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The Influence of Teachers' Belief Systems on Group Decisions to Retain in Elementary Schools: An Application of the Theory of Planned Behavior

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THE INFLUENCE OF TEACHERS’ BELIEF SYSTEMS ON
GROUP DECISIONS TO RETAIN IN ELEMENTARY SCHOOLS:
AN APPLICATION OF THE THEORY OF PLANNED BEHAVIOR

By

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Dedicated to my husband, Matt,
and my children, Walker Patrick and Mary Jacqueline.
May you always strive for happiness and success.
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ABSTRACT

In this study, the author explored the grade retention beliefs of elementary teachers and how those beliefs affect teachers’ intentions to retain at-risk students. Secondly, the author explored the congruence between teachers’ beliefs to retain and grade retention decision-making teams’ (GRDMT) ultimate retention decisions. Each year, over 2.5 million students are retained annually in the American public education system at a total cost of more than $14 billion per year. It is estimated that between 30% and 50% of students will repeat a grade at least once by the time they reach the ninth grade. In prior decades, teachers and principals were primarily responsible for making the decision to retain. However, in the age of accountability and high standards, GRDMTs have been created and are used in over two-thirds of retention decisions. Teachers are always present at the GRDMT decisions and may be just as influential in the decision-making process as in earlier decades when the decision was up to only the teacher and principal.

Researchers have frequently argued that grade retention is not in accordance with the No Child Left Behind Act and the majority of published literature finds it to be an ineffective intervention. In the elementary setting, grade retention produces positive short-term outcomes, which substantiate teachers’ beliefs that grade retention is helpful to students. In fact, 98% of teachers believe strongly in retaining struggling students, a belief that has remained relatively static over the past 30 years. However, the long-term outcomes are often detrimental to struggling students. The question remains as to why schools continue to retain an estimated 2.5 million students per year when grade retention, which is not federally regulated, is (a) ineffective, (b) increases additional financial burden for school districts, and (c) increases the likelihood that the student will drop out, exhibit socio-emotional difficulties, and have poorer employment outcomes. An exploration into teachers’ belief systems and how often those belief systems are congruent with team decisions is needed to understand if, and to what extent, teachers influence the GRDMT process. Understanding the relationship between teachers’ beliefs and team decisions will shed light on the practice of grade retention.
The following research questions were identified for this study:

1. Utilizing the Theory of Planned Behavior, what are the current beliefs of elementary school teachers regarding grade retention?

2. Of those teachers who referred at-risk students to the GRDMT, how often were the teachers’ beliefs about retaining at-risk students congruent with the teams’ ultimate decisions to retain?

To answer these questions, data were analyzed from 404 public elementary school teachers. The Theory of Planned Behavior (TPB) provided the conceptual framework to study teachers’ beliefs. Participants completed the Teacher Belief Questionnaire (TBQ) to measure teachers’ beliefs (attitudes, subjective norms, perceived behavioral control [PBC], and intentions) and GRDMT ultimate retention decisions. Structural equation modeling was used to test the first research question. Results indicate that teachers’ attitudes, subjective norms, and PBC significantly predicted and accounted for 72% of the explained variance in teachers’ intentions to retain students who are academically struggling or lack basic skills. To examine the second research question, binary logistic regression was used to examine the congruence between teachers’ beliefs and GRDMT decisions in a sample of 306 teachers. Results indicate that teachers’ beliefs were not congruent with GRDMT decisions, and did not significantly predict GRDMT decisions to retain or promote struggling students. Regardless of the strength of teachers’ beliefs to retain, the majority of GRDMT chose to retain 75% of the time. The majority of students in jeopardy of retention were minority males who exhibited academic difficulties. Additional findings suggest that the GRDMT group memberships, decisions, policies, and alternatives used in lieu of grade retention varied greatly. Other factors or persons may be just as or more influential than teacher influence on group decisions.

A discussion of the findings, limitations of the study, and implications for research are presented. Recommendations for future research are also presented, as the results of this exploratory study are limited in their scope of generalizability. Further research in the areas of teachers’ beliefs and the GRDMT can further extant literature, as teachers’ beliefs and GRDMT are here to stay and will continue to permeate the educational landscape.
CHAPTER ONE
INTRODUCTION

*Insanity: doing the same thing over and over again and expecting different results.*

~Albert Einstein

In the United States, nearly 2.5 million kindergarten through 12\textsuperscript{th} grade students are retained each year at a total cost of more than $14 billion per year (Dawson, 1998; Hauser, Pager, & Simmons, 2000; Jimerson & Ferguson, 2007; Shepard & Smith, 1990). At the same time, state and district education agencies are operating at a loss due to severe budget cuts (Education Week, 2011); this deficit is exaggerated by the $14 billion cost of retention annually (Denton, 2001).

Retention rates have increased over the past 20 years and are disproportionately high among poor, minority, inner-city youth (National Association of School Psychologists [NASP], 2003). Karweit (1999) suggested that "by first grade between 7 and 11 percent of children have been retained" (p. 5). In 2007, approximately 10\% of kindergarten through eighth grade students were retained nationally (Planty et al., 2009). NASP (2003) estimates that between 30\% and 50\% of students have repeated a grade at least once by the time they reach the ninth grade (Alexander, Entwisle, & Kabbani, 2003; McCoy & Reynolds, 1999). Those students who are retained include African American and Hispanic males from low socio-economic backgrounds (NASP, 2003). Based on these statistics, one could argue that at least one student may be retained in a classroom of 20 students by the end of the school year.

The No Child Left Behind Act (NCLB), introduced by George W. Bush in 2001, required the use of empirically-based intervention and instruction strategies by state education agencies to help struggling students (NCLB, 2001). Yet, as an intervention strategy, retention has little documented empirical support. Some researchers believe that more children have been left behind since the passage of the NCLB of 2001 than before (Jimerson et al., 2006). The process by which students continue to be retained needs further study in order to better understand why this practice continues when it may be contrary to one of the major tenets of NCLB (2001).
Additionally, education agencies would benefit from grade retention alternatives that have been empirically proven to be more effective, allowing them to conserve precious financial resources.

The current empirical research on the effectiveness of grade retention on both academic and psychosocial adjustment contradicts the practice of retaining students. The majority of published literature unequivocally finds grade retention to be ineffective (for meta analyses, see Jackson, 1975; Holmes, 1989; Jimerson, 2001a; for narrative reviews, see Jimerson, 2001b; Shepard, Smith, & Marion, 1996). Occasional short-term improvements in academic performance may occur when the student is repeating the same grade for the second time (Gleason, Kwok, & Hughes, 2007; Jimerson, 2001a; Lenarduzzi & McLaughlin, 1990; Wu, West, & Hughes, 2010). However, the long-term benefits on academics, socio-emotional, and future employment are often minimal and nonsignificant (Jimerson, Anderson, & Whipple, 2002; Royce, Darlington, & Murray, 1983) and may actually be harmful in the long-term (e.g., poor employment outcomes; Anderson, Whipple, & Jimerson, 2002; Jimerson, 2001b). Thus, grade retention is not in alignment with “best practices” (Shinn, Walker, & Stoner, 2002), and needs to be reconsidered as an intervention for struggling students.

While grade retention guidelines are not outlined in federal law, some states provide guidelines and language regarding under which circumstances retention is allowable and the processes for retaining students (e.g., Colorado, Delaware, Florida, Texas; Zinth, 2005). At the federal level, grade retention is not specifically addressed in the Individuals with Disabilities Education Improvement Act (IDEIA, 2004) and only mentioned in the NCLB for state reporting purposes (i.e., the quantity of students retained in a given year). Rather, NCLB mandates that school personnel implement evidence-based practice (EBP) in curriculum and intervention planning. The basic purpose of EBP is to assure the public that the selected educational techniques and procedures will provide the best possible interventions and outcomes for students. Given that the majority of published literature finds grade retention to be ineffective, it is frequently argued that retention is not in accordance with NCLB (Jimerson et al., 2006). The question remains as to why schools continue to retain an estimated 2.5 million students per year when grade retention, which is not federally regulated, is (a) ineffective, (b) increases the financial burden on school districts, and (c) is harmful to the student in the long-term.

Although retention decisions are primarily intended to remediate academic difficulties (Nason, 1991), empirical research indicates that teachers provide various explanations for why
they decide to retain students (Bonvin, 2003). The two most common reasons given by teachers for retaining a child are negative classroom behavior on the part of the child and the student’s failure to meet minimum grade standards (Black, 2004; Florida Department of Education; FLDOE, 2009; Mantzicopoulos & Morrison, 1992; Tomchin & Impara, 1992).

The teacher is primarily responsible for initially recommending retention for a student (Byrnes & Yamamoto, 2001), but district policy reviews consistently demonstrate that a collaborative team (e.g., multidisciplinary team or a GRDMT) decides as a group to retain a student. After receiving the group’s decision to retain a student, the principal of the student’s school typically has the authority to either agree or disagree to retain the student (American Federation of Teachers, 1997; Balow & Schwager, 1990; Murray & Murray, 2001). However, it is unclear from district to district if the principal has to actually participate in the group decision-making process. What is apparent in most district policy is that the retention decision rests with a collaborative team (e.g., grade retention decision-making team [GRDMT]), on which the teacher is always a member (Freedman, 2006).

For example, in Florida, the collaborative team is usually composed of, at a minimum, the parent of the child who is a candidate for retention, the child’s teacher, the child’s guidance counselor, and the school psychologist (Leon County School Board, 2010). Examples of other team members who may be included are the principal, the assistant principal, the speech therapist, medical personnel, and possibly an outside member, such as a psychologist in independent practice advocating for the child. The members may vary in expertise, experience, tenure, personality, and personal beliefs regarding grade retention. The final retention decision is moderated by varying input from the team members, including the parents, administrators, and teachers (Kelly, 1999).

Because teachers often have the responsibility for making the initial student referral to the team and participating in the team decision, teachers may exert a strong influence on the team’s eventual decision. Therefore, it is critical to understand teachers’ beliefs, as teachers have varying belief systems that strongly influence the decisions that they make (Pajares, 1992). Furthermore, teachers’ belief systems may affect the group’s final decision, given the influence that teachers likely exert on the group (Hogg & Cooper, 2003). Empirical researchers have identified teachers’ beliefs about the practice of retention (Kirby, 1996; Manley, 1988; Pouliot, 1999; Shepard & Smith, 1988; Tomchin & Impara, 1992). For example, Tomchin and Impara
(1992) found that, in a sample of 135 elementary teachers, a staggering 98% of the sample believed that retention is beneficial for academically struggling and/or immature students. What has not been adequately investigated is if and how often teachers’ beliefs are congruent with the team’s eventual decision of whether to retain.

It is important to identify and understand the beliefs of teachers and how those beliefs are formed and modified. Research indicates that teachers’ beliefs are formed by direct experience, inferred or self-generated, or formed from outside information (Ajzen & Fishbein, 1980). In fact, once teachers form their beliefs about grade retention, their beliefs appear to be relatively static and underlie their judgments about students (Fang, 1996; Tomchin & Impara, 1992; Witmer, Hoffman, & Nottis, 2004). In a study by Tanner and Combs (1993), teachers reported that they are aware of the literature that cites retention as harmful, but chose to disregard it because of their personal beliefs (Tanner & Combs, 1993). However, teachers’ beliefs can be modified by exposure to peer beliefs and anecdotal experience (Kagan, 1992) and can be dependent on their experience with prior retentions (Witmer et al., 2004).

Since NCLB (2004) mandates that pedagogical practice align with evidenced-based interventions (e.g., empirical research), studying the congruency between teachers’ beliefs to retain and group ultimate decisions seems timely. If NCLB (2004) requires education agencies to employee EBPs, then it is vital that grade retention decisions align with federal mandates. Thus, it is important to research teachers’ beliefs about grade retention and the congruence between teachers’ beliefs and group decisions. And, if the practice of grade retention does not align with empirical research, then one could argue that the practice of retaining millions of students on an annual basis is not in alignment with best practices as outlined by NCLB (2004) guidelines.

Statement of the Problem

If, as others have stated, grade retention is an ineffective and expensive practice that is contrary to one of what is arguably one of the most influential pieces of legislation affecting education today (e.g., NCLB), we need to better understand why grade retention continues to be so common in American schools. Research involving the examination of teachers’ beliefs regarding retention surfaced in the mid-to-late 1980s (e.g., Byrnes & Yamamoto, 1986; Shepard & Smith, 1987). Researchers have used a variety of procedures to examine teachers’ beliefs about retention, including surveys, vignettes, and descriptive statistics. A variety of teacher
demographics, such as grade level taught and years teaching experience, have also been study variables used to examine teachers’ beliefs (Reynolds & Fletcher-Janzen, 2007; Richardson, 2010; Tomchin & Impara, 1992). Previous research has documented that most teachers generally hold positive beliefs about retention, but there is little theory or data on how those beliefs are formed (Kagan, 1992). Additionally, given that the ultimate decision as to whether to retain a child resides with a team, not an individual, it is important to understand if and how often teachers’ beliefs influence the GRDAMI ultimate decisions. If we hope to reduce the number of decisions to retain students, we need to change teachers’ beliefs about retention. And, if the congruence between teachers’ beliefs to retain and group decisions to retain is strong, then changing the influence the teacher has on the GRDAMI is imperative.

Thus, utilizing a useful, conceptual framework to explore pertinent information and relationships between teachers’ beliefs and GRDAMI decisions is needed. Research has not examined how the teacher’s attitude, social norms, and perceived control over the retention decision influence teachers’ beliefs, and how those beliefs affect team retention decisions. Therefore, the research problem is to explore the specific teachers’ beliefs that influence their intention to retain, and to explore the congruence between teachers’ beliefs and group decisions to retain a student.

**Purpose of the Study**

A student’s teacher is always present at a team-based retention decision meeting. Each teacher, as an individual, holds a set of beliefs and considers various factors in deciding whether or not to retain a student (Parajes, 1992). These beliefs can influence the team’s decision to retain (Hogg & Cooper, 2003). An exploration into teachers’ belief systems and how often their systems are congruent with the team decisions is needed to understand if, and to what extent, the teacher influences the GRDAMI process. Understanding the relationship between teachers’ beliefs and team decisions will shed light on the practice of grade retention.

An investigation that simultaneously evaluates teachers’ beliefs and group decisions in determining retention of a student is timely. Gall, Gall, and Borg (2007) argued that researchers need to generate an accurate description of an education phenomenon as it exists before one can form a basis for explaining or changing it. Before lasting and meaningful changes to the current practice of grade retention can be made, we must understand the phenomena surrounding grade retention decisions. Thus, the purpose of the current study is to use a conceptual framework to
examine teachers’ strongest beliefs and intentions about grade retention and to analyze the congruence between teachers’ beliefs and GRDMTs’ ultimate decisions.

**Significance of the Study**

This study is significant because it addresses an area of teacher beliefs and grade retention research that has yet to be fully explored. Research has suggested that teachers tend to hold positive beliefs regarding retention, but we have yet to understand conceptually how often teachers’ beliefs are congruent with the team retention decision (Tomchin & Impara, 1992; Witmer et al., 2004). Use of the conceptual framework will add to the extant literature about teachers’ beliefs regarding the act of retaining students, as well as help explain why teachers and teams continue to decide to retain students despite empirical evidence that does not support grade retention as an effective intervention.

The social significance of the current study is timely, given that retention continues as a frequent educational practice despite the empirical evidence indicating that retention has short- and long-term negative consequences for the student (NASP, 2003). The results of the current study could inform policymakers and state education agencies as to why grade retention continues despite contradictory empirical evidence. Findings can be used to implement change in teachers’ beliefs by presenting the study results to educators. If research indicates that teachers are persuaded by peer influence, then it may be helpful to have fellow teachers present these findings to their school or district. Results from this study can also be used by school districts that are implementing professional development to help operationally define the group membership and procedures of the GRDMT. Better understanding of the complex retention decision process could lead to improved at-risk student referral procedures and better team decision-making for at-risk students. The findings may persuade teams to consider evidenced-based alternatives (e.g., EBP) rather than choosing grade retention.

One conceptual framework that provided for a better understanding of teachers’ influence on group decision-making is the Theory of Planned Behavior (TPB; Ajzen, 1988; Ajzen, 1991). Utilized in more than 800 studies, this well-validated conceptual framework allowed the researcher to simultaneously analyze teachers’ beliefs, which in turn, can affect the team retention decisions (Ajzen, 1991; 2006). Using the TPB model, the researcher examined the decision-making processes used by teachers, identified important influential factors influencing the teachers’ intention, explored important decision dimensions (e.g., attitude, societal pressures,
control), and determined the relative degree to which these dimensions contribute to the retention decision made by groups.

**Theoretical Framework**

The theoretical foundation for the present study was based upon a model of Ajzen’s (1988) social psychology theory, the Theory of Planned Behavior (TPB). The Theory of Planned Behavior (Ajzen, 1991) offered a practical theoretical framework for the researcher to study teachers’ beliefs and the retention decision of the group decision-making team. The TPB is “empirically well-supported in literature across many behavioral and social domains, including social and cognitive psychology, education, advertising, marketing, healthcare, and communications” (Alt & Lieberman, 2010, p.126; de Bruijn, Kremers, Singh, van den Putte, & van Mechelen, 2009; Ferdous, 2010; Francis et al., 2004; Mathieson, 1991; Walker, Courneya, & Deng, 2006).

According to the TPB, teachers’ intentions to retain students are guided by three types of beliefs: behavioral beliefs, normative beliefs, and control beliefs. Behavioral beliefs are teachers’ beliefs about the consequences or rewards of retaining the student. Behavioral beliefs are exhibited in teachers’ attitudes toward grade retention, which can be measured by teachers’ opinion of the retention outcome as either favorable or unfavorable. Ajzen (1991) argued that a person could only access a small number of beliefs in memory at any given moment despite holding many behavioral beliefs. The accessible beliefs, in combination with how teachers view expected outcomes of retention, make up teachers’ attitudes toward grade retention (see Figure 1). Based on the TPB, those beliefs that are shaped by the teachers’ past observational or informational experiences are the foundation of attitude. Attitude predisposes the teacher’s behavior (decision to retain the student in question) as positive or negative, favorable or unfavorable, and may include weighing the pros and cons.

Normative beliefs of teachers are influenced by the judgment of significant others around them, such as the student’s parent(s), the school principal, and fellow teachers. These normative beliefs, in conjunction with teachers’ motivation to comply with the referent individuals around them, determine the subjective norm (see Figure 1). The subjective norm is a system of normative subjective pressures or societal beliefs that teachers feel from those around them to retain a student.

Perceived behavioral control (PBC) is teachers’ perceived ease or difficulty in making the
decision to retain the student. Teachers’ perceived control beliefs are conceptually related to Bandura’s self-efficacy (Bandura, 1977). Control beliefs are the perceived presence of factors that may facilitate or hinder teachers’ intentions to retain a student. Control beliefs, in combination with the perceived power of the group decision, determine each teacher’s PBC (see Figure 1).

Figure 1. Theory of Planned Behavior. Adapted from “The Theory of Planned Behavior,” by I. Ajzen, 1991, Organizational Behavior and Human Decision Processes, 50, p. 182. Attitude = an individual’s attitude toward the behavior; Subject = an individual’s subjective norms toward the behavior; Control = an individual’s perceived behavioral control over the behavior; Intent = an individual’s intention to perform the behavior.

The TPB states that the intention to retain a student can reliably be explained by the teacher’s attitude, subjective norms, and PBC, thus was the crux of this study (see Figure 1). The congruence between teachers’ beliefs to retain and group decisions to retain is important to this study because little is known about the congruence between teachers’ beliefs and group decisions. Teachers’ beliefs to retain may or may not align with the group decisions, hence the need to understand the teacher’s influence on the team decision while in the group setting. In order to study the congruence between teachers’ beliefs to retain students and the groups’ decisions to retain students, the TPB was modified to include a parameter between teacher intention and group decision (see Figure 2).
Figure 2. Teachers’ Beliefs and Group Decisions to Retain. Attitude = teachers’ attitude towards retention; Subject = teachers’ subjective norms towards retention; Control = teachers’ perceived behavioral control towards retention; Intent = teachers’ intentions towards retention; Group = grade retention decision-making teams’ ultimate retention decisions.

Summary

This introductory chapter provided a brief overview of grade retention literature and a proposed conceptual framework for the present study. The study was designed to examine: (a) the most salient factor(s) influencing teachers’ beliefs (e.g., attitude, subjective norms, perceived behavioral control) and intentions (e.g., intention to retain/not to retain) regarding retention; and (b) how often teachers’ beliefs align with group decisions while in the context of group decision-making. This study is significant because it helps fill a gap in research by applying a conceptual framework to explore teachers’ beliefs regarding the retention decision and group ultimate retention decisions. The findings from this study will be useful in helping to align actual practice with policy and research, with the ultimate goal of providing struggling students and their schools with alternatives to grade retention.
CHAPTER TWO
LITERATURE REVIEW

Organization of the Chapter
After thoroughly reviewing the history of grade retention, the researcher organized this chapter to explore: (1) the empirical predictors regarding student retention decisions (demographics, school factors, students’ psychosocial factors, and intellectual development), (2) the short-term and long-term outcomes of retention, (3) the grade retention decision-making team (GRDMT), (4) teachers’ beliefs about grade retention, (5) influence of teacher demographics on grade retention, and (6) a conceptual framework that can be used to explore teachers’ beliefs regarding retention.

Grade Retention
Definition
Grade retention, which has existed for more than 100 years (Maxwell, 1904), is the practice of requiring a student who has been in a given grade level to repeat the same grade level during the following academic year (Jimerson, 1999). Stakeholders (e.g., teacher, principal, parent) use alternative, but synonymous, terms when referring to grade retention, such as: non-promotion, red-shirting (e.g., delaying entry into school; Frey, 2005), transition classroom (e.g., K-1st grade), junior or developmental kindergarten, flunking, repeating, retained, and being “held back” (Jimerson, 2001a).

History & Context
School attendance among the general population was disproportionately low in the late 1700s and early 1800s (Pulliam & Van Patten, 2006). Factors, including above average intelligence of the attendees and low student-teacher ratio, created an environment where retention was not needed. During the mid and late 1800s, however, the industrial revolution’s demands for skilled workers, an influx of immigrants to America, and an increased population density in urban cities resulted in over-populated one-room schoolhouses (Bucko, 1986; Labaree, 1984). A solution to the over-populated classrooms in the 1800s, pioneered by Horace Mann and John Pillbrick, was the inception of a German-style system of graded schools (Balow & Schwager, 1990). The German-style schools created a standard for the classroom by sorting
students by age level. Known to reach a mass audience with the least amount of cost, the German system “permeated the American school system so rapidly that by 1870, virtually the entire country was using graded textbooks and curricula” (Biegler, 1995, p. 117).

Simultaneously, the flood of students into the educational system created a situation in which school personnel were inundated with students of various ethnicities, socio-economic status, English abilities, intellectual levels, and academic abilities (Webb, 2005).

The new educational infrastructure could not support the influx of diverse students. School personnel were faced with difficult decisions about how to proceed in the newly-formed graded educational system. Simply put, students were not achieving at equal rates, and teachers were left to make decisions about the promotion or failure of individual students, with the act of promotion dependent on the student’s mastery of a quota of content and the teacher’s recommendation (Coffield & Blommers, 1956).

Grade retention, which was used sparingly prior to 1900, quickly became the standard intervention by 1904. For example, in 1904, 39% of New York City elementary students were older than the actual age for their grade level (e.g., older than eight years old in the third grade; Balow & Schwager, 1990). The rapidly increasing number of retained students received the attention of the New York City community. Stakeholders raised concerns about the negative effects of grade retention on students’ intellectual and social development. In response to retention concerns and the related political pressures, the New York City school superintendent standardized grade retention, meaning that there was a set of criteria that were used for retention decisions. Despite these efforts, grade retention continued. By the end of the Great Depression, 50% of students in the United States were retained at least once during their first eight years of school (Rose, Medway, Cantrell, & Marus, 1983).

Research studies as early as the 1930s cast doubt on the wisdom of retaining students, citing the opinion that grade retention standards were not well-planned and had not been sufficiently researched (Jackson, 1975; Otto & Estes, 1960). During the formation of the current educational landscape, alternative efforts were used with increasing frequency to reduce grade retention. Social promotion was the most widely used alternative.

**Social promotion.** Social promotion, a controversial practice that began in the 1930s, is the act of promoting students who have not demonstrated satisfactory academic progress or mastered grade-level content (Rummel, 2007; Sandoval & Fitzgerald, 1985). The height of
social promotion was between the 1930s and the 1960s. During this time, socially promoting students to the next grade without having them complete the necessary grade-level requirements was thought to be in the best interest of the struggling student’s psychological well-being (U.S. Department of Education; USDOE, 1999). However, in the late 1960s and early 1970s, the landscape of the American educational system again shifted. The American educational system began to be unfavorably compared to other nations’ educational systems (e.g., China, Japan, Europe, and Germany; Holmes, 1989) and educators questioned the long-term effects of social promotion on American society. Many educators argued that more attention needed to be paid to lower-achieving students and their subsequent effect on the national economy. Consequently, educators called for stricter educational standards and an end to social promotion (Rose et al., 1983).

In 1983, the *A Nation at Risk Report* was released by the National Commission on Excellence in Education (NCEE, 1983). This highly influential report increased educators’, parents’, and policymakers’ awareness of the troubles faced by their nation’s schools, including graduating students reading at a 3rd grade level and America losing global eminence. Furthermore, findings from the report indicated that test scores from the United States were the lowest in the world. Subsequently, stakeholders concluded that in order for America’s children to compete with students around the world, the educational system had to improve. Sparked by the results of this report, debates began regarding the negative correlation between social promotion and standardized testing, the premise being that children who had been socially promoted had not mastered grade level objectives.

After publication of the *A Nation at Risk Report* (NCEE, 1983) and the subsequent debates, national educational practices began to focus on a “back-to-the-basics” agenda in which student academic achievement was measured by grade level standardized tests. Students would not be promoted without mastering the basic grade level curriculum. School personnel used minimum competency tests to measure mastery of the curriculum and students who did not master the curriculum were retained. By the mid-1980s, 33 states had adopted standardized tests as a way of measuring student achievement (e.g., Florida, Illinois, Michigan; Office of Technology Assessment, 1992). This adoption marked the infancy of what is known today as state standardized achievement tests (i.e., high-stakes testing). High-stakes testing refers to any testing program for which the results have important consequences (e.g., grade retention) for
students, teachers, schools, and/or districts (Wisconsin Education Association Council; WEAC, 2006). During this time period, Smith and Shepard (1987) reviewed the United States Census data and estimated grade retention to be between 15% and 19%, an increase from previous decades.

The late 20th and beginning 21st centuries marked a new beginning in holding all stakeholders in the United States education system accountable for student achievement. The sweeping education reforms of the 1980s (e.g., strengthening teacher preparation programs, designating a specific core curriculum; Henniger, 2004) can be linked to the fear of America losing its international eminence, the economic crisis, and the future of America’s competitiveness in world markets (NCEE, 1983). However, while the public education system embraced stricter academic standards and minimum competency tests, social promotion and grade retention continued. The recommendations provided by the A Nation at Risk Report (NCEE, 1983) did not critically address the outcomes of social promotion and grade retention (e.g., whether students received effective strategies or remediation of unmastered academic skills during the following academic year; Frymier, 1997).

Faced with the need to increase education standards in 1998, and again in 1999, President Bill Clinton publicly called for the end of social promotion by 2002 (Clinton, 1998; 1999). President Clinton challenged states to create plans to end social promotion; furthermore, he vowed to withhold federal money if the states did not act upon this challenge. As individual states accepted the challenge, state and district by-laws regarding the end of social promotion began to appear in legislation. In gist, these by-laws stated that students could no longer be promoted without achieving minimum grade standards. Thus, in response to these national movements in the late 1990s, the Chicago School Board was the first large school district to adopt stringent retention practices that were based strictly on test performance and not on teacher recommendations (Heubert & Hauser, 1999).

**Current educational climate.** Again, in 2001, political pressure marked a call to end social promotion and reform the education system (Bush, 2001). In 2001, President George W. Bush signed into legislation the No Child Left Behind Act (NCLB; 2001), “a national initiative with an increased emphasis on ‘closing the achievement gap’ and improving the performance of all American children” (Jimerson et al., 2006, p. 86). The two main goals of NCLB are: (1) to ensure high achievement for all students, and (2) to emphasize scientifically-based research and
accountability by aligning curriculum, instruction, and assessment. The use of scientifically-based research and accountability is known as Evidence-Based Practice (EBP; NCLB, 2001). The law applied to all schools that received federal funds under the Elementary and Secondary Education Act of 1965. NCLB stated that all students in schools that received federal funds must meet their state’s grade-level standards, as measured by annual standardized achievement tests in reading and mathematics.

Under NCLB, stakeholders can track high-stakes assessment results at the local and state level, noting adequate yearly progress (AYP). AYP is the minimum level of performance that school districts and schools must achieve each year as determined under the NCLB. It is measured by the progress that students make each year on state standardized tests, preferably evidencing gains each academic year. Schools and districts that fail to make AYP toward state-mandated proficiency goals (i.e., those that demonstrate stagnant or decreasing student scores on state standardized tests) are targeted for improvement assistance and corrective action. Failure to make AYP after improvement assistance and corrective action might ultimately result in radical school restructuring.

Thus, in accordance with NCLB, some states created legislation that addressed the consequences of student failure on high-stakes achievement tests. In particular, for some of the states, the legislation required that students meet minimum standard scores on these tests; otherwise, these students must be held back. For example, following the implementation of NCLB and state policies, grade retention in Florida increased from 12% in 2000 to 29% in 2001 (Bali, Anagnostopoulos, & Roberts, 2005; Florida Department of Education [FLDOE], 2008; Gootman, 2005; Roderick & Nagaoka, 2005). In summary, the call to end social promotion and the passage of NCLB increased the percentage of students being retained, and states were able to justify retaining students based on policy and legislation.

As of 2005, 60% of states had grade retention laws, but there is little consistency among the states regarding the content of the laws (See Table 1; Zinth, 2005). Six states specify requirements for grade retention in legislation, 14 states direct state authorities (e.g., Florida Department of Education) to establish grade retention policies, and 32 states authorize local authorities (e.g., county/parish) to implement specific policies to consider certain criteria for student retention (Zinth, 2005). In 2005, Louisiana and South Carolina were the only two states in which a student can be retained based solely on test scores. North Carolina and Texas
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allocated funds to employ interventions with retained students, and Delaware was the only state that limited the number of times a child can be retained (i.e., twice). As of 2005, 17 states did not have a grade retention policy (Zinth, 2005). This variability among state and district retention criteria raises concerns. When a student can be retained in one state and not in another, geographical bias may result, which presents a national dilemma; school personnel are using varied criteria to make grade retention decisions.

**Grade Retention Predictors**

Empirical research has documented that certain student demographic characteristics (e.g., gender, ethnicity, and young age), psychosocial variables, and environmental factors (e.g., low socioeconomic status [SES], single parent households), increase the likelihood of grade retention (Alexander, Entwisle, & Dauber, 2003; Eide & Showalter, 2001; Hauser, 1999; Jackson, 1975; Jimerson, 1999; Rafoth, 2002; Rodney, Rodney, & Mupier, 1999; Smith & Shepard, 1987; Zill, Loomis, & West, 1997). It is important for educators to understand and know the predictors of grade retention. Having a knowledge base about grade retention research may help shift the ideological practice of student retention.
Demographic Variables

Specific demographic variables have been identified as predictors of which students will be targeted for retention. For example, urban African American males from low-income, single-parent households are more likely to be retained than rural Caucasian males from married, high-income households (Abidin, Golladay, & Howerton, 1971; Alexander, Entwisle, & Dauber, 2003; Graue & DiPerna, 2000; Jimerson & Kaufman, 2003; McArthur & Bianchi, 1993; McCoy & Reynolds, 1999; National Center for Education Statistics [NCES], 2006; Thomas & Knudsen, 1965; Zill et al., 1997). In a 1971 study, Abidin et al. (1971) compared 85 students who were retained during the first or second grade with 43 continuously promoted students. The two groups, who were equivalent in terms of their academic achievement, were compared in terms of relevant demographic variables: sex, race, socioeconomic level of family, and absent father figure. The group of 85 retained students consisted of 70% male and 54% African American children. Findings from this study suggested that African Americans were retained more often than other ethnicities, males were retained more often females, and students from low SES, single-parent households were retained more often than students from high SES, two-parent households. The data led the authors to conclude, “retention is an unjustifiable, discriminatory, and noxious educational policy” (Abidin et al., 1971, p. 410, as cited in Jimerson, 1999).

In addition to African American males being retained more often than Caucasian males and females, male students are more likely to be retained earlier in their academic career than female students (Masse & Tremblay, 1999). In the study by Masse and Tremblay (1999), a sample of 862 boys and 985 girls was followed from kindergarten to the sixth grade. Logit-linear analyses were used to measure the effects of gender, age, disruptive behavior (blames others, lies, irritable, kicks-hits-bites, etc.), and family adversity (age and level of schooling of the parents, SES, single-parent household) on the proportions of students in their age-appropriate grade level. The results indicated that there were three main effects: gender, disruptive behavior, and family adversity. The results of these analyses indicated that boys who displayed disruptive behaviors and who were from disadvantaged homes were more likely to be retained earlier than girls who were not from disadvantaged homes and exhibited age-appropriate behavior.

Gender and ethnic disproportionality in grade retention can be seen in national samples as well. In 2004, the NCES (2006) found that males (13%) were more likely to be retained than females (6%), and African American students (16%) were more likely to be retained than
Caucasian students (8%). Similar results were found in the National Household Education Surveys Program (McArthur & Bianchi, 1993; Zill et al., 1997).

Years of empirical research document the influence of socio-economic status (SES; e.g., free/reduced lunch) on grade retention (Alexander, Entwisle, & Dauber, 2003; Alexander, Entwisle, & Horsey, 1997; Dauber, Alexander, & Entwisle, 1993; Fernandez, Paulsen, & Hirano-Nikanishi, 1989; Grant, 1997; Janosz, LeBlanc, Boulerice, & Tremblay, 1997; Jimerson, 1999; McCoy & Reynolds, 1999; Meisels & Liaw, 1993; Rumberger, 1995; Rumberger & Larson, 1998). In a NCES study, researchers found a difference between children from low-incomes and children from middle- and high-incomes: children from low-income households (16.9%) exhibited a greater chance of being retained than children from middle- and high-income households (7.4%; NCES, 2006). Additional research using NCES data suggests that parents living in poverty and who are high school dropouts are more likely to have children who are retained (Alexander, Entwisle, & Dauber, 2003; Grant, 1997; McCoy & Reynolds, 1999). To further illustrate this point, in a longitudinal study that examined the correlates and consequences of grade retention, the mothers of retained students had lower IQ scores, demonstrated poorer attitudes toward their child’s education, and were less involved in their child’s school (Jimerson, Carlson, Rotert, Egeland, & Sroufe, 1997). In summary, many researchers have found retention to be related to low-income households, especially when there is a lack of maternal involvement in the education system.

Additionally, there is also a positive correlation between frequent mobility (i.e., student moves from house to house or school to school) and grade retention. Frequent household moves increase the likelihood of grade retention, especially when the student changes schools as a result of the move (Alexander, Entwisle, & Dauber, 2003; Grant, 1997; McArthur & Bianchi, 1993; McCoy & Reynolds, 1999; Powell, 2005; Stringer, 1960). In 1992, Reynolds compared a group of 231 African American retained students to a group of 200 promoted students. The groups were matched on socio-demographic variables (e.g., sex, age, parent education), reading and math achievement scores on the Iowa Test of Basic Skills (ITBS; Hieronymus, Lindquist, & Hoover, 1980), and teacher behavior ratings. Reynolds found significant differences in mobility between the two groups. For example, children who changed schools once between kindergarten and second grade were 7% more likely to be retained than those students who did not move, suggesting the importance of stable home and school environments during the early grades. The
authors did not state the reasons for the frequent moves, suggesting only that a greater frequency of moves is positively correlated with a greater chance of grade retention. In a 2005 study, Powell (2005) interviewed 10 adults who were retained during elementary school. Participants were asked about their family life prior to retention. Half of the participants stated that prior to being retained in the elementary years, their family moved frequently and/or their family moved right before they were retained.

**School Characteristics**

Very few studies examined the differences between urban, suburban, and rural students. One of the studies found indicated that in addition to high mobility rates, a child who attends an inner-city (e.g., urban) school may be more likely to be retained than a child who attends a rural school. McCoy and Reynolds (1999) conducted a follow-up study of the original 1992 Chicago Longitudinal Study (Reynolds, 1992). The 1999 follow-up sample (93% of the original 1992 study) consisted of 1,164 low-income, African American (95%) and Hispanic (5%) children. Twenty-eight percent of the sample was retained at some point during the first through the eighth grade. Logistic regression analysis was used to compare the retained group with the control group. Results from this study indicated that, in addition to attending the urban school, family factors, such as low parent education (i.e., failure to graduate from high school) and low parental involvement in school activities, predicted the likelihood of the child being retained.

In addition to student demographic variables, school environment variables are also believed to contribute to student grade retention. Some special instruction programs are known to prevent grade retention (Janosz et al., 1997; Jimerson, Egeland, & Teo, 1999; Roderick, 1994; Rumberger, 1995). For example, Head Start programs encourage developmental growth and reduce the chances of being retained for students with low SES (McArthur & Bianchi, 1993). Using 1991 National Household Education Survey data from a sample of 4,668 first and second graders and their families, McArthur and Bianchi (1993) found a significant difference between minority males in their sample with regards to preschool attendance. In comparing the subgroups of minority males, those students who did not attend a structured preschool program (i.e., Head Start) were more likely to be retained in elementary school versus the minority males who did attend a structured preschool program. However, there were limitations in the McArthur and Bianchi study; ethnicity was not controlled for. The statistical analysis used in this study indicated that the preschool primarily served minority populations. Zill et al. (1997) collected
the 1995 NHES data and controlled for ethnicity. The NHES 1995 data provided Zill et al. (1997) with a more applicable conclusion; students, regardless of race, were less likely to be retained if they attended a Head Start preschool program (Zill et al., 1997). These findings suggest that the likelihood of retention decreases when early intervention programs (e.g., Head Start) are implemented in children’s lives.

**Psychosocial Adjustment**

When children present negative behaviors in the classroom, they often miss learning opportunities. Negative behaviors (e.g., aggression, impulsivity, inattention) are likely to be seen by the teacher as a lack of readiness and/or immaturity. A lack of maturity is one of the most common reasons teachers give to support retention decisions (Tomchin & Impara, 1992). Teachers report that students targeted for retention exhibit behavioral and socio-emotional problems (Jimerson et al., 1997; Sandoval, 1984), display poorer social adjustment, have more negative attitudes toward school, and exhibit lower attendance than those not targeted for retention (Holmes, 1989).

In a longitudinal study, students who would later be retained displayed more negative classroom behaviors when compared to their peers (Jimerson et al., 1997). Further the retained students, when compared to their peers, were also seen as less confident and socially competent (Jimerson et al., 1997). For example, the differences between 32 retained students and 50 low-achieving but promoted students were studied prior to the decision to retain (Jimerson et al., 1997). Parents and teachers completed a Child Behavior Checklist (Achenbach & Edelbrock, 1986) and an emotional health/self-esteem measure. The Child Behavior Checklist assessed the children’s problem behavior at home and school. The “emotional health/self-esteem measure addressed characteristics of the emotionally healthy child, such as the ability to be confident, curious, self-assured, and engaging” (Jimerson, 1999, p. 252). The children’s peers completed a peer acceptance/popularity measure. This measure directed the peers to rank the student in popularity and social competence compared to the rest of the class members. Using the Child Behavior Checklist (Achenbach & Edelbrock, 1986) from the teacher, Dr. Jimerson concluded that problem behaviors in the classroom were significantly elevated in the group of retained students than in the low-achieving but promoted group. The retained students were also ranked significantly lower, when compared to the low-achieving but promoted group, in terms of emotional health, peer acceptance, and popularity by their peers (Jimerson, 1999). The teachers
perceived the retained students as having behavior problems and deficits in social skills. These findings suggest that teachers may weigh prosocial development equally as compared to academic achievement when deciding to retain a student. Thus, teachers believe that giving students the time to “bloom” is beneficial for their overall development (Shepard & Smith, 1989).

**Role of Intelligence**

There are mixed results with regard to the role of intelligence in students who are retained versus those who are promoted, with many studies indicating no significant differences between the two groups (Jimerson, 1999; Jimerson et al., 1997; Sandoval, 1984). For example, Jimerson et al. (1997) found no differences between retained students and low-achieving students who were promoted on measures of intelligence. “These findings support prior research results (Nikalson, 1984; Sandoval, 1984), indicating that although retained students do exhibit lower cognitive ability in comparison to average students, they do not differ from a group of low-achieving but promoted peers” in terms of intelligence (Jimerson et al., 1997, p. 20). The research of Jimerson et al. (1997) suggests that retained students are intellectually equal to those of low-achieving, but promoted students.

In contrast to the study of Jimerson et al. (1997), Blair (2001) and Zill et al. (1997) found that students who are retained typically have lower intelligence and more profound developmental delays compared to their matched but promoted counterparts. Blair (2001) looked at the risk factors for 220 African American students. Those children with a low IQ and a high-risk background, defined as having a small birth size, limited stimulation at home, low parental IQ, and high externalizing behaviors, were at an increased risk of being retained. In an ad-hoc study, Blair separated slow learners into intelligence level groups and found that students with an IQ of 75 were ten times more likely to be retained than children with IQs of 85, an inverse relationship that one might expect between IQ level and retention-likelihood.

**Delay Entry to Kindergarten**

Looking at 1995 NCES data, Zill et al. (1997) examined students who delayed entry into kindergarten and found that those who were delayed fared better in the first and second grade as compared to those who were not delayed entry. Five percent of those who did not delay entry were retained. Of that five percent, 18 percent exhibited developmental delays, such as low intelligence. However, Zill et al. (1997) urged readers to consider social inequity in the sample,
meaning that those students who were delayed entry into kindergarten resided in higher-SES households (Graue & DiPerna, 2000). The authors concluded that children with fewer advantages who are either delayed entry into kindergarten or retained in the first or second grade may not have as many opportunities to benefit from effective preschool programs or learning experiences at home. Blair’s (2001) and Zill et al.’s (1997) findings seem logical, given the fact that students with lower intellectual abilities and developmental delays would exhibit difficulty in grasping grade-level concepts. However, Jimerson et al. (1997) suggested that low IQ is not a factor in determining retention. Although Blair and Zill et al.’s findings seem logical, one has to question what would the results be if they had controlled for socio-economic status. These studies could be updated by controlling for the socio-economic status of the students.

**Academic Achievement**

Jimerson et al. (1997) stated in their literature review that low academic achievement is one of the most frequent reasons given by teachers recommending retention. In fact, a strong predictor of retention is related to an individual’s ability to read (McCoy & Reynolds, 1999). In a 2005 study, Hong and Raudenbush identified 207 pretreatment covariates in a sample of 471 retained students and 10,255 promoted students. Prior to retention, the retained students performed more poorly in terms of achievement scores in literacy, mathematics, and general knowledge than the promoted students. In an ad-hoc study, Hong and Raudenbush (2005) followed the retained kindergartners and “concluded that kindergarten retention left most retainees even further behind” than before and impeded cognitive development over the repetition year (p. 220). Those who were at-risk of failure, but were promoted to the next grade, appeared to have a better chance of growth acceleration. Rodney et al. (1999) found similar results; in their study, the retained students scored significantly lower on state standardized tests prior to retention.

McCoy and Reynolds (1999) extended the original Chicago Longitudinal Study (Reynolds, 1992), and found that prior to retention, one of the strongest predictors of retention was early school performance (test scores and grades). This extended study analyzed the antecedents (e.g., academic achievement) of grade retention during the first grade to the seventh grade. The analyses were based on multiple comparison groups of the same age and grade. Three measures of academic performance: reading achievement; math achievement; and report card grades in reading were significant predictors of grade retention. Logit linear regression
results indicated that a ten-point decline in reading was associated with a 7% increase in the likelihood of retention. In math achievement, there was a 5% increase in the likelihood of retention for every 10-point decline. For each additional decrease in a letter grade for reading (e.g., C to D), the student was 11 times more likely to be retained. McCoy and Reynolds (1999) concluded their study by stating that the average reading performance post-retention of the retained group was at the 19th percentile nationally on the ITBS, as compared to the non-retained group at the 49th percentile, the equivalent of 7-month difference in education. According to McCoy and Reynolds (1999), these findings suggested that, “grade retention impedes children’s academic success…and the major implication is that grade retention does not appear to benefit many of the children it is designed to help,” often leaving them farther behind their peers (p. 31).

Given the empirical evidence with regard to predictors of retention, deciding when to retain a student is no easy task. Grade retention is a serious issue for all parties involved. Students who are likely to be retained exhibit certain demographic, psychosocial, school-related, and academic achievement indicators. Prior research demonstrates that children who are retained have one or more of these factors present in their lives (Jimerson, 2001a). Retaining children who present one or more of these variables poses a risk not only to the children, but to their surrounding environment (e.g., family, school, city). Once children are retained, the outcomes for future academic or employment success diminish (Jimerson & Ferguson, 2007). Researchers often cite the need for educational reform and a change in grade retention policy (Abidin et al., 1971; Jimerson, 2001a). Before looking at how students are retained, one must first look at their outcomes. The next section will outline prominent grade retention outcome studies.

Grade Retention Outcomes

There is a long history of disparity between public policy, research, and the pedagogical practice of retaining students (Jimerson, 2001a, 2001b; Tanner & Galis, 1997). Unfortunately, public educational policy and instructional strategies do not necessarily adhere to or follow empirical findings in research, despite the results of three meta-analyses that synthesized over 300 analyses from the past 75 years (Holmes, 1989; Jackson, 1975; Jimerson, 2001a, Jimerson et al., 2006). Results of these meta-analyses failed to support the use of grade retention as an empirically-based intervention for long-term success (Jimerson et al., 2006).
It is often thought by teachers that giving the low achieving, at-risk students “a gift of time” will allow the student to catch up to their peers who were promoted (Balow & Schwager, 1990). In fact, grade retention hinders the potential salary and job position that a child can have in the future (Jimerson et al., 2006). Simply put, the multiple factors that influence poor achievement or adjustment, which led to the student being retained, are unlikely be addressed or remedied by retaining the student (Jimerson et al., 2002). Requiring children to be retained and “left behind” by their same-age peers is not only detrimental to their well-being but also their future academic outcome, as evidenced by years of empirical research (Holmes, 1989; Jackson, 1975; Jimerson, 2001a).

**Short-Term Outcomes**

The outcomes of grade retention research are usually divided into two categories: short- or long-term outcomes. Short-term outcomes are defined as the time the child is in school (Jimerson et al., 2002). When analyzing outcomes, study methodologies typically look at peer comparisons between retained students and their promoted peers, progress of retained students before and after retention (e.g., pre- and post-test design), and within-group design. There are occasional short-term improvements (e.g., closing the achievement gap the following year in the same grade), but few studies indicate retention as effective in the long-term (see Jimerson et al., 2001b for full discussion). For example, a student can increase academic performance the immediate year following retention, but those gains disappear in subsequent years (Gleason et al., 2007; Jimerson, 2001b; Wu et al., 2008; 2010).

One of the first studies looking at retained students identified short-term gains with no real significant long-term effects (Coffield & Blommers, 1956). One hundred and forty-seven pairs of retained and promoted 7th grade students were matched on demographics and academic achievement. The retained student group consisted of having at least one prior retention in elementary school, while the control comparison group had no prior retentions. Results revealed that there were no significant long-term differences between the matched groups, indicating that grade retention was ineffective.

In a more recent study, Shepard and Smith (1987) examined the impact of retention on the academic progress of kindergarteners. Forty retained students were matched with forty students who had been promoted to the first grade. The student groups were matched on age, gender, initial school readiness, SES, and language ability. The two groups were compared on
post-retention academic achievement, social maturity, and attention. No significant differences were found between the groups: retained students and promoted students. Results indicated that the levels of developmental immaturity and poor academic achievement did not differ between the retained students and the promoted students. Thus, the researchers concluded that retention of kindergartners was ineffective. Similar results were found in Jimerson’s (2001a) study. Findings from his study did not support the use of grade retention as an empirically-based intervention in the short-term (Jimerson et al., 2006).

In contrast to the above findings, which generally support the notion that grade retention is ineffective in the short-term (for meta-analyses, see Holmes, 1989; Jackson, 1975; Jimerson, 2001a; for narrative reviews, see Jimerson, 2001b; Shepard et al., 1996), a more recent four-year longitudinal study found positive effects of retention on the academic achievement, externalizing behaviors, and internalizing behaviors of first grade students (Wu, West, & Hughes, 2008; 2010). This longitudinal study found that there were short-term improvements in the area of academic achievement that diminished over the four-year study. From a larger multiethnic sample ($n = 784$) of children who were below the median in literacy skills when beginning the first grade, a group of retained children ($n = 124$) were matched with a group of promoted children ($n = 251$; Wu et al., 2008). The students were matched based on probability of being retained in the first grade (estimated from 72 baseline variables). The 72 variables were based upon the student’s characteristics prior to retention. Comparing the retained children to the promoted children, retained children were found to “exhibit short-term gains in social acceptance (e.g., teacher-rated hyperactivity, decreased peer-related sadness and withdrawal, increased teacher-rated behavioral engagement) and academic achievement” (Wu et al., 2008, p. 88). Although the retained children exhibited a short-term increase in psychosocial adjustment, the findings substantially decreased over the long-term, 4-year period. On a measure of academic achievement, the Woodcock-Johnson-III Tests of Achievement (Woodcock, McGrew, & Mather, 2001), grade retention in the short-term significantly decreased the rate of growth for math. However, grade retention did not have a significant impact on reading. Alarmingly, the interaction between Limited English Proficient (LEP) status and grade retention had a significant negative effect on the slope in the growth model, suggesting that grade retention may be harmful to those students with LEP status (Wu et al., 2008).
Wu et al. (2010) noted that to minimize the influence of confounding variables, researchers often match control students with retained students on variables (e.g., demographic, psychosocial, academic achievement), or they statistically control for pre-retention variables. However, they argued that the use of matched designs is insufficient, stating, “grade retention brings about a change in reference” (p. 136). They explained that the retained student’s change in reference, on average, includes a one-year age difference (i.e., older) and one additional year of experience with the grade curriculum and standards in comparison to his or her “naturally progressing” classmates in the repeated year. This change in reference means that retained students are exposed to the curriculum for a second time and should fare as well, if not better, on the curriculum than their peers. Wu et al. attributed the short-term growth teachers often cite to this inappropriate matching comparison. The work of Wu et al. (2008; 2010) suggests the need to revisit the current methodology used to study the outcomes of students who are retained.

Long-Term Outcomes

Short-term positive gains are often viewed as success; however, any positive short-term effects are outweighed by long-term negative outcomes. Schnurr, Kundert, and Nickerson (2009) summarized the long-term outcomes of retention and a summary of their literature review is presented next. For example, a student who has been retained has an increased chance of attrition (Alexander, Entwisle, & Kabbani, 2003; Jimerson, 1999; Jimerson, et al., 2002; Roderick, 1994), will continue long-term low academic achievement (Jimerson, 1999; Jimerson & Ferguson, 2007; Owings & Magliaro, 1998; Silberglitt, Jimerson, Appleton, & Burns, 2006; Silberglitt, Jimerson, Burns, & Appleton, 2006), will display an increased negative attitude toward school (Smith & Shepard, 1987), will exhibit an increase in negative behavioral problems (Pagani, Tremblay, Vitaro, Boulerice, & McDuff, 2001), and will show an overall disengagement from school (Rumberger, 1995).

Longitudinal studies provide further insight into the long-term effects of retention. A long-term outcome is generally considered an outcome at or past high school (e.g., employment, college; Jimerson & Ferguson, 2007). The family and individual characteristics of 106 successful and unsuccessful retained students were examined in a longitudinal study (Ferguson, Jimerson, & Dalton, 2001). Ferguson et al. (2001) quantified the variable “successful” by using 7th grade GPA (3.2) and 8th grade SAT (53rd percentile) as minimum criteria. The study evaluated the effects of academic and behavioral outcomes in between-group and within-group
analyses. The students were followed from kindergarten to the 11th grade. The study examined the effects of student demographics, school readiness, family characteristics, and socialization, on academic achievement and behavioral adjustment outcomes. “The educational outcomes were compared across four groups: (a) early grade retainees, (b) transitionally placed retained students (e.g., K-1 classroom), (c) students recommended for transitional placement, but promoted, and (d) regularly promoted students” (Ferguson et al., 2001, p. 327). This study’s methodology was different from previous studies in that it examined the family and individual characteristics of successful and unsuccessful retained students. Results of the within-group analysis illustrated that the students who were retained early in their academic career were the most disadvantaged by their retention. The early grade retainees also demonstrated early personal-social deficits, belonged to families with a low level of education, and were of low SES.

In a 21-year longitudinal study examining factors associated with retention, three groups were compared (e.g., retained students, low-achieving but promoted students, and a control group) with regard to long-term outcomes (Jimerson et al., 1997). Students were followed from kindergarten to age 20. When compared to a group of low-achieving, but non-retained students \((n = 50)\), the retained students \((n = 29)\) displayed poorer emotional health as defined by self-esteem, exhibited lower confidence, and were less likely to graduate high school. Results from this study indicated that a retained student would exhibit a greater likelihood of poor educational and employment outcomes during adolescence than a promoted student. “Specifically, retained students who had lower levels of academic achievement at the end of the 11th grade were more likely to drop out of high school by age 19” (Jimerson, 1999, p. 243). Furthermore, the retained students had a greater probability of not receiving a diploma by age 20. The retained students were also less likely to enroll in a postsecondary education program (Jimerson, 1999; Jimerson et al., 1997).

Reports by Anderson et al. (2002) indicated that when compared to a matched group of low-achieving students, by age 20 the retained students “received lower education/employment status ratings, were paid less per hour, and received poorer employment competence ratings” (Jimerson, 1999, p. 263). In comparing the employment outcomes at age 20, the low-achieving but promoted group was comparable to the control group (Jimerson, 1999). The limitations of Anderson et al.’s (2002) study were that the groups differed in social-emotional variables, despite being matched on achievement and cognitive ability variables. These findings suggest
that when the student is retained, the long-term outcomes may actually be harmful to the student (Anderson et al., 2002).

Years of research document that retaining children may be beneficial in the short-term, but when new material is introduced, students begin to lag behind their peers (Jimerson et al., 1997). Continued changes in the methodology of studying grade retention are strengthening the field of grade retention research (Jimerson et al., 2006). However, the disparity between school practice and empirical literature is evident (Jimerson 2001a, 2001b; Witmer et al., 2004) in terms of recommending retention. State and district policy often provide guidelines for school personnel to create teams to decide whether or not to retain the student. It seems that in order to understand how the decision is made to retain a student, one must first examine the source of the decision maker’s information (Byrnes, 1989) and the composition of the decision-making team. However, there is limited research regarding how the group decision to retain a student is made. In the past, retention decisions tended to rely on an informal decision-making process, and few school districts had specific policies that outlined criteria to be used in the retention decisions (Gloeckler, 1986; Schnurr, Kundert, & Nickerson, 2009; Walker, 1984). Thus, the next section will explore the current mechanism by which students are considered candidates of retention: the GRDMT.

**Grade Retention Decision-Making Teams**

The most common reasons for retaining children are one or more of the following: (a) not meeting grade-level curriculum requirements, (b) not meeting socio-emotional developmental milestones, and (c) having difficulties learning the English language (Jimerson et al., 2006). When a student exhibits difficulty, the student’s teacher refers his or her case (i.e., problem) to a GRDMT (Schnurr et al., 2009). The primary goal of the team is to make appropriate recommendations to ensure student success. A secondary goal is to make the retention decision that is in the best interest of the student. Core characteristics of the team include a collaborative problem-solving process and emphasis on solution-finding rather than diagnosing problems (Sheridan & Gutkin, 2000). The team problem-solves, creating solutions and alternatives that they believe are in the best interest of the child and most likely to meet the child’s academic needs. If the child continues to struggle or is struggling, a group member submits grade retention as an option to meet the child’s needs.
Research examining the GRDMT is virtually nonexistent. Information provided within this section refers to state or district policy or common practice. District and state policy regarding the makeup of the group members, the process at which the members arrive at the retention decision, and the requirements needed to retain, vary widely. The members of the team usually include, at a minimum, the student’s teacher and the parent/guardian of the student (Buck Lake Hector School District, 2011). Other members who are often invited to serve on the decision team include the principal, the assistant principal, the guidance counselor, a teacher who is certified to teach in special education, the school psychologist, the school health nurse, and an outside member, such as a child advocate (Merton Community School District, 2000). The team reviews student records, which often include information about attendance, psychosocial factors, academic factors, intellectual ability, state standardized test scores, and other extenuating life circumstances (e.g., recent household move, parent incarceration, divorce in the family, death in the family). Although not specifically stated in district policy, stakeholders may believe that the team adheres to a collaborative problem-solving process, with each member exerting equal influence on the retention decision.

In reviewing district and state policy, it appears that the member who is always present in the decision process is the student’s primary general education teacher. Because of the teachers’ consistent influence in retention matters, focusing on changing teachers’ retention attitudes is likely the first step toward policy change. Research demonstrates that teachers have strong beliefs about retention. Teachers overwhelmingly view retention as beneficial to the student (Byrnes & Yamamoto, 1986; Tomchin & Impara, 1992; Witmer et al., 2004). However, information regarding teachers’ influence on the team decision-making process is unknown. Because teachers are always present at these meetings, teachers’ grade retention beliefs may be influential on group decisions to retain a student. Thus, it is important to understand how teachers’ beliefs impact their decision-making, which in turn, may affect the group decision. The next section reviews empirical literature regarding teachers’ beliefs about grade retention.

**Teacher Beliefs**

Teachers generally support the use of grade retention as a viable intervention for academic failure and/or social immaturity (Shepard & Smith, 1987). Teachers base their grade retention decisions on student factors (e.g., academic achievement, maturity, social skills, inattention, and motivation; Alexander, Entwisle, & Dauber, 2003; Byrnes & Yamamoto, 1986),
social factors (e.g., peer beliefs, district and state policy, and parent’s desire; Byrnes, 1989; Tomchin & Impara, 1992), control factors (e.g., free will to retain, little control due to student failure on a state standardized test, need to maintain grade standards; Black, 2004; Bonvin, 2003; Tomchin & Impara, 1992), and past experience with retaining students (Witmer et al., 2004). These beliefs appear to underlie their judgments about a student’s current problems, rather than the student’s future academic potential (Bonvin, 2003; Fang, 1996; Nonaka & Takeuchi, 1995; Tomchin & Impara, 1992).

Teachers’ beliefs can be based on solid evidence (e.g., student’s state standardized test scores) or they may be the result of anecdotal experience, social interactions with others, feelings, or inferences. Teachers’ beliefs are rarely based on or changed by research studies (Tanner & Combs, 1993), but the beliefs can be changed by listening to their peers’ beliefs (Kagan, 1992). Regardless of how teachers’ beliefs are formed, the belief system exerts a significant influence over their decision to retain (Ajzen, 1991). However, how teachers weigh various factors (e.g., student’s lack of basic skills, parent’s desire to retain) and integrate them into their belief system remains unclear (Kagan, 1992). Because teachers usually make the recommendation to retain the student and participate in the decision to retain, it is important to identify and understand their beliefs about retention, especially when their beliefs may impact a group’s decision to retain a student (Witmer et al., 2004). For the purpose of this review, teachers’ beliefs will be categorized into three categories: (a) personal beliefs toward retention, (b) past retention experience and control over the decision, and (c) subjective norms (i.e., teachers’ concerns about what others think of them).

**Personal Beliefs Toward Grade Retention**

Pajares (1992) suggested that teachers’ beliefs are the best indicators of their future behavioral decisions. Teachers generally believe that there are two primary reasons for retaining students: students’ poor academic achievement and students’ poor psychosocial adjustment (Byrnes & Yamamoto, 1986; Tomchin & Impara, 1992). The majority of teachers believe that retention is beneficial to students and gives students “time to bloom” (Shepard & Smith, 1989).

Teachers who believe academic achievement is a strong factor in gauging grade-level success tend to support the practice of retention (Alexander, Entwisle, & Kabbani, 2003; Bonvin, 2003; Shepard & Smith, 1987). Teachers also believe poor work habits and low attendance to be contributing factors in poor academic performance (Byrnes & Yamamoto, 1986). In a study
conducted in a rural, southeastern state, 91 primary grade teachers were surveyed about their retention beliefs (Shepard & Smith, 1987). Almost 98% of the teachers disagreed with the statement, “Children should never be retained” (Tomchin & Impara, 1992).

Teachers often cite lack of readiness (e.g., immaturity) as another primary reason for retention (Byrnes & Yamamoto, 1986; Smith & Shepard, 1988). Some teachers believe that a student should be retained if that student does not possess the readiness or maturity needed to perform tasks in the subsequent grade level. Mantzicopoulos and Morrison (1992) used a teacher-rated screening instrument (Silver & Hagin, 1981) and a Revised Behavior Problem Checklist (Achenbach, 2001) to assess student behavior. In this study, teachers rated 84 kindergarteners who were later retained. During the first time in kindergarten, the teachers rated the students as immature and highly inattentive. After retention and completing a second year of kindergarten, the teachers rated the students’ performance as higher and similar to the performance of the peers who had been promoted to first grade. Mantzicopoulos and Morrison (1992) speculated that teacher bias about behavior might be an important part of grade retention decisions (aka. self-fulfilling prophecies). The authors argued that attention problems may have been an important factor in the retention decision, and that the retention decisions were influenced by what the teacher believed to be appropriate and inappropriate behavior. Hence, behavior can be subjective and in the “eye of the beholder.”

In another study that examined kindergarten teachers’ beliefs about the students’ readiness and maturity, the researchers found that teachers’ beliefs fell into one of four categories (Smith & Shepard, 1988), related to beliefs about the nature of child development. Of the 40 teachers interviewed, almost 50% (19 teachers) were labeled Nativists, which was defined as those who believe children acquire school readiness along an evolutionary continuum outside of the influence of others. Teachers labeled as Nativists had significantly greater rates of retention than did others in the study. The other three categories of teachers were labeled as Remediationists (those who believed that all children, regardless of readiness, would be able to learn the material if additional instruction were provided by teachers, parents, or tutors), Diagnostic-Prescriptive (those who believed special education services would address specific difficulties the struggling student was having), and Interactionists (those who believed that children move through specific stages of development in their journey towards readiness by interacting with teachers and parents). When all of the teachers from the study were surveyed a
year later, Smith (1989) found that they continued to view retention as a helpful intervention for at-risk students. The teachers believed that the outcome of retention would increase children’s confidence and decrease the amount of stress in their school life. The teachers also believed that those students who were retained would eventually emerge as class leaders.

**Past Experience and Control Over the Grade Retention Decision**

Documented evidence demonstrates that past behavior is a strong predictor of future behavior (e.g., Ouellette & Wood, 1998). In 1988, Manley surveyed teachers and found that teachers with more experience had stronger beliefs about retention. These beliefs were polar, meaning the teachers who had years of teaching experience either strongly opposed or favored retention based on their experience. These beliefs can also affect their teaching behaviors in the classroom (Ashton, 1990). By November, teachers believe they can predict which students will be retained (Black, 2004).

However, some teachers believe that retention decisions are always the teacher’s decision. Tomchin and Impara (1992) created a Teacher Retention Belief Questionnaire to assess 135 elementary teachers’ beliefs about retention. The teachers of Tomchin and Impara’s (1992) study believed that in order to maintain grade level standards (i.e., standards set forth at the state level), struggling students were retained. Findings from Tomchin and Impara’s study (1992) imply that teachers perceive the responsibility to retain low-performing students but the ultimate decision to retain is out of the teacher’s control.

Grade level standards set forth by the state often outline specific minimum requirements for passing a specific grade level (e.g., a passing score of greater than the 50th percentile on a norm-referenced test). For example, some states require that students pass grade-level state standardized tests. Those students who fail the standardized test may be assessed via an alternative assessment (Zinth, 2005). If the student fails the state standardized test, then other measures are used to gauge the student’s academic progress (e.g., Arizona, Florida, Delaware, Zinth, 2005). In the state of Florida, teachers can create a portfolio of the student’s work as a viable alternative assessment of the student’s academic progress. Although teachers can create a portfolio of the student’s work, not all teachers create a portfolio for those students who fail the state standardized test. For example, in the 2009-2010 school year, the Executive Director for Just Read, Florida reported that 16% (35,205) of third grade students failed the state standardized test. Of those 16% who failed, only 6,383 passed to the fourth grade based on their performance.
on the portfolio (Cari Miller, personal communication, 2011). Since the data are not kept at a state level, it is unknown to what extent Florida teachers chose not to provide the student with an alternative assessment or portfolio.

The research by Tomchin and Impara (1992) emphasized that the amount of control that teachers have over student retention is inversely related to the age of the child. The work of Tomchin and Impara (1992) revealed that when the student is younger (e.g., in K – 3\textsuperscript{rd} grade), the teacher assumes more responsibility (e.g., more control over the retention decision) over the student’s academic progress through the curriculum. In contrast, teachers believe that older students assume more responsibility for their own learning. Manley’s (1988) results aligned with Tomchin and Impara’s findings. Teachers of younger students were more favorable in their attitudes toward retention than teachers of older students.

**Subjective Norms – Teachers Care About What Others Think of Them**

Many teachers believe that they must make retention decisions based on social expectations. According to the American Federation of Teachers (1997), teachers promoted students who did not master the grade-level content or were socially immature because they felt under pressure by others to promote at-risk students. The teachers indicated that they promoted students because they felt a high failure rate would be indicative of poor school standards or poor teaching ability. Teachers also reported that they were pressured by administrators to pass unprepared students to the next grade.

In contrast, teachers may retain students in order to maintain the respect of colleagues. Tomchin and Impara (1992) found that teachers believed that if they promoted low performing students to the next grade, then they gave the impression to fellow teachers that they themselves maintain low academic standards. Some teachers believed that the promoted, low performing students would be viewed as a negative reflection of their teaching abilities. Other teachers interviewed by Byrnes (1989) mentioned a fear of being ridiculed by their colleagues in the following grade if they were to send them poorly-prepared students. Thus, teachers’ beliefs are powerful in the decision to retain. These decisions may reflect teachers’ societal pressures as much as it does the students’ actual performance.

**Teacher Characteristics**

Research indicating a correlation between teacher characteristics and grade retention is limited. Often, the results of teacher-rated instruments about students’ behavior prior to and after
grade retention are used. Research studies often describe how teachers rated students’ behavior and academic performance, but often lack the descriptive statistics about those teachers who completed behavior checklists (Jimerson et al., 1997; Mantzicopoulos & Morrison, 1992). A literature review of the correlation between teacher characteristics and grade retention indicated a few notable examples. For instance, female teachers are more likely than male teachers to report problem behaviors in boys (Reynolds & Fletcher-Janzen, 2007).

Richardson (2010) found significant differences related to teachers’ beliefs and ethnicity. Using the Grade Retention Survey (Tomchin & Impara, 1992), Richardson surveyed 164 teachers from suburban and rural areas of Mississippi. Although the results revealed no significant differences between the teachers’ beliefs and years experience, grade level assignment, age, and education level, significant differences were found between the beliefs of African Americans and Caucasians. African American teachers located in Mississippi favored the practice of grade retention more often than Caucasian teachers.

According to Ericson and Ekket (1990), teachers believe that students assume more responsibility for learning as they get older. Tomchin and Impara (1992) found the beliefs of teachers were different depending on grade level taught. Teachers in earlier grades (K-3) agreed that retention was not harmful because students must master the basic skills before moving on to the next grade. In contrast to the K-3 teachers, those in later grades (4-7) were less likely to retain students and less likely to agree about which characteristics warrant attention. Thus, the majority of teachers feel that there is a set of standards and a prescribed curriculum that students in early grades must adhere to, leaving little curriculum flexibility for individual differences (Katz, 1975). The early grade teachers (K-3) felt that if the students did not master the fundamental skills, then they should be retained.

The teacher is often the primary source of referral for retention, but is not the sole determinant in the decision to retain the student. The teacher participates in a decision-making team along with others. To date, data are lacking in research that explores, in a conceptual framework, the impact of the teacher’s beliefs on the decision-making team. The next section will explore the use of a conceptual framework to examine the impact of teachers’ beliefs on the GRDMT.
Use of a Conceptual Framework

The use of a conceptual framework is vital when considering what influences teachers’ beliefs to retain and group ultimate decisions to retain students. A conceptual framework is defined as a set of interrelated concepts, definitions, and propositions that can present a systematic view by specifying relationships among variables (Glanz, Rimer, & Lewis, 2002). In this case, the concepts and variables can help explain the retention decision, and the development of a conceptual framework of teachers’ beliefs can increase the likelihood of replication for future study.

Although use of a conceptual framework in grade retention research is limited, use of a conceptual framework to explore teachers’ beliefs regarding retention is virtually nonexistent. Previous methodologies used in studying teachers’ beliefs about retention have surveyed teachers across grade levels and reported their findings in the form of descriptive statistics, which provide a solid foundation for future exploration. The Theory of Planned Behavior (TPB; Ajzen, 1988; 1991) is one such framework that has been employed in a number of settings (e.g., education, advertising, health) and may be useful in studying teachers’ beliefs about grade retention and how teachers’ decisions to retain a student can influence a team’s decision.

The TPB (Ajzen, 1991) offers a practical theoretical framework for organizing influential factors impacting teachers’ decisions regarding retention while on the GRD MT. The theory may help understand the relative value of each influential factor on the teacher’s reasoning and explore the extent to which each factor influences the teacher’s decision and, ultimately, the group’s retention decision. Acceptance of the theory can also aid with the selection of variables, provide a reliable and valid manner for creating measures, and outline procedures to combine variables to explore an individual’s intention (Astrom & Mwangosi, 2000). The following is an explanation of the theory and a discussion of the utility of the TPB theoretical framework to explain teachers’ specific intentions while on the decision-making team.

The TPB is an extension of the Theory of Reasoned Action (TRA; Ajzen, 1988; Ajzen & Driver, 1991; Ajzen & Fishbein, 1980). The TPB extends the TRA by adding the concept of perceived behavioral control (PBC) to recognize behaviors that are not under complete volitional control (i.e., if the person decides consciously to perform or not perform the behavior; Ajzen, 1991; Ajzen & Fishbein, 1980). The TPB’s central premise is the individual’s intention to perform the behavior. Research suggests that behavior is a function of intent and PBC (Ajzen,
An individual’s intentions capture the motivational factors that influence a behavior, such as how hard the individual will try and how much effort he/she will exert to perform the behavior. As a general rule, stronger intentions to engage in a behavior increase the likelihood that one will perform said behavior (Ajzen, 1991).

Ajzen’s (1991) TPB model postulates that intention is affected by three independent global factors: (1) the attitude toward the behavior, (2) the subjective norm, and (3) the PBC (see Figure 1). The attitude toward the behavior is the degree to which a person expresses a favorable or unfavorable attitude toward the behavior in question (e.g., retaining a student is a “good” thing to do; Ajzen, 1991). The subjective norm is the individual’s perceived societal pressures to perform the behavior. For example, subjective norms imposed by significant others, such as, “My fellow teachers think I should not retain students,” may discourage the retention decision. PBC is the individual’s perceived ease or difficulty in performing the behavior (e.g., the belief that retaining a student is relatively “easy”). PBC is related to Bandura’s (1997) concept of self-efficacy in terms of a teacher’s cognitive appraisal about his/her abilities relative to the behavior (i.e., retention decision). Resources, skills, and opportunities must be available for the teacher to have a high degree of perceived control (Ajzen, 2001). Research suggests that, in some situations, only attitudes may have an impact on intentions, and in others, attitudes and PBC are sufficient to account for intentions. In other situations, all three factors can make contributions to intentions (Ajzen, 1991).

At the most basic level of explanation, the theory explains human behavior by claiming that behavior is a function of salient information, or beliefs, relevant to the behavior (Ajzen, 1991). However, despite having many beliefs about grade retention, teachers can only attend to a small number of beliefs at any given moment (Milier, 1956). Ajzen (1991) stated the following:

It is these salient beliefs that are considered to be the prevailing determinants of a person’s intentions and action. Three kinds of salient beliefs are distinguished: behavioral beliefs (e.g., attitude) which are assumed to influence attitudes toward the behavior, normative beliefs (e.g., subjective norms) which constitute the underlying determinants of subjective norms, and control beliefs (e.g., perceived behavioral control) which provide the basis for perceptions of behavioral control (p. 189).
For example, with regard to a teacher retaining a child, the teacher may hold positive attitudes about retention because a previously retained student performed well the following academic year. From a behavioral perspective, the teacher’s attitude is reinforced because in the following academic year, the student outperformed grade-level peers and made the A-B honor roll. Ajzen (1991) stated that each belief is linkable to a behavior and to a certain outcome, or to some other attribute, incurred by performing the behavior (Ajzen, 1991). Also by examining this example from a social psychology perspective, teachers’ behaviors are reinforced the following year because teachers receive positive attention from their colleagues whom they look upon favorably (i.e., teachers want their peers to think highly of their teaching abilities; Tomchin & Impara, 1992).

Applications of the Conceptual Framework

The Theory of Planned Behavior has been one of the most influential and cited theories in explaining an individual’s intention (Armitage & Conner, 2001). Utilized in over 800 studies, the TPB is “empirically well-supported in literature across many behavioral and social domains, including social and cognitive psychology, education, advertising, marketing, healthcare, and communications” (Alt & Lieberman, 2010, p. 127; de Bruijn et al., 2009; Francis et al., 2004; Hagger, Chatzisarantis, & Biddle, 2002; Mathieson, 1991; Walker et al., 2006). However, research studies that have used a conceptual framework to assess a teacher’s intention to retain a student are virtually nonexistent.

In prior research, the TPB has provided evidence to support the theory that attitudes, subjective norms, and PBC were all predictive factors of intentions to perform a behavior. The TPB has been used as a model in examining various subjects in education. For example, in Burak’s 2002 study, 52% of the variance in the intention of elementary school teachers to teach health education was explained by the TPB constructs. Specifically, the PBC variable accounted for the most significant variance in elementary school teachers’ intention to teach health education. In addition, 59% of the variance in the intention of teachers to teach physically active physical education classes was explained by a TPB construct. The PBC and attitude variables accounted for the most significant variance in the teachers’ intention (Martin & Kulinna, 2004).

Critical Analysis of the Literature

Studied for nearly a century, grade retention is both a remedial and reactive educational practice that is generally seen as having negative effects on a student’s academic and
psychosocial adjustment. When students repeat the same grade in the elementary setting, teachers often see short-term positive effects. However, the long-term effects are not often readily known to the elementary teacher. Thus, elementary teachers continue to recommend struggling and/or immature students for retention, despite their increased likelihood of dropping out of high school and poor employment opportunities. Previous research documents the gap between pedagogical practice and empirical research on grade retention. This gap was apparent in reviewing grade retention policy at the state and district level. For example, some districts required specific criteria to be used when considering a candidate for retention, whereas some states did not have explicit grade retention policies. The variation in state and district policy calls into question the reliability and validity of grade retention decisions in general. A student in one district may be at an advantage of being promoted, when that same student would be retained in another district. This type of bias could be studied at a national level to determine which grade retention policy is in the best interest of all students, regardless of location.

One procedure that commonly occurs in state legislation and district policy is that the decision to retain a student is based on a team-based decision-making approach. The teacher of the student is always present at these meetings. However, research regarding the decision-making process and the GRDMT is underrepresented. More research exploring the GRDMT is needed; especially since the use of GRDMTs are common practices in the United States.

Teachers generally support the use of grade retention as a viable intervention for academic failure and/or social immaturity. However, the teacher’s decision is often based on personal beliefs and not empirical evidence, which is contrary to NCLB (2001) guidelines. Perhaps teachers see short-term improvements in the student’s behavior and academic performance, and their decision to retain is reinforced by the student’s short-lived success the following year. It is unlikely that teachers at the elementary level follow students into middle, high school, or beyond, thus they lack knowledge of the students’ long-term outcomes. Teachers’ beliefs can be based on anecdotal experience, personal feelings, or social interactions with others. A student’s failure on a state standardized test may also contribute to teachers’ beliefs. Research has studied the strength of teachers’ beliefs by utilizing descriptive statistics and rank-ordering. The majority of teacher belief research reviewed is antiquated, completed before retention teams existed.
A more recent study (e.g., post-retention team existence) that examined teachers’ beliefs and knowledge about grade retention was consistent with previous findings, suggesting the perpetual gap between practice and empirical literature (Witmer et al., 2004). There were three major limitations to this study. The sample size for this study was only 35, the questionnaire was in written form, and the statistics used were descriptive statistics. The limited sample size makes it difficult to interpret the results as meaningful, meaning it lacks generalizability. In the age of technology, when the majority of teacher communication occurs online, one could argue that Witmer et al.’s (2004) questionnaire was itself antiquated. Utilizing a more sophisticated statistical analysis in analyzing teachers’ beliefs from a conceptual framework is needed. An in-depth examination of teachers’ belief systems and of the congruence between teachers’ beliefs and group retention decisions is needed to fully understand why there is a gap between empirical research and the pedagogical practice of grade retention in the current educational climate.

Teachers’ belief systems may be a strong influence on a group’s decision to retain a student. Utilizing a framework to understand teachers’ beliefs may help explain how the group decision is made to retain the student. Grade retention is most frequent in the early academic years (e.g., 1st grade), and findings suggest policymakers need to consider “the importance of early educational experiences on subsequent achievement trajectories” to increase employment outcomes (Jimerson, 1999, p. 262). Further investigation into the disparity between pedagogical practice and empirical literature needs to continue to help drive grade retention policy change.

**Research Questions**

This study examined the belief system (i.e., attitude, subjective norms, and perceived behavioral control) of teachers regarding retention decisions while in the group setting. Insight into the congruence between a child’s teacher and the decision-making team may shed light on why and how teachers and teams agree to make a decision to retain a student. Ajzen’s (1988; 1991) Theory of Planned Behavior (TPB) was applied in an educational context. Prior research formed the basis for the major research question: What are teachers’ beliefs regarding retention and how often are teachers’ beliefs congruent with GRDMTs’ retention decisions? This major research question will be addressed through the following sub-questions:

1. Utilizing the Theory of Planned Behavior, what are the current beliefs of elementary school teachers regarding grade retention?

2. Of those teachers who referred at-risk students to the GRDMT, how often were teachers’
beliefs about retaining at-risk students congruent with GRDMTs’ ultimate decisions to retain?

Operational Definition of Terms

Due to the use of a conceptual framework to explore teachers’ beliefs regarding retention, the pedagogical practices of grade retention, and the characteristics of students, readers may be unfamiliar with the conceptual framework and topic of grade retention. Thus, a definition of terms was provided to conclude this chapter.

Attitude Toward Grade Retention

The construct of attitudes toward grade retention was defined as teachers’ beliefs about the consequences of retaining a student, both positive and negative. It is a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to the act of [retaining the student] (Ajzen, 1991; Fishbein, 1967).

Behavioral Intentions About Grade Retention

The construct of behavioral intention about grade retention has been defined as a teacher’s readiness to retain a student (Ajzen, 1991).

Elementary Teachers

An elementary school teacher is an individual who teaches at the primary grade level, kindergarten through fifth grade.

Grade Retention

The practice of requiring a student who has been in a given grade level to repeat the same grade level during the following academic year (Jimerson, 1999).

Grade Retention Decision-Making Team

A team that resides at a school that can include persons, such as the referring teacher of a student for retention, the student’s parent, the guidance counselor, and the principal. Each team meets to make a group decision to either retain or promote an at-risk, failing student.

Perceived Behavioral Control

The construct of perceived behavioral control is defined as the extent to which teachers feel they have control in making the ultimate decision. Perceived behavioral control is the perceived ease or difficulty in deciding to retain the student.

Student Characteristics

Characteristics that have been identified by research as predictors in grade retention (e.g.,
gender, ethnicity, academic difficulties, immaturity, low standardized test scores).

**Subjective Norms**

The construct of subjective norms is defined as the beliefs that teachers have about how others (e.g., peers, principal, society, and group members) would like them to behave, in relation to their intention to retain. It is a teacher’s perceived expectations of those around him/her with regard to retaining the student (Sutton, 1998).

**Teacher Characteristics**

Characteristics of teachers identified through research as an influence on the decision to retain a student (e.g., K-2\textsuperscript{nd} grade teacher, gender, ethnicity, years of teaching experience).
CHAPTER THREE

METHODOLOGY

The purpose of this chapter was to outline the methodology that was used in the present study. As previously stated, identifying from a conceptual framework the most influential beliefs held among teachers regarding grade retention was a primary focus of the current study. Studying the congruence between teachers’ beliefs to retain and team decisions was also pertinent to the current study. This study sought to explore teachers’ beliefs and intentions regarding grade retention, and group decisions to retain at-risk students. Studying these concepts assisted in providing: (1) further insight into the belief systems of teachers, and (2) a preliminary understanding in the team decision-making process of retaining a student.

This exploratory study investigated the relationships between teachers’ beliefs regarding grade retention and the ultimate decisions of grade retention decision-making teams (GRDMT). Procedures used to investigate these relationships are described in this chapter, including hypotheses related to the research questions, the research design, participants, operationalization of variables, measures, and data analyses.

Research Questions and Hypotheses

Research Question 1

Utilizing the Theory of Planned Behavior, what are the current beliefs of elementary school teachers regarding grade retention?

Hypothesis 1a. Elementary school teachers’ attitude toward grade retention will affect their intention to retain at-risk students.

Hypothesis 1b. Elementary school teachers’ subjective norms will affect their intention to retain at-risk students.

Hypothesis 1c. Elementary school teachers’ perceived behavioral control will affect their intention to retain at-risk students.

Research Question 2

Of those teachers who referred at-risk students to the GRDMT, how often were teachers’ beliefs about retaining at-risk students congruent with the GRDMTs’ ultimate decisions to retain?
**Hypothesis 2.** Teacher’s beliefs about retaining students will be congruent with GRDMTs’ ultimate decisions to retain at-risk students.

**Research Design**

The research design for the current study was a correlational “ex post facto” study. In these studies, the researcher does not have direct control over the independent variables because they have already occurred (Kerlinger, 1986). A correlational study was appropriate for the current study because the relationship between teachers’ beliefs about grade retention and the group decision to retain have yet to be explored within a conceptual framework. Relationship, or correlational, studies can typically give insight into the factors and variables that are related to a complex phenomenon, such as retaining students (Gay, Mills, & Airasian, 2006).

This study used a cross-sectional design by surveying public elementary school teachers by utilizing an online survey system (e.g., Qualtrics Survey System). Cross-sectional design utilizes elementary teachers who presumably differ in the variables of interest, but share other characteristics, such as demographics. Online web survey research allowed the researcher to quickly and efficiently collect and gather information from a sample of the study’s population (Creswell, 2003; Gay et al., 2006). The survey methodology of Dillman, Smyth, and Christian (2009) was used during the construction and administration of the current study’s survey, with data collected through a self-administered survey hosted through the primary investigator’s university. Dillman et al. (2009) suggested using a series of methods when administering web surveys to produce the highest response rates and the lowest measurement error. Prior notification was sent to the teacher participants. Data were collected at one point in time only.

Descriptive and correlational data were used to define the study sample and the relationships among the variables of interest, respectively. Further analysis of the relationships among the variables of interest included structural modeling techniques and binary logistic regression analysis. Structural modeling techniques were used to examine the Full Structural model of the Theory of Planned Behavior (TPB; Ajzen, 1991), which encompassed the relationships between teachers’ beliefs regarding grade retention and teachers’ intentions to retain students (Research Question 1).

The second research question was answered by examining the relationship between teachers’ beliefs about retaining and GRDMTs’ ultimate retention decisions to retain at-risk students with binary logistic regression analysis. A parameter was placed between teachers’
intentions and the groups’ ultimate decisions, which described the likelihood of congruence between teachers’ beliefs to retain and group decisions to retain. The investigator hypothesized that teachers’ beliefs about retention would be congruent with group decisions.

**Participants**

**Population**

The population for this study was full-time teachers who were currently teaching a grade in the elementary public school setting. All classroom teachers (e.g., general education, special education, inclusion, mixed abilities) in grades K through 5 in the United States during the 2011-2012 school year were considered potential participants in the current study. In the United States for the 2009-2010 school year, there were approximately 1,895,006 K-5 public school teachers, as reported by the National Education Association (NEA, 2011). A table is presented in the Results section of this manuscript that compares the sample demographics to the elementary teacher population of the United States.

**Sampling**

This study utilized a criterion sample of elementary school teachers collected from state, district, and local education agencies. The inclusion criteria were: (a) teachers currently teaching education classes at the elementary level in a public school, and (b) holding beliefs (positive, negative, or neutral) about grade retention. If teachers were teaching in a private setting, they were excluded from the study because private teachers were not sampled in previous literature and private schools are not subject to NCLB (2001) standards. Also, private teachers are not held to the same state credentialing standards as public school teachers, thus private school teachers are not representative of the national public school teacher population. The majority of teacher belief literature is outdated. Thus, in an effort to update teacher belief literature, this current study expanded the empirical literature regarding teachers’ beliefs about grade retention.

To investigate the congruence between teachers’ beliefs to retain and GRDMTs’ ultimate retention decisions (Research Question 2), additional inclusion criteria were considered. If teachers indicated they participated in GRDMTs, they were included in testing Hypothesis 2. Teachers recalled the last team meeting at which the decision was made to either pass or retain an at-risk student. Teachers who had not participated in a team-based retention decision were excluded from Research Question 2.

The research review indicated that minority students with lower family socio-economic
status (SES) were more likely to be retained (Jimerson, et al., 1997). To avoid sampling bias resulting from solely reaching out to teachers who teach in predominantly lower SES districts with minority populations, the current study selected schools from each socio-economic level (SES). Low SES was defined as 75% or more of the student population at the teacher’s school who qualified and received services through the Free and Reduced Lunch (FARL) program. Students who participate in this program have a household income that is at or below 185% ($20,177 annually) of the poverty level (Improving Teacher Quality Grants, 2005). For example, $41,348 is 185% of the poverty level in the United States for the 2011-2012 year; families must make at or below $41,348 to qualify for FARL. It is estimated that over 40% of United States student population participate in the FARL program (United States Department of Agriculture, 2012). By sampling elementary school teachers across the United States, the results of the current study could potentially be generalized. The results of the current study could be used at state education agencies during policymaking and enhance the knowledge base of GRDMTs.

Method for subject recruitment. Participants were recruited through urban, suburban, and rural school districts. The following counties in the State of Florida were recruited: Clay, Sarasota, Nassau, and Wakulla. Samples from the states of Texas, Georgia, Utah, Virginia, and South Carolina were also included in this study. These particular states were chosen due to convenience and accessibility. The required paperwork was submitted to state and local education agencies requesting permission to access elementary teachers’ emails. Once permission was granted and the emails were obtained from education agencies, an email distribution list was generated. Upon launching the survey, the researcher or the district/school liaison emailed all potential participants requesting participation in this study.

Human subjects protection. Prior to initiating this study, a proposal for Human Subjects Use was completed and submitted to the Institutional Review Board at Florida State University. The IRB Human Subjects Committee reviewed the proposal and provided consent for the study to proceed (see Appendix A). Targeted education agencies were provided with the approval letter from the IRB Human Subjects Committee. The education agencies were asked to provide the email distribution lists of the elementary school teachers. All data collected in the current study were in the possession of the primary researcher. The data were password encrypted in an Excel spreadsheet and participants were de-identified through subject numbering. The informed consent letter is provided in Appendix B of this manuscript and
outlines the purpose of the study, confidentiality, potential harm, and FSU IRB contact information. Regarding potential harm to the participants, there was minimal, or no harm anticipated as a result of participating in the study.

**Variables**

In this section, the following variables of interest are defined: attitude towards grade retention, subjective norms, perceived behavioral control, the teacher’s intention to retain, and the group’s decision to retain. Describing the variables of interest emphasizes the relevance of each variable to the measures that were used (Sampson, 2010). Describing the variables also provided an advanced organizer for understanding the constructs used in this study’s measure.

**Attitude Towards Grade Retention**

*Attitude Towards Grade Retention* was defined as a teacher’s beliefs about the consequences of retaining a student, both positive and negative. Ajzen (1991) described attitude as the extent to which teachers appraise a topic favorably (i.e., believed that grade retention will lead to a positive outcome). Participants’ scores on the TPB attitude scale of the Teacher Belief Questionnaire (TBQ) measured their attitudes about grade retention. The TBQ was created for the purpose of this study and is described in the next section. Prior to reliability testing of the TPB attitude scale, there were thirteen Likert-type scale statements, each ranging from one (1 – strongly disagree) to five (5 – strongly agree). One item was reverse scored so that higher numbers reflect higher attitudes towards grade retention. Eleven items remained on the attitude scale for a total of 55 possible points following instrument development, refinement, and reliability testing.

**Subjective Norms**

The variable, *Subjective Norms*, was defined as the degree to which teachers feel social pressure during the retention process from people in their environment whom teachers consider to be important and influential. Participants’ scores on the TPB subjective norms scale of the TBQ measured subjective norms toward retention. Prior to reliability testing of the TPB subjective norms scale, there were thirteen Likert-type scale statements, which each Likert-scale ranging from one (1 – strongly disagree) to five (5 – strongly agree). Eight items remained on the subjective norms scale for a total of 40 possible points following instrument development, refinement, and reliability testing.
Perceived Behavioral Control

*Perceived Behavioral Control* referred to a teacher’s perception of how difficult it would be to retain a student. Perceived Behavioral Control (PBC) is rooted in Bandura’s self-efficacy theory, which is “the belief in one’s capabilities to organize and execute the courses of action required to manage prospective situations” (Bandura, 1995, p. 2). The TPB PBC scale was exemplified in the current study by measuring teachers’ perceived ability to retain at-risk students and teachers’ perceived control over retention decisions. Participants’ scores on the TPB PBC scale of the TBQ measured PBC toward retention. Prior to reliability testing of the PBC scale, there were fourteen Likert-type scale statements, each ranging from one (1 – strongly disagree) to five (5 – strongly agree). Nine items remained on the PBC scale for a total of 45 possible points following instrument development, refinement, and reliability testing.

Teacher Intention to Retain

The variable, *Teacher Intention to Retain*, was defined as an aim or objective. “Intentions are assumed to capture the motivation factors that influence a behavior; they are an indication of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior” (Ajzen, 1991, p. 181). On the TBQ, participants indicated their intentions to retain at-risk students and their responses made up the teacher intention to retain scale. Prior to reliability testing of the TPB intention scale, there were eight Likert-type scale statements, each ranging from one (1 – strongly disagree) to five (5 – strongly agree), for a total of 40 possible points. All eight items remained on the TPB intention scale following instrument development, refinement, and reliability testing.

Group Decision to Retain

*Group Decision to Retain* referred to the GRDMDT’s decision to retain the at-risk student. Participants indicated ‘Yes’ or ‘No’ on the TBQ to specify if the group decided to promote or retain the at-risk student, respectively. Group Decision to Retain was a dichotomous variable.

Measure

Teacher Belief Questionnaire (TBQ)

*Statement of purpose.* Ajzen (2006) stated that in order to determine the influence of an individual’s intent to perform a behavior, one needs to adequately and efficiently survey the participant. Prior research, such as that conducted by Shepard and Smith (1989) and Witmer et al. (2004), examined teachers’ beliefs about grade retention from individual items, and used
those items to create a construct (i.e., teachers’ beliefs). Ajzen (1991) suggested that in order to understand an individual’s behavior, the researcher must examine the individual’s attitude, subjective norms, and perceived behavioral control. Although teachers’ beliefs about grade retention have been studied in the literature, a formal instrument that explores teachers’ beliefs about grade retention from a conceptual framework has yet to be developed. Further, studies that explore the influence of those beliefs on the GRDMT were virtually nonexistent. Thus, an instrument was created for the current study that utilized a conceptual framework to explore teachers’ beliefs regarding grade retention and decisions made by grade retention teams. Using Ajzen and Fishbein (1980) and Ajzen’s (2006) procedures to develop a TPB questionnaire, along with Francis et al.’s (2004) manual for constructing TPB questionnaires, a TPB questionnaire was developed by the researcher for the current study.

**Construction of the Teacher Belief Questionnaire (TBQ).** There were two phases in the development of the TBQ instrument for the current study. The first phase was creating the instrument. During this phase, the construction of the survey followed specific guidelines and procedures outlined by Ajzen (2006) and Francis et al. (2004), which suggested developing a set of questions specific to each construct being tested rather than adapting a previously designed measure. The second phase in the development of the TBQ instrument was validating the instrument for use in this study.

The first phase included creating a draft of the survey to be used in the current study. This draft included the following: teacher characteristic questions (e.g., teacher demographics) and statements pertaining to the TPB constructs (attitude, subjective norms, PBC, intention). If the teacher had participated in a team decision to retain a student, then the instrument included questions about a student who was a candidate for retention, the group’s decision, and the characteristics of the group (e.g., members who participated in the decision). During this series of questions, teachers who participated in group retention decisions were asked to reflect on the last student for whom was at-risk of retention. The teacher answered questions about the characteristics of that student, group membership, and the group decision, but did not give specific identifying information about the student. The instrument also included questions about district policy and alternatives to grade retention. Findings from this question series (group membership, student characteristics, policy, alternatives to retention) are presented in the Additional Findings section in the next chapter.
As previously stated, empirical research helped guide the formulation of questions used in the current study. Thirty (30) out of 48 measurement items were based upon prior teacher belief and grade retention literature. The items related to the teacher’s attitude toward retention included the most frequently named advantages and disadvantages of grade retention. Prior research guided the formulation of 10 attitude measurement items (Alexander, Entwisle, & Kabbani, 1999; Byrnes & Yamamoto, 1986; Jimerson, 1997; Roderick, 1995; Shepard & Smith, 1987; Shepard & Smith, 1989; Smith & Shepard, 1988; Smith & Shepard, 1989; Silberglitt et al., 2006; Tomchin & Impara, 1992; Witmer et al., 2004). To develop the questionnaire items related to subjective norms, the researcher selected the most frequently named people or groups of people who would likely approve or disapprove of the teacher’s decision to retain the at-risk student based on empirical research and district policy; five subjective norms items were created based upon empirical literature (Byrnes, 1989; Smith & Shepard, 1989; Tomchin & Impara, 1992; Witmer et al., 2004). The items related to perceived behavioral control (PBC) included the frequently named facilitating factors or barriers that make the decision to retain the at-risk student easier or more difficult. Seven PBC items were created based on empirical literature (Black 2004; Bonvin, 2003; Jimerson, 1997; Tomchin & Impara, 1992; Witmer et al., 2004). The final instrument used in the study can be found in Appendix C.

TBQ instrument validation. The TBQ was developed according to guidelines outlined by Ajzen (2006) and Francis et al. (2004), and was modified based upon responses obtained from empirical literature and preliminary data analysis (e.g., face validity, content validity). Ascertaining the reliability and validity of the TBQ was an important step in reducing measurement error and increasing the quality of data (Hartas, 2010). The consistency and stability of the instrument (i.e., reliability) ensured that the current study can be repeated in the future, and establishing the validity of the TBQ strengthened the meaningfulness of the data.

Validity. Prior to launching the instrument, five faculty members from Florida State University’s College of Education examined and evaluated the instrument items for content validity and face validity. Content validity was based on the extent to which the measure reflected the specific intended domains of content, which in this study, reflected the TPB constructs (Carmines & Zeller, 1991). Unlike content validity, face validity did not depend on established theories for support (Fink, 1995). Face validity reflected how the measure appeared, how the measure was designed, or how well the measure reliably acquired the information
needed from the teacher. The faculty evaluated the items for their accurate representation of the TPB constructs (attitude, subjective norms, PBC, intention) and the dichotomous variable, group decision to retain, in the study. During this process, the faculty identified items that were redundant, misleading, ambiguous in wording, or did not adequately measure the variables of interest. Items noted as problematic by the faculty members were considered for adjustment or deletion from the measurement item set. Once the researcher received feedback from the faculty and considered items for adjustment or deletion, the revised TBQ was administered to the sample. This survey was not piloted prior to administration to the sample, which presents limitations in the measure.

Reliability. The data obtained from participants were used to test the TBQ’s reliability. A Cronbach’s alpha coefficient ($\alpha$) was calculated to measure the inter-item correlation among the items that comprised the TPB scales (attitude, subjective norms, PBC, intention). Rule of thumb suggests that reliability is greater as $\alpha$ approaches 1. It was expected that the alpha coefficient would be greater than .70, indicating the items meet traditional statistical criteria for use as a scale (Nunnally, 1978). Cronbach’s alpha for each construct: attitude toward retention, subjective norms, perceived behavioral control, and intention to retain, is presented in the Results section. Based on the results of the reliability analysis and validity checks, modifications to the instrument were made and items with nonsignificant or low coefficients were considered for deletion and/or modification prior to analyzing data. Those items that were deleted prior to data analyses are presented in the descriptives section in the Results chapter and summarized in Table 3.

Procedures

Once permission was granted to access the study population, Ajzen’s (2006) and Francis et al.’s (2004) guidelines, in addition to findings from empirical research were used to create the TBQ. The primary researcher followed these guidelines and created an online survey that contained the TPB constructs (attitude, subjective norms, PBC, intentions). The survey software system used in the study was Qualtrics Surveys (Qualtrics, 2011). The survey contained Likert-scale statements that measured the TPB constructs, a dichotomous group decision question, questions about the characteristics of group membership and the student in question for retention, and open-ended questions about grade retention policy and alternatives used in lieu of retention. Next, Dillman et al.’s (2009) online survey methodology was employed to create and launch the
TBQ online. A series of online emails was created that included a pre-notice email, the invitation email with the survey link, and two slightly varied follow-up emails requesting completion from participants who had yet to complete the TBQ. In order to sample the study population, permission was obtained from a number of different sources, including the Florida State University’s Institutional Review Board (FSU IRB), state education agencies, and district level education entities.

The online survey was available to all potential study participants for a limited time, starting January 15, 2012 to February 28, 2012. Elementary teachers received multiple email notifications to complete the survey during this time period. Multiple contacts are considered the most effective way to increase response rates, and can increase response rates by as much as 50% to 60% (Cook, Heath, & Thompson, 2000; Olsen, Call, & Wygant, 2005). Prospective participants initially received a pre-notice email notifying them one week prior to the delivery of the upcoming invitation email (see Appendix D). The email invitation contained the survey link and informed the teachers, according to the FSU IRB, that the purpose of the study was to explore teachers’ beliefs regarding grade retention in the elementary setting (see Appendix E). Participants were also informed that their responses were completely confidential and that no person, apart from the researcher, would be aware of or have access to their individual data. Participation was voluntary and participants could withdraw from the study at any time. The invitation email also conveyed that there was little to no harm in completing the survey.

Upon clicking the survey link in the invitation email, the first screen that appeared was the consent to participate statement (i.e., informed consent), which once again, outlined the purpose of the study, procedures to participate/withdraw, confidentiality, and the no-harm clause. At that time, the participant either gave informed consent or withdrew from the study. If the participant provided informed consent, the next and subsequent screens contained the demographic and survey questions. The survey inquired about teachers’ beliefs regarding grade retention and asked if they were ever involved in a team-based retention decision. Then, if applicable, the survey asked teachers to reflect on the last time they were a member of the GRDRT and recall the characteristics of the at-risk student. The teachers recounted the student demographics and the factors (e.g., low academics, immaturity, failure on a state standardized test) that led to the retention recommendation, as well as the characteristics of the group
membership (e.g., who attended the retention decision), which are presented in the Additional Findings section of the next chapter.

At the end of the survey, the participants were provided with an opportunity to state what their district policy is on grade retention, and any alternatives used in lieu of grade retention. Participants could also email the researcher if they had any questions or comments regarding the study. For those participants who had yet to respond to the survey by the second week following the survey’s launch, a follow-up email reminder was emailed to them. During the third and fourth weeks, similar follow-up email reminders were emailed, requesting the teachers to participate in the study (see Appendix F & G).

Research indicated that, in an effort to increase response rates, an incentive should be given to participants (Birnholtz, Horn, Finholt, & Bae, 2004). Thus, to produce the highest response rate for the current study, there was an option for participants to enter in a lottery drawing at the end of the survey, which was disconnected from the survey responses. The participants had an option to enter their email address on a separate webpage for a chance to win one of eight $30 Visa Gift Certificate Cards. In the event that the participant’s email was chosen, then that participant was notified via email and a gift certificate was mailed through postal mail to the address the participant provided (see Appendix H). The gift cards were awarded to eight participants.

The online survey closed at the end of February 2012, and participants were no longer able to access the survey. Participants who did not respond to the emails were considered to be a participant who was notified but did not respond. The number of non-responses was calculated and compared to the number of those who participated, which is the total percentage response rate traditionally shown in the descriptive statistics of research studies.

Data Analysis

Preliminary Analysis

All data from the online survey were transferred into an Excel spreadsheet. This spreadsheet was checked for errors and erroneous survey responses were fixed or removed from the study. The remaining data were transferred into a statistical program, SPSS, and each participant was assigned a unique identification number. The data were checked for normalcy of plausible ranges for responses to each of the individual items through frequencies, descriptive statistics, boxplots, and outliers. Any cases identified as univariate outliers in boxplot charts
were considered for deletion. The Mahalanobis d-squared identified values that were significantly different from the entire dataset (e.g., multivariate outliers). Any significant Mahalanobis d-squared values \( (p < .05 \text{ level}) \) were considered for deletion. Any cases that exhibited severe skewness and/or kurtosis above the absolute value of one were considered for deletion. Evaluation of missing data was addressed by using maximum likelihood estimation (ML) of the raw data (Arbuckle, 1996).

**Descriptive Statistics**

Once preliminary examination of the data was performed, descriptive statistics were calculated to create a profile of the participants’ demographics and summarize the key study variables. Descriptive statistics included frequencies, means, and standard deviations. For instance, descriptive statistics were reported for gender, ethnicity, amount of teaching experience, state residence, grade level taught, school SES, etc. A table is presented in the Results section of this manuscript with the participants’ descriptive information (see Table 2). Thirty (30) of the 48 measurement items were created based upon prior empirical literature. A summary of the 48 measurement items is presented in Table 3, which indicates the mean of each measurement item and if the items support prior teacher belief research.

**Correlational Analysis**

Next, correlational analyses were performed to determine the magnitude of the relationships among the study variables and to observe how, alone or in combination, these relationships affect the pattern of behavior (Gall et al., 2007). Correlations were used to determine whether the TPB constructs were significantly related by checking the correlation matrix for significant correlations between the items on the attitude towards retention, subjective norms, PBC, and intention. A Pearson-product moment correlations table is provided in the Results section that contains the correlational analyses among the measurement items. Significance (at the \( p < .05 \) level) was noted among the variables. The table also includes analyses of skewness and kurtosis. The correlational analysis is an important step in creating a covariance matrix, which is used in structural equation modeling.

**Full Structural Model Analysis**

To evaluate the current study’s first research question, a series of hypotheses was generated. MPlus 6.0, a structural equation modeling (SEM) software program, was used to test these hypotheses, which form the study model (i.e., a Full Structural model of the TPB
constructs). Empirical research and the TPB guided the selection of variables and the direction of causality in the model. To test the TPB Full Structural model, the researcher first tested the measurement model by using Confirmatory Factor Analysis (CFA), and then tested the structural model by using path analysis. CFA, similar to path analysis, utilized the same fit indices and model specification techniques as path analysis. The use of CFA allowed the researcher to examine the model for causal relationships among the observed variables (e.g., measurement items) and the latent constructs while simultaneously accounting for item-level measurement error (Bryant & Yarnold, 1995). The first step in conducting CFA included a procedure in SPSS that created a covariance matrix. The matrix was entered into the SEM software, MPlus, and the results generated through maximum likelihood produced measures of model fit.

Chi-square is the most commonly reported measure of fit ($\chi^2$). Rule of thumb indicates that when chi-square is nonsignificant and is close to zero, then the model may provide a reasonable, tentative explanation of the data (Keith, 2006). However, chi-square is not always the best measure of good fit because it is highly influenced by sample size. Thus, Keith (2006) suggests using alternative measures of fit in addition to chi-square. These alternative measures are goodness of fit index (GFI), comparative fit index (CFI), the Tucker-Lewis index (TLI), root mean square error approximation (RMSEA), and standardized root mean square residual (SRMR). The GFI provides an estimate of the total covariance accounted for by the model and the CFI provides a population estimate of the improvement in fit over the null model (Tanaka, 1993). The TLI provides a slight adjustment for parsimony and is relatively independent of sample size, whereas GFI and CFI are dependent on sample size (Tanaka, 1993). Common rules of thumb suggest GFI, CFI, and TLI values over .90 represent an adequate fit of the model to the data (Hu & Bentler, 1999). RMSEA is designed to assess the approximate fit of a model and values below .05 suggest a “close fit of the model in relation to the degrees of freedom” (Browne & Cudeck, 1993, p. 144; Keith, 2006). The last measure of model fit to be used for goodness of fit will be SRMR, which is conceptually equivalent to the average difference between the actual correlations among measured variables and those predicted by the model (Keith, 2006). Hu and Bentler (1999) suggested that SRMR is among the best of the model fit indexes, and values below .08 suggest a good fit of the model to the data.

If the measures of fit indicated that the model did not fit well to the data, then modification indices were used to improve the model for a better fit to the data. Any
modification indices above 3.0 were subject to freeing that parameter, which created a more parsimonious model. The purpose of relaxing the model decreases the chi-square value, but increases the degrees of freedom. However, Keith (2006) cautioned that any relaxation in the model should make theoretical sense. Any measurement items that contained large standardized residuals above 2.56 were considered for deletion (Hoyle, 1995). Any standardized factor loading that was below .50 or was not significant at the .05 alpha level was eliminated from the model, and the CFA was re-run and re-evaluated for goodness of fit. A figure and table are presented in the Results section of this manuscript, which highlight the findings from the CFA.

The procedures for path analysis (i.e., testing the structural model) were similar to the procedures previously described in conducting CFA (i.e., testing the measurement model). The same measures of fit were used in testing the structural model of the Full Structural model, which includes: chi-square ($\chi^2$), GFI, CFI, TLI, RMSEA, and SRMR. Common rules of thumb used in the measurement model (CFA) were also used in the structural model (path analysis), and suggest GFI, CFI, and TLI values over .90 represent an adequate fit of the model to the data (Hu & Bentler, 1999). RMSEA values below .05 and SRMR values below .08 suggest a good fit of the model to the data (Hu & Bentler, 1999; Keith, 2006). Any standardized path estimate that was not significant at the .05 alpha level or had a path estimate below .50 was eliminated from the model. The path analysis was re-run and re-evaluated for goodness of fit.

**Binary Logistic Regression Analysis**

After evaluating the Full Structural model and creating a more parsimonious model, the variable, Group Decision to Retain, was added to the model to test Research Question 2. A parameter was placed between the latent variable, teachers’ intention, and the group decision to retain. It was predicted that the likelihood of congruence between teachers’ beliefs and the group decision to retain would be high. Teachers’ intention was the predictor in the model and group decision, a categorical variable, was regressed on teachers’ intention, a continuous latent variable.

**Power Analysis**

Power analysis has received quite a bit of attention within the last decade, as an inaccurate *a priori* power analysis can lead to measurement error. Thus, in order to reduce the chance for error in this study, calculating the required sample size, level of statistical significance, statistical power, and effect size were considered *a priori*. An approach to power
analysis at the model level that was used in this study was described by MacCallum, Browne, and Sugawara (1996), who provided guidelines for power analysis and determination of sample size for covariance structure modeling.

Since power analysis does not require prior approval from FSU IRB, an *a priori* analysis was conducted using Preacher and Coffman’s (2006) Computing Power and Minimum Sample Size for RMSEA website and the software R version 2.13.0. The statistical analyses employed in this study are structural equation modeling, which has specific model criteria. That is, to achieve an ideal sample size, specific model criteria outlined a desirable power and degrees of freedom in the model. For the Full Structural model, there were 622 degrees of freedom, which was calculated by subtracting the number of model parameters from the number of total observations. The power analysis criteria that were entered into R*Power were as follows: alpha was set at .05, 622 degrees of freedom, an ideal power was set at .80, the Null RMSEA was entered as 0 (indicating a perfect model fit), and the alternative RMSEA was entered as .05 (indicating a reasonable/good fit). The alternative RMSEA, .05, was suggested as a lower threshold for reasonable approximation error, which represented a close-fit hypothesis (Kline, 2011). Results of the estimation of sample size for RMSEA indicated that to obtain a reasonable and good fit of the model to the data, 61 participants were needed in this study. This value is influenced by the degrees of freedom in the study model and the alternative RMSEA. However, Kline (2011) suggested using 10 participants per parameter. There were approximately 37 parameters in the model, which equate to needing a sample size of at least 370 participants. Kline suggested that best practice is to use the larger sample. Thus, a goal of 370 participants was needed to maintain adequate power in the study.

**Delimitations**

**Assumptions**

Assumptions are those statements that are presumed to be true, often only temporarily or for a specific purpose (Vogt, 2005). Tomchin & Impara (1992) suggested that if teachers’ beliefs were studied, a national sample would provide generalizability and the results would be representative of the entire elementary teaching profession in the United States. The assumption was that by sampling from a national sample, the beliefs and data reported by teachers were assumed to be true, accurate, and free from bias.
Limitations

The current study used a convenience sample drawn from schoolteachers who were currently teaching at the elementary level in 16 states (see Table 2). Potential limitations of this study were: (a) not all teachers completed the study, (b) the accuracy of the information provided by the teachers may be inconsistent, (c) those teachers who completed the study are not representative of the entire teaching population, and (d) geographical bias, since all 50 states were not represented in the sample. This sample was chosen based upon accessibility and convenience.

There were a few notable delimitations of the current study, which included a lack of an established measure to examine the TPB constructs of interest (attitude, subjective norms, PBC, intentions), and sampling at the national level. As a result, a measure was created based on guidelines for creating a TBQ instrument and empirical literature (Ajzen, 2006; Francis et al., 2004). Sampling at a national level can also be a delimitation of this study. State and district policies concerning the practice of grade retention are not consistent. However, the researcher felt it was important to sample as many school districts as possible to understand the pedagogical practice of retaining students in the United States.
CHAPTER FOUR
RESULTS

The present study examined elementary teachers’ beliefs about grade retention and how those beliefs impact their intention to retain at-risk students. Selected public elementary school teachers were invited to participate in this study by recruitment through work emails. Teachers completed an online survey, which examined their demographics and beliefs about grade retention. This study also assessed the utilization of grade retention decision-making teams (GRDMT) in school districts. Teachers who indicated the use of team-based grade retention decisions in their school districts were given additional questions and asked to recall the last team meeting they attended about a student in jeopardy of grade retention. Teachers provided the decision-making team’s characteristics and the student’s demographics. The survey also examined their school district’s grade retention policy and its alternatives to grade retention. The data obtained from the online survey are presented in this chapter.

The purpose of Chapter Four is to present the sample descriptive statistics, the reliability of the measure, and the statistical analyses of the data. A two-step modeling approach was used to analyze teachers’ beliefs and intentions about grade retention. The two-step approach was used to best fit the proposed model, the Theory of Planned Behavior, to the data (TPB; Ajzen, 1991; Anderson & Gerbing, 1988). The two-step approach examined the measurement model and the structural model of the TPB by utilizing confirmatory factory analysis (CFA) and structural equation modeling (SEM), respectively. Binary logistic regression was used to compute the likelihood of congruence between teachers’ beliefs to retain a student and the group’s ultimate retention decision. The intentions scale from the two-step modeling approach was used as the predictor in the binary logistic regression analysis. The group decision was a dichotomous outcome variable in the analysis. The research questions queried were as follows:

**Research Question 1**

Utilizing the Theory of Planned Behavior, what are the current beliefs of elementary school teachers regarding grade retention?

**Hypothesis 1a.** Elementary school teachers’ attitude toward grade retention will affect their intention to retain at-risk students.
Hypothesis 1b. Elementary school teachers’ subjective norms will affect their intention to retain at-risk students.

Hypothesis 1c. Elementary school teachers’ perceived behavioral control will affect their intention to retain at-risk students.

Research Question 2

Of those teachers who referred at-risk students to the GRDMT, how often were teachers’ beliefs about retaining at-risk students congruent with the GRDMTs’ ultimate decisions to retain?

Hypothesis 2. Teachers’ beliefs about retaining students will be congruent with GRDMTs’ ultimate decisions to retain at-risk students.

To provide insight into the current climate of grade retention policy and procedures, additional questions were asked. These questions were not part of this study’s research questions and hypotheses; they were not analyzed within the TPB framework or binary logistic regression. The findings from these questions are presented in the section titled Additional Findings. This section presents the policies, procedures, and alternatives to grade retention used in public elementary schools. The characteristics of the team participants and the characteristics of the student in jeopardy of retention are also presented in this section.

Descriptive Characteristics of the Sample

After closing the survey management system, the investigator downloaded the data in an Excel spreadsheet. Two thousand seven hundred and twenty-five (2,725) public school personnel responded to the survey. Twenty-three participants declined to participate, thus the remaining cases (2,702) were examined for inclusion criteria. Any cases that did not fit the inclusion criteria were removed from the dataset. The inclusion criteria were: (a) teachers currently teaching education classes at the elementary level in a public school, and (b) holding beliefs (positive, negative, or neutral) about grade retention. One thousand five hundred and ninety-six (1,596) cases did not fit the inclusion criteria outlined in Chapter Three and were thus removed from the sample. Those removed from the sample were middle school teachers; librarians; guidance counselors; and art, music, and physical education teachers. The final sample consisted of 1,106 complete cases. All 1,106 teachers responded to each item on the survey with the exception of one item, the amount of teaching experience. Six teachers did not answer the amount of teaching experience item. This item was an open-text response where the
participants were not required to answer due to an error in the compatibility of the survey tool with certain web browsers.

As stated in Chapter Three, this study utilized a sample of convenience. The majority of sample consisted of Texas and Florida teachers. For example, one school district in northeast Florida agreed to participate in the study. The district’s assistant superintendent sent out mass emails related to this study to an estimated 500 elementary teachers on three separate occasions (pre-notice, invitation, follow-up). It is not known how many of those teachers actually participated, since the responses are anonymous in the survey management system.

Of the six Florida elementary schools originally invited, three principals agreed to participate in this study. Similar to the actions of the Northeastern Florida assistant superintendent, the principals forwarded the pre-notice, invitation, and follow-up emails to their instructional staff. It is estimated that the principals, on behalf of the investigator, sent over 30 emails to elementary teachers in each of their respective schools. Out of the estimated 600 invited participants in Florida, 95 responded to the survey (16% response rate) and 88 fit the study’s inclusion criteria. Regarding the elementary schools in Georgia, Utah, and Virginia, it is estimated that each school employed about 30 teachers. Fourteen teachers from these states participated and all fourteen fit the study’s inclusion criteria and were included in the final sample.

The Texas Education Agency (TEA) allowed the investigator to sample teachers from around the state of Texas. The TEA provided 115,000 emails for elementary and middle school teachers to the investigator. Due to the large number obtained from TEA, the emails were entered into a random number generator. The investigator randomly pooled roughly 10% and emailed 10,000 teachers from around the state of Texas. Of those 10,000 teachers emailed, 2,573 responded to the survey, a 26% response rate. However, not all 2,573 teachers fit the inclusion criteria of this study. Only 977 Texas participants fit the inclusion criteria. Due to the overwhelming survey response and in an attempt to even out the sample and increase generalizability, the investigator randomly sampled 300 from the 977 responses by using a random number generator, but only 282 were retained through data screening, which are described in the next section. These participants represent roughly two-thirds of the final sample used in the study. The demographic data of teachers who fit the study’s inclusion criteria are presented in Table 2.
Table 2.  
**Demographic Characteristics of the Sample and United States’ Elementary Teachers (N = 404)**

<table>
<thead>
<tr>
<th></th>
<th>Sample</th>
<th>United States¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>23</td>
<td>5.7</td>
</tr>
<tr>
<td>Female</td>
<td>381</td>
<td>94.3</td>
</tr>
<tr>
<td><strong>Age in Years</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 to 24</td>
<td>5</td>
<td>1.2</td>
</tr>
<tr>
<td>25 to 34</td>
<td>87</td>
<td>21.5</td>
</tr>
<tr>
<td>35 to 44</td>
<td>109</td>
<td>27.0</td>
</tr>
<tr>
<td>45 to 54</td>
<td>131</td>
<td>32.4</td>
</tr>
<tr>
<td>55 to 64</td>
<td>68</td>
<td>16.8</td>
</tr>
<tr>
<td>65 or over</td>
<td>4</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
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<td></td>
</tr>
<tr>
<td>African American</td>
<td>25</td>
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</tr>
<tr>
<td>Asian</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>American Indian</td>
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</tr>
<tr>
<td>Caucasian</td>
<td>296</td>
<td>73.3</td>
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<tr>
<td>Hispanic/Latino</td>
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</tr>
<tr>
<td>Pacific Islander</td>
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<td>0.2</td>
</tr>
<tr>
<td>Biracial</td>
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<td><strong>Highest Degree Obtained</strong></td>
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<tr>
<td>Less than Bachelor’s</td>
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<td>0.2</td>
</tr>
<tr>
<td>Bachelor’s</td>
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<td>65.8</td>
</tr>
<tr>
<td>Master’s</td>
<td>131</td>
<td>32.4</td>
</tr>
<tr>
<td>Specialist</td>
<td>5</td>
<td>1.2</td>
</tr>
<tr>
<td>Doctorate</td>
<td>2</td>
<td>0.5</td>
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<tr>
<td><strong>Years Teaching</strong></td>
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<tr>
<td>3 or less</td>
<td>18</td>
<td>4.5</td>
</tr>
<tr>
<td>4 to 9</td>
<td>113</td>
<td>28.0</td>
</tr>
<tr>
<td>10 to 19</td>
<td>141</td>
<td>34.9</td>
</tr>
<tr>
<td>20 to 29</td>
<td>94</td>
<td>23.3</td>
</tr>
<tr>
<td>30 or over</td>
<td>32</td>
<td>7.9</td>
</tr>
<tr>
<td>Missing</td>
<td>6</td>
<td>1.5</td>
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<tr>
<td><strong>School Location</strong></td>
<td></td>
<td></td>
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<tr>
<td>Urban</td>
<td>125</td>
<td>30.9</td>
</tr>
<tr>
<td>Rural</td>
<td>119</td>
<td>29.5</td>
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<tr>
<td>Suburban</td>
<td>160</td>
<td>39.6</td>
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<tr>
<td><strong>Free and Reduced Lunch Program Participation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 25%</td>
<td>54</td>
<td>13.4</td>
</tr>
<tr>
<td>25 to 50%</td>
<td>71</td>
<td>17.6</td>
</tr>
<tr>
<td>51 to 75%</td>
<td>99</td>
<td>24.5</td>
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<tr>
<td>Greater than 75%</td>
<td>180</td>
<td>44.6</td>
</tr>
<tr>
<td>Missing</td>
<td>1,341</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Classification of Classroom</strong></td>
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<td></td>
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<tr>
<td>General Education</td>
<td>349</td>
<td>86.4</td>
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<tr>
<td>Special Education</td>
<td>10</td>
<td>2.5</td>
</tr>
<tr>
<td>Gifted Education</td>
<td>9</td>
<td>2.2</td>
</tr>
<tr>
<td>Inclusion</td>
<td>11</td>
<td>2.7</td>
</tr>
<tr>
<td>Mixed Abilities</td>
<td>25</td>
<td>6.2</td>
</tr>
<tr>
<td>Other</td>
<td>154,912</td>
<td>8.0</td>
</tr>
<tr>
<td>Secondary classroom</td>
<td>456,990</td>
<td>23.6</td>
</tr>
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</table>
Table 2 - continued.
Demographic Characteristics of the Sample and United States’ Elementary Teachers
(N = 404)

<table>
<thead>
<tr>
<th>State Teaching</th>
<th>Sample Frequency</th>
<th>Sample Percent</th>
<th>United States¹ Frequency</th>
<th>United States Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>1</td>
<td>0.2</td>
<td>33,650</td>
<td>2.2</td>
</tr>
<tr>
<td>California</td>
<td>2</td>
<td>0.5</td>
<td>197,247</td>
<td>12.8</td>
</tr>
<tr>
<td>Colorado</td>
<td>2</td>
<td>0.5</td>
<td>23,534</td>
<td>1.5</td>
</tr>
<tr>
<td>Florida</td>
<td>88</td>
<td>21.8</td>
<td>62,341</td>
<td>4.0</td>
</tr>
<tr>
<td>Georgia</td>
<td>4</td>
<td>1.0</td>
<td>60,372</td>
<td>3.9</td>
</tr>
<tr>
<td>Hawaii</td>
<td>3</td>
<td>0.7</td>
<td>5,360</td>
<td>0.3</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>1</td>
<td>0.2</td>
<td>41,546</td>
<td>2.7</td>
</tr>
<tr>
<td>New Mexico</td>
<td>1</td>
<td>0.2</td>
<td>8,277</td>
<td>0.5</td>
</tr>
<tr>
<td>New York</td>
<td>2</td>
<td>0.5</td>
<td>87,718</td>
<td>5.7</td>
</tr>
<tr>
<td>Oregon</td>
<td>1</td>
<td>0.2</td>
<td>18,503</td>
<td>1.2</td>
</tr>
<tr>
<td>Texas</td>
<td>282</td>
<td>69.8</td>
<td>137,180</td>
<td>8.9</td>
</tr>
<tr>
<td>Utah</td>
<td>5</td>
<td>1.2</td>
<td>11,326</td>
<td>0.7</td>
</tr>
<tr>
<td>Vermont</td>
<td>3</td>
<td>0.7</td>
<td>2,873</td>
<td>0.2</td>
</tr>
<tr>
<td>Virginia</td>
<td>5</td>
<td>1.2</td>
<td>29,053</td>
<td>1.9</td>
</tr>
<tr>
<td>Washington</td>
<td>3</td>
<td>0.7</td>
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<td>1.6</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>1</td>
<td>0.2</td>
<td>23,203</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Number of Students in the classroom

<table>
<thead>
<tr>
<th>Number of Students</th>
<th>Sample Frequency</th>
<th>Sample Percent</th>
<th>United States Frequency</th>
<th>United States Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 10</td>
<td>3</td>
<td>0.7</td>
<td>14,000</td>
<td>0.9</td>
</tr>
<tr>
<td>11 to 15</td>
<td>19</td>
<td>4.7</td>
<td>105,000</td>
<td>7.3</td>
</tr>
<tr>
<td>16 to 20</td>
<td>175</td>
<td>43.3</td>
<td>250,000</td>
<td>17.5</td>
</tr>
<tr>
<td>21 to 25</td>
<td>185</td>
<td>45.8</td>
<td>275,000</td>
<td>18.9</td>
</tr>
<tr>
<td>26 to 30</td>
<td>20</td>
<td>5.0</td>
<td>50,000</td>
<td>3.4</td>
</tr>
<tr>
<td>31 to 35</td>
<td>8</td>
<td>2.0</td>
<td>8,000</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Grade Currently Teaching

<table>
<thead>
<tr>
<th>Grade Currently Teaching</th>
<th>Sample Frequency</th>
<th>Sample Percent</th>
<th>United States Frequency</th>
<th>United States Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>22</td>
<td>5.4</td>
<td>100,000</td>
<td>7.0</td>
</tr>
<tr>
<td>First</td>
<td>85</td>
<td>21.0</td>
<td>250,000</td>
<td>17.5</td>
</tr>
<tr>
<td>Second</td>
<td>70</td>
<td>17.3</td>
<td>150,000</td>
<td>10.5</td>
</tr>
<tr>
<td>Third</td>
<td>72</td>
<td>17.8</td>
<td>120,000</td>
<td>8.3</td>
</tr>
<tr>
<td>Fourth</td>
<td>85</td>
<td>21.0</td>
<td>110,000</td>
<td>7.6</td>
</tr>
<tr>
<td>Fifth</td>
<td>70</td>
<td>23.0</td>
<td>100,000</td>
<td>7.0</td>
</tr>
<tr>
<td>Mixed Grade Levels</td>
<td>18</td>
<td>5.1</td>
<td>9,000</td>
<td>0.6</td>
</tr>
</tbody>
</table>


Among the 404 participants, 23 were males (5.7%) and 381 were females (94.3%) and 59% of the sample was between the ages of 35 and 54. Seventy-three percent (73%) of the participants were Caucasian, 17.6% were of Hispanic/Latino origin, and 6.2% were African American. The majority of participants’ highest degree obtained was the Bachelor’s Degree.
(65.8%) and the amount of teaching experience ranged from the first year of teaching to 45 years. Six teachers did not indicate the amount of teaching experience.

Regarding the school climate, teachers from urban, rural, and suburban districts were equally represented with roughly one-third teaching in each type of school district. Forty-five percent of the sample indicated that they taught in a school at which greater than 75% of the student population participate in the Free and Reduced Lunch (FARL) program. The majority of teachers (45.8%) have between 21 to 25 students in their classroom, and 175 (43.3%) teachers indicated they had 16 to 20 students in their classroom. Forty-two percent (42%) of the sample taught either first or fifth grade and only 5% taught at the kindergarten level. Eighteen teachers (5.1%) indicated multiple grade levels within their classroom. An overwhelming 86% of the teachers taught general education; 2.5% classified their classrooms as special education and 2.2% classified their classrooms as inclusion. Twenty-five teachers (6.2%) classified their classroom as mixed abilities, which included special education, regular education, and gifted students.

In comparing the frequencies between this study’s sample and the United States’ teacher population, subtle differences can be seen. For example, young teachers with less experience represent a larger proportion of teachers in the United States’ teacher population than in the sample obtained in this study. Females, Texas participants, and participants who teach general education in a low-income school (FARL is 75% or greater) were overrepresented in this sample as compared to the United States’ teacher population.

**Data Screening**

Data screening procedures were performed on the final sample to ensure the data were clean, useful, reliable, and valid for statistical analyses. The data were screened for any abnormalities, missing data, and open-text responses. Initial data screening in Excel revealed that teachers utilized the open-text responses on the following demographic items: the amount of teaching experience, the type of classroom taught, the highest degree earned, and ethnicity. Open-text responses to the amount of teaching experience item were the result of technical difficulties of the survey. Some web browsers were not consistently compatible with this item and teachers emailed the investigator expressing they had a difficult time entering in the number of years experience. Thus, fifteen teachers spelled out the number of years experience.
(e.g., twenty-five years) and six left the item blank. Those responses were transformed to appropriate numerical values. Teachers also answered questions about their district’s grade retention policies, procedures, and alternatives in an open-text response format, which was expected. Screening the dataset for missing data revealed that one demographic item had missing values (e.g., the amount of teaching experience item; see Table 2). All measurement items were analyzed in the 2-step modeling approach and binary logistic regression; the measurement items contained no missing values.

Assumptions were checked to ascertain any violations of multivariate and univariate analyses in the cases. Outliers for individual variables (univariate) were analyzed on a case-by-case basis through the use of boxplot charts. Boxplot is a non-parametric graph that can easily identify the outliers for a single measurement item. Sixteen cases were considered extreme univariate outliers and removed from the sample. Multivariate outliers were examined through the use of the Mahalanobis d-squared, which tests the data farthest from the centroid. Any values that were less than $p = .05$ were considered significantly different, or abnormal, when compared to the entire dataset. Five multivariate outliers were removed due to being influential and significantly different from the dataset. Any case that had a severe skewness or kurtosis above the absolute value of one was subject to elimination from the model. Three cases fell above the absolute one threshold and were removed from the sample.

Measurement Items

Descriptive Data for Measurement Items

The measurement items were examined using descriptive analyses, which included the mean, standard deviation, median, skew, and kurtosis. The results are presented in Table 4. The descriptive data of the items ranged from a score of 1 (strongly disagree) to 5 (strongly agree) to the hundredth of a decimal (e.g., 1.15, 2.27, and 5.00). The measurement items were inspected to determine if they were approximately normally distributed. Some skewness and kurtosis were noted and two values, items N4 and C4, fell outside of the absolute value threshold of 1. Means for the attitude measurement items ranged from 2.90 to 4.37, the subjective norm items ranged from 1.63 to 3.58, the PBC items ranged from 2.34 to 3.93, and the intention scale items ranged from 1.63 to 3.63. In addition to examining the measurement items for predictive validity, the researcher of this study also sought to update teacher belief literature by examining the current beliefs of teachers. The next sections highlight the consistencies and differences between this
study’s measurement items and prior teacher belief literature. The measurement item means were used in comparing this study’s findings with prior teacher belief literature (see Table 3).

**Attitude.** Initially, 13 measurement items were constructed to measure teachers’ attitudes toward retention; 11 items were based upon prior teacher belief literature (see Table 3). Overall, teachers continue to favor grade retention and their general attitudes towards retention remain positive, meaning that retention is an effective intervention (A1; Shepard & Smith, 1987; $\bar{X} = 3.42$). Teachers generally agreed with all of the attitude statements with the exception of two of the three items that measure the outcome of the students’ psychosocial well-being: (A9) *Grade retention generally increases a student's confidence* (Smith & Shepard, 1989; $\bar{X} = 2.90$); and (A11) *Students who are retained will emerge as class leaders* (Smith & Shepard, 1989; $\bar{X} = 2.66$). Teachers remained neutral on the third psychosocial item: (A10) *Grade retention can decrease the student’s stress level* (Smith & Shepard, 1989; $\bar{X} = 3.07$). The majority of teachers in this sample strongly agreed that it is better to retain earlier in the student’s academic career (A12; Silberglitt et al., 2006; $\bar{X} = 4.37$). In sum, nine of the 11 TPB attitude items that were constructed based upon prior teacher belief literature continue to support teacher belief literature.

**Subjective Norms.** Thirteen items were constructed to measure the societal influences on teachers’ beliefs; five items were based upon prior teacher belief literature. These five items measured the peer and parental influence on teachers’ beliefs (see Table 3). None of the five items supported prior teacher belief literature and teachers disagreed with all five statements: (N1) *Parents generally feel grade retention is a positive recommendation for their struggling child* (Smith & Shepard, 1989; $\bar{X} = 2.51$); (N2) *Other teachers might think I maintain low standards if I don't retain a struggling student* (Tomchin & Impara, 1992; $\bar{X} = 2.17$); (N3) *Others will think negatively about my teaching abilities if I don't retain a struggling student* (Tomchin & Impara, 1992; $\bar{X} = 2.16$); (N4) *I fear being ridiculed by fellow teachers if I don't retain* (Byrnes, 1989; $\bar{X} = 1.63$); and (N5) *I often listen to my peers when making retention decisions* (Witmer et al., 2004; $\bar{X} = 2.86$). Teachers in this sample remained relatively neutral in responding to item N6, *Parents do not influence my decision to retain* ($\bar{X} = 3.04$), but agreed with item N11, *Parent approval of my retention decision matters to me* ($\bar{X} = 3.58$). The remaining seven subjective norms items produced mixed beliefs. Regarding the influence of school personnel on teachers’ beliefs, teachers in this sample believe that school psychologists and principals usually agree with the teachers’ retention decisions. However, this sample believes that assistant principals
usually influence teachers to promote struggling students ($N_7; \bar{X} = 2.82$). Whereas, this sample indicated that school psychologists generally believe teachers of this sample should retain struggling students ($N_8; \bar{X} = 2.65$). Teachers of this sample remained relatively neutral with regards to the influence of the state and district education agencies on their beliefs.

**Perceived Behavioral Control (PBC).** Fourteen items were constructed for this study which measured teachers’ perceived level of control on their intentions to retain at-risk students (see Table 3). Seven of the 14 items were constructed based upon prior teacher belief literature, which three items supported prior teacher belief literature: (C5) *If a student misses too much school, the retention decision is out of my hands since poor attendance violates district policy for promotion* (Jimerson, 1997; $\bar{X} = 3.30$); (C6) *I feel grade retention will maintain necessary grade standards* (Tomchin & Impara, 1992; $\bar{X} = 3.10$); and (C7) *Retention is necessary when the student does not meet state standards* (Bonvin, 2003; Tomchin & Impara, 1992; $\bar{X} = 3.24$). In prior teacher belief literature, teachers generally believed that empirical research did not influence their retention decisions; however, in this study, teachers remained relatively neutral on item C2, *Empirical research has informed my opinion about grade retention* (Tomchin & Impara, 1992; Witmer et al., 2004; $\bar{X} = 2.95$). Teachers in this sample disagreed with the following statement: (C9) *It is administrative policy to retain struggling students* (Witmer et al., 2004; $\bar{X} = 2.61$). Findings from this study reveal that teachers no longer believe that they are free to make retention decisions: (C3) *I am free to make the decision to retain students* (Black 2004; $\bar{X} = 2.60$). Yet, they believe that it is not easy to refer students for retention (C14; $\bar{X} = 3.42$) but feel confident in recommending retention (C12; $\bar{X} = 3.61$). In sum, the majority of this sample believes that they no longer have control over the retention decision (C11; $\bar{X} = 2.00$).

**Intention.** Eight measurement items were constructed for this study to measure teachers’ intentions to retain at-risk students (see Table 3). Prior teacher belief literature guided the construction of all eight items, which generally finds that teachers want to retain students who are struggling academically, lacking basic skills, not proficient in the English language (LEP status), immature, and who exhibit behavior problems (Shepard & Smith, 1989; Wu et al., 2008). Teachers of this sample disagreed with six of the eight measurement items and these did not coincide with prior teacher belief literature: (I1) *I generally recommend retention for students who are struggling academically* (Shepard & Smith, 1989; $\bar{X} = 2.92$); (I2) *I generally
Table 3.  
*Measurement Items’ Means and Support of Prior Teacher Belief Literature (N = 404)*

<table>
<thead>
<tr>
<th>ITEM</th>
<th>STATEMENT</th>
<th>MEAN</th>
<th>SUPPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ATTITUDE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A1</td>
<td>Grade retention is an effective intervention (Shepard &amp; Smith, 1987).</td>
<td>3.42</td>
<td>YES</td>
</tr>
<tr>
<td>A2</td>
<td>Retention is not a helpful solution for struggling students (reverse scored).</td>
<td>3.77</td>
<td>N/A</td>
</tr>
<tr>
<td>A3</td>
<td>Retention can help build a strong academic foundation (Tomchin &amp; Impara, 1992).</td>
<td>3.49</td>
<td>YES</td>
</tr>
<tr>
<td>A4</td>
<td>Retention prevents students from experiencing later failure (Roderick, 1995; Witmer et al., 2004).</td>
<td>3.29</td>
<td>YES</td>
</tr>
<tr>
<td>A5</td>
<td>Retention helps immature students catch up to their peers (Alexander, Entwisle, &amp; Kabbani, 1999).</td>
<td>3.57</td>
<td>YES</td>
</tr>
<tr>
<td>A6</td>
<td>Grade retention benefits struggling students (Shepard &amp; Smith, 1989).</td>
<td>3.51</td>
<td>YES</td>
</tr>
<tr>
<td>A7</td>
<td>Retention builds a solid foundation for future academic success (Tomchin &amp; Impara, 1992).</td>
<td>3.30</td>
<td>YES</td>
</tr>
<tr>
<td>A8</td>
<td>A student who is not developmentally ready should not be promoted to the next grade level (to be promoted to the next grade; Byrnes &amp; Yamamoto, 1986; Smith &amp; Shepard, 1988).</td>
<td>3.55</td>
<td>YES</td>
</tr>
<tr>
<td>A9</td>
<td>Grade retention generally increases a student's confidence (Smith &amp; Shepard, 1989).</td>
<td>2.90</td>
<td>NO</td>
</tr>
<tr>
<td>A10</td>
<td>Grade retention can decrease the student's stress level (Smith &amp; Shepard, 1989).</td>
<td>3.07</td>
<td>YES</td>
</tr>
<tr>
<td>A11</td>
<td>Students who are retained will emerge as class leaders (Smith &amp; Shepard, 1989).</td>
<td>2.66</td>
<td>NO</td>
</tr>
<tr>
<td>A12</td>
<td>It is better to retain earlier in the student's academic career (Silbergliet et al., 2006).</td>
<td>4.37</td>
<td>YES</td>
</tr>
<tr>
<td>A13</td>
<td>Students who lack the ability to read are good candidates for retention (Jimerson, 1997).</td>
<td>3.56</td>
<td>YES</td>
</tr>
<tr>
<td><strong>SUBJECTIVE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N1</td>
<td>Parents generally feel grade retention is a positive recommendation for their struggling child (Smith &amp; Shepard, 1989).</td>
<td>2.51</td>
<td>NO</td>
</tr>
<tr>
<td>N2</td>
<td>Other teachers might think I maintain low standards if I don't retain a struggling student (Tomchin &amp; Impara, 1992).</td>
<td>2.17</td>
<td>NO</td>
</tr>
<tr>
<td>N3</td>
<td>Others will think negatively about my teaching abilities if I don't retain a struggling student (Tomchin &amp; Impara, 1992).</td>
<td>2.16</td>
<td>NO</td>
</tr>
<tr>
<td>N4</td>
<td>I fear being ridiculed by fellow teachers if I don't retain (Byrnes, 1989).</td>
<td>1.63</td>
<td>NO</td>
</tr>
<tr>
<td>N5</td>
<td>I often listen to my peers when making retention decisions (Kagan, 1992; Witmer et al., 2004)</td>
<td>2.86</td>
<td>NO</td>
</tr>
<tr>
<td>N6</td>
<td>Parents do not influence my decision to retain.</td>
<td>3.04</td>
<td>N/A</td>
</tr>
</tbody>
</table>
### Table 3 - continued.
*Measurement Items’ Means and Support of Prior Teacher Belief Literature (N = 404)*

<table>
<thead>
<tr>
<th>ITEM</th>
<th>STATEMENT</th>
<th>MEAN</th>
<th>SUPPORT PRIOR RESEARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>N7</td>
<td>My assistant principal generally believes I should retain struggling students.</td>
<td>2.82</td>
<td>N/A</td>
</tr>
<tr>
<td>N8</td>
<td>My school psychologist generally believes I should promote struggling students.</td>
<td>2.65</td>
<td>N/A</td>
</tr>
<tr>
<td>N9</td>
<td>My school psychologists usually agree with me when making retention decisions.</td>
<td>3.29</td>
<td>N/A</td>
</tr>
<tr>
<td>N10</td>
<td>My principal usually agrees with me when making retention decisions.</td>
<td>3.37</td>
<td>N/A</td>
</tr>
<tr>
<td>N11</td>
<td>Parent approval of my retention decision matters to me.</td>
<td>3.58</td>
<td>N/A</td>
</tr>
<tr>
<td>N12</td>
<td>My state education agency is supportive of grade retention as a strategy for addressing the needs of struggling students.</td>
<td>2.92</td>
<td>N/A</td>
</tr>
<tr>
<td>N13</td>
<td>My school district generally approves of my retention decisions.</td>
<td>3.19</td>
<td>N/A</td>
</tr>
<tr>
<td>C1</td>
<td>My peers have greatly influenced my opinion of grade retention (Witmer et al., 2004).</td>
<td>2.34</td>
<td>NO</td>
</tr>
<tr>
<td>C2</td>
<td>Empirical research has informed my opinion about grade retention (Tomchin &amp; Impara, 1992; Witmer et al., 2004).</td>
<td>2.95</td>
<td>YES</td>
</tr>
<tr>
<td>C3</td>
<td>I am free to make the decision to retain students (Black, 2004).</td>
<td>2.60</td>
<td>NO</td>
</tr>
<tr>
<td>C4</td>
<td>If a student fails a state standardized test, the retention decision is out of my hands due to state/district retention policy.</td>
<td>3.11</td>
<td>N/A</td>
</tr>
<tr>
<td>C5</td>
<td>If a student misses too much school, the retention decision is out of my hands since poor attendance violates district policy for promotion (Jimerson, 1997).</td>
<td>3.30</td>
<td>YES</td>
</tr>
<tr>
<td>C6</td>
<td>I feel grade retention will maintain necessary grade standards (Tomchin &amp; Impara, 1992).</td>
<td>3.10</td>
<td>YES</td>
</tr>
<tr>
<td>C7</td>
<td>Retention is necessary when the student does not meet state standards (Bonvin, 2003; Tomchin &amp; Impara, 1992).</td>
<td>3.24</td>
<td>YES</td>
</tr>
<tr>
<td>C8</td>
<td>My principal has the final decision to retain.</td>
<td>3.93</td>
<td>N/A</td>
</tr>
<tr>
<td>C9</td>
<td>It is administrative policy to retain struggling students (Witmer et al., 2004).</td>
<td>2.61</td>
<td>NO</td>
</tr>
<tr>
<td>C10</td>
<td>My principal usually lets me make the final decision about whether to retain a student.</td>
<td>2.46</td>
<td>N/A</td>
</tr>
<tr>
<td>C11</td>
<td>I usually have total control over the retention decision.</td>
<td>2.00</td>
<td>N/A</td>
</tr>
<tr>
<td>C12</td>
<td>I am confident that I can recommend retention for students.</td>
<td>3.61</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Table 3 - continued.

Measurement Items’ Means and Support of Prior Teacher Belief Literature ($N = 404$)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>STATEMENT</th>
<th>MEAN</th>
<th>SUPPORT PRIOR RESEARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>C13</td>
<td>Referring a student for retention is not up to me.</td>
<td>2.34</td>
<td>N/A</td>
</tr>
<tr>
<td>C14</td>
<td>It is generally not easy for me to refer students for retention.</td>
<td>3.42</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td><strong>INTENTIONS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I1</td>
<td>I generally recommend retention for students who are struggling academically (Shepard &amp; Smith, 1989).</td>
<td>2.92</td>
<td>NO</td>
</tr>
<tr>
<td>I2</td>
<td>I generally recommend retention for students who have behavior problems (Shepard &amp; Smith, 1989).</td>
<td>1.66</td>
<td>NO</td>
</tr>
<tr>
<td>I3</td>
<td>I generally recommend retention for immature students (Shepard &amp; Smith, 1989).</td>
<td>2.25</td>
<td>NO</td>
</tr>
<tr>
<td>I4</td>
<td>I generally recommend retention for students who have not mastered the English language (LEP status; Wu et al., 2008).</td>
<td>2.19</td>
<td>NO</td>
</tr>
<tr>
<td>I5</td>
<td>I generally want to retain academically struggling students (Shepard &amp; Smith, 1989).</td>
<td>3.12</td>
<td>YES</td>
</tr>
<tr>
<td>I6</td>
<td>I generally want to retain students who have behavior problems (Shepard &amp; Smith, 1989).</td>
<td>1.63</td>
<td>NO</td>
</tr>
<tr>
<td>I7</td>
<td>I generally want to retain students who lack basic skills (Shepard &amp; Smith, 1989).</td>
<td>3.63</td>
<td>YES</td>
</tr>
<tr>
<td>I8</td>
<td>I generally want to retain immature students (Shepard &amp; Smith, 1989).</td>
<td>2.37</td>
<td>NO</td>
</tr>
</tbody>
</table>

*Note: Subjective = Subjective Norms; PBC = Perceived Behavioral Control.*
recommend retention for students who have behavior problems (Shepard & Smith, 1989; \( \bar{X} = 1.66 \)); (I3) I generally recommend retention for immature students (Shepard & Smith, 1989; \( \bar{X} = 2.25 \)); (I4) I generally recommend retention for students who have not mastered the English language (LEP status; Wu et al., 2008; \( \bar{X} = 2.19 \)); (I6) I generally want to retain students who have behavior problems (Shepard & Smith, 1989; \( \bar{X} = 1.63 \)); and (I8) I generally want to retain immature students (Shepard & Smith, 1989; \( \bar{X} = 2.37 \)). Teachers strongly disagreed with retaining students who exhibited behavior problems. Teachers of this sample agreed with two of the eight intention items: (I5) I generally want to retain academically struggling students (Shepard & Smith, 1989; \( \bar{X} = 3.12 \)) and (I7) I generally want to retain students who lack basic skills (Shepard & Smith, 1989; \( \bar{X} = 3.63 \)). These two items, I5 and I7, support prior teacher belief literature.

Correlation of Measurement Items

A correlation matrix was calculated to examine the relationships among the latent variables (see Table 4) and the inter-relationships among the measured variables (see Table 5). Bivariate correlations among the items were analyzed using a two-tailed test of significance. Pearson correlation coefficients noted significant relationships among the latent variables and measured items. Pertaining to the latent variables, all relationships were significant with subjective norms and PBC exhibiting the strongest relationship \( (r = .81; \text{see Table 4}) \). Attitude and subjective norms exhibited the weakest relationship \( (r = .23) \). Attitude, subjective norms, and PBC were significantly related to intentions. Analyses of the inter-item correlations were calculated, which the statistical software uses to create a covariance matrix for further analysis (e.g., structural equation modeling; see Table 5). All items on the attitude scale were significantly related to each other with the strongest correlation between A3 and A7 \( (r = .70; \text{see Table 5a}) \). The weakest correlation, although still significant, was the relationship between A11 and A12 \( (r = .18) \). Examining the subjective norms scale revealed many non-significant relationships. Of those that were significantly correlated, the strongest relationship was between N2 and N3 \( (r = .71; \text{see Table 5b}) \) and the weakest were between N3 and N12, and N5 and N11 \( (r = .10) \). The PBC scale exhibited very few significant relationships. The strongest significant relationship among the PBC items was the relationship between items C3 and C10 \( (r = .70; \text{see Table 5c}) \) and the weakest were between C5 and C13, and C6 and C8 \( (r = .10) \). The strongest
significant relationship on the intention scale was between I2 and I6 \( (r = .69; \text{see Table 5d}) \) and the weakest was between I6 and I7 \( (r = .10) \).

Table 4. *Correlation Matrix of the Theory of Planned Behavior Latent Variables (N = 404)*

<table>
<thead>
<tr>
<th></th>
<th>Attitude</th>
<th>Subjective Norms</th>
<th>Perceived Behavioral Control</th>
<th>Intentions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td></td>
<td><strong>.23</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjective Norms</td>
<td></td>
<td><strong>.29</strong></td>
<td><strong>.81</strong></td>
<td></td>
</tr>
<tr>
<td>Perceived</td>
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</tr>
<tr>
<td>Behavioral</td>
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</tr>
<tr>
<td>Control</td>
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<td></td>
</tr>
<tr>
<td>Intentions</td>
<td><strong>.75</strong></td>
<td>.42**</td>
<td><strong>.44</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Note:* **Correlation is significant at .01 level. Omitted items are Attitude – A8, A12; Subjective Norms – N1, N5, N6, N8, N11, and PBC – C2, C4, C8, C13, C14.

**Reliability of the Measure**

The measurement items were assessed for internal consistency using the Cronbach’s alpha reliability statistic. Acceptable levels of reliability depend on the purpose of the instrument. For example, Cronbach’s alpha for developing an instrument for research purposes can be as low as 0.60 (Suhr, 2003). However, the Cronbach’s alpha statistic \( (\alpha = .70) \) is commonly used in research, considered the rule of thumb, and used in this study (Nunnelly, 1978). The measurement items were divided into four scales: attitude, subjective norms, PBC, and intention. Each scale was analyzed independently; items that loaded poorly and were weakly correlated with the other items were dropped from the scale. The TPB attitude scale’s internal consistency produced the highest Cronbach’s alpha \( (\alpha = .89) \) with items A8 and A12 removed due to poor correlation (i.e., item-total correlations below .50). The subjective norm scale’s internal consistency was initially low \( (\alpha = .63) \). Items N6 and N8 loaded negatively and N1, N5, and N11 loaded poorly on the scale. These five subjective norm items were removed, which increased the internal consistency \( (\alpha = .73) \). The PBC scale’s internal consistency produced the lowest Cronbach’s alpha \( (\alpha = .55) \) with three negative loading items \( (C8, C13, C14) \). Despite removing these three PBC items from the PBC scale, the internal consistency remained low. PBC items C2 and C4 were removed for
<table>
<thead>
<tr>
<th>Factor</th>
<th>Variable</th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
<th>A4</th>
<th>A5</th>
<th>A6</th>
<th>A7</th>
<th>A8</th>
<th>A9</th>
<th>A10</th>
<th>A11</th>
<th>A12</th>
<th>A13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>(A1) Grade retention is an effective intervention.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(A2) Retention is NOT a helpful solution for struggling students. (Reverse scored)</td>
<td></td>
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<tr>
<td></td>
<td>(A3) Retention can help build a strong academic foundation.</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>(A4) Retention prevents students from experiencing later failure.</td>
<td></td>
<td></td>
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<td>(A5) Retention helps immature students catch up to their peers.</td>
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<td></td>
<td>(A6) Grade retention benefits struggling students.</td>
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<td></td>
<td>(A7) Retention builds a solid foundation for future academic success.</td>
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<td></td>
<td>(A8) A student who is not developmentally ready should not be promoted to the next grade level.</td>
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<td>(A9) Grade retention generally increases a student's confidence.</td>
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<td>(A10) Grade retention can decrease the student’s stress level.</td>
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<td>(A11) Students who are retained will emerge as class leaders.</td>
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<td></td>
<td>(A12) It is better to retain earlier in the student’s academic career.</td>
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<td></td>
<td>(A13) Students who lack the ability to read are good candidates for retention.</td>
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</tbody>
</table>

| M      | 3.42 | 3.77 | 3.49 | 3.29 | 3.57 | 3.51 | 3.30 | 3.55 | 3.55 | 2.90 | 3.07 | 2.66 | 4.37 | 3.56 |
| SD     | 0.86 | 0.93 | 0.92 | 1.03 | 0.90 | 0.82 | 0.87 | 0.95 | 1.03 | 0.99 | 0.87 | 0.67 | 0.98 |
| Median | 3.52 | 4.00 | 3.57 | 3.34 | 3.62 | 3.55 | 3.27 | 3.53 | 3.02 | 3.00 | 2.78 | 4.51 | 3.61 |
| Skewness | -0.50 | -0.95 | -0.63 | -0.29 | -0.50 | -0.48 | -0.21 | -0.15 | -0.03 | -0.16 | -0.07 | -0.94 | -0.40 |
| Kurtosis | 0.26 | 0.91 | 0.47 | -0.48 | 0.01 | 0.54 | 0.04 | -0.69 | -0.66 | -0.49 | -0.26 | 0.35 | -0.38 |

*Note: Correlations |.10| are significant at p <.05; correlations |.14| are significant at p <.01. Items are on a continuous Likert-scale from one (1 – strongly disagree) to five (5 – strongly agree).*
Table 5b.
Summary of Intercorrelations, Means, Standard Deviations, Median, Skewness, and Kurtosis for the Theory of Planned Behavior Subjective Norms Scale (N = 404)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Variable</th>
<th>N1</th>
<th>N2</th>
<th>N3</th>
<th>N4</th>
<th>N5</th>
<th>N6</th>
<th>N7</th>
<th>N8</th>
<th>N9</th>
<th>N10</th>
<th>N11</th>
<th>N12</th>
<th>N13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjective</td>
<td>N1) Parents generally feel grade retention is a positive recommendation for their struggling child.</td>
<td>___</td>
<td></td>
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</tr>
<tr>
<td>Norms</td>
<td>(N2) Other teachers might think I maintain low standards if I don't retain a struggling student.</td>
<td>.02</td>
<td>___</td>
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<tr>
<td></td>
<td>(N3) Others will think negatively about my teaching abilities if I don't retain a struggling student.</td>
<td>.04</td>
<td>.71</td>
<td>___</td>
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<tr>
<td></td>
<td>(N4) I fear being ridiculed by fellow teachers if I don't retain.</td>
<td>.04</td>
<td>.47</td>
<td>.53</td>
<td>___</td>
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<tr>
<td></td>
<td>(N5) I often listen to my peers when making retention decisions.</td>
<td>.07</td>
<td>.09</td>
<td>.09</td>
<td>.12</td>
<td>___</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(N6) Parents do not influence my decision to retain.</td>
<td>.05</td>
<td>.06</td>
<td>.02</td>
<td>.04</td>
<td>-.17</td>
<td>___</td>
<td></td>
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<tr>
<td></td>
<td>(N7) My assistant principal generally believes I should retain struggling students.</td>
<td>.12</td>
<td>.33</td>
<td>.38</td>
<td>.18</td>
<td>.08</td>
<td>.09</td>
<td>___</td>
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<tr>
<td></td>
<td>(N8) My school psychologist generally believes I should promote struggling students.</td>
<td>-.01</td>
<td>.06</td>
<td>.05</td>
<td>.09</td>
<td>.08</td>
<td>-.09</td>
<td>-.16</td>
<td>___</td>
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<tr>
<td></td>
<td>(N9) My school psychologists usually agree with me when making retention decisions.</td>
<td>.16</td>
<td>.07</td>
<td>.06</td>
<td>-.01</td>
<td>.19</td>
<td>.02</td>
<td>.32</td>
<td>-.06</td>
<td>___</td>
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<tr>
<td></td>
<td>(N10) My principal usually agrees with me when making retention decisions.</td>
<td>.19</td>
<td>.06</td>
<td>.09</td>
<td>-.09</td>
<td>.09</td>
<td>.02</td>
<td>.41</td>
<td>.17</td>
<td>.38</td>
<td>___</td>
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<tr>
<td></td>
<td>(N11) Parent approval of my retention decision matters to me.</td>
<td>.23</td>
<td>-.08</td>
<td>-.02</td>
<td>-.09</td>
<td>.10</td>
<td>-.27</td>
<td>.09</td>
<td>-.02</td>
<td>.08</td>
<td>.18</td>
<td>___</td>
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<tr>
<td></td>
<td>(N12) My state education agency is supportive of grade retention as a strategy for addressing the needs of struggling students.</td>
<td>.15</td>
<td>.14</td>
<td>.10</td>
<td>-.02</td>
<td>.04</td>
<td>.12</td>
<td>.42</td>
<td>.17</td>
<td>.39</td>
<td>.41</td>
<td>.07</td>
<td>___</td>
<td></td>
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<tr>
<td></td>
<td>(N13) My school district generally approves of my retention decisions.</td>
<td>.18</td>
<td>.02</td>
<td>.04</td>
<td>-.11</td>
<td>.08</td>
<td>-.03</td>
<td>.37</td>
<td>.13</td>
<td>.38</td>
<td>.46</td>
<td>.20</td>
<td>.45</td>
<td>___</td>
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</tbody>
</table>

|                | M   | 2.51 | 2.17 | 2.16 | 1.63 | 2.86 | 3.04 | 2.82 | 2.65 | 3.29 | 3.37 | 3.58 | 2.92 | 3.19 |
|                | SD  | 0.88 | 1.05 | 1.05 | 0.77 | 1.13 | 1.05 | 1.06 | 0.97 | 0.94 | 1.10 | 0.98 | 1.01 | 1.07 |
|                | Median | 2.40 | 1.99 | 1.99 | 1.28 | 3.00 | 3.00 | 3.00 | 2.85 | 3.20 | 3.49 | 3.68 | 3.00 | 3.09 |
|                | Skewness | 0.32 | 0.84 | 0.79 | 1.17 | 0.03 | 0.12 | -0.07 | 0.16 | -0.43 | -0.36 | -0.45 | -0.13 | -0.37 |
|                | Kurtosis | -0.46 | 0.09 | -0.10 | 0.80 | -0.81 | -0.73 | -0.64 | -0.26 | 0.25 | -0.65 | -0.32 | -0.46 | -0.44 |

Note: Correlations |.10| are significant at p <.05; correlations |.14| are significant at p <.01. Items are on a continuous Likert-scale from one (1 – strongly disagree) to five (5 – strongly agree).
Table 5c.
Summary of Intercorrelations, Means, Standard Deviations, Median, Skewness, and Kurtosis for the Theory of Planned Behavior
Perceived Behavioral Control Scale (N = 404)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Variable</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
<th>C7</th>
<th>C8</th>
<th>C9</th>
<th>C10</th>
<th>C11</th>
<th>C12</th>
<th>C13</th>
<th>C14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Control (C1) My peers have greatly influenced my opinion of grade retention.</td>
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<td></td>
<td>(C2) Empirical research has informed my opinion about grade retention.</td>
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<td></td>
<td>(C3) I am free to make the decision to retain students.</td>
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<td></td>
<td>(C4) If a student fails a state standardized test, the retention decision is out of my hands due to state/district retention policy.</td>
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<td></td>
<td>(C5) If a student misses too much school, the retention decision is out of my hands since poor attendance violates district policy for promotion.</td>
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<td></td>
<td>(C6) I feel grade retention will maintain necessary grade standards.</td>
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<td></td>
<td>(C7) Retention is necessary when the student does not meet state standards.</td>
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<td></td>
<td>(C8) My principal has the final decision to retain.</td>
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<td></td>
<td>(C9) It is administrative policy to retain struggling students.</td>
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<td></td>
<td>(C10) My principal usually lets me make the final decision about whether to retain a student.</td>
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<td></td>
<td>(C11) I usually have total control over the retention decision.</td>
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<td></td>
<td>(C12) I am confident that I can recommend retention for students.</td>
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<td></td>
<td>(C13) Referring a student for retention is not up to me.</td>
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<td></td>
<td>(C14) It is generally not easy for me to refer students for retention.</td>
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</thead>
<tbody>
<tr>
<td>M</td>
<td>2.34</td>
<td>2.95</td>
<td>2.60</td>
<td>3.11</td>
<td>3.30</td>
<td>3.10</td>
<td>3.24</td>
<td>3.93</td>
<td>2.61</td>
<td>2.46</td>
<td>2.00</td>
<td>3.61</td>
<td>2.34</td>
<td>3.42</td>
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<tr>
<td>SD</td>
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<td>0.99</td>
<td>1.22</td>
<td>1.27</td>
<td>1.06</td>
<td>0.87</td>
<td>1.03</td>
<td>1.10</td>
<td>1.10</td>
<td>1.15</td>
<td>1.03</td>
<td>1.00</td>
<td>1.08</td>
<td>1.11</td>
<td></td>
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<tr>
<td>Median</td>
<td>2.03</td>
<td>3.00</td>
<td>2.60</td>
<td>3.00</td>
<td>3.31</td>
<td>3.00</td>
<td>3.12</td>
<td>4.05</td>
<td>2.54</td>
<td>2.35</td>
<td>1.94</td>
<td>3.88</td>
<td>2.01</td>
<td>3.55</td>
<td></td>
</tr>
<tr>
<td>Skewness</td>
<td>0.50</td>
<td>-0.08</td>
<td>0.23</td>
<td>0.03</td>
<td>-0.09</td>
<td>-0.11</td>
<td>-0.06</td>
<td>-0.92</td>
<td>0.30</td>
<td>0.39</td>
<td>0.89</td>
<td>-0.63</td>
<td>0.79</td>
<td>-0.36</td>
<td></td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-0.45</td>
<td>-0.32</td>
<td>-0.97</td>
<td>-1.16</td>
<td>-0.79</td>
<td>-0.17</td>
<td>-0.68</td>
<td>-0.04</td>
<td>-0.57</td>
<td>-0.76</td>
<td>-0.01</td>
<td>-0.12</td>
<td>-0.03</td>
<td>-0.74</td>
<td></td>
</tr>
</tbody>
</table>

Note. Correlations |.10| are significant at p <.05; correlations |.14| are significant at p <.01. Items are on a continuous Likert-scale from one (1 – strongly disagree) to five (5 – strongly agree).
Table 5d.  
**Summary of Intercorrelations, Means, Standard Deviations, Median, Skewness, and Kurtosis for the Theory of Planned Behavior Intention Scale (N = 404)**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Variable</th>
<th>I1</th>
<th>I2</th>
<th>I3</th>
<th>I4</th>
<th>I5</th>
<th>I6</th>
<th>I7</th>
<th>I8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention</td>
<td>(I1) I generally recommend retention for students who are struggling academically.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>(I2) I generally recommend retention for students who have behavior problems.</td>
<td>.11</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>(I3) I generally recommend retention for immature students.</td>
<td>.17</td>
<td>.29</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(I4) I generally recommend retention for students who have not mastered the English language (LEP status).</td>
<td>.25</td>
<td>.20</td>
<td>.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(I5) I generally want to retain academically struggling students.</td>
<td>.51</td>
<td>.17</td>
<td>.19</td>
<td>.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(I6) I generally want to retain students who have behavior problems.</td>
<td>.13</td>
<td>.69</td>
<td>.36</td>
<td>.26</td>
<td>.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(I7) I generally want to retain students who lack basic skills.</td>
<td>.33</td>
<td>.02</td>
<td>.23</td>
<td>.23</td>
<td>.46</td>
<td>.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(I8) I generally want to retain immature students.</td>
<td>.20</td>
<td>.20</td>
<td>.63</td>
<td>.24</td>
<td>.26</td>
<td>.26</td>
<td>.23</td>
<td></td>
</tr>
</tbody>
</table>

|        | M        | 2.92 | 1.66 | 2.25 | 2.19 | 3.12 | 1.63 | 3.63 | 2.37 |
|        | SD       | 1.02 | 0.69 | 0.99 | 0.91 | 0.97 | 0.68 | 1.00 | 0.98 |
|        | Median   | 3.00 | 1.51 | 2.04 | 2.01 | 3.03 | 1.47 | 3.72 | 2.21 |
|        | Skewness | 0.11 | 0.92 | 0.64 | 0.70 | -0.14 | 0.88 | -0.59 | 0.53 |
|        | Kurtosis | -0.57 | 0.47 | -0.01 | 0.42 | -0.45 | 0.18 | -0.11 | -0.16 |

*Note: Correlations | .10 | are significant at p <.05; correlations | .14 | are significant at p <.01. Items are on a continuous Likert-scale from one (1 – strongly disagree) to five (5 – strongly agree).*
weak correlation, which increased the PBC internal consistency. The PBC scale’s final internal consistency was $\alpha = .71$, which was above Suhr’s (2003) recommendation and Nunnelly’s (1978) rule of thumb. The internal consistency of the intention scale was $\alpha = .74$ and no items were removed from this scale.

**Research Question 1**

Utilizing the Theory of Planned Behavior, what are the current beliefs of elementary school teachers regarding grade retention?

**Hypothesis 1a**

Elementary school teachers’ attitude toward grade retention will affect their intention to retain at-risk students.

**Hypothesis 1b**

Elementary school teachers’ subjective norms will affect their intention to retain at-risk students.

**Hypothesis 1c**

Elementary school teachers’ perceived behavioral control will affect their intention to retain at-risk students.

**Model Testing**

Once scale reliability was deemed appropriate, a two-step modeling approach was used to test the hypothesized model (i.e., TPB; Ajzen, 1991; Anderson & Gerbing, 1988), which included testing hypotheses 1a, 1b, and 1c. The two-step modeling approach is used to improve fit of the TPB Full Structural model (Full SR model). The first step in testing the TPB Full SR model was to specify and test the measurement model through Confirmatory Factor Analysis (CFA; see Figure 3). The second step in testing the hypothesized model was to test the latent variable model through causal model analyses (e.g., path analysis; see Figure 4).

**Measurement Model Testing**

In testing the TPB Full SR model, testing of the measurement model must first be conducted through CFA. The aim of CFA is to establish relationships between latent variables and their indicators (i.e., measurement items). All measurement items that endured reliability testing were entered into the analysis by respective TPB construct. For example, 11 out of 13 attitude items were entered into the analysis under the Attitude latent variable. Standard
procedures were used to best fit the data to the model, which included model fit statistics and fit indices.

Fit statistics were used to evaluate model fit. The first step is evaluating the chi-square statistic. When evaluating the chi-square statistic, it is desired that the chi-square statistic is non-significant, meaning the model is not significantly different from the data. When the chi-square statistic is nonsignificant, one can reject the null hypothesis and accept that the model is a good fit to the data. However, sample size and models with a large number of indicators can easily influence the chi-square statistic (Hoelter, 1983). Considering the large number of indicators used in this model and the large sample size, the chi-square may not be the best fit statistic. Thus, Keith (2006) suggested using alternative measures of fit in addition to the chi-square statistic.

The alternative fit indices are goodness of fit index (GFI), comparative fit index (CFI), the Tucker-Lewis index (TLI), root mean square error approximation (RMSEA), and standardized root mean square residual (SRMR). As stated in Chapter Three, the GFI provides an estimate of the total covariance accounted for by the model, the CFI provides a population estimate of the improvement in fit over the null model, and the TLI provides a slight adjustment for parsimony and is relatively independent of sample size, whereas GFI and CFI are dependent on sample size (Tanaka, 1993). Hu and Bentler (1999) suggest that GFI, CFI, and TLI values over .90 indicate an adequate fit of the model to the data. When the RMSEA value is below .05, this value indicates approximate model fit (Browne & Cudeck, 1993; Keith, 2006). The last measure of model fit used for goodness of fit was the SRMR, which is conceptually equivalent to the average difference between the actual correlations among measured variables and those predicted by the model (Keith, 2006). SRMR is among the best of the model fit indexes, and values below .08 suggest a good fit of the model to the data (Hu & Bentler, 1999).

Initial assessment of the baseline model indicated the model fit poorly to the data (see Figure 3). Chi-square was significant at the \( p < .05 \) level. Modification indices greater than 3.0 were used to better fit the data to the model. Large modification indices values were targeted first. Modification indices were made to the model, which consisted of adding covariances among the error variances that made theoretical sense. Covariances were added to residual variance of measurement items’ found within the same construct (e.g., a covariance among two
Figure 3. The Measurement Model of the Theory of Planned Behavior Full Structural Model with Standardized Loadings. Attitude = Attitude Towards Retention, Subject = Subjective Norms, Control = Perceived Behavioral Control, Intent = Intentions to Retain. Omitted items are Attitude – A8, A12; Subjective Norms – N1, N5, N6, N8, N11, and PBC – C2, C4, C8, C13, C14.

attitude error terms were added; CFA model #2; see Appendix I). Covariances were not added among measurement items’ residual variances that resided within different TPB constructs. CFA was re-run and the model continued to fit poorly to the data. Construct validity and discriminant validity were established by removing indicators with standardized residuals larger than 2.56 (Hoyle, 1995). The next step in attaining model fit consisted of eliminating standardized factor
loadings that were not significant at the .05 alpha level. This step removes the non-significant measurement items. This elimination decreased the degrees of freedom and the chi-square statistic. CFA was re-run and the model was re-evaluated for goodness of fit. Although significant, low factor loadings below .50 were removed from the model to improve model fit (CFA model #3; see Appendix J). The low loadings also contributed to large standardized residuals among the error terms, which required removal. Table 6 presents the CFA with reliability estimates. Table 7 presents the progression of the measurement model for improvement of fit and Figure 4 presents the measurement model of best fit to the data.

Alternative fit indices were used in model revisions, as it is difficult to obtain a nonsignificant chi-square value in samples over 200. Results of the CFA for the measurement model (CFA model #3) indicated reasonable fit $\chi^2(80) = 136.39 \ p = <.001$, CFI = .977, TLI = .969, RMSEA = .042, and SRMR = .034.

Table 6.
*Standardized Loadings, t-values, and Significance Levels for the Measurement Model of the Theory of Planned Behavior: Attitude, Subjective Norms, Perceived Behavioral Control, and Intention (N = 404)*

<table>
<thead>
<tr>
<th>Construct</th>
<th>Indicator Variable</th>
<th>$\beta$</th>
<th>S.E.</th>
<th>t-value</th>
<th>p-value</th>
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<td>.04</td>
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<td>A3</td>
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<td>.03</td>
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<tr>
<td></td>
<td>A4</td>
<td>.67</td>
<td>.03</td>
<td>21.21</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>A6</td>
<td>.87</td>
<td>.02</td>
<td>47.24</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>A7</td>
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<td>.03</td>
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<td>&lt;.001</td>
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<tr>
<td></td>
<td>A9</td>
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<td>.04</td>
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<td>&lt;.001</td>
</tr>
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<td>Subject</td>
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<td>.05</td>
<td>10.95</td>
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</tr>
<tr>
<td></td>
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<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>N13</td>
<td>.76</td>
<td>.04</td>
<td>20.65</td>
<td>&lt;.001</td>
</tr>
<tr>
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<td>.89</td>
<td>.03</td>
<td>35.88</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>C10</td>
<td>.80</td>
<td>.03</td>
<td>28.36</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>C11</td>
<td>.70</td>
<td>.03</td>
<td>21.21</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Intention</td>
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<td>.65</td>
<td>.05</td>
<td>12.72</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>I5</td>
<td>.66</td>
<td>.04</td>
<td>16.57</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>I7</td>
<td>.71</td>
<td>.04</td>
<td>18.37</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

*Note: Subject = Subjective Norms; Control = Perceived Behavioral Control.*
Figure 4. The Structural Model of the Theory of Planned Behavior Full Structural Model. Subject = Subjective Norm, Control = Perceived Behavioral Control.

The final TPB measurement model (CFA model #3) consisted of six attitude items, three subjective norms items, three PBC items, and three intention items. The six attitude items that remained on the TPB attitude scale were: (A2) Retention is NOT a helpful solution for struggling students (reverse scored); (A3) Retention can help build a strong academic foundation; (A4) Retention prevents students from experiencing later failure; (A6) Grade retention benefits struggling students; (A7) Retention builds a solid foundation for future academic success; and (A9) Grade retention generally increases a student's confidence. The attitude item, A9, exhibited the smallest standardized loading (β = .57) and item A6 exhibited the largest standardized loading (β = .87) on the attitude scale.

The three subjective norms items that remained on the TPB subjective norms scale were: (N9) My school psychologist usually agree with me when making retention decisions; (N10) My principal usually agrees with me when making retention decisions; and (N13) My school district generally approves of my retention decisions. The subjective norm scale exhibited marginal standardized loadings. The lowest standardized loading was noted for item N9 (β = .50) and the largest loading on the TPB subjective norm scale was item N13 (β = .76).

The three PBC items that remained on the TPB PBC scale were: (C3) I am free to make the decision to retain students; (C10) My principal usually lets me make the final decision about
whether to retain a student; and (C11) I usually have total control over the retention decision. The PCB item, C11, exhibited the smallest standardized loading (β = .70) and item C9 exhibited the largest standardized loading (β = .89) on the attitude scale.

The three intention items that remained on the TPB intention scale were: (I1) I generally recommend retention for students who are struggling academically; (I5) I generally want to retain academically struggling students; and (I7) I generally want to retain students who lack basic skills. The lowest standardized loading on the intention scale was item I1 (β = .65) and the largest standardized loading was I7 (β = .71).

**Structural Model Testing**

Once the model fit the data in CFA, the TPB structural model was tested in the two-step modeling approach. The structural model examined the causal dependencies between the exogenous and the endogenous variables (i.e., latent variables) in the TPB model. The endogenous variable in the TPB model is intention. Attitude, subjective norms, and PBC were the exogenous variables and the covariances were removed among them and the endogenous variable, intention. Direct paths were placed on the endogenous variable from the exogenous variables (see Figure 4). Structural equation modeling (SEM; e.g., path analysis) was conducted using maximum-likelihood (ML) estimation procedures with the iterations set at 1000 and the convergence of the data set at 0.00005. Similar to testing the measurement model in the TPB Full SR model, path analysis utilized the chi-square statistic and alternative fit indices to assess model fit. The same criteria used in the measurement model are used during the testing of the structural model. When the GFI, TLI, and CFI are above .90, SRMR is below .08, and the RMSEA is below .05, then the model fits well to the data. The structural model did not fit well to the data and items A9 (Grade retention generally increases a student's confidence) and I1 (I generally recommend retention for students who are struggling academically) were removed from the TPB model (i.e., Structural model) due to large standardized residuals. The SEM model #2 continued to not fit well to the data and item A3 (Retention can help build a strong academic foundation) was removed because items A3 and A7 were redundant. Item A3 produced a lower path estimate and higher standardized residuals as compared to A7 and was chosen for removal. Results revealed the covariance between the exogenous variables, attitude and subjective norm was not significant (see Figure 5). The Final model resulted in a smaller, more parsimonious model. Model revisions improved model fit, decreased chi-square, and
decreased the degrees of freedom. The results of testing the TPB structural model (i.e., Final model) yielded a good fit, $\chi^2(47) = 63.32, p < .056, \text{GFI} = .991, \text{TLI} = .987, \text{RMSEA} = .029,$ and $\text{SRMR} = .028$. The results of each hypothesis test are presented in Table 8. In sum, the attitude, subjective norms, and PBC explained 72% of the variance in teachers’ intentions to retain at-risk students.

### Table 7.
**Model Fit for the Theory of Planned Behavior Model (N = 404)**

<table>
<thead>
<tr>
<th></th>
<th>$\chi^2$</th>
<th>Df</th>
<th>p value</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline model$^a$</td>
<td>2820.93</td>
<td>588</td>
<td>&lt;.001</td>
<td>.626</td>
<td>.599</td>
<td>.097</td>
<td>.113</td>
</tr>
<tr>
<td>CFA model #2</td>
<td>1561.97</td>
<td>516</td>
<td>&lt;.001</td>
<td>.809</td>
<td>.792</td>
<td>.071</td>
<td>.086</td>
</tr>
<tr>
<td>CFA model #3</td>
<td>136.29</td>
<td>80</td>
<td>&lt;.001</td>
<td>.977</td>
<td>.969</td>
<td>.042</td>
<td>.034</td>
</tr>
<tr>
<td>Structural model$^b$</td>
<td>139.03</td>
<td>81</td>
<td>&lt;.001</td>
<td>.976</td>
<td>.969</td>
<td>.042</td>
<td>.035</td>
</tr>
<tr>
<td>SEM model #2</td>
<td>82.66</td>
<td>57</td>
<td>.015</td>
<td>.988</td>
<td>.983</td>
<td>.033</td>
<td>.029</td>
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<td>Final model$^c$</td>
<td>63.32</td>
<td>47</td>
<td>.056</td>
<td>.991</td>
<td>.987</td>
<td>.029</td>
<td>.028</td>
</tr>
</tbody>
</table>

*Note:* CFA = confirmatory factor analysis; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual.

<table>
<thead>
<tr>
<th></th>
<th>$\chi^2$</th>
<th>Df</th>
<th>p value</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline model</td>
<td>2820.93</td>
<td>588</td>
<td>&lt;.001</td>
<td>.626</td>
<td>.599</td>
<td>.097</td>
<td>.113</td>
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<tr>
<td>CFA model #2</td>
<td>1561.97</td>
<td>516</td>
<td>&lt;.001</td>
<td>.809</td>
<td>.792</td>
<td>.071</td>
<td>.086</td>
</tr>
<tr>
<td>CFA model #3</td>
<td>136.29</td>
<td>80</td>
<td>&lt;.001</td>
<td>.977</td>
<td>.969</td>
<td>.042</td>
<td>.034</td>
</tr>
<tr>
<td>Structural model</td>
<td>139.03</td>
<td>81</td>
<td>&lt;.001</td>
<td>.976</td>
<td>.969</td>
<td>.042</td>
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<td>SEM model #2</td>
<td>82.66</td>
<td>57</td>
<td>.015</td>
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<td>Final model</td>
<td>63.32</td>
<td>47</td>
<td>.056</td>
<td>.991</td>
<td>.987</td>
<td>.029</td>
<td>.028</td>
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</table>

Teachers’ attitudes towards retention exhibited the largest effect size (Cohen’s $f^2 = 1.96$) in predicting intentions to retain (Cohen, 1988). PBC exhibited a medium effect size (Cohen’s $f^2 = .21$), and subjective norms exhibited the smallest effect size (Cohen’s $f^2 = .11$) in predicting intentions to retain in the TPB model. Teachers’ attitude about grade retention significantly predicted teachers’ intention to retain. That is, a one point increase in standard deviation in teachers’ attitude led to a .77 standard deviation change in teachers’ intentions to retain. The more favorable teachers are about retention, the more likely it is that they will have the intent to retain a student who lacks basic skills or is struggling academically. Attitude items that measured teachers’ beliefs about the outcome of students’ psycho-social well-being were dropped from the attitude scale due to poor loading. Attitude items that remained on the scale measured the effectiveness for retention on students who are academically struggling or lack basic skills.
The TPB subjective norms significantly predicted teachers’ intentions to retain students. School psychologists, principals, and school district personnel influence teachers’ intentions to retain. For every standard deviation unit increase in the subjective norms scale, the intent to retain scale decreased by .26 standard deviation units. The stronger teachers felt about retaining students, the less likely school psychologists and principals, and the school districts influenced teachers’ intentions to retain students who were struggling academically or lacked basic skills.

PBC significantly predicted teachers’ intentions to retain students in the TPB model. For every standard deviation unit change in the PBC scale, the intention scale rose by .36 standard deviation units. In other words, when teachers believe they have direct control over the ultimate decision, they are more likely to recommend retention for academically struggling students or students who lack basic skills.

Two items remained on the intentions scale after model testing: (I5) *I generally want to retain academically struggling students*; and (I7) *I generally want to retain students who lack basic skills*. Teachers’ attitudes, subjective norms, and PBC did not influence their intentions to retain students who have behavior problems, Limited English Proficiency (LEP) status, or were considered immature. This finding represents a change in perspective in what type of students are recommended for retention by teachers.
Figure 5. Theory of Planned Behavior Full Structural Model with Standardized Loadings. Att = teachers’ attitude toward retention; Subject = teachers’ subjective norms towards retention; Control = teachers’ perceived behavioral control; Intent = teachers’ intentions to retain.
Table 8. 
*Unstandardized, Standardized, and Significance Levels for the Theory of Planned Behavior Full Structural Model in Figure 6 (Standard Errors in Parentheses; N = 404)*

<table>
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<th>Standardized</th>
<th>P</th>
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<td>Attitude $\rightarrow$ A$_6$</td>
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<td>.74</td>
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<tr>
<td>Subjective Norm $\rightarrow$ N$_{13}$</td>
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<td>.75</td>
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<td>.57</td>
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<tr>
<td>Error in I$_7$</td>
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<td>.50</td>
<td>&lt;.001</td>
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<td>.23</td>
<td>&lt;.001</td>
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<td>.09</td>
<td>.152</td>
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<tr>
<td>Covariance Attitude and Perceived</td>
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<tr>
<td>Covariance Subjective Norm and Perceived</td>
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<td>Attitude $\rightarrow$ Intention</td>
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<tr>
<td>Subjective Norm $\rightarrow$ Intention</td>
<td>-0.35 (.16)</td>
<td>-.26</td>
<td>.019</td>
</tr>
<tr>
<td>Perceived Behavioral Control $\rightarrow$ Intention</td>
<td>0.21 (.07)</td>
<td>.36</td>
<td>.001</td>
</tr>
<tr>
<td>R$^2$ Intention</td>
<td>.72</td>
<td>.72</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Residual for Intention</td>
<td>0.11 (.04)</td>
<td>.28</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

*Note:* $\chi^2$(68) = 83.45, $p < .100$; GFI = .994; TLI = .992; RMSEA = .025; SRMR = .029
Research Question 2

Of those teachers who referred at-risk students to the GRDMT, how often were teachers’ beliefs about retaining at-risk students congruent with team ultimate decisions to retain?

Hypothesis 2

Teachers’ beliefs about retaining students will be congruent with GRDMT’s ultimate decisions to retain at-risk students.

Logistic Regression Analysis

In order to test Hypothesis 2, teachers were surveyed about their level of participation in grade retention teams. The final sample used for data analysis consisted of 404 teachers. Out of the 404 teachers, 306 (76%) teachers indicated that they participate in grade retention teams and were included in testing Hypothesis 2 (see Figure 6). Teachers answered a question about group ultimate decisions by indicating whether the group decided to retain the student in question. Logistic regression analysis was used to test Hypothesis 2 in Mplus. A parameter and variable were added to the TPB model. The variable, group decision to retain, was a dichotomous variable and its predictor was the latent variable, teachers’ intentions to retain. Results indicated that teachers’ beliefs were not congruent with group decisions ($p = .108$), and did not significantly predict group decisions to retain or promote at-risk students. These results reject Hypothesis 2.

To further investigate this relationship, an ad-hoc analysis used SPSS to examine the relationship of the two measurement items on the TPB intention scale with the dichotomous variable, group final decision. The two items on the TPB intention scale from the Full Structural model were block entered as continuous predictors in the model (see Figure 7). The group’s ultimate decision was the outcome variable in the statistical model, a dichotomous variable (retain vs. promote).

The two teachers’ intention measurement items did not significantly predict the likelihood of congruence between teachers’ beliefs to retain and group decisions. A test of the full model against a constant model was not statistically significant, indicating that teachers’ beliefs about grade retention cannot reliably distinguish between those groups who voted for retention and those groups who voted for promotion ($\chi^2(2) = 1.783, p = .410$; see Table 9). Negelkerke’s $R^2$ of .02 indicated a weak relationship. Prediction success overall was 75% (100% for group decision to retain and 0% for group decision to promote the student; see Table 10).
This means that the model did not accurately predict the 77 students who were promoted. The Wald criterion demonstrated that teachers’ beliefs to retain academically struggling students or students who lack basic skills did not significantly contribute to predicting team decisions. The strength of teachers’ beliefs to retain was no better than chance in predicting the likelihood of group decision. In other words, teachers who express a strong belief to retain a student are no more likely to be congruent with team decisions than those teachers who express a weak belief to retain a student.
Figure 7. Teachers’ Intention Measurement Items in Predicting the Likelihood of Congruence with the Grade Retention Decision-Making Teams’ Ultimate Retention Decisions.

Table 9. Summary of Logistic Regression Analysis for Teachers’ Beliefs to Retain in Predicting Group Ultimate Retention Decisions (n = 306)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE</th>
<th>$e^B$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academically struggling</td>
<td>.14</td>
<td>.15</td>
<td>1.15</td>
</tr>
<tr>
<td>Lack basic skills</td>
<td>.06</td>
<td>.15</td>
<td>1.06</td>
</tr>
<tr>
<td>Constant</td>
<td>.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\chi^2$</td>
<td></td>
<td></td>
<td>1.78</td>
</tr>
<tr>
<td>$Df$</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

*Note: $e^B$ = exponentiated $B$. Teachers’ intention measurement items are scored from 1 for *strongly disagree* to 5 for *strongly agree*. Teachers’ intention items i5 and i7 are the significant predictors on the Theory of Planned Behavior Teacher Intention scale. **$p < .01$.**

Table 10. Classification Table for Group Ultimate Retention Decisions (n = 306)

<table>
<thead>
<tr>
<th></th>
<th>Predicted</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Promote</td>
<td>Retain</td>
</tr>
<tr>
<td>Observed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promote</td>
<td>0</td>
<td>77</td>
</tr>
<tr>
<td>Retain</td>
<td>0</td>
<td>229</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Negelkerke’s $R^2 = .02$.**
To further investigate this relationship, an ad-hoc crosstabs analysis was performed on teachers’ beliefs to retain and group decisions (see Table 11). First, to perform the crosstabs analysis, teachers’ belief items had to be transformed into a categorical variable. A mean of the sum of teachers’ beliefs items was obtained. Next, the mean was categorized into one of three categories: disagree, neutral, and agree. The category that defined disagree contained mean scores that ranged from 1.00 to 2.99, the neutral category consisted of scores that were 3.00, and the agree category contained mean scores that ranged from 3.01 to 5.00. Results indicated that when teachers disagreed with retention, the group voted to retain in 23% of all the cases. In contrast, when teachers agreed with retention, the group voted to promote in 13% of all the cases. This finding represents an incongruence of opinion between group decisions and teachers’ beliefs in 36% of all the cases.

Table 11.
Frequencies and Percentages of Grade Retention Decision-Making Teams’ Ultimate Retention Decisions and Teachers’ Intentions to Retain (n = 306)

<table>
<thead>
<tr>
<th>Teachers’ Intentions</th>
<th>Retain n</th>
<th>Retain %</th>
<th>Promote N</th>
<th>Promote %</th>
<th>Total n</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>70</td>
<td>23</td>
<td>30</td>
<td>12</td>
<td>106</td>
<td>35</td>
</tr>
<tr>
<td>Agree</td>
<td>147</td>
<td>48</td>
<td>39</td>
<td>13</td>
<td>186</td>
<td>61</td>
</tr>
<tr>
<td>Neutral</td>
<td>12</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Total (%)</td>
<td>229</td>
<td>75</td>
<td>77</td>
<td>25</td>
<td>306</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: Disagree = disagree and strongly disagree (1.00 to 2.99 range); Agree = agree and strongly agree (3.01 to 5.00 range); Neutral = neither agree nor disagree (3.00 score).

Additional Findings

Grade retention policies, procedures, and alternatives used in school districts are presented in this section. The characteristics of the GRDMT and the demographics of the student in question of retention are also presented in this section. Teachers were provided with an open-text format to allow for feedback on their thoughts and feelings regarding grade retention. The responses are provided in qualitative format. This section is not meant to provide an in-depth qualitative analysis of teacher responses, but to highlight notable findings. Although these findings are not specific to the research questions and hypotheses, these findings shed light
on the current climate surrounding grade retention. Descriptive statistics were used to describe the characteristics of the GRDMT and the demographics of the student in question of retention.

Teachers were surveyed about their participation in GRDMTs. Three hundred and six (306; i.e., 76% of the final sample) teachers indicated they participated in this type of team and provided feedback about the group membership of the last team meeting they attended (e.g., group characteristics). Since GRDMT literature is virtually nonexistent, it was imperative to explore the team meeting by examining who attends the meeting. Exploration of the team meeting in this study is meant to provide a foundation for future research. Each of the 306 teachers reported being present at the grade retention decision-making meeting. An overwhelming majority of teachers indicated the school principal was present at the team meeting (89.5%). Sixty percent reported that the assistant principal was present at the last team meeting and only 16% indicated the school psychologist was present at the last team meeting. Regarding parental presence at the team meeting, a relatively low number of teachers (36 or 11.8%) indicated the student’s parent(s) were present at this team meeting. Other participants included guidance counselors, interventionists, fellow teachers from the same grade level, reading and math specialists, and a Response to Intervention (RtI) teacher/team (see Table 12).

Table 12.
*Characteristics of Grade Retention Decision-Making Teams (n = 306)*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student’s Teacher</td>
<td>306</td>
<td>100.0</td>
</tr>
<tr>
<td>Principal</td>
<td>274</td>
<td>89.5</td>
</tr>
<tr>
<td>Assistant Principal</td>
<td>185</td>
<td>60.4</td>
</tr>
<tr>
<td>Guidance Counselor</td>
<td>209</td>
<td>68.3</td>
</tr>
<tr>
<td>School Psychologist</td>
<td>49</td>
<td>16.0</td>
</tr>
<tr>
<td>Special Education Teacher</td>
<td>91</td>
<td>29.7</td>
</tr>
<tr>
<td>PT/OT</td>
<td>7</td>
<td>2.3</td>
</tr>
<tr>
<td>School Nurse</td>
<td>11</td>
<td>3.6</td>
</tr>
<tr>
<td>Speech Therapist</td>
<td>37</td>
<td>12.1</td>
</tr>
<tr>
<td>Parent(s)</td>
<td>36</td>
<td>11.8</td>
</tr>
<tr>
<td>Academic Coach</td>
<td>5</td>
<td>1.6</td>
</tr>
<tr>
<td>Reading Specialist</td>
<td>6</td>
<td>2.0</td>
</tr>
<tr>
<td>All grade level teachers</td>
<td>35</td>
<td>11.4</td>
</tr>
<tr>
<td>RtI teacher/team</td>
<td>17</td>
<td>5.6</td>
</tr>
<tr>
<td>Diagnostician</td>
<td>5</td>
<td>1.6</td>
</tr>
</tbody>
</table>

*Note: PT/OT = Physical Therapist/Occupational Therapist*
Teachers provided the demographics of the at-risk students (see Table 13). The majority of responses indicated the at-risk students were minority males (36%) who exhibited difficulties with reading (91.5%), math (75.5%), and state standardized testing (69.6%). Only 31 teachers indicated that the student exhibited low intellectual achievement (e.g., IQ scores). Three teachers indicated the student had been previously retained. Regarding psychosocial variables, students who had excessive absences (36.6%), were socially immature (34.0%), and/or had low parental involvement in their school (25.2%) were subject to retention more often than those who were from a low-income, single-parent household.

Table 13.

Demographics of Students Who were Subject of Retention in Grade Retention Decision-Making Teams (n = 306)

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>53</td>
<td>17.3</td>
</tr>
<tr>
<td>Male</td>
<td>117</td>
<td>38.2</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>44</td>
<td>14.4</td>
</tr>
<tr>
<td>Caucasian</td>
<td>67</td>
<td>21.9</td>
</tr>
<tr>
<td>Hispanic</td>
<td>68</td>
<td>22.2</td>
</tr>
<tr>
<td><strong>Psychosocial</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavior Problems</td>
<td>41</td>
<td>13.4</td>
</tr>
<tr>
<td>Socially Immature</td>
<td>104</td>
<td>34.0</td>
</tr>
<tr>
<td>LEP status</td>
<td>28</td>
<td>9.2</td>
</tr>
<tr>
<td>Lack of Parent Involvement</td>
<td>77</td>
<td>25.2</td>
</tr>
<tr>
<td>Single-Parent Household</td>
<td>45</td>
<td>14.7</td>
</tr>
<tr>
<td>Low SES</td>
<td>51</td>
<td>16.7</td>
</tr>
<tr>
<td>Excessive Absences</td>
<td>112</td>
<td>36.6</td>
</tr>
<tr>
<td>Parent Recommendation</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Academic Achievement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Standardized Test Scores</td>
<td>213</td>
<td>69.6</td>
</tr>
<tr>
<td>Poor Reading Skills</td>
<td>280</td>
<td>91.5</td>
</tr>
<tr>
<td>Poor Math Skills</td>
<td>231</td>
<td>75.5</td>
</tr>
<tr>
<td>Failing Grades</td>
<td>8</td>
<td>2.6</td>
</tr>
<tr>
<td>Previous Retention</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Poor Writing Skills</td>
<td>4</td>
<td>1.3</td>
</tr>
<tr>
<td>Speech Issues</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Low Cognitive Ability (IQ)</td>
<td>31</td>
<td>9.5</td>
</tr>
</tbody>
</table>

*Note:* Teachers recalled the students’ characteristics and were not forced to select the characteristics, such as gender.
The entire sample \((N = 404)\) was surveyed about what grade retention alternatives their school district utilizes in deterring grade retention. Two hundred and forty-eight teachers \((248; 61\%)\) indicated their school and/or district utilizes alternatives to grade retention in an effort to promote the student to the next grade level. Out of the 248 teachers, 207 provided open-text responses in defining district alternatives to grade retention. Summer school appeared to be the most frequently used alternative to grade retention. Half of those who responded \((n = 106, 51\%)\) indicated summer school is the preferred intervention. Response to Intervention (RtI) is also used frequently as an alternative to grade retention. Forty-five teachers \((22\%)\) indicated their district employs RtI prior to and/or in combination with grade retention. RtI is also used with placement into the next grade level. Seventeen teachers indicated their school district utilizes a combination of summer school and either RtI or tutoring services, and fourteen teachers indicated their district provides tutoring prior to grade retention. Eleven teachers reported their district promotes the student with or without accommodations such as acceleration (e.g., quickly strengthening the students’ weak academic areas early during the following school year). In other words, acceleration attempts to bring the student up to grade level at a fast pace. “Referral to special education” was also noted as an alternative to grade retention. Interestingly, two teachers noted their district can waive a failing score on the state standardized test and promote the student. One teacher reported he/she often notifies the next grade level teacher about the struggling student. Another teacher indicated that in addition to tutoring as an alternative to grade retention, “peer interactions and case manager assistance are also used” as alternatives. The responding teacher did not operationally define the terms “peer interactions” and “case manager assistance.” Lastly, one teacher noted his/her “school district frowns upon recommendations of grade retention by teachers.”

In an effort to obtain insight into the current climate of grade retention, teachers were encouraged to answer one question that inquired about their district’s policy for grade retention. All teachers provided some insight into the policies and procedures used in their district. Overall, it appeared that teachers were primarily the ones to begin the retention process by either calling a meeting, notifying the principal and/or parents of the at-risk student.

Although common themes emerged from the data, there was no consensus among the responses, which indicated grade retention likely varied from district to district and from state to state. For example, grade retention is either an objective decision with definitive guidelines, or a
subjective decision where school personnel use discretion and weigh “what is in the best interest of the student.” Objective data, such as low state standardized test scores, poor grades in core subjects, excessive absences, and/or failure to show growth during interventions were used to make the retention decision. However, all of these items need not be present when considering the retention decision. For instance, a few teachers noted that only grades in language arts and/or math below the 70th percentile might influence the retention decision. One teacher indicated that the student might be retained if he/she fails two major academic areas or one area plus the End of the Year Reading Test.

Summer school appears also to be an option considered instead of retention. If the student does not show growth during summer school, then the student may be retained. Some states have a mandatory grade retention policy, meaning that if a third grade student fails the third grade reading portion of the state standardized test, then that student must be retained. One teacher noted that his/her state has a mandated policy, which states that if the student fails either the reading or math portion of the standardized test, then that student must be retained.

With regard to subjective data used in retention, some common themes emerged in the data. Response to Intervention (RtI) was used often when the student was not meeting grade level standards. Growth was monitored and if the student continued to lag behind his/her peers academically, the student would be a candidate for retention. RtI was placed in the subjective criteria group because RtI is not a uniform, standardized curriculum for struggling learners. For example, one teacher or interventionist may use a specific intervention with a testing measure while another teacher may use something completely differently to assess the struggling learner. Many teachers' responded they create a case (i.e., generate a report) to retain the student, after which the decision was either up to the principal or the team, with the principal primarily responsible for the ultimate decision. Students were reviewed on a case-by-case basis for retention and if the student has a prior retention, then the student can be promoted regardless of a prior retention history. Lastly, one teacher noted her school’s team “passed the struggling student on to the next grade and prayed.”

Contrary to the relatively low parental attendance rate at the GRDMT meeting (12%), teachers indicated parental involvement before, during, or after the ultimate retention decision. One teacher indicated he/she begins working with the students at the beginning of the school year and informs parents by October if he/she is concerned with the lack of progress made by the
student. By November, if the student is still struggling, he/she schedules a Child Study Team meeting with the principal, parent, and guidance counselor to talk about remediation. Four teachers indicated they needed to document parent conferences and phone conversations about the struggling learner. Eight teachers indicated parents were only notified after the ultimate decision was made. One teacher reported that students could only be retained by parent request. Five teachers indicated that a grade retention policy does not exist in their district, and five teachers were unsure of their district’s grade retention policy.

Nine teachers indicated that either their district does not retain or rarely retains students. Out of those nine, three teachers reported their principal has not allowed retentions within the past two years. One teacher reported the student whom he/she recommended for retention was retained and placed in her classroom the next academic year. He/She felt that the retention was beneficial for that student indicating, that the student became the class leader. Another teacher stated he/she recommends retention in order to give the “Gift of Time.”

Overall analysis of the data obtained from the survey questions revealed that teachers are primarily the ones responsible for bringing the student forth to be considered for retention. School districts employ various policies and procedures in retaining students. Summer school and RtI are often utilized as an alternatives to grade retention and appears to be used simultaneously in establishing criteria in retention decisions. Teachers were generally approving of grade retention and two teachers indicated that retention decisions could be based on maladaptive social and behavioral aspects of students. A few teachers indicated that they were generally not approving of grade retention, but felt it necessary in some instances.
CHAPTER FIVE
DISCUSSION

The primary purpose of this study explored public school elementary teachers’ beliefs about grade retention by utilizing the Theory of Planned Behavior (TPB) conceptual framework. Secondly, this study examined the congruence between elementary teachers’ beliefs about retention and grade retention decision-making teams’ (GRDMT) ultimate decisions to retain at-risk students. The measure used in the study, the Teacher Belief Questionnaire (TBQ), was created specifically for this research. The TBQ was used to measure teachers’ beliefs (attitude, subjective norms, perceived behavioral control [PBC], intention), and ultimate group retention decisions. Empirical literature provided the foundation in creating the TBQ. Additional TBQ questions provided a snapshot of the current climate of grade retention in this sample.

This chapter provides a summary of the research results, which include a discussion of the findings as they relate to each research question. For Research Question 1, a discussion of the TPB model testing is presented first, followed by a discussion of the descriptive findings of the measurement items of each scale: attitude, subjective norms, PBC, and intention. The discussion of Research Question 2 follows. Additional findings are also summarized in this chapter. In addition to the research questions and additional findings, a review of study limitations, implications of the results, and recommendations for future research are presented in this chapter.

Theory of Planned Behavior

The Theory of Planned Behavior (TPB; Ajzen, 1991) was used as a theoretical framework to study teachers’ beliefs and intentions about grade retention. Attitude was by far the strongest predictor of teachers’ intentions to retain students who lacked basic skills or were academically struggling in this sample. Findings from the current study indicated teachers believe strongly in grade retention and will recommend retention when they feel they do not have to make the final decision. Further, teachers generally believe their school psychologist, principal, and school district negatively influences their recommendations for retention. Interestingly, parental influence was not included in the TPB model. Pertaining to control over the retention decision, PBC was the most problematic scale in this study with reference to inter-
item consistency, followed by the subjective norms scale. The subjective norms and the PBC scales may have been problematic due to the possibility that the scales were multidimensional rather than unidimensional, which would explain why the attitude scale exhibited a higher inter-item consistency (Greene & Yang, 2009). In fact, if teachers feel they do not have the resources, skills, or opportunities to make a decision, then their perceived control over that decision will be low (Ajzen, 1991).

The subjective norms and PBC measurement items exhibited face and content validity but appeared to measure different factors within the constructs. Greene and Yang (2009) cautioned researchers to not rely solely on Cronbach’s alpha, as this statistic only captures the unidimensionality of a scale (see Greene & Yang, 2009 for full discussion). As a result, items may be removed, when in fact, these items may capture the essence of the scale. Greene and Yang (2009) suggested researchers should consider structural equation modeling (SEM) to test the reliability of the scales. Therefore, examining the multidimensionality of the subjective norms and perceived behavioral control constructs as they relate to teachers’ beliefs about grade retention may provide helpful information in improving the model for education research.

**Research Question 1**

Utilizing the Theory of Planned Behavior, what are the current beliefs of elementary school teachers regarding grade retention?

Structural equation modeling was used to explore elementary teachers’ beliefs about grade retention by utilizing the TPB framework (Ajzen, 1991). A two-step modeling approach was used to test the measurement model and the structural model of the Full Structural model (Full SR model). The measurement model tested how well the indicators (e.g., measurement items) predicted the latent variables: attitude, subjective norms, PBC, and intention. The structural model tested how well the exogenous variables (attitude, subjective norms, PBC) predicted the endogenous variable (intention) in the TPB Full SR model.

The final analysis of the TPB Full SR model resulted in a smaller, more parsimonious model. Model revisions improved model fit, decreased chi-square, and decreased the degrees of freedom. Seventeen measurement items constructed based on empirical literature did not reliably predict teachers’ intention to retain in the model. The final fit indices for the TPB Full SR model indicated a good fit to the data, $\chi^2(47) = 63.32, p < .056, \text{GFI} = .991, \text{TLI} = .987, \text{RMSEA} = .029, \text{and SRMR} = .028$. Teachers’ attitude toward grade retention, subjective norms,
and PBC explained 72% of the variance of intention to retain students. Teachers’ attitudes towards retention exhibited the largest effect size (Cohen’s $f^2 = 1.96$) in predicting intentions to retain (Cohen, 1988). PBC exhibited a medium effect size (Cohen’s $f^2 = .21$), and subjective norms exhibited the smallest effect size (Cohen’s $f^2 = .11$) in predicting intentions to retain. For Research Question 1, the results lend support to the assertion that teachers’ beliefs impact their intentions to retain at-risk students when using the TPB conceptual framework. Specifically, the attitude, subjective norms, and PBC of teachers significantly affect their intentions to retain at-risk students in this sample. The results obtained in this study may be due to the changing beliefs of teachers, new educational policy, or lack of autonomy in the retention decision.

Prior teacher belief literature only measured the strength of the measurement items in the form of percentages and frequencies, whereas, this study measured how those beliefs predicted teachers’ intentions to retain at-risk students by using the TPB conceptual framework. Many items used in the Teacher Belief Questionnaire (TBQ) were reliable and valid but did not significantly predict teacher intentions in the TPB model. Findings from this study provide preliminary evidence that teachers continue to hold the majority of attitudes outlined in previous teacher belief literature, but their entire belief structure (e.g., measurement items dropped from the model) did not impact or predict their intentions. The TPB model is useful in identifying teachers’ strongest attitudes, subjective norms, and PBC in predicting their intention to retain at-risk students. Further, taking into consideration an era of high standards and accountability in education, the TPB Full SR model only predicted teachers’ intention to retain students who were struggling academically or lacked basic skills. In this study, teachers’ beliefs did not influence their intentions to retain students who are immature, have behavior problems, or have Limited English Proficiency (LEP) status. These findings are important because it appears that in addition to attitudes, subjective norms, and control influencing teachers’ intentions to retain academically struggling students, state policy may also be influential in teacher intentions to retain; an influence that may not have existed prior to the inception of No Child Left Behind Act (2001) and state grade retention policy.

**Attitude**

The TPB’s attitude scale initially consisted of 13 items. Two items were removed after reliability testing due to poor correlations with the other items on the scale. After model testing, only four items remained on the TPB attitude scale: 

(A2) *Grade retention is NOT a helpful*
solution for struggling students (reverse scored); (A4) Retention prevents students from experiencing later failure; (A6) Grade retention benefits struggling students; and (A7) Retention builds a solid foundation for future academic success. Using a continuous scale from 1 (strongly disagree) to 5 (strongly agree), teachers agreed with all four statements: A2, A4, A6, and A7, with means of 3.77, 3.29, 3.51, and 3.30, respectively. Teachers’ attitude about grade retention significantly predicted teachers’ intention to retain. That is, a standard deviation increase in teachers’ attitude led to a .77 standard deviation change in teachers’ intentions to retain in the TPB model. The more favorable teachers are about retention, the more likely it is that they will have the intent to retain a student who lacks basic skills or is struggling academically. These findings support prior teacher belief research (Roderick, 1994; Smith, 1989; Tomchin & Impara, 1992; Witmer et al., 2004). For example, teachers believe the act of retention cannot only benefit struggling students; it can help build a solid foundation (Shepard & Smith, 1989; Tomchin & Impara, 1992). Further, teachers continue to believe that retaining students early in their academic career will prevent later failure (Roderick, 1994; Tomchin & Impara, 1992).

Teachers continue to be in favor of grade retention, beliefs that have remained relatively static in the past 30 years of teacher belief literature. These findings are perplexing given that the literature finds that grade retention is an ineffective, non-evidenced-based intervention (Holmes, 1989; Jackson, 1975; Jimerson, 2001a). In fact, grade retention does not align with NCLB (2001) guidelines. If teachers’ beliefs about grade retention are to change, then educating pre-service teachers about the unethical and harmful effects of grade retention may be key to changing their belief structure. Interestingly, in a study about pre-service teachers’ beliefs regarding grade retention, 95 pre-service teachers exhibited stronger beliefs about grade retention as an effective intervention than more experienced teachers (Range, Yonke, & Young, 2011; Wynn, 2010). These pre-service teachers cited common myths and colloquial wisdom to explain why they believed grade retention was effective (Range et al., 2011). They believe grade retention prevents future failure, maintains grade standards, and helps struggling readers (Pouliot, 1999; Range et al., 2011; Wynn, 2010). It is not known if the textbooks used in teaching courses contain grade retention research or if professors place an emphasis on grade retention literature in their courses. Educating pre-service teachers in college courses about interventions could help deter teachers from choosing grade retention as an intervention for struggling students.
The items that measured teachers’ beliefs about the psychosocial aspects of students were dropped from the attitude scale due to poor loading. These items were: (A5) *Retention helps immature students catch up to their peers*; (A8) *A student who is not developmentally ready should not be promoted to the next grade level*; (A9) *Grade retention generally increases a student’s confidence*; (A10) *Grade retention can decrease the student’s stress level* and (A11) *Students who are retained will emerge as class leaders*. These items did not fit well to the TPB model. Teachers felt that if students were retained, then they would not emerge as class leaders or exhibit an increase in their confidence. These beliefs contradict prior research (Shepard & Smith, 1990). In contrast, this study’s sample of teachers felt that grade retention decreases the student’s stress level and helps immature students catch up to their peers. It appears that teachers have mixed beliefs about the impact of grade retention on the psychosocial well-being of students. Yet, they firmly believe that grade retention is in the best interest of academically struggling students and those who are not developmentally ready.

One item that was dropped appeared to be consistent with previous findings. The item (A12), *It is better to retain earlier in the student’s academic career*, exhibited the highest mean as compared to the other items on the attitude scale. Teachers overwhelmingly agreed that if retention were to happen, then it should happen early in the student’s career, as opposed to later. Retaining earlier in a student’s academic career is a common myth believed by many teachers. This finding supports prior teacher belief literature but contradicts previous grade retention research, which clearly states that early grade retention increases the likelihood of dropout, negative behavioral problems, overall disengagement from school, and poor job performance (Jimerson, et al., 2006; Pagani et al., 2001; Rumberger, 1995; Smith & Shepard, 1987). Students who are retained early in their academic career will continue long-term low academic achievement (Jimerson, 1999; Jimerson & Ferguson, 2007; Owings & Magliaro, 1998; Schnurr et al., 2009; Silberglitt, Jimerson, Appleton, & Burns, 2006; Silberglitt, Jimerson, Burns, & Appleton, 2006).

If teachers have mixed feelings about the impact of grade retention on the child’s psychosocial well-being, then why do teachers continue to recommend retention for an estimated 2.5 million students annually? One reason may be the emphasis on accountability and standards (NCLB, 2001) or retaining students is an educational tradition that has been practiced for over 100 years (i.e., it is the norm intervention). Embracing pro-active interventions, such as those
defined in Response to Intervention (RtI; IDEIA, 2004), teachers would have access to adequate resources that assess and monitor student achievement and behavior throughout the school year. Integrating RtI into the daily curriculum can cut in half the number of retentions annually and help with looking at the holistic development of the student and not just reading and mathematic achievement (Murray, Woodruff, & Vaughn, 2010).

**Subjective Norms**

The TPB subjective norms scale originally consisted of 13 measurement items, of which eight items remained after scale revisions made due to reliability statistics. Only three items remained on the subjective norms scale after model revision: (N9) *My school psychologist usually agrees with me when making retention decisions*, (N10) *My principal usually agrees with me when making retention decisions*, and (N13) *My school district generally approves of my retention decisions*. These items significantly predicted teachers’ intentions to retain students who lack basic skills or were academically struggling. Using a scale from 1 (strongly disagree) to 5 (strongly agree), teachers agreed with these statements: N9, N10, and N13, with means of 3.39, 3.37, and 3.19, respectively. It appeared that school psychologists, principals, and school districts negatively influence teachers’ intentions to retain. For every standard deviation unit increase in the subjective norms scale, the intention to retain scale decreased by .26 standard deviation units. The negative relationship between teachers’ intentions and subjective norms means that as teachers’ intentions to retain students increases, the less influence the school psychologists, principals, and school districts have on teachers’ intentions to retain students who are academically struggling or lack basic skills.

School psychologists and principals hold different perspectives on grade retention than teachers. Yet, the frequency of school psychologists’ attendance during the retention decision-making process is much lower than the frequency of the principals’ attendance. One hundred and eleven (111; 50%) school psychologists out of a sample of 224 surveyed in Schnurr et al.’s (2009) study reported they rarely or occasionally participate in the retention decision-making process. Involving school psychologists earlier in the school year to implement and improve interventions, provide education on grade retention literature to school personnel and parents, and advocate for more appropriate, evidenced-based interventions can help reduce the number of retentions annually (Schnurr et al., 2009). The differences in opinion between teachers, principals, and school districts may be the result of grade retention policy, or lack thereof. These
differences in opinion may be due to teachers not wanting sole responsibility for retaining a student, state policy that bases retention decisions on state standardized tests, lack of support by building personnel, or lack of adequate funding to implement effective strategies, curriculum, and interventions.

This study provides preliminary evidence that teachers’ intentions to retain at-risk students are not always influenced by school psychologists, principals, and school districts. Yet, the timing of this influence represents a conundrum and may occur at the end of the school year, past the point of pre-intervention services (Kovaleski, 2007). The polarization and disparity in decision-making among school personnel sheds light on the instability of grade retention. Unfortunately, millions of students are subject to this irresolute decision. If grade retention is to decrease in the United States, then identifying and monitoring students early in the year (e.g., the Response to Intervention model), increasing communication among school personnel, and including parents in the decision-making is key (National Association of School Psychologists, 2011). The African proverb cited by Hillary Clinton, Secretary of State, summarizes this argument best, “It takes a village to raise a child” (Clinton, 1996, p. 12). Unfortunately, “the village” didn’t influence teachers’ intentions to retain at-risk students in this sample.

Items that were removed from the TPB’s subjective norms scale measured parental influence, peer influence, and school personnel influence on teachers’ intentions. The parental influence items that were removed during the model testing were: (N1) Parents generally feel grade retention is a positive recommendation for their struggling child; (N6) Parents do not influence my decision to retain; and (N11) Parent approval of my retention decision matters to me. The peer influence items that were removed were: (N2) Other teachers might think I maintain low standards if I don't retain a struggling student; (N3) Others will think negatively about my teaching abilities if I don't retain a struggling student; (N4) I fear being ridiculed by fellow teachers if I don’t retain; and (N5) I often listen to my peers when making retention decisions. The items that measured the influence of building personnel on teachers’ intentions were: (N7) My assistant principal generally believes I should retain struggling students and (N8) My school psychologist generally believes I should promote struggling students. Lastly, the item that measured the influence of the state education agency had little influence over teachers’ intentions: (N12) My state education agency is supportive of grade retention as a strategy for
addressing the needs of struggling students. These subjective norm items removed during model testing generally had low means and medians. A discussion of these items follows next.

For example, teachers generally disagreed with the following statement, item N8. *My school psychologist generally believes I should promote struggling students.* This item did not correlate well with other items on the TPB subjective norms scale. Interpretation of this finding suggests that teachers believe school psychologists support grade retention. This discovery is perplexing given that, when surveyed in prior studies, school psychologists overwhelmingly do not support grade retention as an effective intervention for struggling students (NASP, 2003; Schnurr et al., 2009; Witmer et al., 2004). Perhaps there is a disparity between how teachers view school psychologists’ beliefs and how school psychologists view their own beliefs. In a nationwide random sample of 250 school psychologists, the majority of school psychologists in the nationwide sample reported that they do not participate in retention decisions (Schnurr et al., 2009). Teachers’ beliefs about school psychologists’ beliefs may be influenced by the small percentage of school psychologists that participate in the retention decision-making process. School psychologists who participate in the decision may be more likely to go along with teacher or group decisions without voicing disagreement or advocating for the student (e.g., diffusion of responsibility; Leahy & Forsyth, 1975). This finding is concerning because the NASP ethical guidelines stipulate that school psychologists should promote an optimal learning environment for the student by implementing research, training, advocacy, ongoing program evaluation, and a caring professional service (NASP, 2000). More research needs to occur in this area comparing the beliefs of school psychologists who participate in the decision-making process with those who do not. More importantly, what processes occur during the decision-making process that allow school psychologists to go along with the retention decision?

Teachers particularly disagreed with peer influence statements, which contradicts previous research findings (Byrnes, 1989; Tomchin & Impara, 1992). The majority of teachers in this study did not fear ridicule by fellow teachers or care what other teachers thought about their teaching abilities. This finding presents a change in the perspective of teachers. Research in the 1980s and 1990s indicated peer influence weighed heavily on teacher decisions to retain, a pattern that seems to have changed (Byrnes, 1989; Tomchin & Impara, 1992). An ad-hoc multivariate analysis (MANOVA) was performed using teacher characteristics as the covariates and four subjective norms’ peer influence items (N2, N3, N4, and N5) as the dependent
variables. The following teacher characteristics were used in the ad-hoc analysis: age, gender, ethnicity, years of experience, classification of classroom, state currently teaching in, highest degree earned, type of school district, number of students in the classroom, and the percentage of students on a Free and Reduced Lunch (FARL) program. There were no significant differences among the teacher characteristic categories with regards to any of the four peer influence items. It appears that regardless of demographics and school climate, teachers in this sample disagreed with the peer influence statements. Why the change? Perhaps teachers feel more confident and less scrutinized about their teaching abilities and decision-making than in the past. Or, since no differences were found in the ad-hoc MANOVA, teachers believe they “are all on the same page” with fellow teachers in regards to retaining students.

Other items removed from the TPB subjective norms scale included items that surveyed teachers about parent influence in their retention decisions. Findings indicate teachers believe that parents feel grade retention is negative; however, parent approval matters to them when making the recommendation to retain at-risk students (Smith & Shepard, 1988). Although teachers reported parents generally disapprove of grade retention, very few parents participated in the retention decisions. The majority of teachers agreed with Item N2, Parents do not influence my decision to retain. This item provides preliminary evidence that parental influence is not effective in influencing teacher intentions. These findings are consistent with previous research where teachers took more of an autonomous stance in retaining students regardless of what parents approved of or felt (Shepard & Smith, 1988). However, parental influence could weigh heavily on teacher intentions. Increasing parental involvement in school activities can decrease the number of retentions (McCoy & Reynolds, 1999).

**Perceived Behavioral Control**

The TPB PBC scale initially contained 14 items. After reliability testing of the PBC scale, only nine items were retained for model testing. After model testing, only three items significantly predicted teachers’ intentions to retain in the TPB model: (C3) I am free to make the decision to retain students, (C10) My principal usually lets me make the final decision about whether to retain a student, and (C11) I usually have total control over the retention decision. On a continuous scale from 1 (strongly disagree) to 5 (strongly agree), teachers were less likely to agree with these statements with means at 2.60, 2.46, and 2.00, respectively. For every standard deviation unit change in the PBC scale, the intention scale rose by .36 standard
deviation units. In other words, when teachers believe they have direct control over the ultimate decision, they are more likely to recommend retention for academically struggling students or students who lack basic skills.

These findings contradict Black’s (2004) findings that teachers felt they were free to make the retention decision. This contradiction may be due to external pressures in promoting students (e.g., Adequate Yearly Progress, district policy; NCLB, 2001; IDEIA 2004), whereas these pressures may not have been present in prior decades. NCLB requires school personnel to report the progress of four subgroups: minority students, students with disabilities, students with LEP, and students from low-income families (NCLB, 2001). If one subgroup does not make adequate yearly progress (AYP) or exhibit a steady growth in the state-defined level of proficiency, then the state may step in to acquire control of the school district. Results obtained from *The Nation’s Report Card: Reading 2011* indicated that 33% of fourth graders were not proficient at the basic level in reading (National Center for Education Statistics, 2011). Further, findings from this report indicated that there continues to be a gap between the reading scores of students from low-income families and students from medium and high-income families, with students from low-income families performing more poorly. Forty-five percent (45%) of this study’s sample taught in a school where the majority of students participated in the FARL program. The results obtained may indicate that teachers who teach students predominantly from lower-income families may not have control over the retention decision as opposed to teachers who teach in higher-income communities. Due to possible failure on state-standardized tests, essentially, grade retention research indicates that lower-income students would be retained more often due to state education policy and NCLB (2001) guidelines (Sadker & Zittleman, 2006); a discrepancy that needs further investigation.

PBC items dropped from the scale indicated noteworthy findings, including the finding that teachers from this study generally disagreed with Witmer et al.’s (2004) findings where it is administrative policy to retain struggling students. In fact, the majority of teachers felt confident in recommending retention for at-risk students, which provides preliminary evidence that teachers are able to identify struggling students and feel comfortable bringing the child forth to either a multidisciplinary team or to the principal. An overwhelming majority of teachers (mean = 4.00) agreed with this statement, (C8) *My principal has the final decision to retain.* This finding indicates that although teachers may have a strong intention to retain, they believe the
principal has the final decision to retain the student. This finding is important in that teachers may be quick to recommend retention when they feel they do not have to make the final decision (e.g., diffusion of responsibility; Leahy & Forsyth, 1975). Depending on the strength of the principals’ intentions to retain, this quick recommendation may have increased the number of students brought forth for retention decisions.

If teachers were held accountable for their recommendations, would they be less likely to recommend retention? Schools and districts are held to standards and must meet AYP, which is measured by student performance on standardized tests (NCLB, 2001). As stated previously, schools and districts that fail to make AYP toward state-mandated proficiency goals are targeted for improvement assistance and corrective action. If teachers were held to this same standard, would retention rates decrease? Anecdotally, administrative personnel can analyze student scores by teachers and identify classrooms with the highest percentage of students who did not make AYP. In 2009, President Barack Obama attempted to implement the Teacher Incentive Plan (TIP), a program that gave teachers the incentive to improve (e.g., merit pay; Obama, 2009). Preliminary TIP findings have yielded mixed results and resistance from teachers and the National Education Association (NEA, 2011). More focus and research needs to occur in this area to improve student outcomes while rewarding teacher performance.

**Intention**

The TPB intention scale initially contained eight measurement items. All items were retained after reliability testing of the scale. After model testing, only two remained: (I5) *I generally want to retain academically struggling students* and (I7) *I generally want to retain students who lack basic skills.* Teachers agreed with these statements with means of 3.12 and 3.63, respectively. Overall, the TPB model can be used to predict teachers’ intention to retain. Specifically, teachers’ attitude, subjective norms, and PBC significantly predicted their intentions to retain students who are struggling academically or lack basic skills. The TPB model reliably explained 72% of the variance in teachers’ intention to retain. Teachers’ attitude exhibited the largest effect on their intentions to retain. PBC and subjective norms exhibited medium and small effects, respectively, on their intentions to retain.

The intention scale sheds light on the current belief structure of elementary teachers, yet contradicts previous research. For example, in the past, researchers found that teachers typically recommended retention based on one of two criteria: academic failure and/or social immaturity.
(Shepard & Smith, 1987). Previous research has also found that teachers recommended retention due to Limited English Proficiency (LEP; Wu et al., 2008). Despite previous findings, neither criterion (immaturity, LEP) significantly contributed to the TPB model. In fact, the English proficiency item exhibited one of the lowest loadings on the TPB intention scale and was among the first to be removed from model testing. Teachers continue to have strong beliefs that favor retention, but in analyzing the means of the intention measurement items, it appeared that teachers generally do not want to retain or recommend retention for students unless they are struggling academically or lack basic skills. This finding may be due to methodological issues, specifically, the reliability and validity of the TBQ measurement items. The strength of teacher intentions has not been measured in prior teacher belief literature. Findings obtained from this study provide preliminary findings that despite favoring grade retention, teachers may not want to be the one to suggest retaining students who are immature or have LEP. Further analysis in measuring teachers’ intentions to retain would be beneficial to further understand the relationship between teachers’ beliefs and their intentions to retain.

In sum, findings from the TPB intention scale indicated teachers generally do not want to recommend retention for students, but will recommend retention for academically struggling students or those who lack basic skills when they do not have full control over the retention decision. Teachers strongly disagreed with recommending or wanting to retain students with behavior problems, a belief that is inconsistent with previous research and colloquial wisdom (Alexander, Entwisle, & Dauber, 2003; Byrnes & Yamamoto, 1986). Past research indicated teachers want to retain students with behavior problems. The discrepancy between this study’s findings and previous findings may be due to sampling. The majority of the sample consisted of Florida and Texas elementary teachers. In these two states, standardized testing strongly influences education policy. In fact, the Florida Board of Education recently raised the passing scores on Florida’s state standardized test, and schools and districts are now ranked solely on student performance on this test (Smith, 2012). However, Texas may be “swinging the pendulum” away from high-stakes testing. In response to Florida’s and Texas’ strict state-proficiency standards, the commissioner of the Texas Education Agency called for a change in accountability, claiming that high-stakes testing had become a “perversion of its original intent” (Smith, 2012). The commissioner called for an accountability process that measured “every other day of a student’s life besides testing day.” As stated earlier, considering the holistic
development of students may be in the best interest of students and their surrounding community (Murray et al., 2010).

**Research Question 2**

Of those teachers who referred at-risk students to the GRDMT, how often were teachers’ beliefs about retaining at-risk students congruent with the teams’ ultimate decisions to retain?

Binary logistic regression analysis was used to explore the congruence between teachers’ beliefs to retain at-risk students and grade retention teams’ ultimate retention decisions (e.g., promote or retain the student). Seventy-six percent of the original sample indicated they participated in team-based retention decisions ($n = 306$). Binary logistic regression revealed nonsignificant relationships between teachers who wanted to retain students who were academically struggling or lack basic skills and group decisions. The strength of teachers’ beliefs to retain did not reliably predict team decisions. The likelihood of congruence between teachers’ beliefs and group decisions was no better than chance. This finding presents preliminary evidence that although teachers reported a strong belief to retain, teachers’ beliefs may not be the best indicator of group ultimate decisions. For example, in an ad-hoc analysis, the predicted membership of the group revealed that when the teacher strongly disagreed with retaining the student, the student had a 55% chance of being retained by the team. In contrast, when teachers strongly agreed with retaining students, there was an 88% chance that the team would retain the student.

Results from an ad-hoc cross-tabs analysis reveal that other factors or persons may be just as influential or more influential in the ultimate decision than the student’s teacher. There was an incongruence of opinion between group decisions and teachers’ beliefs to retain in 36% of the cases. In a 2009 study, parents had the final authority to retain their child in 56% of the group decisions (Schnurr et al., 2009). Yet, in this study, very few parents participated in the group decision. Communication between school personnel and parents throughout the school year is equally important as involving parents in the grade retention decision-making. Increasing parental involvement decreases the likelihood of a retention decision (Jimerson et al., 1997; McCoy & Reynolds, 1999) and parent involvement should occur early and throughout the year. Other possible influential factors in the retention decision include state education policy. State education policy requires students to achieve minimal education standards and pass state standardized tests (NCLB, 2001). If students do not attain these minimal standards, then they are
subject to retention. It is possible that when students are brought forth to the retention team due to failure of state standards, teachers may not always agree with these decisions; still, the team must retain students due to state legislation.

If the decision to retain students is to decrease among GRDMTs: (1) teachers must be equipped with tools, strategies, and personnel to identify and remediate struggling students, (2) teams must have options other than retention, such as promotion with interventions and progress monitoring the following year, (3) state policies must be changed to align with grade retention literature with pedagogical practice, (4) parent-teacher communication must occur more frequently throughout the school year, and (5) school psychologists need to be involved proactively prior to the team decision to modify interventions and provide support to teachers (Schnurr et al., 2009).

Additional Findings

In addition to exploring teachers’ beliefs about grade retention, this study sought to explore grade retention teams, policies, and alternatives. Findings from this study indicated that the characteristics of the group and the criteria used in making the retention decision varied greatly. The attendees of the grade retention decision meetings consisted of, at a minimum, the teacher and principal, through groups that included a number of school personnel (e.g., assistant principal, guidance counselor, school psychologist, RtI support team). The largest group reported consisted of the teacher, principal, guidance counselor, school psychologist, special education teacher, school nurse, and the speech therapist. Only 36 teachers (12%) indicated the parent(s) of the student in question attended this meeting. The low attendance of parent(s) may be due to lack of involvement in school activities, inability to take off of work, and/or restraints associated with a low-income, single-parent household (Jimerson et al., 1997). Another reason for low parent attendance could be the school not giving proper notification of the meeting or grade retention procedures. As stated previously, higher parental involvement in school activities reduces the likelihood of retention (Jimerson et al., 1997) and including them in the process may reduce the data-driven retention decisions and look more at the “wholeness” of the child and not just test scores.

Guidance counselors were more available and attended more often than school psychologists or special education teachers. This finding may be due to scheduling difficulties or lack of consensus on who should attend GRDMT meetings. If teams are to exist, then
including those individuals who can advocate for the student is a must. School psychologists and special education teachers are often included in special education meetings but not in the grade retention meetings. School psychologists and special education teachers could help teachers by being involved in retention decisions because they are equipped with the knowledge of grade retention and special education services. If retention is to decrease in the United States, then students could be considered for special education services prior to grade retention. School psychologists and special education teachers can help teachers by progress monitoring student performance and implementing interventions (e.g., RtI; IDEIA, 2004). Qualifying students for special education services allows them to progress in grades along with their peers, while receiving a more intense curriculum. By following the guidelines outlined in IDEIA (2004), students who would normally be retained and left without intensive services the following and subsequent years, could receive the level of instruction they needed while remaining with their peer cohort. Hence, the psychosocial well-being of the student may remain intact.

The majority of students identified for retention in this study were minority males who struggled with reading and math and failed the state standardized test. These findings support prior retention research (Holmes, 1989; Jackson, 1975; Jimerson 2001a). Over 91% of the teachers indicated that the student who was in jeopardy of retention exhibited poor reading skills. Seventy percent (70%) indicated low standardized test scores as a student characteristic. A smaller percentage of students were classified as immature (34%), lacked parental involvement (25%), and had excessive absences (37%). This finding is troubling given that teachers in this study did not agree with retaining students based on immaturity but this characteristic was noted in one-third of the students in question of retention. Further, students who lacked parental involvement may need help and support from the school. It is possible that providing a supportive environment in the school setting may help those students who are disadvantaged.

The criteria used for making retention decisions varied greatly. The majority of the sample consisted of Florida and Texas elementary teachers. Findings indicate that not only did grade retention vary from state to state; it also varied within states. Results indicated that students can be retained based a single criterion or multiple criteria. For example, a student may be retained due to failure on a state standardized test or may be retained due to excessive absenteeism coupled with low reading skills. This disparity supports previous research, which outlined discrepancies in grade retention policies in the United States (Zinth, 2005). This
disparity is concerning. In contrast to the varying state grade retention policies, the United States Department of Education (USDOE) enacted on a federal level guidelines for classifying students with disabilities (e.g., IDEIA, 2004). The language of IDEIA (2004) encouraged states to adopt RtI in addition to the discrepancy model. The USDOE can follow the same procedures and create grade retention guidelines (for a comprehensive review of IDEIA see National Dissemination Center for Children with Disabilities’ training curriculum, 2010). Further, findings from this study present a larger dilemma: a geographical bias in grade retention policy. In other words, a student may be retained in one school in a single school district and not in another school.

Common alternatives used in lieu of grade retention included retakes of state standardized tests, alternative testing by using norm-referenced standardized tests (e.g., SAT-10), tutoring, RtI, and summer school. Yet, the curriculum used in summer school, tutoring, or RtI was not uniform within and across the states. Grade retention alternatives also varied on a case-by-case basis. Students in one district may receive only one alternative, whereas a student in another district or state may be introduced to a combination of alternatives. For example, in some locations, the at-risk student may be able to utilize a combination of the alternatives such as retaking the state standardized test, participating in tutoring, RtI, and/or summer school. However, general consensus agreed that if the student does not perform well in summer school or on re-tests, then he/she is still a candidate for grade retention. The following is a list of evidenced-based alternatives to grade retention outlined by Jimerson, Woehr, Kaufman, and Anderson (2004):

- Increase parent involvement in the student’s education and school through the use of frequent contact with teachers, supervision of homework, and communication about school activities.
- Provide age-appropriate and culturally sensitive instructional strategies to accelerate progress in the classroom.
- Provide early developmental and preschool programs to strengthen reading, language, and social skills.
- Incorporate an RtI support team, which includes assessing student progress on a continuous basis and modify instruction strategies accordingly.
• Utilize school-based mental health programs and behavior management programs to reduce classroom behavior problems.
• Extend the school day and year.
• Provide tutoring and peer mentoring to strengthen academic and social skills.
• Create comprehensive school-wide programs that integrate remedial and special education students with general education students.

It appears that the sample in this study is using grade retention alternatives at a low frequency. Jimerson et al. (2004) suggests that grade retention alternatives need to occur more often. Teachers need to collaborate with other education professionals and parents to promote student achievement and social skills (Jimerson et al., 2004). Incorporating alternatives to grade retention will not only enhance the overall well-being of the student, but can improve the student’s future outcomes, decrease grade retention, decrease the amount of money required to remediate the student, and improve the community.

**Limitations of the Study**

This study sought to use the Theory of Planned Behavior (TPB) to explore teachers’ attitudes, subjective norms, perceived behavioral control (PBC), and intentions about grade retention. A secondary objective of the study was to examine the congruence between teachers’ beliefs and GRDMTs’ ultimate decisions. There were several limitations that may impact internal and external validity of this study, such as limitations in sampling, limitations in the measure, and limitations in the data analyses.

**Limitations in Sampling**

A sample of convenience was used in this study and may pose a threat to its external and internal validity. Public elementary school teachers who were currently teaching in a public school were potential subjects. However, only a limited number of schools agreed to participate. The majority of responses were from Florida and Texas, with an extensive response from Texas. Teachers from Georgia, Hawaii, Washington, Virginia, and Utah comprised a small percentage of the sample. The lack of representation from all 50 states poses a threat to the external validity of the study and limits the number of inferences made to the United States elementary teacher population.

The demographics of the sample are another limitation. The majority of the sample consisted of middle-aged Caucasian women, with Hispanic/Latino representing the second
largest ethnic group (17%) of the sample. These findings are not surprising given that teaching is still an overwhelmingly Caucasian, female occupation (Festritzer, 2009). However, there is a shift toward minorities entering the teaching profession. In fact, Hispanics are the fastest non-White group entering teaching in the United States (Festritzer, 2009). Specifically, the results of the study limit the generalizability to Florida and Texas Caucasian women elementary teachers.

Only a small number of principals, one school district, and one state education agency provided permission for the investigator to survey their respective elementary teachers. Very few education entities provided permission for this investigator to survey their respective elementary teacher population. In an effort to maintain adequate power of the study ($N > 370$), it was necessary to rely on the Texas Education Agency’s email distribution list, which possibly skewed the results. Secondly, the initial Texas sample was exponentially greater than the teacher sample from other states. This circumstance was unforeseen. This limited distribution of the survey may present possible biases in those who completed the survey. In other words, those individuals who were allowed to participate may lean more favorably toward or against grade retention and the findings of this study may not represent all teachers’ beliefs. In order to decrease possible bias and increase the selection validity, a small sample was randomly selected from the larger Texas sample. In sum, the sample used in this study presents a generalizability issue, which poses a sampling risk of incorrectly rejecting the null hypotheses (i.e., Type I errors).

There are limitations with regards to the results obtained in the Additional Findings section. Teachers who participated in the team-based decision-making were asked to identify student characteristics of the student in jeopardy of retention. Teachers may not have fully identified all characteristics of the student, thus skewing the data obtained (e.g., memory bias. For example, teachers could choose multiple characteristics within the psychosocial and academic categories; meaning teachers could identify one or multiple characteristics within each category. A teacher could identify excessive absences and social immaturity within the psychosocial category. Out of 306 teachers, only 170 teachers identified the students’ gender. Out of the 179 students whose ethnicity was identified, it was found that a large number of Hispanic students were subject to a team-based retention decision (20.6%) in comparison with African Americans (11.1%). This difference may be due to the teacher sample or the student population, which resided in Florida and Texas. However, after reviewing data from the United
States Census Bureau (2010), approximately 23% of the United States’ student population is of Hispanic origin followed by African American (14%; United States Census Bureau, 2010). These findings may be a misrepresentation of what type of student is brought forth to the GRD MT in states other than Florida and Texas. Future studies could examine in detail the type of student who is brought forth to the decision-making team.

**Limitations in the Measure**

Creating an instrument for initial use has limitations, specifically internal validity. The Teacher Belief Questionnaire (TBQ) was created for this study to examine elementary teachers’ beliefs about grade retention. The items were created based upon the grade retention and teacher belief empirical literature. Content and face validity were assessed prior to launching the survey. Unexpected circumstances (e.g., technical difficulties) occurred with the administration of the survey. For example, teachers had difficulty answering questions about their number of years employed as a teacher. Seven teachers contacted the primary investigator and stated that they believed their internet browser was not compatible with the online survey. These technical difficulties may have influenced teachers to not complete the survey, and thus may have affected the results.

With regards to establishing reliability, the internal consistency of the scales was assessed. The TPB PBC scale exhibited the lowest inter-item consistency, suggesting a multi-dimensional scale or poor measurement item design. The low inter-reliability of the PBC scale calls into question the level of criterion validity because a pilot study and exploratory factor analysis were not performed prior to the study (Shuttleworth, 2009). The PBC may be a multidimensional scale and Cronbach’s alpha cannot capture the multidimensionality of the scale. Using Cronbach’s alpha statistic often eliminates otherwise useful, reliable scale items (Greene & Yang, 2009). Further, 24 items were dropped from the TPB Full SR model to improve fit to the data. It was not expected that this many items would be eliminated. Subsequently, the parsimonious model strengthened convergent and discriminant validity but at a detriment to content validity. Future studies could explore the multidimensionality of the TPB constructs and revise or add measurement items as needed to strengthen the use of the TBQ measure in testing the TPB model. Improving the TBQ can provide a foundation for exploring teachers’ intentions to retain at-risk students.
Lastly, 306 teachers of this sample attended grade retention decision-making teams. These teachers were asked to recall the last team meeting and provide information about the team meeting such as: naming the members of the group; the characteristics of the student in jeopardy of retention; and the eventual ultimate retention decision. Recalling past events presents a measurement bias (i.e., recall bias) in the results. Unfortunately, memory can degrade over time and this investigator did not inquire about the length of time that has passed (i.e., how long has it been since the teacher attended the team meeting). The more recent the event occurred (e.g., attended the team meeting), the more likely the teacher would recall more specific details (e.g., primacy effect; Koriat, Goldsmith, & Pansky, 2000). Also, teachers may have only recalled meetings where the team decision was considered to be more favorable to the teachers’ belief system (e.g., choice-supportive bias; Mather, Shafir, & Johnson, 2000). Thus, teachers may not have fully recalled the team meeting, distorted the characteristics of the student, or only named the people at the meeting who agreed with their belief systems.

**Limitations in the Data Analyses**

The data were screened and cleaned in order to provide the most useful, reliable, and interpretable results. An unforeseen circumstance was the number of indicators (e.g., measurement items; belief statements) that were dropped from the TPB Full SR model. The insignificant and/or poor loading of these items calls into question the reliability and validity of the TPB latent variables. In other words, the measurement items removed from the model are important to teacher belief literature, but not important to teachers’ intentions to retain at-risk students. The items removed from the model included psychosocial characteristics of the student, peer and parent influence, and control over the retention decision. The items removed from the TPB model contribute to teacher belief literature; yet, they were not predictive of teachers’ intentions to retain students who were academically struggling or lacked basic skills. Further studies could remove the indicators that measure academics and only test those that measure the psychosocial variables in the TPB model. Additionally, thirty-two teachers contacted the investigator prior to completing the survey, and inquired about the objectives, follow-up, final results, and other questions and concerns. This pre-study contact may have influenced their responses, which in turn may have changed the results.
Implications for Future Research

As Gall et al. (2007) argued, in order to change or modify an educational phenomenon, researchers need to generate an accurate description and operationally define that phenomenon. This exploratory study found that teachers’ beliefs (attitude, subjective norms, PBC) about grade retention provided a significant amount of explained variance in their intentions to retain at-risk students in the TPB model. Results from this study indicated that elementary teachers continue to hold positive beliefs about grade retention, but not all beliefs predicted the intention to retain at-risk students in the TPB model. Additionally, those beliefs have evolved in the past 30 years and were not in complete alignment with prior teacher belief research. The influence of others and the teacher’s degree of control over the decision produced the weakest relationship with a teacher’s intention to retain, suggesting the need to further investigate these relationships. Further research with elementary teachers regarding their beliefs about grade retention and how those beliefs impact their intentions is warranted.

Secondly, this study sought to explore the congruence between teachers’ beliefs to retain and GRDMTs’ ultimate decisions. Unfortunately, the model could not predict the likelihood of congruence between the teachers’ beliefs and team decisions. Teams voted to retain students 75% of the time, and there was an incongruence of opinion in 36% of the cases. Further research into the relationship between teachers’ beliefs and group decisions is needed to help explain how and why groups continue to retain students regardless of teachers’ beliefs and grade retention literature. More specifically, studying the incongruence between teachers’ beliefs, other group members’ beliefs, and group decisions would provide insight into the decision process.

Additional findings suggested that grade retention policy, standards, and alternatives are inconsistent and present bias within the United States. Grade retention teams are now commonplace and relevant research is needed to help standardize and operationally define team-based retention decisions. Regardless of teachers’ beliefs to retain, group members more often decided to retain than to promote students. The implications for future research suggest a need to: (1) better understand the effects that teachers’ beliefs have on the likelihood of recommending retention, (2) replicate this study with a different elementary teacher population, and (3) further investigate grade retention teams, policies, and alternatives.
Implications for Research

Replication of this study is warranted with a different population of public school elementary teachers. This study was a sample of convenience, which may have led to a sample bias, affecting the outcome of the data analyses. Exploring the beliefs of teachers from other states would likely provide a more representative sample of teachers’ beliefs and intentions as a whole. It is suggested that the instrument used in this study be refined for future use. This study took the descriptive teacher belief items and used them in a prediction model, which appears to be nonexistent in teacher belief literature. Refining the instrument for future use can strengthen this avenue of research and allow researchers to study not only the attitude of teachers, but also their subjective norms and control over their intentions to retain students. In sum, research needs to continue to understand why teachers continue to have positive beliefs toward retention. Furthermore, exploring GRDMTs, policies, and alternatives may shed light on how to standardize the act of grade retention.

Another potential avenue of research with regard to grade retention policy is the analysis of where the decision lies – at the national, state, district, or school level, which could be the opposite view of standardizing the grade retention decision. It would be advantageous to know, at the school level, if the decision to retain was based on sub-cultural information (e.g., the student was perceived as negative when compared to the dominant societal standard; Hebdige, 1979). Or, when the decision is at the state level, does the school district lose motivation to retain when their autonomy in the decision-making is stripped (e.g., mandatory grade failure when a student fails a state standardized test)?

Implications for Practice

It appears that grade retention will continue in American public schools despite empirical research that states grade retention is an ineffective, non-empirically-based intervention (Holmes, 1989; Jackson, 1975; Jimerson, 2001a). The criteria used by school personnel in making retention decisions remains unclear and unstandardized. School personnel may form a GRDRT to make retention decisions or the principal may decide to retain a student. Findings from this study could be used to reveal the inconsistency in grade retention practices used in schools. Students are at a disadvantage if they live in one location of the United States and not another. Future studies that examine grade retention policy could also consider the implications of the school climate: school location, FARL, and type of school. The results of this study could be
presented to school personnel in an attempt to standardize the practice of grade retention, such as the USDOE has done for IDEIA (2004). The results of this study can bring about an awareness of the disparities seen at the district, state, and national level. Bringing awareness to an educational phenomenon is the first step to changing the phenomenon (Gall et al., 2007). Also, advocates for promotion of a student could always be present in retention decisions. These advocates can be a source of information with the most up-to-date interventions and alternatives to grade retention, and imbedded in the classroom and include parents in decision-making throughout the school year. These advocates can be school psychologists (NASP, 2003; Schnurr et al., 2009).

**Implications for Education and Training**

If grade retention is to decrease in the United States, educating and training pre-service and existing teachers is imperative. This study’s literature review found that grade retention is not only empirically unsupported, but that it is actually harmful. In fact, grade retention can hinder future academic and employment opportunities (Jimerson et al., 1997). However, findings from this study indicate that teachers continue to hold positive beliefs about grade retention.

These results could be shared with pre-service public elementary teachers in an attempt to modify and/or change their intention to retain. As stated earlier in this chapter, pre-service teachers hold stronger beliefs about the practice of grade retention than tenured teachers (Range et al., 2011). Education about the harmful effects of retention must occur in the college setting if we are to reduce the number of grade retentions each year. Further, GRDMTs need to be operationally defined, and be provided with education and training with regards to how, if, and when to retain students. So, perhaps the guidelines and training received could increase consistency at the state and national level.

This study’s literature review captures important pieces of grade retention empirical literature. The literature review also presents a snapshot of grade retention policy and teachers’ beliefs. An educational and training website could be created to highlight the history of grade retention, the characteristics of students who are retained, the short- and long-term outcomes of grade retention, grade retention policies, and the characteristics of the decision-making team. Utilizing a website may educate pre-service teachers and existing teachers about the negative effects of grade retention on the student and the community.
Finally, the implications of this study on public policy are important. Findings from this study indicate that grade retention is not consistent and standardized, and varies significantly. Grade retention is not an empirically-based intervention and does not align with NCLB (2001). NCLB (2001) requires states to assess student performance through standardized testing. When students do not meet minimum state education standards, students are to be retained and “left behind their peers.” Ironically, retaining students contradicts the essence of NCLB (2001). In fact, states such as Florida and Texas utilize mandatory grade retention when students fail the state standardized test. The lack of consistency in retaining students was seen at the state and district level. This situation presents a geographical bias and a lack of consensus among teachers about what grade retention is, when it could be used, and how often it should occur. Eisenhart, Shrum, Harding, and Cuthbert (1988) recommended in the late 1980s for policymakers to consider teachers’ beliefs while creating public policy. These authors suggested that policy development should be an open venue for all stakeholders (e.g., GRDMT; district, state, and federal personnel). Creating policy in an open venue can allow for stakeholders to share, examine, and negotiate beliefs, which can contribute to effective policy implementation (Eisenhart et al., 1988).

Results from this study indicated that GRDMTs do not adhere to national guidelines. In contrast, when considering a student for Special Education services under the Individuals with Disabilities Education Improvement Act (IDEIA, 2004), teams adhere to national legislative language in qualifying the student for services. Students who are brought forth for retention do not get this advantage, often leaving many at-risk student decisions up to subjective criteria. This inconsistency is disturbing. It is not known how many of the estimated 2.5 million students who are retained annually were offered the option of qualifying for special education services. One would think that if students are struggling academically, then policy could be written to first advocate for special education services, and then secondly, retain the student. Grade retention policy needs to be reexamined at the state level by the United States Secretary of Education. If Teacher Incentive Pay (TIP) and the transformation of struggling schools are to be successful, then the Secretary of Education may want to begin with studying the various ways students can be retained at the state level. Policymakers can use these findings to generate grade retention discussions at the state and national level.
Conclusion

Grade retention is a widely used intervention in the United States for struggling students. This study explored the grade retention beliefs of teachers and how those beliefs affect teachers’ intentions to retain at-risk students. Secondly, this study explored the congruence between teachers’ beliefs to retain and GRDMTs’ ultimate retention decisions. Despite the mounting evidence that grade retention is not helpful for students, particularly in the long-term, data analyses from this study showed that the majority of teachers continue to believe grade retention is a helpful solution for struggling students (Holmes, 1989; Jackson, 1975; Jimerson, 2001a).

Teachers recommended retention and exhibited a stronger intention to retain when they believed the principal had the final decision to retain at-risk students (e.g., diffusion of responsibility; Leahy & Forsyth, 1975). That is, teachers feel less responsible when the outcome is negative and when there are many individuals involved in the decision-making. When deciding to retain students, the influence of principals, school psychologists, and their school districts were less influential on teachers’ retention intentions were strong. Despite the fact that teachers reported parent approval mattered to them, parents rarely attended the retention decisions and had little influence in teachers’ intentions to retain. Academically struggling students and those who lack basic skills were recommended more often than those students who were immature, had behavioral problems, and/or had a LEP status. Overall, teachers believe that grade retention will build a solid foundation for later years. Additional findings from this study revealed that GRDMTs are often utilized in making retention decisions, but lacked consistency in group membership and retention criteria. Regardless of the strength of teachers’ beliefs to retain, the majority of group decisions were to retain students.

GRDMTs and policy were virtually nonexistent 20 years ago, but have quickly become the norm in retention decisions. The inconsistency in: (1) who attends the group meeting, (2) grade retention policy, and (3) the criteria used in making the decision may have moderated current teachers’ beliefs about grade retention. Results from this study may be due to the degree of honest and full disclosure of teachers, sampling or measurement limitations, or the lack of consistent grade retention procedures. Further research in the areas of teachers’ beliefs and the GRDMTs is warranted, as teachers’ beliefs and GRDMTs are here to stay and will continue to permeate the educational landscape.
APPENDIX A

FSU IRB HUMAN SUBJECTS COMMITTEE PROPOSAL

Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8673 · FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 9/21/2011
To: Terrie Andrews
Dept.: EDUCATIONAL PSYCHOLOGY AND LEARNING SYSTEMS
From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research

The Influence of the Teacher’s Belief System on the Group Decision to Retain in Elementary Schools: An Application of the Extended Theory of Planned Behavior

The application that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and one member of the Human Subjects Committee. Your project is determined to be Expedited per 45 CFR § 46.110(7) and has been approved by an expedited review process. The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects. If the project has not been completed by 9/18/2012 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report, in writing any unanticipated problems or adverse events involving risks to research subjects or others. By copy of this memorandum, the Chair of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is FWA00000168/IRB number IRB00000446.

Cc: Briley Proctor, Advisor
HSC No. 2011.6451
APPENDIX B
INFORMED CONSENT FORM

Teachers’ beliefs Regarding Grade Retention

You are invited to participate in a research study exploring teachers’ beliefs about grade retention and how those beliefs may impact a team decision. You were selected as a possible participant because you are an elementary school teacher. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This is a short survey and should take you no more than 15 minutes to complete. Your participation in this survey is entirely voluntary and all of your responses will be kept private and confidential to the extent permitted by law. Results of this study may be presented or published in relevant conferences or journals; however, we will not include any information that will make it possible to identify any participant. Research records will be stored securely and only researchers will have access to the records.

By completing this survey, you have the opportunity to win a $30 gift card. If you wish to enter the drawing for the $30 gift card, there will be an option at the end of the survey for you to provide an email address (which is not linkable to your survey responses). If you one of eight chosen, you will receive an email notification and a gift certificate will be mailed through postal mail. You will not be contacted again, nor will your email or postal address be shared with anyone. You may participate in the study without providing an email and postal address; however you will not be able to enter the gift card lottery upon completion of the survey. You are free to skip any question or withdraw at any time with no consequences.

This study is being conducted by Terrie Andrews, Doctoral Student, Educational Psychology and Learning Systems, College of Education. The purpose of this study is to understand teachers’ beliefs regarding grade retention and how those beliefs impact the grade retention decision-making team. Your participation will not be connected to nor will it affect your employment with your school district. This survey is not affiliated with your school district. If you have any questions now or in the future, you are encouraged to contact me at ***** or my advisor, Dr. Briley Proctor, at *****. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), you are encouraged to contact the FSU IRB at 2010 Levy Street, Research Building B, Suite 276, Tallahassee, FL 32306-2742, or 850-644-8633, or by email at humansubjects@magnet.fsu.edu.

Please feel free to print a copy of this for you to keep for your records.

Statement of Consent:

O Accept    I have read the above information. If applicable, I have asked questions and have received answers. I consent to participate in the study.
O Decline   I have read the above information and I decline to participate in the study.
APPENDIX C
TEACHER BELIEF QUESTIONNAIRE (TBQ)

Please tell us a little about you:

Your gender
   Female
   Male

What is your ethnicity?
   African American
   American Indian
   Asian
   Caucasian
   Hispanic
   Middle Eastern Indian
   Pacific Islander
   Other

What is your current age? (US Census)
   20 to 24
   25 to 34
   35 to 44
   45 to 54
   55 to 64
   65 and over

In what state do you currently teach?
   Drop down menu of all 50 states

How many years of teaching experience in the elementary setting do you have?

How would you define your school district?
   Urban
   Rural
   Suburban

What is your highest degree completed?
   Bachelor’s
   Master’s
   Doctorate

Which grade are you currently teaching?
   K
How many students are in your class?

How would you classify your classroom?
   General Education
   Special Education
   Gifted
   Other

How many students participate in the Free and Reduced Lunch (FARL) Program at your school?
<25 percent
25 to 50 percent
51 to 75 percent
>75 percent

The following statements/questions are about your beliefs surrounding grade retention and the procedures your school/district follows in retaining a student. Grade retention is defined as the practice of requiring a student who has been in a given grade level to repeat the same grade level during the following academic year. Thank you! Your feedback is invaluable and greatly appreciated.

Please indicate how strongly you agree (with 5 being STRONGLY AGREE) with each statement by clicking the point on the scale or sliding the bar. Notice you can either click the point on the scale or move the slider along a continuum. Also, for the purposes of Committee review, the TBQ draft contains references for some of the statements; the online survey does not include these references. The references are included for expert review. The participant only sees the statements.

**Attitude**

1. Grade retention is an effective intervention (Shepard & Smith, 1987).
2. Retention is not a helpful solution for struggling students (reverse scored).
3. Retention can help build a strong academic foundation.
4. Retention prevents students from experiencing later failure (Roderick, 1995; Witmer et al., 2004).
5. Retention helps immature students catch up to their peers (Alexander, Entwisle, & Kabbani, 1999).
6. Grade retention benefits struggling students (Shepard & Smith, 1989).
8. A student who is not developmentally ready should not be promoted to the next grade level (Byrnes & Yamamoto, 1986; Smith & Shepard, 1988).
9. Grade retention generally increases a student's confidence (Smith & Shepard, 1989).
10. Grade retention can decrease the student's stress level (Smith & Shepard, 1989).
11. Students who are retained will emerge as class leaders (Smith & Shepard, 1989).
12. It is better to retain earlier in the student's academic career (Silbergliltt et al., 2006).
13. Students who lack the ability to read are good candidates for retention (Jimerson, 1997).

Normative Beliefs
1. Parents generally feel grade retention is a positive recommendation for their struggling child (Smith & Shepard, 1989).
2. Other teachers might think I maintain low standards if I don't retain a struggling student (Tomchin & Impara, 1992).
3. Others will think negatively about my teaching abilities if I don't retain a struggling student.
4. I fear being ridiculed by fellow teachers if I don't retain (Byrnes, 1989).
5. I often listen to my peers when making retention decisions (Witmer et al., 2004).
6. Parents do not influence my decision to retain.
7. My assistant principal generally believes I should retain struggling students.
8. My school psychologist generally believes I should promote struggling students.
9. My school psychologists usually agree with me when making retention decisions.
10. My principal usually agrees with me when making retention decisions.
11. Parent approval of my retention decision matters to me.
12. My state education agency is supportive of grade retention as a strategy for addressing the needs of struggling students.
13. My school district generally approves of my retention decisions.

Control Beliefs
1. My peers have greatly influenced my opinion of grade retention (Witmer et al., 2004).
2. Empirical research has informed my opinion about grade retention (Tanner & Combs, 1993).
3. I am free to make the decision to retain students (Black, 2004).
4. If a student fails a state standardized test, the retention decision is out of my hands due to state/district retention policy.
5. If a student misses too much school, the retention decision is out of my hands since poor attendance violates district policy for promotion (Jimerson, 1997).
6. I feel grade retention will maintain necessary grade standards (Tomchin & Impara, 1992).
7. Retention is necessary when the student does not meet state standards (Bonvin, 2003; Tomchin & Impara, 1992).
8. My principal has the final decision to retain.
9. It is administrative policy to retain struggling students (Witmer et al., 2004).
10. My principal usually lets me make the final decision about whether to retain a student.
11. I usually have total control over the retention decision.
12. I am confident that I can recommend retention for students.
13. Referring a student for retention is not up to me.
14. It is generally not easy for me to refer students for retention.

**Intention to Retain**

1. I generally recommend retention for students who are struggling academically (Shepard & Smith, 1989).
2. I generally recommend retention for students who have behavior problems (Shepard & Smith, 1989).
3. I generally recommend retention for immature students (Shepard & Smith, 1989).
4. I generally recommend retention for students who have not mastered the English language (LEP status; Wu et al., 2008).
5. I generally want to retain academically struggling students (Shepard & Smith, 1989).
6. I generally want to retain students who have behavior problems (Shepard & Smith, 1989).
7. I generally want to retain students who lack basic skills (Shepard & Smith, 1989).
8. I generally want to retain immature students (Shepard & Smith, 1989).

Please indicate all group members who were present at the last grade retention decision-making team meeting.

- Principal
- Asst. Principal
- ESE Teacher
- Guidance Counselor
- School Psychologist
- PT/OT
- Speech Therapist
- School Nurse
- Other

For the last group retention team-based decision that you attended, please check the following characteristics that describe the student in question for retention. PLEASE DO NOT GIVE ANY IDENTIFYING STUDENT INFORMATION (NO NAMES, STUDENT ID, ETC.).

- Low state standardized test scores
- Excessive absences
- Poor reading skills
- Poor math skills
- Low IQ
- Low SES
- Single-parent household
- Parent(s) not involved in school activities
- Male
- Female
- Behavior problems
- Socially immature
What was the group’s final group decision to retain this student?
   Retain the student
   Promote the student

What is the policy for retaining students in your school district?
(i.e., within your school, how do you go about retaining a student; what are the steps involved in retaining a student)

Does your school district regularly implement alternatives to grade retention? If so, what alternatives are used?

Please provide any other thoughts or comments regarding grade retention that you think would be helpful to the researcher.
APPENDIX D

PRE-NOTICE EMAIL TO TEACHERS

Dear [insert first name]:

I am writing to ask for your help with an important study being conducted by the Florida State University’s College of Education to understand teachers’ beliefs about grade retention in the elementary setting. In the next few days you will receive an email request to participate in this online survey.

We would like to do everything we can to make the survey as enjoyable and effortless as possible. My reason for writing you in advance is that many people like to know ahead of time that they will be asked to fill out an online survey. This research can only be successful with your generosity and help.

I hope you will take 10-15 minutes of your time to help us. Most of all, I hope that you enjoy the online survey and voice your opinions and thoughts about your grade retention beliefs.

Best Wishes,

Terrie Andrews
Doctoral Student
Florida State University
Educational Psychology and Learning Systems
College of Education
APPENDIX E
INVITATION EMAIL TO TEACHERS

Dear [insert name]:

We are writing to ask for your participation in a survey that we are conducting with the elementary school teachers. We are asking teachers like you to reflect on your beliefs about grade retention.

Your responses to this survey are very important and will help in advancing research in grade retention. This is a short survey and should take you no more than 15 minutes to complete. Please click on the link below to go to the survey website and begin the survey. Upon completing the survey, you will have the opportunity to win one of eight $30 gift cards.

Survey Link: https://fsu.qualtrics.com/SE/?SID=SV_1CfOkJbpNYoMDxa

Thank you for participating in this study! We appreciate your time and consideration in completing the survey. It is only through the help of teachers like you that we can better understand teachers’ beliefs about grade retention and how those beliefs may impact a group retention decision. Please feel free to keep a copy of this information for your records.

Many thanks,

Terrie Andrews
Doctoral Student
Florida State University
Educational Psychology and Learning Systems
College of Education

Notification: (This information will be repeated on the introductory screen of the survey)
Your participation in this survey is entirely voluntary and all of your responses will be kept private and confidential to the extent permitted by law. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only researchers will have access to the records. There are no benefits or compensation for you to complete the survey. Your decision whether or not to participate will not affect your current or future relations with the University. If you decide to participate, you are free to skip any question or withdraw at any time without affecting those relationships.

The researcher conducting this study is Terrie Andrews. You may ask any question you have now or in the future, you are encouraged to contact me at ***** or my advisor, Dr. Briley Proctor, at *****. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), you are encouraged to contact the FSU IRB at 2010 Levy Street, Research Building B, Suite 276, Tallahassee, FL 32306-2742, or 850-644-8633, or by email at humansubjects@magnet.fsu.edu.
Dear [insert name]:

We recently sent you an email asking you to respond to a brief survey about your grade retention beliefs. Your responses to this survey are important in helping us better understand this topic.

If you have already completed the survey, we appreciate your participation. If you have not yet responded to the survey, we encourage you to take a few minutes and complete the survey. This survey is short and should only take you 15 minutes to complete.

Please click on the link below to go to the survey website.

Survey Link: https://fsu.qualtrics.com/SE/?SID=SV_1CfOkJbpNYoMDxa

While your participation is completely voluntary, your response is important. Getting direct feedback from teachers is crucial in improving the quality of grade retention research. Thank you for your help by completing the survey.

Regards,

Terrie Andrews
Doctoral Student
Florida State University
Educational Psychology and Learning Systems
College of Education
Dear [insert name]:

Fall is a busy time for teachers, and we understand how valuable your spare time is during this time of the year. We are hoping you may be able to give about 15 minutes of your time to help us collect important information for research on your beliefs about grade retention by completing a short survey.

If you have already completed the survey, we appreciate your participation! If you have not yet responded, we would like to encourage you to complete the survey. We plan to end this study soon, so we wanted to email everyone who has yet to respond to make sure everyone had a chance to participate.

Please click on the link below to go to the survey website.

Survey Link: https://fsu.qualtrics.com/SE/?SID=SV_1CfOkJbpNYoMDxa

Thank you in advance for completing the survey. Your responses are important! Teachers are the best source of information to help us understand grade retention research.

Regards,

Terrie Andrews
Doctoral Student
Florida State University
Educational Psychology and Learning Systems
College of Education
APPENDIX H
INSTRUCTIONS TO COMPLETE INCENTIVE GIFT CARD FORM

The researcher began by creating two surveys. Each one had its own collector, which is a specific URL that contains the participants’ responses. At the end of the TBQ, there was a link that tied together the TBQ and the incentive survey form. The researcher employed this option for the participants to have a chance to obtain an incentive for completing the TBQ. This tie together is called a survey completion redirect option.

- The first one is the original survey that asks the research questions.
- The second one is the follow-up survey that asks for a contact email, which you want to keep separate.
- Only distribute the link for the first survey to your respondents. Send out that link through email.
- As respondents complete the first survey and click [Done] they are re-directed to the second survey of follow-up demographic questions.
- In this second survey, create open-ended questions where the teacher can enter his/her email and/or name.
- The TBQ survey and the second survey are not collected at the same URL location, thus the responses are in no way linkable.
- The researcher will need to pick winners and contact him or her to e-deliver the prize.
APPENDIX J
THEORY OF PLANNED BEHAVIOR: CFA MODEL #3
LIST OF REFERENCES


Qualtrics Survey System (Version 12,018) [Computer Software]. Provo, UT: Qualtrics Labs, Inc.


BIOGRAPHICAL SKETCH

Terrie Weiland Andrews began her undergraduate education at Florida State University and completed her bachelor’s of art degree in Psychology in 1998. After pursuing an upstart restaurant brewery company, she returned to Jacksonville, Florida in 2004 to complete her master’s of science and specialist in psychology degrees at Nova Southeastern University. Next, she pursued her Ph.D. in the Combined Doctoral Program in Counseling Psychology and School Psychology, with an emphasis in school psychology, at Florida State University in Tallahassee, Florida. Currently, Terrie is a pre-doctoral intern with the Trauma Psychological Services in the Department of Surgery at the University of Florida – Shands Jacksonville. She will be employed in a post-doctoral position as a Psychology Resident in the same setting, the Trauma Psychological Services in the Department of Surgery at the University of Florida – Shands Jacksonville.