contribute to student problems.

Tr 5E

Tr 5E who holds a Bachelor's degree, has taught for 13 years. In the year the study was conducted, she was teaching fifth grade for the first time. Like Tr 5C, she identified the difficult home situations of children and large class sizes as challenges faced by students in schools. Troubled homes, homelessness and poverty contribute to learning difficulties in students. For example, five students in her class each had a family member murdered last year. There are also students in her school with Fetal Alcohol Spectrum Disorders. Coming from disadvantaged homes, these students struggle with what is taught in school and it becomes harder for them as they move up from one grade to another. There are ELLs in her school as well as students who do not speak Standard

English. All these differences result in large disparities between students within each grade, and within the classroom. Tr 5E reported that in her classroom, there were students who were reading at first grade level and there were others who read at ninth- or tenth-grade level. With the increase in class sizes, it has become more difficult for her to differentiate to meet the individual needs of students, given the 10-grade level span.

Tr 5F

Tr 5F holds a Master's degree and has taught 21 years in Minneapolis, 10 of which are in the fifth grade. She believes that high mobility of some families and students spending too much time on TV and the computer have impacted students' ability to build relationships. As a result, students need more social interactions with adults and other students to figure out "what the rules" in school are. Also, they need to spend more time on intellectual activities.

In Tr 5F's opinion, many students have reading difficulties because they come to school unprepared. They have not had a rich literacy environment at home and consequently, are not able to keep up with their peers. Tr 5F observed that students who come from homes where English Language is not spoken, initially struggle with reading in English but they gradually acquire the language and eventually become fluent if there is home support. Tr 5F believes that self-discipline and home support are important factors in helping students overcome their reading difficulties. The belief could have stemmed from her daughter's experience who was successful in school in spite of being diagnosed with dyslexia. Tr 5F's daughter only started reading when she was in fourth grade, "but if she hadn't developed discipline and the support at home, she wouldn't have

caught up all that ground". Tr 5F's daughter is currently finishing her dissertation at the University of Minnesota. Tr 5F's strong beliefs in effort and hard work may also have been shaped by her own experience as an immigrant. Hence, she emphasizes these values when she works with students and their families.

Tr 5G

Tr 5G holds a specialist diploma in Educational Leadership and a Master's degree in Curriculum and Instruction. He has taught for 15 years, four of which are in the fifth grade. He pointed out that academic and behavior problems are inextricably linked and that the primary cause underlying these problems is the lack of inherent motivation. Many students do not see immediate results when they make an effort because learning is a long-term process. Thus, these students lose their motivation to work hard because they do not expect their effort to lead to better performance. Tr 5G believes that "you get better at reading by reading". He observed that students who have developed the ability to imagine the story they are reading in their minds are more likely to pursue reading as a leisure activity. They love to read independently and consequently, get better at reading. As a result, they continue to read and become more proficient. In addition, for a student to become an independent reader, it is also important that he or she has an adult role model and a literacy-rich environment, preferably both in school and at home.

Tr 5H

Tr 5H has a Bachelor's degree and has taught for 23 years. She has taught fifth grade for three years. She believes that students have difficulties in school because they did not have a good preschool background. Tr 5H felt strongly that children who come from homes where parents are not able "to follow through with consequences" would benefit from a strong preschool program. Tr 5H lamented that the focus of preschool programs nowadays is on teaching students how to read. In her opinion, preschools should provide students the opportunities to play and socialize, to learn to share, and to be creative. Children who come from single parent families or from homes where the first language is not English are also at a disadvantage. Like Tr 5G, she believes that exposure to reading distinguishes a good reader from a poor reader. According to her, a "good reader has a good backlog of vocabulary that they've already leant and so, they're building on success …. Poor readers haven't read enough to have an extensive vocabulary, and good readers do".

Tr 5I

Tr 5I, a Master's degree holder, has taught 21 years, all of them in the fifth grade. Tr 5I strongly believes that all children can learn but schools need to identify the areas in which students struggle in. For example, ELLs face the challenge of learning a second language and meeting proficiency standards. Some who come from low-income families struggle in school because "he or she has not eaten a decent meal". Tr 5I thinks that it is unrealistic to expect these students to concentrate and to focus in class when their basic needs have not been met. Students from such homes are disadvantaged because their

vocabulary is limited by their experience. He illustrated this with an example. A student may come across the word 'chandelier". The student looks at the word but is unable to figure it out and wonders, "What is a chandelier? I can't figure it out in the sentence". Other than home factors, students may struggle in school because they have an unidentified learning disability.

Cross-case Analysis

The data from the teacher interviews were further analyzed across teacher participants to examine teacher perceptions of the challenges faced by students in schools. Next, the data on teacher expectations of what students entering and leaving the grade should be able to do were compared to find out if these expectations were consistent across teachers or varied from teacher to teacher. If teacher expectations varied, a student considered by one teacher as a struggling reader might be thought to be an average reader by another teacher. The data were also analyzed to see if there were any attributional patterns across participants. Responses from different participants were grouped according to questions in the semi-structured interview protocol and tabulated as presented in Tables 1.1 and 1.2. Variations within the sample were labeled using the categories suggested by Hill, Thompson and Williams (1997). Concepts that apply to all participants are denoted as general, concepts that apply to half or more participants as typical and concepts that apply to less than half of the participants as variant.

Separate analyses of the data were carried for the first and the fifth grade as one of the purposes of the study is to examine if there are differences in teacher attributional pattern between those who teach the lower elementary grades and those who teach the

upper elementary grades. Another reason for conducting the analyses by grade is to test the hypothesis that teacher interventions in the higher grades are different from those used by teachers in the first grades.

Teacher perceptions of challenges faced by students

The challenge most commonly identified by the first-grade teacher participants was the lack of requisite abilities and skills to meet the demands of first grade. It was typical for first-grade teachers to report that some students lacked pre-literacy skills, had smaller vocabularies, or had not been socialized to the norms of the school. These norms included 'following school rules', sitting still for long periods of time, and engaging in activities directed by the classroom teacher. Two teachers, Tr 1B and Tr 1G, noted that the expectations of students have "changed over time" and that "we expect a lot more". According to Tr 1G,

> In the olden days when I started, children needed to be taught how to hold a pencil, what colors were, the essence of numbers. You have to start from scratch and teach them letter names and that letters have sounds and certain sounds with each letter and how to put them together. Now, don't get me wrong, some children still come in at this level.

Fifth-grade teachers typically observed that many students are unprepared for school, lacking basic knowledge and having deficits in language skills. These students' problems do not suddenly emerge in fifth-grade but may have surfaced as early as in kindergarten. A teacher described the problem in the following manner:

> a lot of it is because they started out low and once you started out low, each year they go (to the next grade), they try to play catch up. And as they get older, it's harder for them to catch up. They started out low to begin with. A lot of our students coming in, they don't know the basic ABC. So in kindergarten, they have to learn that. Some of them even have to learn how to hold pencils. (Tr 5D)

Teacher expectations

Teacher expectations of what students should be able to do were consistent across teachers within the same grade. All first-grade teachers indicated that they expect their students to be able to recognize letter names and sounds when they enter first grade. Three of them said that they expected their students to recognize some sight words as well. Teachers assessed reading progress in the following areas: fluency (4 teachers), comprehension (4 teachers) and the ability to blend sounds (3 teachers). There was some discrepancy among teachers in their expectations as to what students should be able to do when they leave first grade. Three teachers expected their students to meet the fluency benchmark of reading 60 words correctly per minute whereas 1 teacher expected her students to read 100 words correctly per minute. Other skills that first teachers regarded as important included the ability to retell a story and to figure out meaning from the context as well as the ability to distinguish fiction from non-fiction and a statement from a question.

It was typical for fifth-grade teachers to report that they expected students to be able to read fluently and comprehend what they are reading when they enter fifth grade. Three teachers expected their students to be able to interpret or make inferences of what they had read. When students leave fifth grade, 4 teachers reported that students should be to make inferences. Three teachers used reading comprehension to gauge student progress. A variant number of participants also reported that fifth-grade students should achieve include being able to identify an author's point of view, main ideas and cause and effect; being able to compare and contrast; and being able to analyze and evaluate.

In the following sections, I describe the results obtained from analyzing the data to answer the six research questions in this study.

Research Question 1: What general attributions for student problems do teachers hold?

Teachers were asked what they thought caused student academic or behavior problems. General teacher attributions were coded using 24 coding categories. Related teacher attributions were grouped and three primary categories were identified: within-student attributions, home-related attributions, and school-related factors. Table 2 presents a summary of the number of general attributions for student difficulties among students in first and fifth grades. A total of 79 general attributions were gathered. Of these, the most commonly cited general attributions were related to home factors, accounting for 54% of the attributions. Almost 28% of general attributions were related to within-student characteristics. The least commonly reported general attributions were related to school factors, accounting for 18% of general attributions made.

General Attributions Made by Individual Teachers

Table 3 summarizes the general attributions made by individual teachers for student difficulties in each coding category. General attributions which fell in the same coding category were combined and counted only once. This is because teachers might have used different examples to illustrate a specific attribution. For instance, the examples given by Tr 1B, “talking about books in the home” and “amount of conversation in the home”, were both coded as “home literacy environment” and counted only once.

Among the first-grade teachers, the lack of the literacy environment in the home is the most commonly identified cause. It was cited by 5 first-grade teachers as a cause of student problems. One teacher commented that it was usually "the lack of experiences with books and lack of talking about books in the house or even stories. There's not a lot of conversation between kids and family members". The role played by parents in providing their children with enriching experiences that would stimulate learning was highlighted:

> Parents don't know the importance of taking their children to places to see things, like it's important to go to museums, even to go to the grocery store and name the name of a fruit or vegetable. Everyday conversation is really important. So they come to school with a lack of vocabulary and experience and that can cause trouble in school. (Tr 1E)

Three within-student factors (student's processing deficits, student's developmental stage and student's level of effort or motivation) were also identified by first-grade teachers as important causes of student problems. Three teachers viewed the student's developmental stage as an important factor. Specifically, some first-grade students were perceived to have difficulties in school because they were too young or immature. As a result, they are "impulsive" and "can't make friends". According to participants in the study, these students have difficulties following instructions because they do not listen well. They become frustrated because they "can't keep up with other kids" and exhibit their frustration either by acting up or withdrawing. On the other hand, 3 teachers had a different view of the problem, attributing the problem not to the students, but to the high expectations placed on these students by the schools. According to these teachers, first-grade students have to adapt to an earlier and longer school day than they

have been used to in kindergarten. As a result, they are "tired, hungry and just crabby" when they are in school.

The second within-student cause of student problems reported by 3 first-grade teachers was coded as 'student's processing deficits'. This category included learning disabilities, attention difficulties, "vision problems", "fine motor problems" and "sensory processing problems". The third within-student cause, student's level of effort or motivation, was related to student engagement in the task at hand and was identified by 3 first-grade teachers. There were "kids who can do it, but for whatever reason, don't connect". In the case of reading, student willingness to practice and to "stay motivated to work" often distinguishes the good readers from the poor readers as "it's very hard to learn how to read".

Among the fifth-grade teachers, the three causes of student problems that were most commonly reported were all related to home factors: home literacy environment, family's socioeconomic status and the use of a home language which was not English. Five fifth-grade teachers thought that their students' home do not provide a rich literacy environment: reading materials are not readily available, children are often not read to, nor do they have adequate opportunities for verbal interaction. One teacher said that some students "have never touched a book, never had the opportunity to touch a book until they hit kindergarten". Such students face the challenge of catching up with their peers and the gap widens as they move from one grade to another. This problem is aptly described by a teacher in the following manner:

> They have not had a rich literacy environment from birth to five. They weren't read stories every night, they didn't listen to books on tape, they didn't see their parent reading the newspapers, or hear their parents talking about books or literature, see siblings doing the same. So they don't have the sense of importance of literature. And then they are behind in kindergarten. A lot of the other kids start reading at kindergarten, and they haven't yet. So it's the snowball effect. They start to fall behind and if they don't have more help at home at a particular point in time, then it's going to take a long time to catch up. (Tr 5F)

Poverty is often, but not always, related to the home literacy environment and is also identified by 5 fifth-grade teachers as an important cause. This is because parents earning a low income have to "spend so much time on basic survival" that they do not have the time to read to their children, nor the "money and resources to take them places like museums and the zoo and places where parents take kids". One teacher pointed out that the amount of time parents put into read "is often a reflection of the socio-economic status of the family, but it was not limited to that". A teacher with 21 years of teaching experience described the relationship between poverty and learning in the following manner:

> Poverty is always there and kids have to deal with that. We place a lot of demands on kids about the things they have to in school but I think it's important to understand where they are coming from, the environment they are coming from to us. When you have a child that comes to school, and he or she has not eaten a decent meal, you cannot expect them to concentrate, to focus without first getting those needs met first. (Tr 5I)

Tr 5B who 'grew up in poverty" himself, was emphatic that poverty, specifically "generational poverty", is related to "national cultural issues that transcend race". In his opinion, students who struggle in school do so because their families are poor. To illustrate his point, he described the students his mother-in-law taught in a small, poor town in rural Iowa as follows:

> They (the students) were European American, not African American or Hispanic American or Asian American and they have exactly the same issues that we have in city schools: issues with violence, issues with drugs, alcohol, children that come to school with Fetal Alcohol Syndrome, that sort of thing. (Tr 5B)

The reason why poverty has a strong impact on student's learning, according to Tr 5B, is partly due to the fact that in the schools, 'we are teaching from the middle class perspective". Students from high-poverty homes, however, are exposed to 'a completely different language, completely different rules in terms of survival, in terms of values". The problem is mediated when there are middle-income students in the classroom who provide a "culture where the lower-income kids are learning from the middle-income kids that already know the rules". On the other hand, the situation is exacerbated in schools where the student population is "overwhelmingly poor". In the classrooms in these schools, none of the students "knows the rules". A related problem, homelessness, was cited by 4 fifth-grade teachers.

Another teacher, Tr 5F, strongly believed that parents play an important role. She asserted that without the support of parents at home, she is not going to make a difference in student learning. She has often gone to her students' homes to explain to parents exactly what her students have to do at home each night. She encourages parents to check with her if their children say that there is no homework and even offers to deliver the homework to their homes.

Not all participants agreed on the role of parents as indicated by the responses of a variant number of participants. In response to a question as to whether students are poor readers because their parents do not help them, Tr 1B replied, "No, I don't think it has anything to do with parents". Instead, she attributed the problem to the fact that the students are not receiving proper instruction. Another teacher, Tr 1F, also believes that instruction accounts for the difference between good and poor readers. She highlighted

the importance of assessment and a systematic approach in instruction on student's reading proficiency as follows:

> So for reading, when they come in the door, you find out where they are. Then you take measures you need to take to help them read. If they don't know their letters, then you start teaching them letters. If they don't know their sounds and letters, and there are certain sight words that they have to know. You use all the tricks that you know and figure out what you have to do for the whole group and you also need to read to children a lot ... But you have to make sure that they can read and then you teach them the basics.

Five fifth-grade teachers identified the use of a home language other than English as a factor contributing to reading difficulties among students. The problem faced by students who are ELLs is complex. ELLs are learning English in addition to the content area of the subject. For some ELLs, their problem is exacerbated by their lack of experience in schools as some of them may be recent immigrants and had not had the opportunity to attend school in their home country. The problem faced by ELLs is mediated by the value the family places on literacy and parent's educational background. Teachers noted that when there is a strong emphasis on literacy in the home, a strong school foundation or when parents are fairly well-educated, ELLs tend to do better.

Four fifth-grade teachers identified student processing deficits as a cause of reading difficulties. This included learning difficulties, dyslexia and attention problems. Tr 5F believed that Attention Deficit Disorder is partially caused by the student's diet, time spent on the computer or TV as well as the lack of adult attention. Tr 5C's belief that dyslexia is a cause of reading difficulties could have been shaped by her personal experience. Besides having family members who were diagnosed with dyslexia, Tr 5C herself learnt to read later than her peers. Tr 5I felt that schools were not identifying students with learning disabilities early enough. He contends that by the time these

students are identified, they have already "fallen behind" and have to "catch up" with their peers.

In summary, it appears that both first-grade and fifth-grade teachers are more likely to make self-serving attributions, attributing student problems to within-student characteristics and home-related factors. Only 18% of the participants in the study identified school-related factors as the cause of the problems faced by their students.

Research Question 2: What is the relationship between specific teacher attributions for reading difficulties of individual students and interventions used?

Student Cases identified by Teacher Participants

Teacher participants were each asked to identify two students in their classroom who were struggling in reading. They then described the problems faced by individual students, assessments used to identify these students, interventions implemented to address their reading difficulties and the magnitude of progress made. Fourteen first-grade students and 18 fifth-grade students were discussed as individual cases. Among the 14 first-grade students, 8 were African American, 5 Caucasian and 1 Hispanic. The first-grade sample comprised 8 female students and 6 male students. The mother's highest educational attainment of individual first-grade students in the sample was as follows: one mother did not complete elementary school, one mother completed elementary school, three mothers graduated from high school, three held a bachelor's degree, two a master's degree. The teachers did not know the educational background of four mothers of students in the first-grade sample. Nine first-grade students received FRL. Two first graders were ELLs.

Among the 18 fifth-grade students, 9 were African American, 3 Caucasian, 3 Hispanic, 2 Native American and 1 Asian. There were 10 male students and eight female students in the fifth-grade sample. The educational attainment of the mothers of individual fifth-grade students was as follows: one mother completed elementary school, four completed middle school, four received a high school diploma, and two held a bachelor's degree and one a master's degree. The educational background of six mothers of fifth graders in the sample was unknown. Sixteen fifth graders in the sample received FRL and six were ELLs.

Individual students identified by each teacher were coded with reference to the teacher who had identified them. Hence the two students identified by Tr 1A were coded as S1A, followed by a number. The first student was assigned S1A.1 and the second student, S1A.2.

Specific Attributions for Reading Difficulties and Interventions

To analyze the relationship between specific attributions for reading difficulties and reading interventions, the data provided by participants on their specific attributions for the reading difficulties of the two struggling readers in their classroom and what they did to address these individual students' difficulties were examined. As with general attributions, the specific attributions were classified into three categories: within-student factors, home-related factors and school-related factors. Table 4 provides a summary of specific teacher attributions for the reading difficulties of individual students in first and fifth grade respectively in three primary categories: within-student factors, home-related factors and school-related factors. Specific attributions which fell in the same primary

category were combined and counted once. Participants in the study typically had multiple attributions for the reading difficulties of individual students. Information on specific attributions was elicited both through interviews and the survey, MTSARD. Initially, participants mailed the survey to me after the interview session. However, when I was analyzing the survey by a participant, I noticed that her survey responses were inconsistent with what she had said during the interview. As a result, the survey was completed during subsequent interview sessions. Their responses on the survey were immediately followed up during the interview. Teachers were asked to elaborate on the attributions that they had scored as being important factors in contributing to the student's reading difficulties.

Among the first graders, the reading difficulties of all 14 students were perceived to be caused by within-student factors. Home-related factors were thought to be responsible for the reading difficulties of 7 first graders. The reading difficulties of 6 first graders were attributed to school-related factors. Among the 18 fifth-grade students, teachers attributed the reading difficulties of 16 students to within-student factors. The reading difficulties of 14 fifth graders were attributed to home-related factors and that of 6 fifth graders to school-related factors.

This section will discuss the relationship between teacher attributions for the reading difficulties of individual students and interventions they used to address these reading difficulties. It is recognized that the relationship is likely to be a complex one and the interplay of the three factors is likely to influence the interventions eventually used by teachers. However, the exploratory nature of this study does not permit an

examination of the interactions of the three factors. Instead, each factor will be analyzed individually. I will examine each factor starting with the most frequently-cited factors, i.e., beginning with within-student factors, followed by home-related factors and finally, school-related factors.

Within-student attributions and interventions

Almost all the first-grade students were identified by their teachers as struggling readers due to within-student factors lacked baseline skills, namely, the ability to recognize letter names and sounds and the ability to blend sounds. Table 5 presents the within-student attributions and interventions used with students. The reading difficulties of all first graders were attributed to within-student factors. The range of within-student factors ranged from cognitive immaturity, vision problems, lack of motivation/effort/interest, focusing or attention problems, poor work habits, and a quiet or withdrawn disposition. The reading difficulties of nine students (64%) were thought to be influenced by factors that they were able to control (motivation, effort, interest, work habits).

Teacher interventions were classified into four categories: explicit reading intervention, intensive reading instruction, interventions that provided increased opportunities to read, and other interventions. The first three categories were used because they have been identified as critical elements in promoting reading success for students at risk for reading difficulties (Albers & Greer, 1991; Foorman & Torgesen, 2001; Greenwood, Delquadir, & Hall, 1984). Research has shown that explicit and systematic interventions and/or intensive instruction are particularly beneficial for

struggling readers (Foorman & Torgesen, 2001). Explicit instruction involved direct instruction in building decoding skills, fluency in word recognition or comprehension. Interventions which increased instructional time or which involved individual or small group instruction were categorized as intensive interventions. Interventions were coded as explicit or intensive interventions if instruction was provided by a trained teacher. Interventions involving untrained personnel such as peer tutors and volunteers were coded as interventions that increased opportunities for students to read as they did not necessarily provide reading instruction.

Among the first-grade students described by study participants, 12 (86%) students received intensive reading instruction in small groups from the class teacher, the Title 1 teacher or the ELL teacher. The amount of time of intensive interventions individual students received each week ranged from 40 minutes to 225 minutes. The frequency of these intensive interventions varied from twice a week to five times a week. Twelve students (86%) were provided increased opportunities to read at their individual reading level. The frequency of these interventions ranged from once a week to five times a week. In total, the amount of "increased opportunities to read" individual students received ranged from 90 minutes to 240 minutes of intervention. Eight students (57%) received explicit instruction on early literacy skills. Four teachers used affective strategies such as having students participate in a friendship group or using the student's area of interest to increase motivation in reading. Finally, 9 students received other interventions, such as changing the student's seat, adjusting amount of homework, eye therapy, and after-school tutoring.

Within-student factors were perceived to be the cause of all but 2 fifth-grade students. The within-student attributions for the reading difficulties of 16 students included lack of motivation/ effort/interest, focusing or attention problems, poor work habits, emotional and behavior issues, shy disposition and poor relationship with a teacher.

Compared to the first graders, a significantly smaller number of fifth-grade students received explicit reading instruction. Only 3 fifth-grade students (17%) received explicit instruction to address their reading difficulties. Seven fifth graders (38%) received intensive reading instruction from trained personnel. Seven students (38%) from the fifth grade had more opportunities to read at their reading level, either to a volunteer or with a peer. Some teachers used creative approaches to encourage their students to read to others. Tr 5F had a student would not read to a peer or to an adult because "she's got to be the big kid on campus". So, Tr 5F appointed her to be the leader of a group of three special education students. They took turns to read a novel to each other. Tr 5F believed that the student liked this arrangement and benefited from the intervention.

Fifth graders in the sample typically received affective strategies to either motivate the students or to address their emotional needs. Nine students (50%) were exposed to books on topics of their interest to motivate them to read. One such example is the approach used by Tr 5A. Tr 5A perceived that S5A.1's reading problem was not only academic but a behavioral one as well. She attributed his reading problem to difficulty in focusing and to a lack of motivation, effort and interest in reading. She

used multiple strategies to address these areas. Tapping on his love for basketball, she connected him with few adults who coached the basketball team. In addition, a male education assistant took the student under his wings and mentored him. He talked to the student whenever the student had a bad day and helped him to change his attitude towards school. Tr 5A was also very firm with the student and helped the student to realize that "it's more fun to be part of the group that's learning and working". Another teacher also tapped on a student's interest but in a different way. Tr 5C noticed that S5C.2 valued basketball. She encouraged him to read a series of books which taught readers skills such as how to shoot a basket, but required only basic reading skills in reading.

Another student whose behavior problems interfered with his learning was S5E.2. Even though he was in the fifth grade, he read at a first grade level. He had been assessed for special education but he failed to qualify because "to qualify, he had to be in the bottom 5 percent and he was in the 6th percentile". He often misbehaved in school and acted as a class clown. He would often say, "I don't care, this sucks. What a waste of time!" The teacher who taught him the previous year, used to send him out of the class. However, Tr 5E saw the student's misbehavior as a way of escaping work because he knew that he was academically behind his peers. This affected his interest in reading, the amount of effort he put in learning how to read and his work habits. To address his misbehavior, Tr 5E used "a lot of interventions to keep him in the classroom". Using humor, Tr 5E built a good relationship with him and showed him that she cared for him. She recognized that he was an "extremely street smart" student

who tended "to run the show". Hence, she provided opportunities for him to be a leader so that he felt successful in school. Another teacher, Tr 5C, also focused on developing a relationship with her student, S5C.1. Through her interactions with S5C.1, she was able to convey to the student that "he was one of the very special students I cared about". Like Tr 5E, Tr 5C used humor to get S5C.1 to "laugh a little bit, a little bit even at himself … I could stay on him more, he didn't take offence to it, understanding it was care, not being picked on".

In summary, first-grade teachers are more likely to use explicit or intensive reading instruction to address reading difficulties caused by within-student factors than those who taught fifth grade. A higher percentage of first graders had increased opportunities to read, compared to those in the fifth grade. On the other hand, fifth-grade teachers tend to use affective strategies to address reading difficulties caused by within-student factors.

Home-related attributions and interventions

Table 6.1 presents the home-related attributions made by first-grade teachers and the interventions they used to address reading difficulties. Reading difficulties among 7 first-grade students were attributed to family-related factors by 4 teachers. Four teachers (Tr 1B, Tr 1C, Tr 1F and Tr 1G) engaged the parents of 5 students to support their intervention efforts. Only 2 of these teachers (Tr 1B and Tr 1C) ascribed the students' reading problems to the home. Two other teachers (Tr 1D and Tr 1E) made home-related attributions but did not involve parents in their intervention efforts. On the other hand, two teachers (Tr 1F and Tr 1G) who contacted parents did not mention the home

as contributing to students' (S1F.1 and S1G.1) reading difficulties. Tr 1C, Tr 1F and Tr 1G come from the same school, where parent attendances at conferences are 100% and there is high degree of parental involvement.

Table 6.2 shows home-related attributions made and interventions used by fifth-grade teachers. Among the fifth-grade struggling readers, 8 teachers identified home-related factors as contributing to reading difficulties of 14 out of the 18 students. Yet, only 4 teachers (Tr 5C, Tr 5F, Tr 5G and Tr 5I) approached the parents of 6 students (S5C.1, S5F.1, S5G.1, S5G.2, SI.1 and SI.2) to provide a greater degree of home support or supervision. Two of these teachers (Tr 5C and Tr 5G) teach at the same school as Tr 1C, Tr 1F, Tr 1G. One of these teachers, Tr 5C, emphasized the importance getting a parent "on board" when the home was thought to be a factor. Tr 5C observed that S5C.1 was reading Gothic fantasy books which were beyond his age level all the time even though he did not understand what he had read. Discussions with the student's mother revealed that he spent long periods of time at home alone. While she was at work, he read books she had bought for him. She did not realize that he did not comprehend what he was reading and that he needed help with his reading. To discourage the student from reading those "monstrous" books which were too difficult for him and were a barrier to his reading progress, Tr 5C took away the books whenever she saw him reading them. However, he would come back to school the next day with another copy of the same book because his mother would take him out and buy him a new one. Tr 5C explained to his mother that he was not a confident reader even though she kept giving him those books. After repeated communication, his mother finally

made “a paradigm shift” and understood that her son needed help in reading. She stopped supplying him the books which were at an inappropriate level and began to spend more time helping him to read.

Two teachers (Tr 5G and Tr 5I) contacted the parents of their students (S5G.2 and S5I.2) even though they had not identified the home as contributing to the students’ reading problem. One teacher, Tr 5I, contacted the parents of his student (S5I.2) because he know that the student had supportive parents who wanted him to get “the best education possible”. The student’s father did not accept excuses from his children for not doing their work and welcomed Tr 5I communicating with him.

Based on the findings at both grades, it appears that the degree to which teachers engage parents is more likely to be related to the schools these teachers teach, rather than whether they made home-related attributions for individual students. In total, even though the home was cited by 12 teachers as attributing to student reading difficulties for 21 students, only 8 teachers (50%) in this study sought the assistance of parents of 11 students (34%) to support their intervention efforts. Of the 8 teachers, 5 teachers came from the same school. In this school, parents are expected to attend conference and be actively involved in their children’s education. Two first-grade teachers in this school sought home involvement even though they did not think that the home was contributing to the student’s reading difficulties.

The linguistic environment at home was cited as a cause of reading difficulties of 6 students. The problems faced by teachers when working with ELLS are two-fold. ELLs lack exposure to the English language at home both in oral and in written form.

Teachers also face difficulties in communicating with their parents who are non-English speakers. According to Tr 1E, "language is a big problem" for one of her students who is an ELL. The student speaks Liberian English at home which is a non-standard dialect of English Language; the words do not sound the same as those in standard English. As a result, the student is unfamiliar with common vocabulary. Even though his parents are willing to cooperate with the teacher, they are unfamiliar with what their son needs to do. Tr 1E tried to communicate with them but it is difficult for her to understand them and for them to understand her.

School-related attributions and interventions

School-related factors were least commonly cited as causing student reading difficulties. The reading difficulties of 6 first-graders and 6 fifth-graders were linked to school-related factors. Poor instruction in previous school, poor relationship with a previous teacher, and the lack of schooling experience were the most frequently cited factors (5 first-grade and 3 fifth-grader teachers). Only 2 teachers (1 first-grade and 1 fifth-grade teachers) attributed student reading problems to their own instruction or their relationship with the student. Tr 1G attributed the S1G.1's reading difficulty to the poor match between the instruction in her classroom and the student's need. She thought that there was a large discrepancy between the student's reading level and that of her peers. The student needed a more structured program and the instruction in the classroom was targeted at a level which was too difficult for her. Tr 5H said that using a peer-assisted reading program had increased the opportunities for students in her classroom to read, but at the expense of the direct contact time she had with the struggling reader (S5H.1).

No clear attribution-intervention link was evident when teacher attributions were related to school factors due to the small numbers of school-related attributions made.

Research Question 3: What attributions do teachers hold for the magnitude of student progress?

The data were next analyzed to compare the students who were perceived to have made progress in reading to the students who were thought to have made little or no progress. The progress made by students was defined by the teacher participants and was not based on specific benchmarks. There are a few reasons for taking this approach. First, a wide variation in the reading proficiency of students existed when they entered the current grade the teachers interviewed were teaching. The difference was especially pronounced among the fifth-grade students in the sample. For example, a fifth-grade student, S5E.2 was reading at kindergarten level when he first entered fifth grade while another student, S5C.1, was reading (but not understanding) books that were more appropriate for ninth to tenth graders. Second, some teachers in the study did not provide quantitative data in their assessment of student progress. However, every teacher participant provided an evaluation of student progress based on how successful they perceived individual students to be. The assessment could be based on student grades, performance in class work, or change in behavior or confidence level. The students had been categorized according to whether they were perceived by their teachers to have made progress or not, and the attributions for the progress or lack of progress of each group of students were then examined.

Students who made progress

There was a significant difference between the two grades in the number of students who were perceived to have made progress in reading proficiency. Among the 14 first graders, 12 (86%) were perceived to have made progress. Only 9 (50%) out of the 18 fifth-grade students were thought to have made progress by their teachers. Table 7 is a summary of teacher attributions for reading difficulties, progress and lack of progress of first and fifth graders.

Next, the data were examined to see if there was a difference in the type of attributions made between the two grades. Among the first graders who made progress, the teachers of all 12 students attributed the progress students made to school-related factors: classroom instruction, curriculum used, positive teacher-student relationship, and academic and behavioral interventions. For example, Tr 1A believed that the Reading Mastery curriculum she had used with S1A.1 had worked because it "brought her through (the reading skills) in small segments". Also, as a result of the reading intervention, S1A.1 was "not only saying the sound, but she's sounding out every letter and following the word (on print) till the end (of the word)".

According to teacher participants, the progress made by 6 first-grade students (50%) was related to within-student characteristics: student determination, increased student interest or confidence, and maturity over time. Only 4 students (33%) were thought to have made progress because of home-related factors such as receiving encouragement from their parents. One such student was S1C.2 who received positive

home support. His parents were very encouraging and validated his efforts and achievement. This "reinforced and built his confidence a little bit more".

In contrast, within-student characteristics were perceived by teachers to be the more important factor affecting student progress among fifth graders. Eight out of the 9 students (89%) who were thought to have made reading progress did so because of a change that took place within the student. These changes included improvement in student attitude, raised student self-perception, increased student motivation or effort, a sense of being valued by others and a desire to learn. Tr 5E described the importance of motivation in the following manner:

> She has a lot of drive. She wants to do better, and she wants to learn. So supporting her and helping her is much easier. She really wants to be successful. It's important to her and it's important to her family that she's successful.

When a teacher is able to motivate a student and a student becomes serious about his work, the student may go to great lengths to achieve success. This is the case with S5F.1, a Native American girl who took a longer time to get through a text than her average peer mate. Her teacher made her a leader of a small group of girls and provided her opportunities to present aspects of her culture. She began to work very hard and even told a friend who with a lackadaisical attitude toward work, "You know, I am going to choose not to sit with you until you get your work done again. I think that you distract me when you are not working and I need to get my work done. So I won't sit with you anymore".

Another student made progress as a result of a change in self-perception. According to Tr 5C, S5C.2 made progress because

> he started to see himself as a person who was smart … he could hold his own at academics … he saw himself as a leader in athletics, and so (it led to) the transference for him to start to see himself as successful in another arena, meaning the classroom.

The belief that student motivation and effort is the key to success among fifth-grade students is consistent with the earlier finding that teachers in fifth grade are more likely to use affective strategies than academic strategies because they attributed student difficulties to a lack of student engagement.

Among 9 fifth graders who were perceived to have made progress, school-related factors only accounted for the progress of 4 students (44%). These students were thought to have made progress in reading because of increased opportunities to interact in small groups, teacher expectations, teaching strategies and classroom management. For example, Tr 5A attribute the progress made by S5A.1 to a combination of academic strategies and behavioral interventions. The student was in an intervention reading class to increase his reading proficiency. He was also mentored by a number of male adults. Finally, the reading progress of only 2 fifth-grade students (22%) was attributed to home-related factors. One student, S5C.1, was thought to have made progress because he "was feeling valued" by his mother who was spending more time with him.

An interesting finding that emerged from the analysis was that teachers in both grades typically carried out multiple interventions concurrently. Hence, when they were asked to identify the factors that contributed to student progress in reading, 5 first-grade teachers attributed the progress to the "whole spectrum of interventions" and "a combination of interventions" implemented. Tr 1E said that "all the interventions have helped" S1E.1 to read. One teacher, Tr 1B, attributed the progress made by S1B.1 to the fact that the structured, skill-based phonics program used by the Title 1 teacher

complemented the integrated reading approach she used in the classroom. However, a variant number of teachers were not able to identify specific interventions that resulted in improved reading proficiency among their students. It seemed that their students' reading ability suddenly emerged after they had received reading instruction over a period of time. Tr 1C described the experience of S1C.2 as follows: "he and I were working and working and working together, and one day, it (his ability to read) just clicked". Tr 1B thought that S1B.2's ability to read was the result of some development that had taken place at home:

> She came back after winter break week and seemed a lot more settled. It was kind of like magic … She came back and she was much more settled. She talked about having seen her dad, talked to her dad a couple more times. My guess is that he came back and spent more time with her … the house settled down and she was a little more settled. She also started to read a little more and became more confident.

Students who made limited or no progress

I will next examine the second category of students, i.e., the students who were perceived to have made limited or no progress. Only two students in the first grade (S1D.1 and S1D.2) were perceived by the same teacher, Tr 1D, not to have made any progress. Tr 1D reported that the student had already received interventions but had not reached the level of reading proficiency she wanted her to be. However, Tr 1D was hopeful that "something turns on in her brain, so she goes, 'Oh I remember these words'" and that she would be able to recognize twice as many sight words by the end of the year. In view of the limited progress made by the S1D.1, Tr 1D predicted that "she might always be a slower reader". The second student who did not make progress, S1D.2, is a Somalian girl who was still not able to read even though she had received additional reading instruction in small groups with other ELL students. Tr 1D attributed S1D.2's

lack of reading progress to the poor match between the instruction she was receiving in her ELL class and the reading instruction she needed. Based on Tr 1D's assessment, S1D.2 needed phonics instruction, but the focus of the instruction for ELL was in vocabulary development. Tr 1D was also doubtful that the student would make much progress in reading by the end of the year because "she is so far behind".

Among the 18 fifth-grade students, half of them fell in the category that teachers perceived to have limited or no progress. Of the 9 students in this category, the limited progress achieved by 8 students was attributed to within-student factors: student attitude, lack of motivation or effort, difficulties in focusing, and low reading proficiency prior to entering fifth grade. For example, Tr 5I described S5I.2's failure to make progress in the following manner:

> He's a stubborn one. His progress hasn't been a good as student A because and here again, I think it's the lack of the English Language. He doesn't have the understanding. And progress has been very slow.

The lack of progress of 2 students was thought to be related to lack of home support or home circumstances. None of the teachers identified school-related factors as a cause of lack of student progress in reading.

From the results, it is evident that first-grade teachers perceived school-related factors as the primary cause of student progress while fifth-grade teachers attributed student progress primarily to within-student factors. Although it could be argued that school and home interventions could have led to a change in student perception or increased student effort among the fifth-grade students, teachers who taught fifth graders mainly focused on within-student characteristics when evaluating student progress. This

is exemplified in Tr 5I's response when asked why S5I.1 had made progress. He initially said, "I guess it's because I'm such a good teacher". He appeared embarrassed as he immediately laughed and dismissed what he said. Instead, he gave credit to the student by saying, "She's gaining confidence, her self-esteem's better … I'm seeing her whole personality just blossoming. You can see her face is brighter now." Home-related factors, although typically cited as a cause of student problems, were thought to have minimal impact on student progress. The lack of progress made by students in reading was typically attributed to within-student factors in both first and fifth grades.

In summary, first-grade teachers were more likely to attribute reading progress made by individual students to interventions implemented in school. Fifth-grade teachers were more likely to attribute both progress and lack of progress by their students to within-student characteristics.

Research Question 4: What are the characteristics of the teachers in the "Beat the Odds" sample?

What has emerged from this study is that the teachers in Minneapolis Public Schools who have beaten the odds have a strong sense of personal efficacy and of what they could do to help their students achieve, regardless of their home circumstances. Teachers in the study completed a Teacher Efficacy Scale which was adapted from one used by Guskey and Passaro (1994). The scale has six points, with 1 representing 'strongly disagree' and 6 representing 'strongly agree'. There are nine items in the scale which load on internal factors and represent perceptions of teacher's personal influence, power, and impact on teaching and learning situations. An example of an item in this

category is "When a student gets a better grade than he/she usually gets, it is usually because I found better ways of teaching that student". Another 11 items load on external factors which lie outside the classroom and hence, may be beyond the direct control of individual teachers. An item which loads on external factors is "The hours in my class have little influence on students compared to the influence of their home environment".

Table 8 shows the teacher ratings on the Teacher Efficacy Scale. The mean of the ratings of first-grade teachers in the "Beat the Odds" sample on the Internal factors is 39, compared to 23 on the External factors. This is consistent with an earlier finding that first-grade teachers have a strong belief in their ability to effect change in their student and to help them to succeed. This is borne out by what was said by 2 teachers (Tr 1A and Tr 1E) in the study who gave the highest scores to Internal factors in the Teacher Efficacy Scale. Tr 1A was firm in her belief that parents should not be held accountable when students fail to read. Instead, students fail to read because "they are not getting proper instruction". Tr 1E asserted that her student made progress because

> I am good at teaching them how to be a good student, what you need to be a good student, and what kinds of behavior and things help. And I am also very gentle and nurturing teacher but I'm very firm. I have high expectations; I take them at their level; and just kind of encourage them at their level they need to improve in.

However, the ratings of the first-grade teachers on Internal factors are more widely spread as indicated by the standard deviation of 7.9, compared to the standard deviation of 4 for External factors.

Fifth-grade teachers also gave higher overall scores to Internal factors than External factors, with a mean of 39.8 on Internal factors, compared to a mean of 29.4 on the External factors. This is a somewhat surprising finding as the data in the previous

section suggested that fifth-grade teachers were more likely to give their students credit for the progress that they made. This suggests that the relationship between teacher attributions for student progress may not be related to their own sense of efficacy and will be further examined in the discussion section. Unlike the ratings obtained from the first-grade teachers, there was a wider spread in the ratings of fifth-grade teachers on External factors as indicated by the standard deviation of 6.7, compared to the standard deviation of 3.8 for Internal factors.

Besides a strong sense of personal efficacy, what are the other characteristics of teachers who have beaten the odds? An analysis of the data suggests that the following were important characteristics among these teachers: a belief in the importance of doing their work well; a high degree of compassion towards their students; a systematic approach in analyzing student difficulties involving good observation and problem solving skills; an acknowledgement of the uniqueness of individual students and yet holding all students to high expectations; a willingness to adapt to student characteristics and the optimization of student strengths and resources.

A variant number of participants indicated the importance of doing their jobs well. Tr 5B was clear that his purpose is to educate his students. As a result, he takes a "large ownership" of his students" and shows a "parental kind of caring" towards his students. Two first-grade teachers demonstrated belief in the work they did when they described the first grade as "the most important year" as it was the "gateway grade" when students learn to read. Three fifth-grade teachers thought the fifth grade was

important as it prepared students for middle school. Tr 5E's deep concern about how her student would fare in middle school was apparent in what she said:

> I didn't see any progress … He's one of the students I worry a lot, especially next year, in middle school. I worry a ton about him being one of those like, fall through the crack kind of kids, cos he is low, he does need a lot of extra support. The longer they go on school, the harder it is to support them.

Teacher participants typically saw their students as individuals and acknowledged the uniqueness of individual students. This is evident when Tr 1G was asked to identify the primary cause of student difficulties:

> You have to look at each child to see what's happening. Is it something in their diet? Are they getting enough food and sleep? Is their home situation okay? Are they in need of a pair of glasses? Maybe nobody thought to check their eye sight. Can they hear? I mean, first of all, you have to rule out the physical problems and see if there's a physical problem. Then you look at the things around them, see what's happening and talk to them and find out what's happening and why it's happening. And see if you can get to the cause of that. Are they upset about something? Are they being bullied? Are they afraid on the bus? Are they in a safe home? Safe neighborhood? So, school and family work together to figure it out the issue for each individual child and how to help them do better. And it's so unique.

Tr 1G's description also reflects a systematic, deliberate approach in assessing student difficulties. She was careful to consider different factors that might contribute to a student's problem. Tr 1F who was baffled by a student who did not have early literacy skills also analyzed the student's problem in a systematic way. She noted that the student had everything she needed – a good instruction program in her classroom, a literacy-rich home environment, additional tutoring at home, and a system of rewards to motivate her. Yet, she was making little progress. Tr 1F found a "big piece of the puzzle" when the student's parents told her that her friends had been doing her homework on a "dot-to-dot" activity. Tr 1F hypothesized that the student could have a vision problem. The student was checked for vision problems and was found to have double vision indeed.

Keen observation skills were critical in identifying students who masked their reading difficulties, as reported by a variant number of teachers. Tr 5C was not fooled by her student who hid the fact that he could not read by appearing to be a "voracious reader". Even though the fifth-grade student often carried books appropriate for ninth- to tenth-grade students with him, Tr 5C noticed that he did not understand written instructions. She eventually found out that he did not comprehend what he read. Tr 5C's other student covered up with reading difficulties by being disengaged in her lessons and presenting behavior problems in her classroom. His ability to figure out manipulatives suggested to her that he was a bright student who might have a reading difficulty. She followed her hunch and found that the fifth grader did not even have a "working foundation of phonics". Another teacher, Tr 1F, noticed that student kept rubbing his eyes only when he read books with smaller print. An eye examination later revealed that the student was far-sighted.

According to Tr 1A, once teachers are able to identify the difficulties their students faced, it is important "to work with them from where they are" if these students are to make progress. But she also emphasized that all students should be held to high standards. Tr 5I provides a succinct summary of this belief:

> All children can learn, every single one of them can learn but we have to do a better job identifying the areas that they are struggling in the most. And the earlier we can do that, the more successful they'll be.

To further understand what these teachers thought was important in reading instruction, I asked them to suggest the areas they would pay attention to when mentoring a brand new teacher and ways they would support him or her. When

mentoring a new teacher, teachers said that they would focus on the importance of adopting effective strategies and tactics, undergirding practice with theoretical knowledge, understanding the principles of reading instruction, and classroom management. Participants in the study typically indicated that new teachers should learn to organize their lesson so that there is balance between whole group instruction and small group activities. Flexible groupings should be used so that students can move to a different group when they make progress. Teachers should incorporate multilevel activities, so that "all children can be successful". Hence, it is important that time is set aside each day for students to read at their own level. The use of level books, i.e., books which are classified according to reading difficulty, was also recommended

A variant number of participants in the study thought that it was important that new teachers knew the components of reading, the levels of student development, and reading skills. Principles of reading instruction identified by participants included teaching reading directly, incorporating all aspects of reading and providing different ways for students to read. The reading curriculum should be structured in a systematic manner. For example, in the first grade, students should first be taught letters and letter sounds, followed by word families. Teachers should read to their students, provide opportunities for students to read to others and encourage students to read for enjoyment.

According to a variant number of study participants, it is also important for new teachers to know their students, observe them during lessons, assess their progress regularly and identify areas that need to be addressed. Instruction should be

differentiated to meet individual needs and interests. In order to achieve this, lesson planning is important. Lesson should be developed sequentially and build on where a student is. Lesson plans should also include the required standards. The basal reader can be used as a guide, but it is also important to include topics of interest to both the teacher and students. Good classroom management is another important aspect of teaching. One participant would advise new teachers not to be afraid to discipline and to enlist parent support.

Research Question 5: What types of supports do teachers find most beneficial and relevant to their work with struggling readers?

In this section, an ecological approach is taken to understand the context in which teacher participants in this study work. I examine the structures and resources that are available in the schools and from the district to support teachers in increasing student reading proficiency. In addition, teacher perceptions on the level of family involvement in the education of students in schools will also be documented. This is critical as findings in an earlier section of this study indicated that teachers attribute home-related factors to be the primary cause of student problems.

Support within the School and from the School District

A system to identify students with reading difficulties is in place in the school where each teacher participant in the study works. All the schools rely on both formal and informal assessments to identify students who have reading difficulties. In Minneapolis, district personnel administer a battery of tests on individual students three times a year. Teachers have access to the results of these tests which are posted at the Office for Civil Rights in the school district website. Students with reading difficulties are flagged on the website. Teachers and school administrators use the test scores to determine which students might need interventions.

Besides district and state assessments, teachers in the study typically use curriculum-based assessments, curriculum-based measurements (CBM) and thematic and unit tests that accompany the reading series used in the building. Variant forms of measures of reading progress include running records and anecdotal data gathered

through teacher observation. Two fifth-grade teacher participants also indicated that a building wide progress monitoring system was in place in their schools. In two schools, students who were below a certain percentile in their reading schools were monitored using CBM on a regular basis. A variant number of teacher participants also found reports from the teachers who had taught their students in the previous year useful in identifying students with reading difficulties and developing intervention plans.

The problem solving model used for assessment and decision-making in Minneapolis Public Schools was also described by 3 first-grade teachers and 5 fifth-grade teachers as a procedure used by their schools to address reading difficulties. According to Tr 5E, in this model, a teacher who has a struggling reader will present the data that represent the student's current level of performance and indicate the student's reading difficulties to a team of teachers and school personnel. The team will then propose some interventions to be implemented. The interventions are recorded on a worksheet and monitored for six weeks. At the end of six weeks, the team assesses the effectiveness of strategies used. Strategies that work with the student will be continued. If the strategies are not effective, other strategies are considered, indicated in a second worksheet and implemented for another six weeks. If the student fails to respond to three successive interventions and the team believes that the student's difficulty is due to special needs, the student is then referred for special education evaluation. The entire process must be documented and is monitored by district for compliance. According to one teacher, "if you don't have your worksheets done, the district calls the principal and the principal calls you. You're in hot soup for not having the worksheets completed".

Teachers hold both positive and negative views of this district-mandated procedure. According to Tr 1F, the merit of the problem solving model is that it makes schools "more purposeful" and ensures that "kids don't fall through the crack". Another advantage of this procedure is that teachers are compelled to reflect on their practice and ask themselves, "What am I doing? What can we be doing?" with respect to addressing student needs. However, Tr 1D was frustrated with the problem solving model because it puts the burden of implementing interventions on classroom teachers as "there're not a lot of interventions which are not totally teacher driven". She laments that there is "no SWAT team to come in" that will say "This child's not reading. Let's fix it". Another problem related to the problem solving model is that teachers view it as part of the procedure to have a student qualify for special education services. Tr 1D describes it as follows: "the whole idea of the intervention team unfortunately is that the kids will go to special education probably. It's the process that children are assessed for special ed (education)".

Once students with reading difficulties have been identified using state, district or teacher assessments, they receive reading interventions. Students may receive reading instruction or interventions in small groups from Title 1 teachers, ELL teachers, auxiliary teachers hired to provide supplemental reading instruction, educational assistants or from tutors in after-school programs. A variety of approaches are used in schools to deliver these services to students. In Tr 5A's school, teachers teaching fifth grade meet in the beginning of the year and divide students into smaller groups so that individual students receive instructional at their instructional level. Students with an

Individualized Education Plan receive instruction from the special education teacher and the ELL teacher teaches all the ELL whose scores using CBM are below a certain level. In addition, an "intervention teacher" works with students "with troubles with decoding and comprehension". Finally, Tr 5A teaches students who are around grade level. These groups are flexible and students may move up and down according to their progress. Students in Tr 5F's school with the lowest scores in state and district assessments receive instruction in small groups from a reading specialist. In Tr 5B's school, in addition to classroom instruction, struggling readers also benefit from after-school programs which are academically oriented. Students with reading problems in Tr 1B's school participate in the "CCC lab" which is an individualized computer program which encourages students to read independently at their instructional level. Tr 5E's school provide two reading programs which are targeted to individual's instructional level. The first program, known as "Read 180" is a computer-based program which provides intensive and individualized reading instruction in phonemic awareness, phonics, fluency, vocabulary, and comprehension. Her school also uses the Accelerated Reader program. In this program, students read at their reading level and after reading a book, they take a computerized test which assesses their knowledge of the book.

Teachers in the study typically reported that the school district does not impose requirements on schools other than requiring them to use the problem solving model. While the schools have the autonomy to select reading programs, the district provides support to schools in a variety of ways. It provides or recommends reading programs

and resources. A list of acceptable interventions is posted on the OCR website. It also provides in-service training for teachers.

Parental Involvement

The data were also examined to elicit information on parental involvement in the schools of the teachers who have beaten the odds. Parental involvement was analyzed using Epstein's (Epstein, 1987; Epstein & Dauber, 1991) areas of home-school involvement. Only three areas out of Epstein's six areas surfaced during the interviews with teachers: school communication with parents, parental involvement in school activities, and parental involvement in learning activities at home (see Table 9). Under the area of school communication with parents, 5 teachers from each grade indicated that their schools communicate with parents through newsletters and keep parents informed of student progress at conferences. Four first-grade teachers and 3 fifth-grade teachers reported that parents are involved as volunteers at their schools or participate in school activities. Six first-grade teachers and 3 fifth-grade teachers said that parents of their students either read to their children or ensured that their children read at home, and helped them with their homework.

The level of parental involvement varies across schools. Five teachers (Tr 1C, Tr 1F, Tr 1G and Tr 5G) who teach in the same school indicated that there is a high level of parental involvement at the school. The students in this school come from relatively high-income families as the percentage of students who are on free or reduced-price lunch is much lower than the 64% average in the school district. There is 100% parent attendance at conferences and many parents volunteer their services at the school.

However, Tr 1C was concerned about parents who "micro-manage" their children and have high expectations of teachers. On the other hand, Tr 1D and Tr 5B teach in schools where the percentage of students who receive FRL exceed 70% and parents do not have the time to be involved in their children's school. According to Tr 5B, many children in his school come from immigrant families who believe in education. Their parents work for "8 bucks an hour" and because they have to work 80 hours a week, they do not have the time to "give what their kids need". Tr 1D find it difficult to communicate with parents of her students over the phone because half of them speak Spanish and she does not speak Spanish.

Research Question 6: What types of training and learning opportunities do teachers find most beneficial and relevant to their work with struggling readers?

Teachers were asked to provide information on the professional activities that they found most beneficial and relevant to their work with struggling readers respectively. Across both grades, most teachers reported the opportunity to share ideas and learn with other colleagues to be beneficial and relevant. All first-grade teachers and all but one fifth-grade teachers find exchanging teaching strategies to improve reading helpful in supporting their work with students with reading difficulties. They also learn from each other when they get together in a study group, reflect on a book, and try out strategies suggested in the book and see if they work in the classroom.

The second most frequently-cited kind of support was in-service training. It was mentioned by 6 first-grade teachers and 7 fifth-grade teachers. One teacher said that a good workshop is one which combines theory with practice. The Reading First program

was identified by 2 teachers as a program they benefited from. Trainings under the Reading First grant provide information on reading research and equip teachers with teaching strategies and student strategies. Teachers are observed in their classrooms and receive information on their practice in the classroom, for e.g., the number of higher level questions they asked or the number of students who were on task. Another program mentioned by 2 teachers is the "Success for All" program which focuses on effective, research-based strategies. Teachers in the program are expected to implement these strategies in their classroom and to be "relentless in finding some way to make it work" for each student. Teachers also found training in the "Reading Mastery" program useful. Learning to use assessment tools to diagnose specific reading problems and differentiating instruction were also useful to teachers.

Study participants typically reported that working in teams gives teachers the opportunity to learn from one another. Teachers find meeting in teams by grade level to write learning goals for teaching units, to create rubrics to assess student work, to look at student work and to develop strategies to address student problems, to be beneficial. Other activities which support a teacher's practice include being mentored and reading books and reflecting on their own practice. Tr 5E is involved in the Teacher Advancement Program, in which a mentor observes her lessons and suggests ways for improvement. She also attends study groups where she learns different strategies which she can bring back to the classroom.

CHAPTER 5: DISCUSSION

General Attributions vs. Specific Attributions

The results of this study show that there is a difference when teachers were asked to make general attributions for student problems and when they were asked to identify the specific causes of reading difficulties of individual students. Of a total of 79 general attributions made by first-grade and fifth-grade teachers, 54% were related to home factors, 28% to within-student factors and 18% to school-related factors. This is consistent with a survey of elementary teachers' beliefs about why children do poorly in school. In that study, 81% of teachers attributed academic and behavior difficulties to the child's home life, 14% to within-student characteristics, 4% to the school system and only 1% to inappropriate instruction (National Education Association, 1979).

However, when teachers were asked to identify the causes of the reading difficulties of two struggling readers in their class, their attributions, regardless of grade, were primarily related to within-student characteristics, followed by home-related causes. The reading difficulties of all first-grade students and 89% of fifth-grade students were thought to be partially caused by within-student characteristics. Home causes were thought to affect 50% of first graders and 78% of fifth graders. In another study, student (54%) and home causes (36%) comprised almost 90% of teacher specified reasons for referring students (Christenson, Ysseldyke, Wang, & Algozzine, 1983)

What accounts for the discrepancy between general attributions for student problems and specific attributions for the reading difficulties of individual students? One explanation might be that teachers were thinking of both learning and behavior problems

when they talked about student problems. A study by (Medway, 1979) reported that within-student factors were cited as the major cause for student learning problems while behavior difficulties were attributed to home factors. There has been little research on specific teacher attributions for the reading difficulties of individual students. One reason why teachers may be more likely to attribute a particular student's reading problems to within-student causes rather than home factors could be because they are more familiar with the student's deficits through their daily interactions with the student and through formal and informal assessments of the student's reading ability. On the other hand, teachers are likely to have less information about and have fewer interactions with members of the student's family and hence, are less likely to ascribe blame for student reading difficulties to the home. It would be interesting in future studies to ask teachers the basis for their information, or where they get their information about students' families.

Teacher attributions: Self-serving or counter-defensive?

From the results of this study, it appears that teachers are more likely to make self-serving attributions, regardless of whether these attributions are general in nature or specific to reading difficulties. Only 18% of general attributions made by teachers for student problems were related to school factors. As for specific attributions, the reading difficulties of 43% of first-grade students and 32% of fifth-grade students were thought to be caused by school-related factors. The most-commonly cited school factors were related to the student's previous school experience or the lack thereof. Only two teachers

in the study considered their own instructional practice and relationship with the student as contributing to their students' reading difficulties.

Self-serving attributions occur when teachers attribute a student's successful performance to themselves as teachers and a student's failure to factors other than the teacher (Peterson & Barger, 1985) . This study further examined the nature of teacher attributions by asking teachers what they thought were the causes of the progress in reading or lack of progress made by their students. The results of this study indicate that the grade level taught by teachers made a difference to the perception of progress made by students and the attributions for their progress. Only 50% of the fifth-grade students in this study were thought to have made progress after receiving interventions, compared to 86% of first-grade students. The progress of all 12 first-graders was attributed to school-related factors, primarily the interventions implemented by teacher participants. The reading difficulties of equal numbers of fifth-grade students who made progress and students who did not make progress were attributed to within-student factors. A cursory inspection of the data may prompt one to conclude that first-grade teachers tend to make self-serving attributions (blaming students for their reading problems but taking credit when they make progress) while fifth-grade teachers tend to be more balanced in their attributions .

Attribution-Intervention link?

Two factors should be considered if one is to gain a deeper perspective of the situation: the developmental stage of students in the first and fifth grades and curricular expectations of students in the two grades. First, research literature indicates that there is

qualitative difference in the motivation or attitude toward reading among students in the two grades, requiring teachers teaching fifth grade students to attend more to the affective needs of students. Students in grades 1 to 3 possess positive attitudes toward reading, but there is a substantial decrease in attitude from grade 4 to 5, followed by a further decline in grade 6 (Parker & Paradis, 1984; Parker & Paradis, 1986). Student's competence beliefs and intrinsic motivation for learning also tend to decline across the elementary school years (Eccles, Wigfield, & Schiefele, 1998) . The decrease in student motivation as students go through school could be due to the increase in capacity of children to understand their own performance as they grow older. They become better at processing the evaluative feedback they receive and for some, this leads to a growing realization that they are not as capable as others (Wigfield, 2000).

Second, there is a shift from teaching decoding skills in first and second grades to comprehension and motivation from third grade onward (Stahl, 2006). Guthrie and Wigfield's (2000) model of reading comprehension development posits that reading comprehension is the consequence of an extended amount of engaged reading which is influenced by the level of student motivation. Guthrie and colleagues (2007) reported that student motivation was an important factor in reading comprehension. Student motivation measured when students entered fourth grade was reported to predict reading comprehension growth in December.

Within-student Attributions

Given the nature of the fifth-grade students, it is not surprising that fifth-grade teachers thought that within-student characteristics was the most important factor

affecting student progress. It may also explain why 9 of the 16 students whose reading problems were thought by teachers to be related to within-student factors, received affective strategies to either motivate them or to address their emotional needs. The strategies mentioned by participants in this study to promote student motivation included the use of interesting texts and fostering student ownership and were consistent with best practices (Guthrie, 2008; Wigfield, 2000). Study participants also sought to foster better ties with their students, build on student strengths and interests and provided leadership opportunities. Efforts to achieve high levels of student-teacher relations are especially important to lower-achieving readers and are linked to greater student classroom engagement that in turn predicted better reading achievement (J. Hughes & Kwok, 2007). Hence the emphasis on affective strategies by fifth-grade teachers to address students with behavioral and motivational issues seems justifiable.

However, what we do not know is whether 50% of the fifth-grade students who did not make progress did so because of within-student factors, namely lack of motivation, or if they had not received adequate instruction to help them catch up with their peers. Only 3 of the 18 fifth-grade struggling readers received explicit comprehension instruction. It would be interesting to find out if more students would have made greater progress if they had received explicit instruction to develop comprehension skills. Observations of classroom lessons revealed that students were often given tasks to practice comprehension strategies (e.g., task which required them to summarize or to self-question), but these strategies were not taught to them (Durkin, 1978-1979). Results of an observational study of fourth- and fifth-grade classrooms

during the 1995-1996 school year also reported rare instances of explicit comprehension instruction (Pressley, Wharton-McDonald, Mistretta-Hampston, & Echevarria, 1998)

In contrast, 12 of the 14 first-grade struggling readers in the study received both explicit and/or intensive instruction. The importance of systematic explicit instruction in the development of phonemic awareness and phonics knowledge has been well-researched (Adams, 1990 ; National Reading Panel, 2000; Snow, Burns, & Griffin, 1998; Stahl, 2001; Wood & Benton, 2005). Research has also shown that early intervention programs to help struggling readers catch up with their peers usually involve small group or one-on-one tutoring, making it easier for teachers to be responsive to students' individual needs (Graham & Harris, 2000). The progress of 12 first-grade students in the sample was attributed to the interventions used in the classroom (although not necessarily limited to explicit and intensive instruction), suggesting that it was reasonable for the first-grade teachers to have attributed their students' reading progress to the interventions that they had implemented in the classroom.

From the data gathered during the teacher interviews on the training received by teachers in the two grades, it is unclear whether the differences in teacher attributions and approach towards interventions between the first-grade and fifth-grade teachers is a systemic one or one that is peculiar to the sample in this study. For example, was there a district wide in-service training in reading intervention for all first-grade teachers in MPS? The possibility that more first-grade teachers might have received training under the Reading First grant was explored but the data indicated that only one first-grade and

one fifth-grade teacher were recipients of the training. Teachers in both grades indicated that they had received some form of in service training in reading interventions.

Home-related attributions

Unlike within-student attributions, it does not appear that the grade level is an important factor in distinguishing the type of interventions used when teachers attributed reading problems to home factors. Although 12 teachers in both grades cited the home as a cause of their students' reading difficulties, only 8 sought home involvement. Of the 8 teachers, 5 of the teachers came from the same school, suggesting that the school environment plays an important role in engaging parents. It should be noted that the average family income of students in this particular school is higher than that of students in a typical school in Minneapolis. Parents in this school are more likely to have both the desire and the capacity to play a larger role in their children's education.

Based on the results of this study, it appears that school-wide approaches create a climate that encourages home-school collaboration. From the interviews in this study, there appears to be parent-school programs in the schools of all study participants, albeit of varying levels. However, what is disconcerting is that when it comes to addressing the reading difficulties of individual students, individual teachers who hold home-related attributions do not necessarily seek parent involvement. Teachers who sought parental involvement were mainly from a school with students who came from families with higher income. The reason why teachers from the other schools might not have included parents in their intervention efforts could be because they might have been discouraged in their efforts to involve parents in the past. They might have been deterred from seeking

parental assistance because previous efforts to increase parental support had resulted in limited gains. For example, Tr 1D called a student's mother to monitor the student's work. Tr 1D said that the mother "would get on her for a couple of days, then it will slack off again". Hence, instead of increasing parental involvement, Tr 1D used school-based interventions to address her students' reading difficulties.

But parental involvement is critical. Several studies have shown that parent involvement in education is a consistent predictor of student's academic achievement (Fantuzzo, Davis, & Ginsburg, 1995; Fehrmann, Keith, & Reimers, 1987). It is important that teachers develop the attitude that partnering with parents is important (Christenson, 2003). School personnel (or school administrators) need to create a climate that is welcoming and inclusive of all families and help teachers improve communication and relationships with families. In addition to communicating the progress made by students, teachers should seek to convey to parents the positive influence of parental involvement on student behavior and learning, which in turn leads to student school success (Hoover-Dempsey, Walker, & Sandler, 2005). Sonnenchein and Schmidt (2000) assert that it is insufficient to urge parents to be involved in their children's education. Teachers must provide parents with the tools to enable them to do so, such as providing parents with information about activities that they could do with their children.

Teacher participants in this study repeatedly raised their concerns for two groups of students: (1) students whose parents with low incomes did not have the time to read to them nor the resources to provide them with learning opportunities, and (2) ELLs who came from homes that were not able to provide language experiences they needed and

who struggled to learn both the English language and the content taught in class. Indeed, these are certainly no mean challenges that Minneapolis schools face with its high percentage of low-income families and high degree of ethnic and linguistic diversity. About 66% of the total student enrollment in MPS receives FRL and 23% are ELLs. To create a supportive home environment that is essential to literacy development would require a comprehensive family literacy model. The FLAME program, originally designed to promote literacy learning in a population composed primarily of recent Hispanic immigrants, is an example of a program that seeks to increase parents' ability to provide literacy opportunities for their children as well as to act as positive literacy models for their children (Rodriguez-Brown, 2004). Parents learn to choose appropriate books for their children, use public libraries and create a literacy corner at home. Parents are encouraged to encourage to be role models and to participate in classes to learn English as a Second Language. They also learn how to talk to their children about books and to extend their children's learning through activities at home. Such a program cannot be undertaken by a single teacher and will require efforts from both the school building and the school district. It might be a program that MPS might want to consider in line with its 2007-2012 strategic plan to develop a comprehensive plan to meet the needs of ELLs and to achieve its goal that ELLs students will "have achieved academic English Language proficiency by 7 years" (Minneapolis Public Schools, 2007).

In general, based on the results from this study, it seems that the relationship between teacher attributions and intervention is somewhat tenuous. While teachers may hold certain attributions for student reading difficulties, other factors such as school

climate and availability of resources in the school may have a greater influence on the type of intervention used to address these problems. Also, in view of the different challenges faced by teachers teaching at different grades and the effect of environmental factors on teacher attributions, one wonders whether the "self-serving" vs. "counter-defensive" distinction used in categorizing teacher attributions in the literature is a valid one. It might be more beneficial to consider the nature of the students teachers work with, the context they work in, and the interventions they use and to gain an understanding of the factors that shape teacher attributions. Hence, an ecological approach which takes into account the various contributing factors that may affect student reading difficulties, instead of identifying a single causal factor, seems to better represent the situation in schools. One might postulate that system-wide efforts which consider multiple factors as contributing to student reading difficulties are likely to be more successful than intervention efforts which address only one factor.

It is also important to study ways in which reading achievement in the intermediate grades can be boosted as this will provide valuable information to teachers working at these grades. The federally-funded Reading First program could be extended to the intermediate grades so that scientifically-based reading programs can be established in these grades.

Characteristics of Teachers who "Beat the Odds"

In this study, teachers who "beat the odds" have a strong sense of self-efficacy, believe that their work is important, are compassionate towards their students, recognize the uniqueness of individual students, hold all students to high expectations, adopt a data-

based and systematic approach in analyzing student problems and are willing to adapt to individual needs. They believe that it is important for teachers to undergird practice with theoretical knowledge and to apply sound principles of reading instruction. Instruction should incorporate all aspects of reading and be differentiated to meet the needs and interests of individual students. Students should be given time to read at their own level. Teachers should organize lessons so that there is a balance between whole group and small group activities. The practices of teachers in the "beat the odds" sample are in agreement with sound, research-based class instruction (Taylor, 2007). According to Taylor, effective teachers have high expectations of all students and provide intellectual challenge for all students. They provide a good balance between whole class and small group instruction. Students who read passages at their instructional level (i.e., containing 93% to 97% known words) consistently demonstrate higher on-task behavior, task completion and task comprehension (Gickling & Armstrong, 1978; Treptow, Burns, & McComas, 2007). The beliefs and practices of these teachers can be used to inform teacher education, especially in preparing teachers who intend to work in urban school districts. The examples provided by these teachers who have daily interactions with students from diverse cultural and linguistic backgrounds, face real challenges in meeting curricular expectations and state accountability standards, and yet are able to "beat the odds" in raising student reading achievement are indeed worth emulating. The district could consider ways in which the experiences of these teachers could be shared so that younger teachers can be inspired and the passion of somewhat disillusioned colleagues can be reignited. One way of acknowledging the experience and expertise of these

teachers might be for them to act as mentors and work alongside with other teachers in the school district.

Both first-grade and fifth-grade teachers reported strong belief in their ability to effect change in their students and to help them improve their reading proficiency as indicated by their high ratings on internal factors on the Teacher Efficacy Scale. However, while the progress of all first-grade students were attributed to school-related factors which included classroom interventions, the progress of only 44% of fifth-grade students were attributed to school-related factors. Instead, fifth-grade teachers were more likely to attribute their students' success to within-student factors. How does one explain the apparent discrepancy? One hypothesis is that the discrepancy could be due to the developmental differences of the students in the two grades. Teachers teaching both grades believe that they have the knowledge and skills to boost their students' reading abilities, but the fifth-grade teachers may recognize that the older students have a stronger sense of autonomy and a need to have more control over their own learning. Au (1997) argued that students need to develop a sense of ownership of the development of their literacy skills for them to be engaged in the literacy activities. Hence, while teachers in both grades provide reading instruction to promote reading proficiency, fifth-grade teachers may need to integrate activities to foster student ownership of what they learn to a greater extent. Whether this is so will require further investigation and the results of such a study will shed light on how to promote reading engagement and achievement among students in the intermediate grades.

The difference in progress between the first grade and the fifth grade is further confounded by the difference in the percentage of students in the sample who received FRL. About 64% of the students in the first grade received FRL, compared to 89% of the students in the fifth grade. Hence, caution should be exercise in not generalizing the findings of this study to the student population in Minneapolis Public Schools.

Reading Interventions in Minneapolis Public Schools

Teachers in this study indicate that there is a district wide system to identify students with reading difficulties. Teachers also use a variety of informal measures to monitor student reading progress. Teachers have the flexibility to choose interventions strategies but receive recommendations on reading programs and resources from the school district. Allowing flexibility of teachers promote greater teacher ownership and creativity in the classroom. Teachers in this study reported that struggling readers usually receive multiple interventions from different people, ranging from the classroom teacher, the reading teacher, the ELL teacher, educational assistants, volunteers, to peers. Nine teachers in the study reported that teachers in their schools worked in teams for the following purposes: to develop reading groups; to discuss students with problems; to write learning goals and create rubrics for a unit; and to learn together. However, it is unclear the extent to which the different interventions received by an individual student work seamlessly together and reinforce one another. Collaboration amongst classroom teachers and resource teachers (e.g. Title 1, special education, ELL teachers) is critical in providing cohesive reading instruction to achieve coherent goals (Taylor, 2007). Another problem related to having individual students receiving multiple interventions at the same

time is that it is difficult to evaluate the effectiveness of individual interventions. It seems that the approach is to put interventions together and to hope that somehow, one or more of the interventions will work. Such an approach makes it difficult to pinpoint as to which intervention had indeed contributed to the student's reading progress. It might be timely for schools to consider ways of strengthening the problem solving model by training teachers to further review and refine how interventions are implemented and evaluated.

Merits and Limitations of the study

One of the merits of this study is that it sought to gain an understanding of teacher attributions in naturalistic situations as the literature indicates that teacher attributions vary according to the settings of research studies (Peterson & Barger, 1985). This study also documented the characteristics of "Beat the Odds" teachers in an urban school district which faces many challenges arising from the diversity of the school population. In addition, this study extended the work done in previous studies to examine the extent to which teachers' general and specific attributions relate to teacher interventions used in the classroom.

The current study interviewed a group of elite teachers who have been successful in boosting student reading achievement. As such, the results of the study may be limited to these "exceptional" teachers and may not be representative of the average teacher in MPS. In addition, selection bias was a possible threat to the validity of this study. Only 16 out of a list of 49 teachers in the "Beat the Odds" sample could either be located or were willing to participate in the study. Of the 16 teachers, 5 teachers taught in a school with students who came from higher-income families. Hence, the sample in this study consisted of "Beat the Odds" teachers who taught in schools that had not been restructured the year before the study was conducted. It also had a higher representation of teachers from a school with students from homes with higher incomes.

A second limitation of the study is the difference in the percentage of students in the first grade and the fifth grade in the sample who received FRL. This difference between the two groups may act as a confounding variable in the study.

The third limitation is that the study only used one method to gather data. The attributions and interventions were self-reported by teacher participants and there is a possibility that participants might present responses that will confirm what they perceive the researcher's hypothesis to be. It is also possible that participant responses might reflect what participants think their answers should be and what they would do in an idealized situation. It is recognize that self-reports and actual behaviors do not always correspond and a follow-up study which include direct observations would certainly strengthen the validity of the results.

The MTSARD was completed during the interview because it was found that participants had difficulties completing it on their own. This was another limitation because the use of the MTSARD during the interview might also have influenced participants' responses during the interview. The validity of the MTSARD should have been assessed in a pilot study so that teacher participants could have it completed independently after the interview.

The fifth limitation of the study is that of possible experimenter bias. The study was designed and the data gathered and analyzed by one person. A few steps were taken to reduce bias: a semi-structured protocol was used during the interview; interviews were taped and transcribed; and data was checked for inter-rater reliability.

In this study, teacher attributions were broadly categorized into three groups: within-student factors, home factors, and school-related factors. It is also acknowledged that the three factors are likely to interact with one another and that the relationship

between teacher attributions and interventions might be more complex than what this exploratory study has been able to uncover.

Implications for Research, Policy and Training

In conclusion, the results of this study have implications for research, policy and training. Findings of the study indicate that further research is required to investigate why there is a discrepancy between the general attributions for student problems and specific attributions for reading difficulties of individual students. The current study employs a qualitative methodology and results of this study cannot be generalized to other groups of teachers. In order to widen the scope of the study so that the results can be generalized, a study which uses quantitative methodology could be conducted. To do so, instruments with better psychometric properties to measure teacher attributions and teacher efficacy need to be developed.

It was difficult to ascertain, based on the data of this study, whether the lack of student progress perceived by fifth grade students was due to within-student characteristics (e.g. lack of motivation or effort) or because intervention strategies used to address reading difficulties of individual students had been inadequate. A study which involved fifth grade students with reading difficulties receiving different types of interventions could be conducted. Struggling readers could be assigned to one of the following research groups and receive different types of interventions: (1) affective strategies only, (2) academic strategies only, (3) a combination of affective and academic strategies, and (4) control group. Progress made by difference groups can then be measured and compared.

Another study which can be conducted would be to examine the extent to which data-based decision making in schools affect teacher attributional patterns and modify interventions used by teachers. As schools are now encouraged to monitor the progress of students regularly, it would be beneficial to find out the extent to which the introduction of progress monitoring in schools have impacted the relationship between teacher attributions and interventions used to address reading difficulties.

In this study, the "Beat the Odds" teachers were identified based on student growth that has been adjusted for factors which included poverty, English language proficiency and special education status. It could be argued that the student growth could be attributed to the resilience of the students. One way to address this problem would be to carry out a longitudinal study which tracked the progress of a group of struggling readers. The study will document both teacher interventions and student responses to teacher interventions using multiple methods which include teacher interviews, student interviews, parent interviews, classroom observations and student grades.

The results of this study also have implications on policy and training. Findings of the study have highlighted the need to find ways to boost reading achievement in intermediate grades. It might be worthwhile to explore the possibility of extending the Reading First program to intermediate grades. Results of the study also indicated that teachers perceived that they benefitted from opportunities to share with each other, work in teams, from in-service training and from mentoring. School districts might want to consider encouraging schools to form professional learning communities among their teaching staff. Pre-service and in-service teacher training programs might seek to

develop the characteristics of the “Beat the Odds” teachers among existing and future teachers. Finally, teachers who exhibit characteristics of the “Beat the Odds” teachers could be identified as mentors to support the work of other teachers in the school district.

References

Adams, M. J. (1990). *Beginning to read: Thinking and learning about print.* Cambridge, MA: MIT Press.

Albers, A. E., & Greer, R. D. (1991). Is the three-term contingency trial a predictor of effective instruction? *Journal of Behavioral Education 1*, 337-354.

Allington, R. L. (1982). The persistence of teacher beliefs in facets of the visual perceptual deficit hypothesis. *The Elementary School Journal, 82*, 351-359.

American Federation of Teachers. (1999). *Building on the best, learning from what works: Five promising remedial reading intervention programs*. Retrieved September 20, 2007. from http://www.aft.org/pubs-reports/downloads/teachers/remedial.pdf.

Ames, R. (1975). Teachers' attributions of responsibility: Some unexpected nondefensive effects. *Journal of Educational Psychology, 67*, 608-676.

Anders, P., Hoffman, J. V., & Duffy, G. (2000). Teaching teachers to teach reading: Paradigm shifts, persistent problems, and challenges. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson & R. Barr (Eds.), *Handbook of Reading Research (Vol. III)* (pp. 719-742). Mahwah, New Jersey: Lawrence Erlbaum Associates.

Arter, J. A., & Jenkins, J. R. (1979). Differential diagnosis - prescriptive teaching: A critical appraisal. *Review of Educational Research, 49*, 517-556.

Au, K. H. (1997). Ownership, literacy achievement, and students of diverse cultural backgrounds. In J. Guthrie & A. Wigfield (Eds.), *Reading engagement: Motivating readers through integrated instruction* (pp. 168-182). Neward: DE International Reading Association.

Bacharach, N. (1993). Facilitating emerging theories of reading in preservice students. *Journal of Reading Education, 19*, 8-16.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191-215.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: W. H. Freeman

Bar-Tal, D. (1978). Attributional analysis of achievement-related behavior. *Review of Educational Research, 48*(2), 259-271.

Beckman, L. (1970). Effects of students' performance on teachers' and observers' attributions of causality. *Journal of Educational Psychology, 61*, 76-82.

Bergan, J. R., & Kratochwill, T. R. (1990). *Behavioral consultation and therapy*. New York: Plenum.

Berman, P., McLaughlin, M., Bass, G., Pauly, E., & Zellman, G. (1977). *Federal programs supporting educational change: Vol. VII. Factors affecting implementation and continuation*. Santa Monica, CA: RAND.

Borko, J., & Shavelson, R. J. (1978). Teachers' sensitivity to the reliability of information in making causal attributions in an achievement situation. *Journal of Educational Psychology, 70*, 271-279.

Brandt, L. J., Hayden, M. E., & Brophy, J. E. (1975). Teachers'attitudes and ascription of causation. *Journal of Educational Psychology, 67*, 677-682.

Brookover, W. B., & Lezotte, L. W. (1979). *Changes in school characteristics coincident with changes in student achievement* . East Lansing Michigan State University, Institute for Research on Teaching.

Brophy, J. E., & Rohrkemper, M. M. (1981). The influence of problem ownership of teachers' perceptions of and strategies for coping with problem students. *Journal of Educational Psychology, 73*, 295-311.

Burger, J. M., Cooper, H. M., & Good, T. L. (1982). Teacher attributions of student performance: Effects of Outcome. *Personality and Social Psychology Bulletin, 8*, 685-690.

Christ, T. J. (2008). Best practices in problem analysis. In A. Thomas & J. Grimes (Eds.), *Best Practices in School Psychology V* (Vol. 2, pp. 159-176). Bethesda, MD: The National Association of School Psychologists.

Christenson, S. (2003). The family-school partnership: An opportunity to promote the learning competence of all students. *School Psychology Quarterly, 18*, 454-482.

Christenson, S., & Carlson, C. (2005). Evidence-based parent and family involvement in school psychology: Sate of scientifically based practice. *School Psychology Quarterly, 20*, 525-528.

Christenson, S., Ysseldyke, J. E., Wang, J. J., & Algozzine, B. (1983). Teachers' attributions for problems that result in referral for psychoeducational evaluation. *Journal of Educational Research, 76*, 174-180.

Cooper, H. M., Baron, R. M., & Lowe, C. A. (1975). The importance of race and social class information on the formation expectancies about academic performance. *Journal of Educational Psychology, 67*, 312-319.

Cooper, H. M., & Burger, J. M. (1980). How teachers explain students' academic performance: A categorization of free response academic attributions. *American Educational Research Journal, 17*, 95-109.

Denham, C. H., & Michael, J. J. (1981). Teacher sense of efficacy: A definition of the construct and a model for further research. *Educational Research Quarterly, 5*, 39-63.

Deno, S. L. (1986). Formative evaluation of individual student programs: A new role for school psychologists. *School Psychology Review, 15*, 358-374.

Deno, S. L. (2002). Problem solving as "best practice". In A. Thomas & J. Grimes (Eds.), *Best Practices in School Psychology* (4th ed., pp. 37-55). Bethesda, MD: The National Association of School Psychologists.

Denton, C. A., & Mathes, P. G. (2003). Intervention for struggling readers: Possibilities and challenges. In B. R. Foorman (Ed.), *Preventing and remediating reading difficulties: Bringing science to scale* (pp. pp. 229-252). Baltimore: York Press.

Domingo-Llacuna, E. A. (1976). The effect of pupil race, social class, speech and ability on teacher stereotypes and attributions. *Dissertation Abstracts International 37*, 2737-2738.

Durkin, D. (1978-1979). What classroom observations reveal about reading comprehension instruction. *Reading Research Quarterly, 15*, 481-533.

Duvall, S. F., Delquadri, J. C., Elliott, M., & Hall, R. V. (1992). Parent-tutoring procedures: Experimental analysis and validation of generalization in oral reading

across passages, settings, and time. *Journal of Educational Psychology, 2*, 281-303.

Dweck, C. S., Davidson, W., Nelson, S., & Enna, B. (1978). 1. Sex differences in learned helplessness; 2. The contingencies of evaluative feedback in the classroom; (3) An experimental analysis. *Developmental Psychology, 14*, 268-276.

Eccles, J. S., Wigfield, A., & Schiefele, U. (1998). Motivation to succeed. In W. Damon (Ed.), *Handbook of child psychology* (5th ed., Vol. 3). New York: Wiley.

Epstein, J. L. (1987). What principals should know about parent involvement. *The Elementary School Journal, 86*, 277-294.

Epstein, J. L., & Dauber, S. L. (1991). School programs and teacher practices of parent involvement in inner-city elementary and middle schools. *The Elementary School Journal, 91*, 289-305.

Fantuzzo, J. W., Davis, G. Y., & Ginsburg, M. D. (1995). Effects of parent involvement in isolation or in combination with peer tutoring on student self-concept and mathematics achievement. *Journal of Educational Psychology, 87*, 272-281.

Farr, R. M., & Anderson, T. (1983). Beyond actor-observer differences in perspective: Extensions and applications. In M. Hewstone (Ed.), *Attribution Theory: Social and Functional Extensions*. Oxford, Great Britain: Basil Blackwell Publisher.

Fehrmann, P. G., Keith, T. Z., & Reimers, T. M. (1987). Home influence on school learning: Direct and indirect effects of parental involvement on high school grades. *Journal of Educational Research, 80*, 330-337.

Felson, R. B., & Bohrnstedt, G. W. (1980). Attributions of ability and motivation in a natural setting. *Journal of Personality and Social Psychology, 39*, 799-805.

Fishel, M., & Ramirez, L. (2005). Evidence-based parent involvement interventions with school-aged children. *School Psychology Quarterly, 20*, 371-407.

Fletcher, J. M., Denton, C. A., Fuchs, L. S., & Vaughn, S. (2005). Multi-tiered reading instruction: Linking general education and special education. In S. O. Richardson & J. W. Gilger (Eds.), *Research-based education and intervention: What we need to know* (pp. 21-43). Baltimore: The International Dyslexia Association.

Foorman, B. R., & Torgesen, J. (2001). Critical elements of classroom and small-group instruction promote reading success in all children. *Learning Disabilities Research & Practice, 16*, 203-212.

Frieze, I. H., & Weiner, B. (1971). Cue utilization and attributional judgments for success and failure. *Journal of Personality, 39*, 591-605.

Gamse, B. C., Jacob, R. T., Horst, M., Boulay, B., & Unlu, F. (2008). *Reading First Impact Study Report Executive Summary*. Retrieved January 15, 2009. from http://ies.ed.gov/ncee/pdf/20094039.pdf.

Georgiou, S. N., Christou, C., Stavrinides, & Panaoura, G. (2002). Teacher attributions of student failure and teacher behavior toward the failing student. *Psychology in the Schools, 39*, 583-595.

Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology, 76*, 569-582.

Gickling, E. E., & Armstrong, D. L. (1978). Levels of instructional difficulty as related to on-task behavior, task completion, and comprehension. *Journal of Learning Disabilities 11*, 559-566.

Graham, S., & Harris, K. R. (2000). Helping children who experience reading difficulties: Prevention and intervention. In L. Baker, M. J. Dreher & J. Guthrie (Eds.), *Engaging young readers: Promoting achievement and motivation* (pp. 43-67). New York: Guilford Press

Greenwood, C. R., Delquadir, J. C., & Hall, R. V. (1984). Opportunity to respond and student academic performance. In W. Heward, T. Heron, D. Hill & J. Trap-Porter (Eds.), *Focus on behavior analysis in education* (pp. 58-88). Columbus, OH: Charles E. Merrill.

Guskey, T. R. (1981). Measurement of the responsibility teachers assume for academic successes and failures in the classroom. *Journal of Teacher Education 32*, 44-51.

Guskey, T. R. (1982). Differences of teachers' perceptions of personal control of positive versus negative student learning outcomes. *Contemporary Educational Psychology, 7*, 70-80.

Guskey, T. R. (1987). Context variables that affect measures of teacher efficacy. *Journal of Educational Research, 81*, 41-47.

Guskey, T. R., & Passaro, P. D. (1994). Teacher efficacy: A study of construct dimensions. *American Educational Research Journal, 31*, 627-643.

Guthrie, J. (2008). Contexts for engagement and motivation in reading [Electronic Version]. Retrieved Dec 30, 2008 from

http://www.readingonline.org/articles/art_index.asp?HREF=handbook/guthrie/index.html.

Guthrie, J., Hoa, A. L. W., Wigfield, A., Tonks, S. M., Humenick, N. M., & Littles, E. (2007). Reading motivation and reading comprehension in the later elementary years. *Contemporary Educational Psychology, 32*, 282-313.

Guthrie, J., & Wigfield, A. (2000). Engagement and motivation in reading. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson & R. Barr (Eds.), *Reading research handbook Vol. III* (pp. 403-424). Mahwah, NJ: Erlbaum.

Gutkin, T. B., & Ajchenbaum, M. (1984). Teachers' perception of control and preferences for consultative services. *Professional Psychology: Research and Practice, 15*, 565-570.

Hall, B. W., Villeme, M. G., & Burley, W. W. (1989). Teachers' attributions for students' academic success and failure and the relationship to teaching level and teacher feedback practices. *Contemporary Educational Psychology, 14*, 133-144.

Heistad, D. J. (1999). *Stability and correlates of teacher effects in grade 2 reading achievement.* University of Minnesota, Minneapolis.

Heller, K. A., & Parson, s. J. E. (1981). Sex differences in teachers' evaluative feedback and students' expectancies for success in mathematics. *Child Development 52*, 1015-1019.

Hermann, B. A., & Sarracino, J. (1992). Effects of an alternative approach for teaching preservice teachers how to teach strategic reasoning: Two illustrative cases. In C.

K. Kinzer & D. J. Leu (Eds.), *Literacy research, theory and practice: Views from many perspectives* (pp. 331-339). Chicago: National Reading Conference.

Hill, C. E., Thompson, B. J., & Williams, E. N. (1997). A guide to conducting consensual qualitative research. *The Counseling Psychologist 25*, 517-572.

Ho, I. T. (2004). A comparison of Australian and Chinese teachers' attributions for student problem behaviors. *Educational Psychology, 24*, 375-391.

Hook, C. L., & DuPaul, G. J. (1999). Parent tutoring for students with attention-deficit/hyperactivity disorder: Effects on reading performance at home and school. *School Psychology Review, 28*, 60-75.

Hoover-Dempsey, K. V., Walker, J. M. T., & Sandler, H. M. (2005). Parents' motivations for involvement in their children's education. In *School-Family Partnerships for Children's Success* (pp. 40-56). Danvers, MA: Teachers College, Columbia University.

Hughes, J., & Kwok, O. (2007). Influence of student-teacher and parent-teacher relationships on lower achieving readers' engagement in the primary grades. *Journal of Educational Psychology, 99*, 39-51.

Hughes, J. N., Barker, D., Kemenoff, S., & Hart, M. (1993). Problem ownership, causal attributions, and self-efficacy as predictors of teachers' referral decisions. *Journal of Educational and Psychological Consultation, 4*, 369-384.

Institute of Education Sciences. (2007). *Beginning Reading What Works Clearinghouse* Retrieved September 1, 2007. from http://ies.ed.gov/ncee/wwc/reports/beginning_reading/.

Johnson, T. J., Feigenbaum, R., & Weiby, M. (1964). Some determinants and consequences of teacher's perception of causation. *Journal of Educational Psychology, 55*, 237-246.

Kamps, D. M., & Greenwood, C. R. (2005). Formulating secondary-level reading interventions. *Journal of Learning Disabilities, 38*, 500-509.

Kelley, H. H. (1973). The process of causal attribution. *American Psychologist, 28*, 107-128.

Klenk, L., & Kibby, M. W. (2000). Re-mediating reading difficulties: Appraising the past, reconciling the present, constructing the future. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson & R. Barr (Eds.), *Handbook of Reading Research* (Vol. 3, pp. 667-689). Mahwah, NJ: Lawrence Erlbaum Associates.

Learning First Alliance. (1998). Every child reading: A professional development guide. *American Educator, 22*, 52-60.

Lee, J., Grigg, W., & Donahue, P. (2007). *The Nation's Report Card: Reading 2007*. Retrieved January 11, 2009. from http://nces.ed.gov/nationsreportcard/pdf/main2007/2007496.pdf.

Mann, L. (1979). *On the trial of process.* New York: Grune & Stratton.

Mavropoulou, S., & Padeliadu, S. (2002). Teachers' causal attributions for behavior problems in relation to perceptions of control. *Educational Psychology, 22*, 191-202.

Medway, F. J. (1979). Causal attributions for school-related problems: Teacher perceptions and teacher feedback. *Journal of Educational Psychology, 71*, 809-818.

Meyer, W. U. (1979). Academic expectations, attributed responsibility, and teacher's reinforcement behavior: A comment on Cooper and Baron, with some additional data. *Journal of Educational Psychology, 71*, 269-273.

Minneapolis Public Schools. (2007). 2007-2012 Strategic Plan [Electronic Version]. Retrieved Jan 1, 2009 from http://www.mpls.k12.mn.us/sites/f7071225-9844-4da6-96c0-996b9c74b221/uploads/Strategic-Plan_FINAL.pdf.

National Education Association. (1979). Teacher opinion poll. *Today's Education, 68*, 10.

National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, D.C.: National Institute of Child Health and Human Development.

Nichols, W. D., Zellner, L. J., Rupley, W. H., Willson, V. L., Kim, Y., Mergen, S., et al. (2005). What affects instructional choice? Profiles of K-2 teachers' use of reading instructional strategies and methods. *Journal of Literacy Research, 37*, 437-458.

Noe, K. (1994). Effectiveness of an integrated methods curriculum: Will beginning teachers teach as we have taught them? *Journal of Reading Education 19*, 45-49.

Pajares, M. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research, 62*, 307-332.

Parker, A., & Paradis, E. (1984). *The second year of an examination of attitude development toward reading in grades one through six.* Paper presented at the Annual Meeting of the Northern Rocky Mountain Educational Research Association, Jackson, WY.

Parker, A., & Paradis, E. (1986). Attitude development toward reading in grades one through six. *Journal of Educational Research, 79*, 313-315.

Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods.* Thousand Oaks, CA: Sage Publications, Inc.

Peterson, P. L., & Barger, S. A. (1985). Attribution theory and teacher expectancy. In J. B. Dusek, V. C. Hall & W. J. Meyer (Eds.), *Teacher Expectancies* (pp. 159-184). Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Poulou, M., & Norwich, B. (2000). Teachers' causal attributions cognitive, emotional and behavioral responses to students with emotional and behavioral difficulties. *British Journal of Educational Psychology, 70*, 559-581.

Pressley, M., Wharton-McDonald, R., Mistretta-Hampston, J., & Echevarria, M. (1998). Literacy instruction in 10 fourth- and fifth-grade classrooms in upstate New York. *Scientific Studies of Reading, 2*, 159-194.

Pressley, M., Yokoi, L., Rankin, J., Wharton-McDonald, R., & Mistretta, J. (1997). A survey of the instructional practices of grade 5 teachers nominated as effective in promoting literacy. *Scientific Studies of Reading 1*, 145-160.

Quay, H. C. (1973). Special education: Assumptions, techniques, and evaluative criteria. *Exceptional Children, 40*, 165-170.

Rejeski, W. J., & McCook, W. (1980). Individual differences in professional teachers' attributions for children's performance outcomes. *Psychological Reports, 46*, 1159-1163.

Reschly, D. J. (2008). School psychology paradigm shift and beyond. In A. Thomas & J. Grimes (Eds.), *Best Practices in School Psychology V* (Vol. 1, pp. 3-15). Bethesda, MD: The National Association of School Psychologists.

Reyna, C., & Weiner, B. (2001). Justice and utility in the classroom: An attributional analysis of the goals of teachers' punishment and intervention strategies. *Journal of Educational Psychology, 93*, 309-319.

Rodriguez-Brown, F. V. (2004). Project FLAME: A parent support family literacy model. In B. H. Wasik (Ed.), *Handbook of family literacy* (pp. 213-229). Mahwah, NJ: Lawrence Erlbaum Assoc.

Ross, L., Bierbrauer, G., & Polly, S. (1974). Attribution of educational outcomes by professional and nonprofessional instructors. *Journal of Personality and Social Psychology, 29*, 609-618.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcements. *Psychological Monographs, 80*, 1-28.

Shaw, P. A. (1994). The effects of teacher training on preservice elementary education majors' conceptual framework of reading. *Reading Horizons, 34*, 216-233.

Shefelbine, J., & Shiel, G. (1990). Preservice teachers' schemata for a diagnostic framework in reading. *Reading Research and Instruction 30*, 30-43.

Snow, C. E., Burns, M. S., & Griffin, P. (1998). *Preventing Reading Difficulties in Young Children.* Washington, D.C.: National Academy Press.

Sonnenchein, S., & Schmidt, D. (2000). Fostering home and community connections to support children's reading. In L. Baker, M. J. Dreher & J. Guthrie (Eds.), *Engaging young readers* (pp. 264-284). New York: Guilford Press.

Soodak, L. C., & Podell, D. M. (1994). Teachers' thinking about difficult-to-teach students. *Journal of Educational Research, 88*, 44-51.

Stahl, S. (2001). Teaching phonics and phonemic awareness. In S. B. Neuman & D. Dickenson (Eds.), *Handbook of Early Literacy Research* (pp. 333-347). New York Guilford Press.

Stahl, S. (2006). Understanding the shifts in reading and its instruction. In K. A. D. Stahl & M. C. McKenna (Eds.), *Reading research at work: Foundations of effective practice* (pp. 45-75). New York Guilford Press.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage Publications.

Strickler, D. (1976). A systematic approach to teaching decoding skills. In B. L. Courtney (Ed.), *Reading intervention: The teacher, the pupil, the materials* (pp. 49-57). Newark, DE: International Reading Association.

Swanson, H. L. (1999). Reading research for students with LD: A meta-analysis of intervention outcomes. *Learning Disabilities 32*, 504-532.

Taylor, B. M. (2007). *The what and the how of good classroom reading instruction in the elementary grades.* Retrieved Jan 2, 2009, from http://cehd.umn.edu/reading/documents/reports/Taylor-report.pdf.

Taylor, B. M., Pearson, P. D., Clark, C., & Walpole, S. (2000). Effective schools and accomplished teachers: Lessons about primary-grade reading instruction in low-income schools. *The Elementary School Journal, 101*, 121-165.

Taylor, B. M., Pearson, P. D., Peterson, D. S., & Rodriguez, M. C. (2005). The CIERA school change framework: An evidence-based approach to professional development and school reading improvement. *Reading Research Quarterly, 40*, 40-69.

Tetlock, P. E. (1980). Explaining teacher explanations of pupil performance: A self-presentation interpretation. *Social Psychology Quarterly, 43*, 283-290.

Tilly, W. D. (2008). The evolution of school psychology to science-based practice: Problem solving and the three-tiered model. In A. Thomas & J. Grimes (Eds.), *Best Practices in School Psychology V* (Vol. 1 pp. 17-35). Bethesda, MD: The National Association of School Psychologists.

Tollefson, N., & Chen, J. S. (1988). Consequences of teachers' attribution for student failure. *Teaching and Teacher Education, 4*, 259-265.

Torgesen, J. K. (2000). Individual differences in response to early interventions in reading: The lingering problem of treatment resisters. *Learning Disabilities Research & Practice, 15*, 55-64.

Treptow, M. A., Burns, M. K., & McComas, J. J. (2007). Reading at the frustration, instructional, and independent levels: Effects on student time on task and comprehension. *School Psychology Review, 36*, 159-166.

Tschannen-Moran, M., Hoy, W. A., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research, 68*, 202-248.

Valli, L. (2000). Facilitating reading instruction through school-wide coordination. In L. Baker, M. J. Dreher & J. Guthrie (Eds.), *Engaging young readers: Promoting achievement and motivation* (pp. 237-263). New York: Guilford Press

Vaughn, S., & Roberts, G. (2007). Secondary interventions in reading. *Teaching Exceptional Children, 39*, 40-46.

Vaughn, S., Wanzek, J., & Fletcher, J. M. (2007). Multiple tiers of intervention: A framework for prevention and identification of students with reading/learning difficulties. In B. M. Taylor & J. E. Ysseldyke (Eds.), *Effective instruction for struggling readers, K-6* (pp. 173-195). New York: Teachers College Press.

Vellutino, F. R. (1979). *Dyslexia: Theory and research*. Cambridge, MA: MIT Press.

Wham, M. A. (1993). The relationship between undergraduate course work and beliefs about reading instruction. *Journal of Research and Development in Education* (27), 9-17.

Wharton-McDonald, R., Pressley, M., & Hampston, J. M. (1998). Literacy instruction in nine first-grade classrooms: Teacher characteristics and student achievement. *Elementary School Journal, 99*, 101-128.

Whitley, B. E., & Frieze, I. H. (1985). Children's causal attributions for success and failure in achievement settings: A meta-analysis. *Journal of Educational Psychology, 77*, 606-616.

Wigfield, A. (2000). Facilitating children's reading motivation. In L. Baker, M. J. Dreher & J. Guthrie (Eds.), *Engaging young readers: Promoting achievement and motivation* (pp. 140-158). New York: Guilford Press.

Wiley, M. G., & Eskilson, A. (1978). Why did you learn in school today? Teachers' perceptions of causality. *Sociology of Education 51*, 261-269.

Wood, J. G., & Benton, S. L. (2003). *Teacher attributional responses to students with disabilities who fail.* Paper presented at the Annual meeting of the American Educational Research Association, New Orleans.

Wood, J. G., & Benton, S. L. (2005). Attributional responses to students with attention-deficit-hyperactivity disorder who fail. *Teacher Education ad Special Education 28*, 153-162.

Woolfolk, A. E., & Hoy, W. K. (1990). Prospective teachers' sense of efficacy and beliefs about control. *Journal of Educational Psychology, 82*, 81-91.

Ysseldyke, J. E. (1973). Diagnostic-prescriptive teaching: The search for aptitude-treatment interactions. In L. Mann & D. A. Sabatino (Eds.), *The First Review of Special Education* (pp. 1-37). New York: Grune and Stratton.

Ysseldyke, J. E., Algozzine, B., & Thurlow, M. L. (2000). *Critical Issues in Special Education*. Boston: Houghton Mifflin Company.

Ysseldyke, J. E., & Taylor, B. M. (2007). Understanding the factors that allegedly contribute to students' reading difficulties. In B. M. Taylor & J. E. Ysseldyke (Eds.), *Effective Instruction for Struggling Readers, K-16*. New York: Teachers College, Columbia University.

Zuckerman, M. (1979). Attribution of success and failure revisited, or: The motivational bias is alive and well in attribution theory. *Journal of Personality, 47*, 245-287.

Appendix 1

Participant Code Number: _____

Semi-structured Interview Protocol

General Attributions for Student Difficulty in School

1. Large numbers of students today have difficulties in school. Describe some challenges students face in schools.

2. Some students have more difficulties than others. What do you believe are the primary causes of student academic or behavior problems?

Specific Attributions for Student Difficulties in Reading

3. When a student enters first/fifth grade, what should that student be able to do in terms of reading? When that student leaves first/fifth, what should he/she be able to do? *Probe – are the standards realistic given the students in the class?*

4. What accounts for the difference between a good and a poor reader? *Probe – parents? genetic? Good teaching? learning style?*

In your class, you have students who are having difficulties in reading. Think of two students who are struggling in reading. We will discuss each student individually.

Let's talk about **the first student**: Initial of Student: _____

a. Tell me more about this student (age, gender, ethnicity, mother's education background, family income).

b. How do you know that this student is having difficulty in reading? *Probe – different forms of assessment (state test scores, marking period grades, teacher observation, parent interview).*

c. *Refer to the Measure of Teachers' Specific Attributions for Reading Difficulties.* In the form, place the first and last initials of this student. Mark the position on each scale below to indicate the importance each factor plays in this student's difficulties in reading.

d. Is this student currently receiving any additional help to improve his reading? If yes, please describe the intervention you are using to help this student. Is this a standard procedure for struggling readers? If no, could you please tell me more of the plans of how you intend to help him in future?

e. How is the student responding to the intervention? How do you know that the student is responding to the intervention? What progress do you expect the student to make by the end of this semester? At the end of this school year? **Why do you think the student is likely/not likely to make progress**? How will you know that the student has made progress? *Probe to assess whether the cause is perceived to be stable, within child's control, locus of causality. Probe to find out how teachers evaluate student progress and if teacher attributions affect teacher evaluations.*

f. What other interventions have you tried? How did the student respond? Why do you think these interventions succeeded or failed? *Probe to find out if teachers' attributions for student difficulty could have influenced teacher evaluation of previous interventions.*

Let's talk about **the second student**: Initial of Student: _____

a. Tell me more about this student (age, gender, ethnicity, mother's education background, family income).

b. How do you know that this student is having difficulty in reading? *Probe – different forms of assessment (state test scores, marking period grades, teacher observation, parent interview).*

c. *Refer to the Measure of Teachers' Specific Attributions for Reading Difficulties.* In the form, place the first and last initials of this student. Mark the position on each scale below to indicate the importance each factor plays in this student's difficulties in reading.

d. Is this student currently receiving any additional help to improve his reading? If yes, please describe the intervention you are using to help this student. If no, could you please tell me more of the plans of how you intend to help him in future?

e. How is the student responding to the intervention? How do you know that the student is responding to the intervention? What progress do you expect the student to make by the end of this semester? At the end of this school year? **Why do you think the student is likely/not likely to make progress?** How will you know that the student has made progress? *Probe to assess whether the cause is perceived to be stable, within child's control, locus of causality. Probe to find out how teachers evaluate student progress and if teacher attributions affect teacher evaluations.*

f. What other interventions have you tried? How did the student respond? **Why do you think these interventions succeeded or failed?** *Probe to find out if teachers' attributions for student difficulty could have influenced teacher evaluation of previous interventions.*

I would like to learn more about the support that your schoo**l provides to students with reading difficulties.**

1. *** In** yo*ur school, how do teachers know whether students are making progress in reading?*

2. *What procedures does the school follow when st*udents have difficulties reading? How have these procedures influenced the selection and implementation of reading interventions for this student? What support does the school provide to students with reading difficulties?

I would also like to find out more about the training you have received on working with students with reading difficulties and the professional support available to you in your school and school district.

3. In your pre-service teacher preparation, what stands out in the coursework or field experience which helped you to think of ways on how to work with children with reading difficulties?

4. What kinds of support have you found most helpful in your work with students with reading difficulties – workshops, mentors, coaching, learning from colleagues, etc.?

5. * When you are engaged in learning with other teachers, what does that look like? What would we see happening?

6. * In what ways are parents or family members involved with your school in the education of their children?

7. Does the district provide guidelines on the kinds of interventions students with reading difficulties should receive? If yes, please tell me more about the district guidelines. How have these guidelines influenced the selection and implementation of reading interventions for this student?

8. If you are going to mentor a brand new teacher on teaching reading, what would you pay attention to and how would you support this teacher?

Appendix 2

Measure of Teachers' Specific Attributions for Reading Difficulties

Student A

Think of two students in your class who are struggling in reading.

In this form, place the first and last initials of the **first** student.

Initials of student: _____

Student's age: _____ years

Student's gender (check one): ☐ Male ☐ Female

Student's ethnicity (check one):
- ☐ Native American
- ☐ Asian American
- ☐ African American
- ☐ Hispanic American
- ☐ Caucasian American

Mother's highest educational attainment (check one):
- ☐ Did not complete elementary school
- ☐ Elementary school
- ☐ Middle school
- ☐ High school diploma
- ☐ Bachelors degree
- ☐ Masters degree
- ☐ Doctorate degree

Free/reduced priced lunch (check one): ☐ Yes ☐ No

Thinking of this particular student, mark the position on each scale below to indicate the importance each factor plays in this student's difficulties in reading

Factors	Don't know	Not at all important				Extremely important
1. Student's processing deficits (e.g. motor coordination, visual perceptual handicap, inadequate attention span, learning disability)	0	1	2	3	4	5
2. Student's intelligence	0	1	2	3	4	5
3. Student's ability to cope with school demands	0	1	2	3	4	5
4. Student's learning style	0	1	2	3	4	5
5. Student's interest in reading	0	1	2	3	4	5
6. Student's level of effort/motivation	0	1	2	3	4	5
7. Student's work habits	0	1	2	3	4	5
8. Student's personality (e.g. too quiet, withdrawn)	0	1	2	3	4	5
9. Student's emotional or social adjustment	0	1	2	3	4	5

Factors	Don't know	Not at all important				Extremely important
10. Student's previous school experience	0	1	2	3	4	5
11. Instructional program	0	1	2	3	4	5
12. Classroom environment/influence of other students	0	1	2	3	4	5
13. Parent communication with school on student progress	0	1	2	3	4	5
14. Family history of reading difficulties	0	1	2	3	4	5
15. Value family places on literacy (press for achievement)	0	1	2	3	4	5
16. Home literacy environment (availability and instrumental use of reading materials, reading with children, opportunity for verbal interaction)	0	1	2	3	4	5
17. Home support (encouragement, motivation)	0	1	2	3	4	5
18. Parental monitoring of student progress	0	1	2	3	4	5
19. Home language other than English	0	1	2	3	4	5
20. Use of a nonstandard dialect of English in the home	0	1	2	3	4	5
21. Family's socioeconomic status	0	1	2	3	4	5
22. Parent's educational background	0	1	2	3	4	5
23. Match between teacher's teaching style and student's learning style	0	1	2	3	4	5
24. Match between class instruction and student's instructional level	0	1	2	3	4	5
25. Classroom management	0	1	2	3	4	5
26. Inadequate or inappropriate teaching	0	1	2	3	4	5
27. Teacher-student relationship	0	1	2	3	4	5
28. Academic focus in the school	0	1	2	3	4	5
29. Resources (library, media) in the school	0	1	2	3	4	5
30. Student's neighborhood	0	1	2	3	4	5

Are there any other factors that may play a role in this student's reading difficulties?

Measure of Teachers' Specific Attributions for Reading Difficulties

Student B

In this form, place the first and last initials of the **second** student.

Initials of student: _____
Student's age: _____ years

Student's gender (check one): ☐ Male ☐ Female

Student's ethnicity (check one):
☐ Native American
☐ Asian American
☐ African American
☐ Hispanic American
☐ Caucasian American

Mother's highest educational attainment (check one):
☐ Did not complete elementary school
☐ Elementary school
☐ Middle school
☐ High school diploma
☐ Bachelors degree
☐ Masters degree
☐ Doctorate degree

Free/reduced priced lunch (check one): ☐ Yes ☐ No

Thinking of this particular student, mark the position on each scale below to indicate the importance each factor plays in this student's difficulties in reading

Factors	Don't know	Not at all important				Extremely important
1. Student's processing deficits (e.g. motor coordination, visual perceptual handicap, inadequate attention span, learning disability)	0	1	2	3	4	5
2. Student's intelligence	0	1	2	3	4	5
3. Student's ability to cope with school demands	0	1	2	3	4	5
4. Student's learning style	0	1	2	3	4	5
5. Student's interest in reading	0	1	2	3	4	5
6. Student's level of effort/motivation	0	1	2	3	4	5
7. Student's work habits	0	1	2	3	4	5
8. Student's personality (e.g. too quiet, withdrawn)	0	1	2	3	4	5
9. Student's emotional or social adjustment	0	1	2	3	4	5

Factors	Don't know	Not at all important				Extremely important
10. Student's previous school experience	0	1	2	3	4	5
11. Instructional program	0	1	2	3	4	5
12. Classroom environment/influence of other students	0	1	2	3	4	5
13. Parent communication with school on student progress	0	1	2	3	4	5
14. Family history of reading difficulties	0	1	2	3	4	5
15. Value family places on literacy (press for achievement)	0	1	2	3	4	5
16. Home literacy environment (availability and instrumental use of reading materials, reading with children, opportunity for verbal interaction)	0	1	2	3	4	5
17. Home support (encouragement, motivation)	0	1	2	3	4	5
18. Parental monitoring of student progress	0	1	2	3	4	5
19. Home language other than English	0	1	2	3	4	5
20. Use of a nonstandard dialect of English in the home	0	1	2	3	4	5
21. Family's socioeconomic status	0	1	2	3	4	5
22. Parent's educational background	0	1	2	3	4	5
23. Match between teacher's teaching style and student's learning style	0	1	2	3	4	5
24. Match between class instruction and student's instructional level	0	1	2	3	4	5
25. Classroom management	0	1	2	3	4	5
26. Inadequate or inappropriate teaching	0	1	2	3	4	5
27. Teacher-student relationship	0	1	2	3	4	5
28. Academic focus in the school	0	1	2	3	4	5
29. Resources (library, media) in the school	0	1	2	3	4	5
30. Student's neighborhood	0	1	2	3	4	5

Are there any other factors that may play a role in this student's reading difficulties?

Appendix 3

Teacher Efficacy Scale

Item No.	Item	Strongly Disagree					Strongly Agree
1	When a student does better than usual, many times it is because I exert a little extra effort.	1	2	3	4	5	6
2	The hours in my class have little influence on students compared to the influence of their home environment.	1	2	3	4	5	6
3	The amount a student can learn is primarily related to family background.	1	2	3	4	5	6
4	If students aren't disciplined at home, they aren't likely to accept any discipline.	1	2	3	4	5	6
5	I have *not been* trained to deal with *many of the* learning problems *my students have*.	1	2	3	4	5	6
6	When a student is having difficulty with an assignment, I *often have trouble* adjusting it to his/her level.	1	2	3	4	5	6
7	When a student gets a better grade than he/she usually gets, it is usually because I found better ways of teaching that students.	1	2	3	4	5	6
8	*I am* very limited in what *I* can achieve because a student's home environment is a large influence on his/her achievement.	1	2	3	4	5	6
9	Teachers are not a very powerful influence on student achievement when all factors are considered.	1	2	3	4	5	6
10	When the grades of students improve, it is usually because I found more effective teaching approaches.	1	2	3	4	5	6
11	If a student masters a new concept quickly, this might be because I knew the necessary steps in teaching that concept.	1	2	3	4	5	6
12	If parents would do more for their children, I could do more.	1	2	3	4	5	6
13	If a student did not remember information I gave in a previous lesson, I would know how to increase his/her retention in the next lesson.	1	2	3	4	5	6
14	The influences of a student's home experiences can be overcome by good teaching.	1	2	3	4	5	6
15	If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him/her quickly.	1	2	3	4	5	6
16	Even a teacher with good teaching abilities may not reach many students.	1	2	3	4	5	6

Item No.	Item	Strongly Disagree					Strongly Agree
17	If a student couldn't do a class assignment, most teachers would be able to accurately assess whether the assignment was at the correct level of difficulty.	1	2	3	4	5	6
18	If I really try hard, I can get through to even the most difficult or unmotivated students.	1	2	3	4	5	6
19	When it comes down to it, a teacher really can't do much because most of a student's motivation and performance depends on his/her home environment.	1	2	3	4	5	6
20	My teacher training program and/or experience *did not give* me the necessary skills to be an effective teacher.	1	2	3	4	5	6

Appendix 4

Information on Participant

1. Please check the box which best describes your current teaching position:

- ☐ K-3 Classroom Teacher
- ☐ 4-6 Classroom Teacher
- ☐ Special Education Teacher
- ☐ Title 1
- ☐ Reading teacher

2. What is the highest degree you have received?

_____

3. Including this year, how many years you have been an educator in K-12 schools?

_____ years

4. Including this year, how many years have you taught reading in the current grade?

_____ years

5. How often do you participate in professional development activities (e.g., workshops, meetings, conventions, etc.)? Please check the appropriate box.

- ☐ Less than once in two in years
- ☐ once in two years
- ☐ once a year
- ☐ twice a year
- ☐ three times a year
- ☐ more than three times a year

6. How often do you read professional journals? Please check the appropriate box.

- ☐ Less than once in two in years
- ☐ once in two years
- ☐ once a year
- ☐ twice a year
- ☐ three times a year
- ☐ more than three times a year

7. Ethnicity (please check the appropriate box):

- ☐ Native American
- ☐ Asian American
- ☐ African American
- ☐ Hispanic American
- ☐ Caucasian American

Tables

Table 1.1

Cross-case Analysis of Data from Grade 1 Teachers

	Teacher 1A	Teacher 1B	Teacher 1C	Teacher 1D	Teacher 1E	Teacher 1F	Teacher 1G
Challenges		- Following sch rules - Engaging in activities - Sitting for long period	- Lack of skills - Physically immature - Smaller vocabularies - Limited experiences affects comprehension	- Tired and crabby - Hard time sitting still	- Lack of vocabulary	- Sitting without moving about - Lack of pre-literacy school	
General Attributions	- Immature SDS (SDS) - Large class size CS (CS) - Lack of materials ScR (ScR) - Pupils' agenda SEM (SSA) - Proper instruction CT (CT) - Dyslexia SPD (SPD)	- Troubled home lives HT - Poverty HSES - Parents not setting expectation, follow thru HPM - Exposure to books HLE - Talking about books in the home HLE - Amount of conversation at home HLE	- Lack of enriched home background HLE - Physically immature SDS - Learning styles SLS - Engagement of child/interest SEM	- Early school start time ScE - Lack of language experience among language learners HL - Not ready to read SDS - Attention deficit SPD - Learning disabilities SPD - Home issues HT - TV HPM - Experience with language and books HLE - Maturity SDS	- Home – not read to, not listened to HLE - Lack of experience , lack of practice HLE - Not been to preschool ScPE - Child's motivation SEM - Presence of a person to listen, to sound out words, teach use of context clues HLE	- Rigorous school expectations ScE (ScE) - Lack of preparation at home HLE (HLE) - Lack of preparation at pre-school ScPE (ScPE) - Vision problems SPD (SPD) - Fine motor problems SPD (SPD) - Attention problems SPD (SPD) - Sensory processing problems SPD	- Rigidity in school – NCLB ScE - Lack of supplies ScR - Homeless HM
Factors - reading	- Time on task - influenced by impulsiveness	- Use of reading strategies - Sense of story - Poor readers – focused on decoding	- Vocabulary - Comprehension - Engagement	- Vocabulary	- Remember and practice the rules - Context clues - Know more sight words	-	
Expect - Entry	Sounds Rhyme Segment Blend A few sight words	Letter names and sound Book sense Sight words Reading vocabulary	Phonics Phonemic awareness Letter name and sound Decoding and encoding CVC 10-100 sight words	Letters and sounds Sight word vocabulary (20-30)		Segment sounds in CVC word Letter sounds Rhyme Onset and ending sound s Write letters	Print own name Letter names and sounds 16 basic sight words

	Teacher 1A	Teacher 1B	Teacher 1C	Teacher 1D	Teacher 1E	Teacher 1F	Teacher 1G
Expect – Exit	Fluency – 60 wpm Comprehension – 79%	Read independently (16 pages) Blend words Spell Compre Retell a story – problem and resolution Write a short story	Fluency – 100 wpm (between 80 and 100) 150 wpm (A+ student) – internal 50 – 80 – okay Comprehension	Blends Decode long vowel sounds Fluency - 60 wpm Reading strategies – figure meaning from context Comprehension			Fluency – 60 wpm Print upper and lower case letters Consonant, vowels, blends, diphthongs Fiction vs non-fiction Statement vs question Hold a pencil, colors, numbers, letter names and sounds
School monitoring progress	- District assessment - CBM	- District assessment - Individual teacher assessment	- District assessment (4 times a year) - Curriculum based assessments	- District assessment (3 times a year) - Teacher assessment - Meet by level every 6 weeks to discuss student progress in reading	- CBM – district and building - Special education teacher - Title 1 teacher - SRA Reading Mastery - Read Naturally - CCC lab - Accelerated reading program	- Kindergarten information from district - Reports from previous year's teacher - District assessment (3 times a year) - After-school reading - Reading groups - Book room – books at different levels	Theme test by unit CBM (3 times a year) Teacher assessment – running record – once a week or once every two weeks
School intervention procedures	Identify students below the standard Tutors School gives flexibility, encouragement but no funds Teacher 1A – Reading Mastery	- Students with difficulties are flagged on OCR website - Teachers identify students with difficulties - Try to fit students in Title , ELL - Use volunteers - CCC lab	- Initial assessment - Identified students in small pull-out group or in after-school program - Special education referral	- Intervention Assistance team – write a worksheet, interventions are teacher driven - Students may go to special education	- OCR reports, write worksheets 1 and 2 - CTARS committee – problem solving	- Problem solving model - More purposeful	Problem solving (CTARS) Educational assistants Auxiliary first grade teacher
Pre-service training	None	Graduate work focused on reading	- Did not agree with teacher mentor	None – make sure kids have a lot of practice in language	Reading techniques	No training	Totally not prepared at pre-service

	Teacher 1A	Teacher 1B	Teacher 1C	Teacher 1D	Teacher 1E	Teacher 1F	Teacher 1G
Supports received	Reading First - workshops - reading research, - prescribed program - observations - study groups	- Learn from colleagues - Workshops – good when they combine theory with practice	- "Success for all" – - Special education background - Bilingual background	- Workshop 5 years ago - Support from colleagues –	-Reading Mastery – address specific reading problems -Training in Houghton Mifflin series	- Learnt from a book - In-service training on vision therapy - Masters degree	- Classes in reading - Team meeting by grade level - ATTPS
Learning with others	- Discuss student work - Reading research articles	- Discussion on professional reading and how it works in the classroom (dialogue, problem solving, suggestions for resources)	- Worked closely with a colleague – similar approach, share ideas - Team meetings - In-services	- Talk, look at what works, figure how to get kids there	- Meet in teams by grade - Talk as a staff, - Training as a staff - Seminar training and workshop week	- Study groups – reflect on a book, try strategies	-Classes -Professional learning communities -Professional learning program – building goals -PDP – personal professional goals
Family involvement	- Attend conferences - Do homework - Read to their kids	- Look at homework and weekly newsletter - Attend 2 conferences - Invited to volunteer - Get their kids to school - Attend programs for parents	- Parents are very involved, micromanage, have high expectations of teachers	-Different levels of involvement -100% attendance at one conference -No volunteers -More difficult because half of parents don't speak English	- Work with homework - Attend conferences - Parent nights - Book fairs	- High level of involvement - Volunteer - Reading with child at home - Home literacy environment - Financial support - 100% parent attendance	Do homework and projects with children Volunteer
Guidelines from district	No specific guidelines for reading interventions	- CTARS procedure - Reading intervention up to schools	- Teacher training, observations, monitoring	No	- Recommend some programs, decision up to the school	- Problem-solving	Left to school
Mentor new teacher	- Observe kids learning and measure them in areas to be address - observe Tr 1A working with students with difficulties	- Incorporate all aspects of reading - Incorporate different ways to read - Multilevel activities - Provide structure - Incorporate time for reading - Use level books - Independent readers - Raise expectations	- Understand components of reading - Teach reading directly - Writing as a component to literacy growth - Read to students, listening to students read	- Organization – large group and small group instruction - Manage behavior	- Reading Mastery - How to do a reading group, reading skills, how to use the reading manual - How to plan lessons, assessments - Games and activities	- Lack of training on how to teach reading, metacognition on how to break the code	Know students really well Keep groups flexible Progress from letters, sounds, word families Look at the individual child Get parent's support Don't be afraid to discipline

Table 1.2
Cross-case Analysis of Data from Grade 5 Teachers

	Teacher 5A	Teacher 5B	Teacher 5C	Teacher 5D	Teacher 5E	Teacher 5F	Teacher 5G	Teacher 5H	Teacher 5I
Challenges	- Learning problems	- Have adult responsibilities		- Lack basic skills and knowledge - Deficit in language skills	- Lack basic skills and knowledge - Difficult to differentiate lessons	- Not ready for school – not knowing the rules in society	- Focusing - Lack of organization skills - Tired	- Deficit in language skills - Lack of socialization	Deficit in language skills
General Attributions	- Poverty HSES - Limited experiences HLE - Mobility HM - Anger issues SSA - Parents actively reading HLE (HLE) - Family values reading HVL (HVL) - Experience, related to real world HLE (HLE)	- Generational poverty HSES - Home circumstances HS - Lack of exposure to print HLE - Different language HD - Different rules and values HVL - Home support HS - Parent's educational background HPE	- Large class size CS - Home SES HSES - Learning disability SPD - Poverty HSES - Dyslexia SPD	- Lack of language experience among ELL HL (HL) - Student behavior SSA (SSA) - Mobility HM (HM) - No prior school experience ScPE (ScPE) - Low ability SI (SI) - Home support HS	- Large class size CS - Homelessness HM - Unsafe neighborhoods SN - Poverty HSES - Wide range of abilities in classroom CS - Language exposure (ELL) HL - Exposure to standard English HD	- Lack of language experience among ELL HL - Lack of adult attention HS - Lack of home support HS - Mobility HM - TV HPM - Computer HPM - Lack of social interaction - ADD SPD - Literacy environment at home HLE - Self-discipline SEM - Lack of language exposure HL Home supervision HPM	- ADD SPD - Reach adolescence – need more sleep SDS - Lack of literacy environment HLE - Lack of motivation SEM - Amount of reading by student STR - Adult role model in reading HLE - Literacy-rich environment at school and at home HLE	- Lack of positive adult interactions HLE - Poor preschool background ScPE - Lack of language experience among ELL HL - Lack of opportunities for creative activities /no books HLE - Academic focus of kindergarten ScAF - TV HPM - Amount of reading by student STR	Sad situations at home HT Poverty HSES Learning disability SPD (SPD) Language exposure (ELL) HL

	Teacher 5A	Teacher 5B	Teacher 5C	Teacher 5D	Teacher 5E	Teacher 5F	Teacher 5G	Teacher 5H	Teacher 5I
Factors - reading			- Breaking the word down - Meaning of the word	- Interacts with their reading – ask themselves questions - Summarize - Comprehend	Fluency Vocabulary		- Motivated independent reader - Imagine story - Read chapter books	- Sound out words - Summarize - Vocabulary	Read with understanding Summarize Vocabulary
Expect – Entry	- Able to decode - Fluent - Comprehend - Retell - Summarize	- 117 wpm	- Read - Comprehend - Draw conclusions - Make comparisons	- Read fluently - Comprehend - Communicate their understanding	- Fluency – 100 wpm - Read, comprehend - Use context	- Read on their own - Comprehend - Make inferences	- Standardized test - Comprehend - Make inferences	- Decode multisyllabic - words - Read fluently - Find books appropriate to their level	- Read - Comprehend - Interpret
Expect – Exit	- Author's point of view - Compare - Cause and effect - Make inferences	- 128 wpm - Houghton Mifflin level assessment – W,X,Y, & Z	- Develop opinions - Write a research paper and defend it	- Comprehend - Communicate understanding in written form	- 135 wpm - Comprehend - Analyze, evaluate, compare and contrast, interpret - Make inferences - Author's point of view	- Make inferences - Ask questions - Pick up attributes of a genre - Read across subjects	- Fluency – 145 wpm	- Find main idea - Summarize - Find details to expand on main idea - Comprehend - Making inferences	- Understand when they read any piece of literature
School monitoring progress	- CBM - Mini-MCA test every month	- In-house assessment - Level assessment - Teacher assessment - Prior teacher reports	- CBM - Weekly theme test, full unit tests - District and state tests	- Teacher assessment – running record (3 times a year), skill or book based - Theme test	- Progress monitoring of bottom 25th percentile, every two weeks using CBM - Reading level time	- Standardized test - CBM - Repeat CBM for students below a certain percentile	- MCA, NALT scores - Reading fluency measure	- Building assessment	- CBM - STAR test - Thematic test
School intervention procedures	- Group students by reading level - "Soar to Success" for students who can't decode	- Look at CALT, MCA, CBM - Flexible reading groups - After-school programs	- Team referral Parent volunteers - Small groups	Problem solving - Try interventions - Refer to family support and special education	- Problem solving	- Lower end smaller groups - Convey school expectation to parents	- "Soar to success" for 3rd and 4th grades - Identify students using test scores on OCR	- Collaborative meeting – discuss Educational assistant - PALS program	- Title 1 - Volunteers - Buddy reading

	Teacher 5A	Teacher 5B	Teacher 5C	Teacher 5D	Teacher 5E	Teacher 5F	Teacher 5G	Teacher 5H	Teacher 5I
Pre-service training	- Nothing	- Mentor teachers	- Focus on thematic units	- Observe different types of teaching	- None	- Library science – instill love for literature	None (only on reading instruction)	- None	- (Did not answer the question)
Supports received	- "Understanding by design" - provides standards - "Soar to success"	- Workshops - Peer coaching - Professional development plans - Working with other people with the same goal	- In-house training	- Workshops - Talking to colleagues - "Success for All" – pose questions to encourage thinking	- Workshops on differentiating instruction - Reading First - Reading license - TAP (teacher advancement program) - Study groups	- Colleagues, mentors, coach	- Reflection on own practice - Workshops - Books	- Reading institute - Reading grant for K-3 – benefit from whole group conversation	- Talk to previous teacher who taught the student
Learning with others	- Work on units together, sharing ideas	- Bouncing ideas	- In teams to write learning goals for elementary	- Share ideas, suggestions on what works	- Look at student work, create rubrics, share and learn together	- TAP - Coaching – sharing ideas on best practices	- Artist in residence program –	- Share successes - Literacy in arts program	- Exchange of teaching strategies, what worked, moral support
Family involvement	- Ensure student reads 30 minutes every day - "I love to read" month	- Related to level of poverty - Difficult for parents who work long hours and limited education	- Parents from diverse backgrounds, - Motivated parents, - Hospitable environment - Communicate with parents	- Attend conference - Communicate with teacher - Convey message that "education is important" to their children	- Little parent involvement	- Parent volunteers - Go to homes to talk to parents	- 100% parent attendance at conferences - Parent room rep - Read-a-thon - Parent volunteers	- Parent conference - Phone calls - Reading log - Interactive homework	- Parent volunteers
Guidelines from district	- List of acceptable interventions on OCR website	- Intervention guidelines - Materials - Institute for Learning	- More for special education	- Amount of time spent on reading each day	- Suggestions and support	- Need for more trained reading specialists	- No guidelines - Provide resources	- School based	
Mentor new teacher	- Teach "Soar to Success" – - Teach students to organize	- Classroom management	- Observe and diagnose - Answer their questions	- Whole and small group - Flexible grouping - Constant assessment	- Read at their reading level - Read for enjoyment - Whole and small groups	- Grouping - Kids read to others - Expectation - Homework	- Use basal reader as a guide, try things which interest them	- Differentiated instruction - Daily reading - Independent reading	- Student-teacher relationship - Classroom management

Table 2
*Number of Teachers' General Attributions for Student Problems**

Type of general Attributions	No, of general attributions made by 1st grade teachers	No. of general attributions made by 5th grade teachers	Total no. of teacher attributions (Percentage)
Within-student attributions	10	12	22 (27.9%)
Home-related attributions	12	31	43 (54.4%)
School-related attributions	9	5	14 (17.7%)
Total	31	48	79

* Teachers may make more than one attribution for individual students

Table 3
Teachers' General Attributions for Student Problems

	Attribution coding category	Number of attributions made		Total
		1st grade teachers	5th grade teachers	
1.	Student's processing deficits SPD	3	4	7
2.	Student's developmental stage SDS	3	1	4
3.	Student's intelligence SI		1	1
4.	Student's learning style SLS	1		1
5.	Amount of time student spends on reading STR		2	2
6.	Student's level of effort/motivation SEM	3	2	5
7.	Student's emotional or social adjustment		2	2
8.	Value family places on literacy HVL		2	2
9.	Home literacy environment HLE	5	5	10
10.	Home support (encouragement, motivation) HS		3	3
11.	Parental monitoring and supervision HPM	2	2	4
12.	Home language other than English HL	1	5	6
13.	Use of a nonstandard dialect of English in the home HD		2	2
14.	Family's socioeconomic status HSES	1	5	6
15.	Parent's educational background HPE		1	1
16.	Homelessness or mobility HM	1	4	5
17.	Troubled home lives HT	2	1	3
18.	Student's neighborhood SN		1	1
19.	Student's previous school experience ScPE	2	2	4
20.	Inadequate or inappropriate teaching CT	1		1
21.	Class size CS	1	2	3
22.	Expectation of the school ScE	3		3
23.	Academic focus in the school ScAF		1	1
24.	Resources in the school ScR	1	1	2

Table 4
*Teachers' Specific Attributions for Reading Difficulties of Individual Students**

Type of specific attribution	No. of 1st grade students	No. of 5th grade students
Within-student factors	14 (100%)	16 (89%)
Home factors	7 (50%)	14 (78%)
School factors	6 (43%)	6 (33%)
Total number of students in the sample	14	18

***** Teachers may make more than one attribution for individual students

Table 5
Within-child Attributions and Interventions Used with Individual Students *

Interventions used	No. of 1st grade students who received intervention	No. of 5th grade students who received intervention
Explicit reading instruction	8 (57%)	3 (17%)
Intensive reading instruction	12 (86%)	7 (38%)
Increased opportunities to read	12 (86%)	7 (38%)
Affective strategies	4 (29%)	9 (50%)
Other Interventions	9 (64%)	6 (33%)
No. of students in the sample	14	18

* Individual students often received multiple interventions

Table 6.1
Home-related Attributions and Interventions Used with Grade 1 Students

School/Teacher	Student	Home-related attributions	Home-related interventions
2 / Tr 1B	S1B.1 FRL	- Brother slow to read - Single parent - Little parent involvement - Family violence	
	S1B.2 FRL	- Little family involvement - Poor teacher-parent relationship - Family issues - Poor school attendance	- Engage parent
3 / Tr 1C	S1C.1		- Home support
	S1C.2	- Disrupted home life	- Engaged parents
4 / Tr 1D	S1D.1 FRL	- Brother had difficulties reading - Home environment – disorganized, lack of emphasis on reading, more concern about behavior	
	S1D.2 FRL	- Brother – disability - Lack of parent monitoring	
5 / Tr 1E	S1E.1 FRL	- Limited parent support – communication, not familiar with school demands, lack of reading things in English at home, use non-standard dialect of EL.	
	S1E.2 FRL	- Home environment - poor, lack of reading materials, lack of monitoring and support.	
3 / Tr 1F	S1F.1		- Conference with parents
3 / Tr 1G	S1G.1		- Conference with parents
Total No. of Students		7	5

Table 6.2
Home-related Attributions and Interventions Used with Grade 5 Students

School/Teacher	Student	Home-related attributions	Home-related interventions
7 / Tr 5B	S5B.1 FRL	- Lack of parental supervision - Poverty	
	S5B.2 FRL	- Poor school attendance - Lack of parental support due to long working hours and educational background -	
3/ Tr 5C	S5C.1	- Limited social interaction at home - Not reading books at the appropriate reading level	-Collaborated with mother – help mother to recognize his problem
	S5C.2 FRL	- Lack of parent involvement	
9 / Tr 5D	S5D.1 FRL	- No communication with parent	
	S5D.2 FRL	- Home environment – little English spoken.	
10 / Tr 5E	S5E.1 FRL	- Home - low SES - Neighborhood – lack of safety, 'not cool to be smart'	
	S5E.2 FRL	- Home environment - lack of book, education not value, lack of parent support and guidance	
11 / Tr 5F	S5F.1 FRL	- Did not have a rich reading environment - Poor school attendance	- Conference with mother
	S5F.2 FRL	- Father terminally ill	
3 / Tr 5G	S5G.1	- Lack of parental supervision	- Conference with parents
	S5G.2		- Conference with parents
12 / Tr 5H	S5H.1 FRL	- Home - disorganized, lack supervision	
	S5H.2 FRL	- Home - lack of communication with school, disorganized, lack emphasis on reading	
1 / Tr 5I	S5I.1 FRL	- Home – lacks supervision and security	- Talk to mother
	S5I.2 FRL		- Parent involvement
Total No. of Students		14	6

Table 7
*Summary of Attributions for Progress and Lack of Progress of Individual Students in Reading**

Attributions for progress of individual students	1st grade	5th grade
• Within-student	6(50%)	8 (89%)
• Home-related	4 (33%)	2 (22%)
• School-related	12 (100%)	4 (44%)
Total number of students who made progress	12	9

Attributions for lack of progress of individual students	1st grade	5th grade
• Within-student	2 (100%)	8 (89%)
• Home-related	0	2 (22%)
• School-related	1 (50%)	0
Total number of students who did not make progress	2	9

* Teachers may make more than one attribution for individual students

Table 8
Teacher Ratings on Teacher Efficacy Scale

Teacher	Internal factors	External factors
1A	49	20
1B	40	20
1C	39	20
1D	32	27
1E	45	25
1F	44	31
1G	24	20
Mean	39.00	23.29
Standard Deviation	7.89	4.13

Teacher	Internal factors	External factors
5A	41	24
5B	43	40
5C	45	16
5D	42	29
5E	34	28
5F	39	33
5G	42	35
5H	33	26
5I	39	34
Mean	39.78	29.44
Standard Deviation	3.79	6.67

Table 9
Home Support Reported by Teachers

Type of home support	No. of 1st Grade Teachers	No. of 5th Grade Teachers
Communication with parents	5	5
Parental Involvement in school activities	4	3
Parental Involvement in learning activities at home	6	3
Collaboration and exchange	2	2