PRINCIPAL AND TEACHER BELIEFS AND KNOWLEDGE REGARDING GRADE RETENTION: A CASE STUDY

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The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

PRINCIPAL AND TEACHER BELIEFS AND KNOWLEDGE REGARDING GRADE RETENTION: A CASE STUDY

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PRINCIPAL AND TEACHER BELIEFS AND KNOWLEDGE REGARDING GRADE RETENTION: A CASE STUDY

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ABSTRACT

This study examined the beliefs and knowledge of principals and teachers in a selected Missouri public school district. One hundred and thirty-two teachers and nineteen principals participated in the study. The use of retention in the selected school district was found to be a widely accepted practice among teachers. Principals did not agree with the practice of grade retention, but did not rule out the use of retention, especially in the primary grades. Principals and teachers possessed very little knowledge on the current research findings and relied on their own experiences when making decisions regarding retention. Principals based their decision whether to promote or retain on student potential and teachers based their decisions on current academic achievement.

CHAPTER 1

INTRODUCTION TO THE STUDY

Every spring, principals and teachers struggle with the decision of whether to retain a student who has not achieved academic success, or to socially promote that student in the hopes he or she will eventually catch up to their grade level peers. Former President Clinton stated in his 1999 State of the Union Address that it was time to end social promotion in schools. This call to end social promotion was part of President Clinton's "Education Accountability Act" in which the former President wanted stricter accountability for school districts regarding student achievement. "No child should graduate from high school with a diploma he or she can't read" (Clinton, 1999, p. 64). Many school districts have policies regarding retention, but they leave the final decision up to teachers (Tanner & Galis, 1997) and principals. Beliefs can vary greatly among principals and teachers about the impact of retention on student performance (Di Maria, 1999; Patterson, 1996). According to Bonvin (2003) "…Teachers make rational decisions within the context of what they believe" (p. 290). It is imperative that principals and teachers understand the ramifications of student retention.

The perpetual debate regarding retention and social promotion has recently come back into the spotlight due to the passing of legislation at federal and state levels, which serves to promote accountability in schools. Jimerson (2001a) believed educational policies as a result of legislation would likely lead to an increase in student retention rates. In the elementary grades, a reading proficiency assessment must be passed by students in order to be promoted to the next grade (U. S. Department of Education, 1999). In 2001, President Bush was able to secure the passage of his educational reform policy of the *No*

child Left Behind Act (NCLB). In NCLB, President bush called for increased accountability, more choices for parents and students, greater flexibility for states, school districts and schools, and putting reading first. One of the goals of NCLB is that all students will be able to read by the end of third grade. Also, in 2001, the 91st General Assembly of the State of Missouri passed Senate Bill NO. 319 (SB 319). Included in this bill was Chapter 167, Section 167.645 that stated "no public school student shall be promoted to a higher grade unless that student has a reading ability at or above one grade level below the student's grade level" (SB 319, 2001). This law was enacted to hold public schools accountable for assessing students' reading abilities, providing additional help for students, and to prevent social promotion of students who are reading more than a year below their current grade level.

Historically, retention is a by-product of the graded school, which was influenced by the German model of the graded elementary school (Darling-Hammond, 1998; Patterson, 1996). Graded school refers to the organization of students by grades such as first, second, third and so forth. Balow and Schwager (1990) described the philosophy of the graded school as one in which student achievement would improve with a standards based curriculum, instruction would be grade specific, and students would strive to master the curriculum at each grade level. Within the graded school, it quickly became evident that students learn at different rates. Some students mastered the curriculum by the end of the school year and were ready to advance to the next grade, while others failed to master the curriculum and were not prepared for advancement to the next level. Students in this latter group presented a problem to the premise of the graded elementary school. Educators felt the integrity of the graded elementary school would be compromised if

students were allowed to advance to the next grade without mastering academic skills and knowledge which would be needed for success at the next level (Patterson, 1996).

The relevancy of the present study can be further justified by the impact retention has on a student both socially and emotionally, as well as the financial impact retention has upon a state's educational budget. Principals and teachers need to be aware of the social-emotional impact retention can have upon a student when making decisions whether to retain or promote. Educators also need to be cognizant of the fact that when students are retained, it is another year in school that must be paid for by taxpayers. Xia and Glennie (2005a) calculated the burden on taxpayers to be over eighteen billion dollars per year to pay for the extra year of instruction for students who have been retained.

This chapter provides a brief introduction to the study of the beliefs and knowledge principals and teachers possess regarding retention. Propositional and practical knowledge as it relates to principals and teachers decision-making regarding retention will be used as the conceptual underpinning for this study. A problem statement will be given, a purpose of the study will be offered, and research questions will be stated that will guide the research. Limitations, delimitations, and assumptions to the study will be identified, key terms will be defined, a description of the selected school district will be presented, and a summary of the chapter will be provided.

Conceptual Underpinnings for the Study

Principals and teachers make decisions each year regarding the retention or promotion of students that can have a profound affect on students. Beliefs play an integral role in the decision-making process of teachers (Bonvin, 2003; Pouliot, 2000). How principal and teacher beliefs are developed and what they are based on is related to

one's knowledge. Nonaka and Takeuchi (1995) offered a definition of knowledge as a "dynamic human process of justifying personal beliefs toward the truth" (p. 58). Knowledge can be context specific and dependent upon the situation in which it is presented (Nonaka & Takeuchi, 1995). Decisions regarding retention are context and situational specific. The decision whether or not to retain is based on teachers' beliefs about the student's current academic problems, and not on the student's future academic potential (Bonvin, 2003).

Following the suggestion of Witmer, Hoffman & Nottis (2004) two types of knowledge will be used as a framework for the present study: propositional and practical knowledge. Propositional knowledge refers to knowledge that is acquired through formal studies and research, while practical knowledge refers to knowledge that is gained through one's experiences (Fenstermacher, 1994). If beliefs play a part in the decision making process of individuals (Bonvin, 2003; Pouliot, 2000) and are included in the definition of knowledge, then propositional and practical knowledge could be integral in the decision making process.

Statement of the Problem

There is a disparity between what current researchers have identified as best practice and what is presently occurring on a wide spread basis in public schools concerning retention (Jimerson, 2001a, 2001b; Tanner & Galis, 1997; Tanner & Combs, 1993). Although research on teacher beliefs and knowledge has been conducted in other states, no study has been conducted in Missouri on beliefs and knowledge of teachers and principals. The current status of beliefs possessed by principals and teachers in the selected school district are unknown. It is also uncertain what teachers and administrators

in the selected school district base their retention decisions on propositional or practical knowledge. Finally, reliability and construct validity of the instrument has not been ascertained.

Purpose of the Study

The purpose of the present study is to seek information concerning the current status of beliefs and practices by examining principal and teacher beliefs and knowledge regarding student retention to determine if similar disparities exist in the selected school district. Second, to establish reliability and construct validity of the *Teacher Retention Beliefs and Knowledge Questionnaire* (TRBKQ) (Witmer, Hoffman & Nottis, 2004). Third, determine if differences exists between principals, teachers (K, 1, 2, 3, 4, 5, 6) in their beliefs and knowledge regarding student retention. Finally, determine if group membership can be predicted for principals, teachers (K, 1, 2, 3, 4, 5, 6) based on their beliefs, propositional or practical knowledge.

Research Questions

The following questions were developed to guide the research:

Research Question 1

1.1 Is the TRBKQ (Witmer et al., 2004) reliable as determined by the statistical analysis procedure of Cronbach's Alpha?

1.2 Can confirmatory construct validity for the TRBKQ (Witmer et al.) be established as determined by the statistical analysis procedure of Principal Components Factor Analysis with Varimax Rotation?

Research Question 2

What are the beliefs and knowledge of principals, teachers (K, 1, 2, 3, 4, 5, 6) regarding the use of grade retention based on the TRBKQ (Witmer et al.) using descriptive analysis to determine percents, mean and standard deviation?

Research Question 3

Is there a difference in beliefs, propositional and/or practical knowledge between principals, teachers (K, 1, 2, 3, 4, 5, 6) by TRBKQ (Witmer et al.) items as determined by the statistical analysis procedure of a One-way Analysis of Variance (ANOVA)?

Research Question 4

Can group membership be predicted for beliefs, propositional and practical knowledge for principals and teachers (K, 1, 2, 3, 4, 5, 6) based upon the TRBKQ (Witmer et al.) as determined by the statistical analysis procedure of Discriminant Analysis?

Null Hypotheses

Null Hypothesis 1

The TRBKQ (Witmer et al., 2004) is not a reliable instrument as determined by the statistical analysis procedure of Cronbach's Alpha (0.7 or greater),

Null Hypothesis 2

Confirmatory construct validity for the TRBKQ (Witmer et al.) cannot be established as determined by the statistical analysis procedure of Principal Components Factor Analysis (p value = 0.05) with Varimax Rotation (0.60 correlation).

Null Hypothesis 3

There is no difference in beliefs, propositional and/or practical knowledge between principals, teachers (K, 1, 2, 3, 4, 5, 6) by TRBKQ (Witmer et al.) items as determined by the statistical analysis procedure of an ANOVA (p value = 0.05).

Limitations and Delimitations

The following are limitations and delimitations identified for the current study:

1. The study was conducted in only one selected Missouri public school system.
2. The study was conducted at the elementary school level only.
3. Only elementary classroom teachers K-6 have been chosen to fill out a questionnaire.
4. Answers were self-reported by participants.
5. This study is limited to principals and teachers in the selected district who voluntarily completed the questionnaire.
6. The respondents are bounded by time to voluntarily complete the questionnaire.
7. The beliefs of the participants at the time they answer the questionnaire.

Assumptions

The following assumptions are made throughout the current study:

1. Participants are practicing elementary teachers and principals.
2. Participants responded truthfully to questionnaire items.
3. The intended participant is the actual person who completed the questionnaire.

Definition of Key Terms

The following are key definitions used in the study:

1. *Academic achievement.* Meeting grade level standards.

2. *At-risk*. A student who is struggling to meet grade levels standards and is a candidate for retention.

3. *Beliefs.* Are based on experiences and knowledge, which individuals assume to be true.

4. *Cronbach's Alpha.* …"determine the degree to which all the items are measuring the same construct" (Cronk, 1999, p.102).

5. *Construct Validity.* "The degree to which an instrument measures an intended hypothetical psychology construct or nonobervable trait" (Fraenkel & Wallen, 2003, p. G-2)

6. *Descriptive statistics.* Descriptive statistics are used to describe a large amount of data using a few indices (Fraenkel & Wallen, 2003; Trochim, 2002).

7. *Discriminant analysis.* "to predict membership in a particular group for new or future subjects from the same population (Mertler & Vannatta, 2006, p. 282).

8. *Eigenvalue*. "The amount of variance of the variables accounted for by a factor" (Green & Salkind, 2003, p. 301).

9. *Factor Analysis.* "Technique used to identify factors that statistically explain the variation and covariation among measures" (Green & Salkind, 2003, p. 296).

10. *Grade retention*. The practiced of retaining a student in their current grade due to their failure of being able to master required academic standards.

11. *Graded school.* The organization of students by grades such as first, second, third, and so forth.

12. *Item-total analysis.* A statistical method used to assess the internal consistency and reliability of a set of data (Cronk, 1999).

13. *Interventions*. Strategies research has proven to be effective to improve student learning.

14. *Likert scale.* A rating scale from 1 to 4 used to assess attitudes or beliefs (Fraenkel & Wallen, 2003).

15. *Knowledge.* Is based on experiences, which individuals know to be true.

16. *Modal grade.* The grade corresponding with a student's age.

17. *Practical knowledge*. Knowledge that is based on one's experiences or practice.

18. *Propositional knowledge*. Knowledge acquired through formal study or research.

19. *Reliability*. The consistency of scores obtained from an instrument (Fraenkel & Wallen, 2003)

20. *Simple retention.* The practice of retaining a student and having the student repeat the same curriculum that was just failed without the use of intervention strategies to help the student be successful.

21. *Social promotion.* Refers to the practice of promoting a student to the next grade level regardless of their ability to master academic standards.

22. *Validity.* "The degree to which correct inferences can be made based on results from an instrument"… (Fraenkel & Wallen, 2003, p. G-2)

Selected School District

Demographics. The selected school district currently includes eighteen elementary schools, four middle schools, three high schools, one alternative school and one technical school. Total district enrollment for the 2005-2006 school year was 11,340 with 6,042 enrolled in the elementary schools, 1,765 in middle schools, 3,299 in high schools and 234 students attending the alternative school. The selected school district achieved a 93% average daily attendance rate. Graduation rate for the selected school district was 98% for the 2005-2006 school year while the drop out rate was 3% for the same period. The average class size for kindergarten through sixth grade was twenty-one students. Students in the selected school participating in the free and reduce lunch program was 53%. Elementary schools in the district vary significantly in socio-economic status ranging from 14% to 94% percent free and reduced lunch (Profiles of the Schools, 2006).

During the 2005-2006 school year, the selected school district employed 938 certified teachers. More than half of the certified teachers, 51.9%, earned an advanced degree. Average total salary for teachers in the district was $41,481, compared to the state average of $42,077. Average total salary for administrators was $80,663, while the state average was $75,236 (Selected Public School District, 2006b).

Retention and Promotion Policy. The selected school district has a school board approved policy governing the retention and promotion of students. In order for a student to be promoted from the first to the second grade, a student must satisfactory complete minimal academic requirements in language arts and mathematic, receive a D or better in reading, spelling and math, or provide evidence that a student has met previously

determined objectives. Promotion from the third through the sixth grade requires a student to satisfactory complete minimal academic requirements with a passing grade of D or better in language arts and mathematics, with secondary consideration given to a student's performance in science and social studies, or evidence of previously met determined objectives. Students can also be placed in the next grade level if a student meets the following criteria: previous retention, is working to intellectual capacity, or the students social, emotional, or physical development is significantly greater than academic development. Retention is considered if the student does not meet the requirements for promotion, poor attendance, or social, emotional, or physical development is such that progress to the next grade is questionable. Students may be promoted or placed in the next grade by successfully completing summer school. The principal makes the final decision on retaining, promoting, or placing a student. See Table 1 for the retention and promotion policy for the school district involved in the current study (Selected Public School District 2006a):

Table 1

Retention Policy of Selected School District

Decisions Points	Policy Standards
Promotion for Grades 1-2	*Satisfactory completion of minimal academic requirements in language arts and mathematics. *Passing grade (D or better) in reading, spelling and math.

Decisions Points	Policy Standards
	*Or evidence that student has met previously determined objectives.
Promotion for Grades 3-6	*Satisfactory completion of minimal academic requirements in language arts (reading, writing, spelling) and mathematics. *Secondary consideration given to performance in science and social studies. *Passing grade (D or better) in aforementioned subjects. *Or evidence that student has met previously determined objectives.
Placement for Grades 1-6	*Previous retention. *Working to intellectual capacity. *Social, emotional, or physical development significantly greater than academic development.
Retention	*Does not meet requirements for promotion. *Lack of schooling (attendance). *Social, emotional, or physical development is such that progress in the next grade is questionable.
Timeline for determination	*Principals will make the final binding decision before the beginning of the next school year.

Decisions Points	Policy Standards
	*A student passing all but one primary subject, and close to passing the one failed subject, may be promoted upon the successful completion of summer school. *Students failing more than one subject may be promoted by attending summer school.

Note. Selected School District Board of Education Retention Policy IKE and IKE-R (1994)

Summary

The dilemma of social promotion and grade retention has been around since the inception of the graded elementary school (Balitewicz, 1998). Throughout the years, the pendulum has swung back and forth several times from retention to social promotion and then back again. The most recent swing has been the result of legislation passed to end social promotion (Denton, 2001; Hartke, 1999; Hauser, 2000; Kelly, 1999; McCollum, Cortez, Oanh, & Montes, 1999; Merrick, McCreery, & Brown, 1998; Morris, 2000). Despite current research on the negative effect that retention has on a child, there exists a disparity (contrast) between what current researchers have identified as best practice and what is presently occurring on a wide spread basis in public schools concerning retention (Jimerson, 2001a, 2001b; Tanner & Galis, 1997; Tanner & Combs, 1993). It is proposed that the current practice is largely due to the differing beliefs and knowledge principals and teachers have regarding the impact of retention on student performance (Di Maria, 1999; Patterson, 1996; Rogers, 1995).

CHAPTER TWO

REVIEW OF RELATED LITERATURE

In Chapter one, it was identified that there was a disparity between what current researchers have identified as best practice and what is presently occurring on a wide spread basis in public schools concerning retention (Jimerson, 2001a, 2001b; Tanner & Galis, 1997; Tanner et. al., 1993). Beliefs and knowledge of principals and teachers regarding retention could explain this disparity between what is known from research and what is implemented in practice. This literature review will examine four areas that will support the purpose of the present study, which is to gather, analyze and interpret data concerning principal and teacher beliefs and knowledge in regard to student retention. This chapter will examine the prevalence of retention in United States Public School Systems as well as what current research says concerning the efficacy of student retention. Next, principal and teacher beliefs on the use of retention will be examined. The remainder of the chapter will focus specifically on the issue of accountability as it relates to student retention.

Prevalence of Retention

It was not until the late 1800s that schools in the United States became graded; the separation of students by grades based on age, and promotion was based on mastery of content skills (Owings & Magliaro, 1998). The graded school was a result of the industrial revolution and the effort to educate the masses (Merrick et. al. 1998). From the very beginning of the graded school, the issue of what to do with students who did not master grade level skills began. At one point in the late 1800s, retention rates were close to seventy percent (Merrick et. al. 1998). Today, it is estimated close to 2.5 million

students in the United States are retained each year (Black, 2004). Viadero (2000) reported that around fifteen percent of all school children are retained at some time during their school career. In a position paper released by the National Association of School Psychologists (NASP), their estimation is much greater than that of Viadero with as many as thirty to fifty percent of all students being retained at least once before they enter high school. By the time all students reached high school, nearly twenty percent were below their modal grade (Hauser, 2000).

Retained students. Males and minorities have a higher retention rate than females and non-minorities (Anderson, Whipple, & Jimerson, 2003; Black, 2004; Hauser, 2000; Kinlaw, 2005; Thompson & Cunningham, 2000). McCoy and Reynolds (1998) identified six variables that were significant predictors of retention: gender, males being retained at a rate greater than twelve percentage points over that of females; academic performance in the first grade in reading achievement; math achievement; grade in reading; school mobility; and finally, parent participation are all factors in predicting grade retention. Thompson and Cunningham (2000) also found that males are about ten percent more likely than females to be retained by high school age. When it comes to retention early on in school, whites, African Americans, and Hispanics are all retained at about the same rate, but by the time those students reach high school, the retention rate for Hispanics and African Americans is close to fifteen percentage points higher than that of whites for being retained (Thompson & Cummingham, 2000).

Students who are from a low socio-economic background are more likely to be retained than students from a high socio-economic status (Meisels & Liaw, 1993). Students who are retained are more likely to have parents that were not successful in

school, thus they cannot provide an environment that encourages academic achievement (Jimerson & Kaufman, 2003; McCoy & Reynolds, 1998). Students are also one of the last to know that they are going to be retained. Students usually find out about their retention from their grade card or parents, not from the person it should come from first, their teacher (House, 1991).

Current Research

Academic Achievement

Academic achievement is the most common factor given by teachers as a reason to retain students (Wittmer, Hoffman & Notties, 2004; Tomchin & Impara, 1992). Teachers who viewed academic achievement as a strong factor for retention, tended to support the practice of retention (Bonvin, 2003). Teachers usually measure success from the second year in the same grade compared to students' first time in grade and equate those gains with retention benefiting students academically (Xia & Glennie, 2005c). The fault with this comparison is that students will achieve more based solely on age and experience with the same curriculum the second time around (House & Saturday, 2000). James and Wallace (1993) found the academic achievement of students retained increased during their retention year, but leveled out as students progressed through school. Research has failed to make a connection between greater academic achievements for students who have been retained versus comparison groups of students who were low achieving yet promoted (Jimerson, 2001b).

A strong predictor of retention is related to an individual's ability to read (Mcoy & Reynolds, 1998). Balitewicz (1998) concluded that students who had been retained were on average nine-months behind their peers with the largest gap of thirteen months

being in reading. McCoy and Reynolds (1998) reported seven months difference in reading performance between students who had been retained and those who had been promoted.

Several studies have advocated the use of retention in the primary grades as a means to remediate academic deficiencies (Di Maria, 1999; Pouliot, 1999). Hong and Raudenbush (2005) conducted a study on the effects of retention on kindergarten students in the areas of mathematics and reading. Kindergarteners who have been retained would learn more in mathematics and reading if they had been promoted (Hong & Raudenbush, 2005). Mantzicopoulos (1997) studied the effects of retention on Kindergartners with attention problems and found no academic benefits of retention with this population of students.

Retention Cost

The cost associated with the implementation of a practice that research has proven to be ineffective was estimated to cost the State of Texas nearly 2.48 billion dollars over a four year period from the school years 1992-93 to 1996-97 (McCollum et. al., 1999). Anderson, Whipple and Jimerson (2003) estimated that it cost over thirteen billion dollars a year nationally to pay for students who had been retained. Xia and Glennie (2005b) offered a very different but unique perspective on the cost retention. A student who was retained once in school and drops out by the time they are sixteen, which could be at the 9th grade, will actually not cost as much as a student who completes high school (Xia & Glennie, 2005b). Whatever the final cost adds up to be, grade retention is not a cost effective means to combating poor academic achievement by students (Thompson & Cummingham, 2000).

Knowledge and Beliefs

Knowledge can present itself in two different forms, knowledge that can be quantified by research called explicit (Nonaka and Takeuchi, 1995) or propositional (Fenstermacher, 1994), knowledge gained from experience called tacit (Nonaka & Takeuchi) or practical (Fenstermacher). There is a distinct difference between knowledge and a belief. A traditional definition of knowledge is a "justified true belief" (Fenstermacher, p. 24; Nonaka & Takeuchi, p. 58). Knowledge is based on facts that we know to be true, while beliefs are based on facts that we assume to be true (Fenstermacher ; Nonaka & Takeuchi). The facts that individuals are aware of have become their bases for reasoning (Hyman, 1999). As more research becomes available on the topic of teacher knowledge and beliefs, it is critical the source of this knowledge and beliefs be identified in order to improve the science of teaching (Verloop, Driel, & Meijer, 2001).

Socio-Emotional Effects

Students who have been retained are at-risk for more than academic problems. The socio-emotional effects on students who have been retained are important factors to consider in the decision-making process, but are often overlooked. Bonvin (2003) reported teachers' felt psychological difficulties were the most common cause for student failure in school. Students are often retained for reasons other than their "academic ability" (Meisels & Liaw, 1993, p.75). Retained students tend to have behavioral issues in school (Kinlaw, 2005) and often show signs of Attention Deficit Hyperactivity Disorder and Conduct Disorder (Anderson et al., 2003).

A survey conducted in 1980 by Yamamoto asked sixth grade students to rate what were the most stressful life events. Students rated the top three stressful events in their lives as losing a parent, going blind, and being retained in school (Yamamoto, 1980). Anderson et al., (2003) replicated the survey in 2001 and found that being retained had become the number one stressful event in a student's life. The authors concluded that the pressure associated with high stakes testing likely had an influence on the results of the study. Students who have been retained have negative feelings regarding retention (Byrnes & Yamamoto, 2001). Retention can cause feelings of shame for the student retained and ridicule from other students (House, 1991).

Long-term outcomes. A consequence directly related to retention is dropping out of school (Jimerson, 1999). An old belief about retention that is still prevalent today is that retaining a student will provide another opportunity for that student to establish a solid foundation of academic skills, thus allowing success in school and reducing the possibility of dropping out (Tomchin & Impara, 1992). However, current research refutes this commonly held belief. One indicator of dropping out of school is whether or not students were retained (Anderson et al., 2003). Students who had been retained once in their school career were forty to fifty percent more likely to drop out of school (Merrick et. al. 1998). Students who had been retained twice in their school career are at double the risk for dropping out (Alexander, Entwisle, & Kabbani, 1999). When a student is retained in school it is a strong predictor of not graduating from high school. Students retained in kindergarten through third grade are seventy-five percent less likely to graduate and students retained in fourth through sixth grade are ninety percent less likely to graduate from high school than non-retained students (McCoy & Reynolds, 1998).

Students who drop out of school have life long problems associated with not completing high school. High school drop outs are at greater risk for experiencing mental health issues, are susceptible to drug use and to breaking the law (Anderson et al., 2003; Kinlaw, 2005)). "Educational professionals, researchers, and politicians reviewing the efficacy of grade retention on academic success would benefit from awareness of the literature addressing the association between grade retention and dropping out" (Jimerson, 2001a).

Jimerson (1999) conducted a longitudinal study lasting twenty-one years in which he followed students who were retained, low-achieving socially promoted students, and a control group. Jimerson found that sixty-nine percent of retained students dropped out of high school compared to forty-six percent of low-achieving promoted students. The percentage of retained students who were enrolled in post-secondary education was also lower than that of low-achieving promoted students and the control group. Students who had been retained were less likely to pursue a full time job, full time schooling, or a mix of both beyond high school. Also, students who were retained made less per hour than there promoted peers. The decrease in lifetime earnings potential for students who have been retained leads to a decrease in the amount of taxes paid (Xia & Glennie, 2005b). Jimerson concluded that students who were retained in early elementary grades are not as successful as students who were also low achieving academically but promoted in school.

Interventions

Retention has been proven to not be an adequate alternative for meeting the needs of students who do not master grade level expectations (Black, 2004; Di Maria, 1999; Owings & Magliaro, 1998). When students are held back in the same grade, it is unlikely

they will receive any additional help or instructional strategies that differ from the ones with which they experienced failure the previous year (Merrick et. al. 1998). Tanner and Galis (1997) believed that to retain a student in an environment that was unsuccessful is inappropriate, but to retain a student and provide interventions to help the student be successful may be acceptable. Retaining students without providing any intervention strategy is formula for failure (Darling-Hammond, 1998). Teachers often provide little if any additional instruction to meet the needs of students who have been retained, A retained student usually receives the same curriculum in which they previously failed, this is a "...prescription for failure" (Harrington-Lueker, 1998, p. 4). Thompson and Cunningham (2000) concluded, "On the whole, retention is not a cost-effective response to poor performance when viewed in the light of cheaper or more effective interventions…" (p. 4). Therefore, it can be concluded that intervention strategies are a cost-effective use of educational funds that produce better results than grade retention.

Jimerson (2001a) conducted a meta-analysis of grade retention research and concluded that neither retention nor social promotion provided the specific scaffolding of academic skills necessary for students who are at-risk, as well as needed intervention strategies. Interventions need to be incorporated into instructional practice so that students are allowed the opportunity to master grade level expectations. Morgan, (1997) and Nonaka and Takeuchi, (1995) referred to this intervention into instructional practice as double loop learning. Nonaka and Takuechi defined double-loop learning as "the questioning and rebuilding of existing perspectives, interpretation frameworks, or decision premises" (p. 45-46). Morgan referred to double-loop learning as "questioning the relevance of operating norms" (p. 87). The infusion of the second loop into the

learning cycle is what is missing when dealing with students who are at risk of being retained. When children have been retained, they end up repeating the exact same curriculum without interventions being put in place to help them be successful.

Current researchers suggested several strategies that can be considered alternatives to retention. Typical schools are structured with students being grouped by age. An alternative to the typical structure of a school is to group students not by age, but to group by ability into multi-age classrooms (Black, 2004; Darling-Hammond, 1998; Di Maria, 1999; Hartke, 1999; McCollum et. al. 1999; Merrick et. al. 1998). The goal of a multi-age classroom is to allow students to achieve when they are developmentally ready to learn instead of being forced to learn when they are developmentally not ready (Darling-Hammond, 1998; Di Maria, 1999).

Class size can have a direct effect on a student's ability to master grade level expectations. According to Di Maria (1999), when the size of the class is kept smaller, the opportunity for learning increases. This is due to the increased amount of individual attention a teacher is able to give students who are at risk for not achieving academically.

Another alternative intervention into the typical school structure is looping. Looping is the practice of the teacher advancing with the same students to the next grade level (Darling-Hammond, 1998; Hartke, 1999; McCollum et. al. 1999). The advantages of the same teachers advancing to the next grade level with the same students are teachers know the strengths and weaknesses of each student and students know what to expect from the teacher (Darling-Hammond, 1998).

Early childhood education encompasses not only pre-school programs but also programs to provide education to parents on issues that effect their children as they

prepare to enter school (Jimerson & Kaufman, 2003; Jimerson et al. 2002; U. S. Department of Education, 1999). Educators know that the earlier you can identify students who are at risk, the earlier intervention strategies can be put in place to help students. Strategies at this level include preschool expansion or giving students who are at risk of falling behind intensive instruction in order to catch them up to their grade level peers (Hauser, 2000). Patterson (1996) offered an early childhood education program that would address those students who are not ready for first grade but are too advanced to repeat kindergarten. This type of program would allow students who are not physically, emotionally or academically ready for first grade to have an intensive intervention to address specific skills that are lacking or extra time to mature.

A teacher's ability to teach is directly related to student achievement (Darling-Hammond, 1998). McCollum et al. (1999) reports teachers need a variety of instructional strategies to meet the needs of a wide range of student abilities. The teacher shortage has forced districts to hire teachers who have not been formally trained in traditional teacher education programs. Darling-Hammond (1998) reported that close to twenty-five percent of all teachers hired for the first time were under prepared to meet the needs of students in the classroom.

Determining Retention

Light (1986) developed a retention scale to be used to determine if a student should be retained or promoted. The *Light's Retention Scale* (LRS) comprised 19 factors to consider when evaluating a student for possible retention: sex of student, student's age, knowledge of English language, physical size, present grade placement, previous retention, siblings, parent-school participation, experiential background, transiency,

school attendance, estimate of intelligence, history of learning disabilities, present level of academic achievement, student's attitude about possible retention, motivation to complete school tasks, immature behavior, emotional problems, and history of delinquency. The LRS utilized a numeric scale to determine if a student is a possible candidate for retention. Light (1986) cautions, the LRS "…is intended to provide guidance in determining whether a student should be retained and should not be used as the sole criterion for retention" (p. 5).

Beliefs of Retention

Teacher Beliefs

Teachers can spend up to seven hours a day with a student, and their opinions on a student's academic abilities can have a major influence when determining whether to retain or promote a student (McCollum et. al. 1999). Tanner and Galis (1997) maintain "…the teacher is the single most important person in the conclusion to retain" (p. 108). Teacher's belief systems influence classroom practices on a daily basis (Pouliot, 2000). Teachers who hold the belief that retention benefits students are more likely to retain students, as opposed to teachers who hold a negative view of retention (Bonvin, 2003). Research has shown that retention is not an effective practice in dealing with students who do not meet grade level expectations. (House, 1991; Jimerson, 2001b). By the time a student who is at risk for retention reaches the second grade, teacher beliefs play a major role in identifying those students for retention (Kinlaw, 2005). Black (2004) reported that some teachers even go so far as stating they know by November, which students will be promoted at the end of the year, and which students will be retained.

Several studies have been conducted over the last twenty years examining the impact of teacher's beliefs on grade retention. A reoccurring theme from a current review of the literature on this topic is that teachers believe retention is a viable option for students who do not meet academic standards. The practice of retaining students is "overwhelmingly accepted" (p. 202) by teachers regardless of grade level taught (Tomchin & Impara, 1992). Often, teachers choose retention over promotion because they do not want to be questioned by a colleague over the student's lack of preparation for the next grade level (House, 1991). Teachers who retain "…too many students risk having their own competence challenged" (Morris, 2000, p. 9). When the decision has been made to retain a student, teachers have a vested interest in the retention and belief that retention will have a positive outcome for the student (Hagborg, 1993).

Tomchin & Impara (1992) studied the beliefs of teachers regarding grade retention in a rural school district in the southeastern United States. The majority of teachers surveyed agreed that retention could be a positive experience for students preventing them from struggling in the next grade. Teachers in grades 4-7 held the same beliefs as teachers in grades k-3 that retention was an acceptable practice. Retention would not cause a student to have a label that would stick with them throughout their school career. Teachers believed that retention could be used as a motivational tool for students to study harder and retention was ... "necessary to maintain grade level standards" (p. 204).

Witmer, Hoffman & Nottis (2004) not only studied the beliefs of teachers regarding grade retention, but also took their research further by exploring what type of knowledge practical or propositional that teachers based their decisions on for retention.

The study was conducted in a rural school district in the northeastern United States. Seventy-seven percent of teachers surveyed believed retention was an effective practice that prevented students from experiencing daily failure in the next grade. Teachers (3-4) agreed that retention was an effective practice in maintaining standards at each grade level. Teachers in the study lacked significant propositional knowledge on the effects of grade retention on students. Responses to questions that assessed teachers' practical and propositional knowledge revealed that teachers scored significantly higher on questions that pertained to practical knowledge. The majority of teachers reported that their knowledge of retention came from their personal experiences or practical knowledge with retained students. Teachers rated their propositional knowledge on grade retention as being somewhat limited. Witmer et al. (2004) concluded that the first step in changing a practice that research has proven to be ineffective is to effectively connect educators with current research on grade retention.

House (1991) reported in one study of a large urban district sixty-five percent of teachers believed a child should be retained if he or she did not master basic skills. In another study, House (1991) stated that eighty-nine percent of teachers felt that retention was an effective practice. Di Maria (1999) found that seventy percent of teachers felt students should be retained if they had not mastered grade level skills. Patterson (1996) found teachers believed retention was beneficial to the student. Rogers (1995) in his study discovered teachers indicated that if students did not master grade level skills, they should be retained rather than trying an intervention in order to prevent retention. Teachers believe that the retention of a student who has not mastered grade level skills in the early grades will prevent the same students from having academic problems later in

school (Di Maria, 1999; Pouliot, 1999). The retention debate is not unique to the United States Educational System; Pouliot (1999) found that teachers in Quebec held the same beliefs that many teachers in the United States held regarding retention. Teachers in Quebec believed that retention is an acceptable practice for students who do not meet academic standards (Pouliot, 1999).

Pomplum (1988) found through his research that teachers believed retention was more beneficial when it took place in the primary grades. Pomplum's (1988) findings on teacher attitudes were also consistent with results from the Comprehensive Tests of Basic Skills (CTBS). The CTBS confirmed the beliefs of teachers that benefits of retention decreased as the grade level of the student increased. Teachers believed that retaining students in the upper elementary grades has a greater negative effect on students than retention in the early grades (Tomchin & Impara, 1992). In response to these findings, Hurt (2001) found that the majority of teachers perceived retention to have a negative effect on student achievement.

Teachers are aware of the current research that states retention is ineffective but felt there are not enough educational alternatives available for students who do not master grade level skills (U. S. Department of Education, 1999). Pouliot (1999) found that teachers who had propositional knowledge on retention did not believe that it would benefit students. Conversely, Witmer, Hoffman, Lynn, and Notties (2004) concluded through their research that teachers had limited knowledge on research that pertained to retention. Lacking this knowledge from research, teachers relied primarily on their own experience and those of other teachers who had students who had been retained (Witmer et. al., 2004). Xia and Glennie (2005c) offered an explanation for this lack of current

knowledge concerning retention by explaining that the way in which research is written prevents teachers from taking advantage of current findings and recommendations. Understanding teacher beliefs on retention can provide an insight into what is maintaining those beliefs (Pouliot, 1999). Calderhead (1996) believed the changing of beliefs is a "…complex, perhaps even mysterious process" and "…in order for change to occur, there must be some deconstruction of beliefs before another set can be constructed" (p. 6). Being able to understand beliefs and what they are based on is the first step in changing the belief.

Principal Beliefs

The title of principal brings with it the task of insuring that all students receive the best possible education, however, the best possible education does not always mean students should be retained if they do not meet grade level expectations. Interventions should be implemented to address students who are at risk of failure before grade retention is used (Rogers, 1995). Research has shown that the negative effects of retention far outweigh the positive (House, 1991; Jimerson, 2001). Some principals believe that there are far greater negative results on student performance then there are benefits (Patterson, 1996). The current research on beliefs of principals on grade retention is very limited. This study hopes to add to the very limited body of knowledge on principals' beliefs and knowledge on grade retention.

Accountability

Who is accountable for students achieving academic success? Is it teachers, principals, students, parents, or politicians? Depending on whom you ask, you will get different answers. The call for accountability in education has come right from the top,

lawmakers in Washington, D.C.. Former President Clinton in his State of the Union Address (1991), as well as a Presidential Directive to the Secretary of Education called for an end to social promotion. The President not only called for the end to social promotion, but also addressed the need for schools to provide more rigorous curriculum standards to better prepare students for academic success. President Clinton stated "students should not be promoted past the fourth grade if they cannot read independently and well, and they should not enter high school without a solid foundation in math" (U. S. Department of Education, 1999, p. 1). In 2001, President Bush was able to secure the passage of his educational reform policy of the *No child Left Behind Act* (NCLB). In NCLB, President bush called for increased accountability, more choices for parents and students, greater flexibility for states, school districts and schools, and putting reading first. One of the goals of NCLB is that all students will be able to read by the end of third grade.

Following the lead of former President Clinton, many states have passed legislation calling for students to be retained if they do not master academic standards as measured by an assessment (Denton, 2001; Hartke, 1999; Hauser, 2000; Kelly, 1999; McCollum, et al., 1999; Merrick, et al., 1998; Morris, 2000). Thirteen States have exit exams that require high school students to pass in order to graduate (U. S. Department of Education, 1999). In 1998, the state of Illinois passed legislation that prohibited social promotion, thus mandating retention if students do not meet grade level standards. The state left it up to each district to establish an assessment to determine if students should be retained or promoted (Rudolph & Jennings, 1999). California is another state that has passed legislation in order to hold school districts more accountable. The passing of the

legislation required school districts to retain students who do not score at least at the 5th percentile on yearly-standardized tests (Kinlaw, 2005). In 2001, the 91st General Assembly of the State of Missouri passed Senate Bill NO. 319 (SB 319). Included in the bill was Chapter 167, Section 167.645 that stated "no public school student shall be promoted to a higher grade unless that student has a reading ability at or above one grade level below the student's grade level" (SB 319, 2001). SB 319 does not allow a student in the 4th grade to be promoted to the 5th grade unless he or she is reading at least on a third grade level.

Although current research has overwhelmingly shown the negative effects of retention on students, the findings are constantly overlooked by the never-ending quest to "maintain high academic standards" (Xia & Glennie, 2005a, (p. 3)). Policies enacted by states to tie promotion with results from standardized tests will increase the cost of public education without the benefits to students (Hauser, 2000). There is an ethical issue associated with retention and accountability. As a result of districts trying to achieve high academic standards, districts can choose to retain students in order to raise scores on standardized tests (Holmes & Saturday, 2000). Standardized test scores should not be the deciding factor for grade retention, other factors such as grades, student work, student progress and teacher assessment should be taken into consideration (Hartke, 1999). Will what the public thinks about the success of schools outweigh the negative impact retention has on students? The accountability of States and districts for higher academic standards is "one of the foremost reasons for the resurgence of the practice of retention" (Powell, 2005, p. 28) as an intervention for poor academic achievement of students. A

system based on standards will succeed if all stakeholders hold themselves accountable (Merrick, et al., 1998).

Summary

This review of the literature examines four themes as they relate to retention and the lack of implementation between current research and practice. This chapter examined the prevalence of retention in United States Public School Systems as well as what current research said concerning the efficacy of student retention. Next, principal and teacher beliefs on the use of retention were explored. Finally, the review of current literature focused specifically on the issue of accountability as it relates to student retention.

Throughout the current review of literature, it is evident that teachers believe grade retention is a beneficial form of remediation (Di Maria, 1999; House, 1991; Patterson, 1996; Pouliot, 1999; Rogers, 1995; Tomchin & Impara, 1992). There are primarily two research methods used to study grade retention. First, comparing students of the same age, which studies have shown to have negative academic effects on students and second, comparing students in the same grade, which resulted in short-term academic success with retention but gains disappeared as students progressed in school (McCoy & Reynolds, 1998). Retention is a costly strategy when compared to interventions to prevent failure (Thompson & Cunningham, 2000). Finally, it was discovered that retention has negative long-term outcomes for students who had been retained in school (Anderson, et al., 2003; Kinlaw. 2005; Jimerson, 2001a; Jimerson, 1999).

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter will outline the methods used to gather and analyze data concerning principal and teacher beliefs and knowledge regarding grade retention in a selected Missouri public school district. This chapter will include conceptual underpinnings, a purpose of the study, research questions and hypothesis will be given followed by the population and sample, research design, instrumentation and data collection and analysis will be presented.

Conceptual Underpinnings for the Study

Principals and teachers make decisions each year regarding the retention or promotion of students that can have a profound affect on students. Beliefs play an integral role in the decision-making process of teachers (Bonvin, 2003; Pouliot, 2000). How principal and teacher beliefs are developed and what they are based on is related to one's knowledge. Nonaka and Takeuchi (1995) offered a definition of knowledge as a "dynamic human process of justifying personal beliefs toward the truth" (p. 58). Knowledge can be context specific and dependent upon the situation in which it is presented (Nonaka & Takeuchi, 1995). Decisions regarding retention are context and situational specific. The decision whether or not to retain is based on teachers' beliefs about the student's current academic problems, and not on the student's future academic potential (Bonvin, 2003).

Following the suggestion of Witmer, Hoffman and Nottis (2004) two types of knowledge will be used as a framework for the present study: propositional and practical

knowledge. Propositional knowledge refers to knowledge that is acquired through formal studies and research, while practical knowledge refers to knowledge that is gained through one's experiences (Fenstermacher, 1994). If beliefs play a part in the decision making process of individuals (Bonvin, 2003; Pouliot, 2000) and are included in the definition of knowledge, then propositional and practical knowledge could be integral in the decision making process.

Statement of the Problem

There is a disparity between what current researchers have identified as best practice and what is presently occurring on a wide spread basis in public schools concerning retention (Jimerson, 2001a, 2001b; Tanner & Galis, 1997; Tanner & Combs, 1993). Although research on teacher beliefs and knowledge has been conducted in other states, no study has been conducted in Missouri on beliefs and knowledge of teachers and principals. The current status of beliefs possessed by principals and teachers in the selected school district are unknown. It is also uncertain what teachers and administrators in the selected school district base their retention decisions on propositional or practical knowledge. Finally, reliability and construct validity of the instrument has not been ascertained.

Purpose of the Study

The purpose of the present study is to seek information concerning the current status of beliefs and practices by examining principal and teacher beliefs and knowledge regarding student retention to determine if similar disparities exist in the selected school district. Second, to establish reliability and construct validity of the *Teacher Retention Beliefs and Knowledge Questionnaire* (TRBKQ) (Witmer, Hoffman & Nottis, 2004).

Third, determine if differences exists between principals, teachers (K, 1, 2, 3, 4, 5, 6) in their beliefs and knowledge regarding student retention. Finally, determine if group membership can be predicted for principals, teachers (K, 1, 2, 3, 4, 5, 6) based on their beliefs, propositional or practical knowledge.

Research Questions

The following questions were developed to guide the research:

Research Question 1

1.1 Is the TRBKQ (Witmer et al., 2004) reliable as determined by the statistical analysis procedure of Cronbach's Alpha?

1.2 Can confirmatory construct validity for the TRBKQ (Witmer et al.) be established as determined by the statistical analysis procedure of Principal Components Factor Analysis with Varimax Rotation?

Research Question 2

What are the beliefs and knowledge of principals, teachers (K, 1, 2, 3, 4, 5, 6) regarding the use of grade retention based on the TRBKQ (Witmer et al.) using descriptive analysis to determine percents, mean and standard deviation?

Research Question 3

Is there a difference in beliefs, propositional and/or practical knowledge between principals, teachers (K, 1, 2, 3, 4, 5, 6) by TRBKQ (Witmer et al.) items as determined by the statistical analysis procedure of a one-way Analysis of Variance (ANOVA)?

Research Question 4

Can group membership be predicted for beliefs, propositional and practical knowledge for principals and teachers (K, 1, 2, 3, 4, 5, 6) based upon the TRBKQ (Witmer et al.) as determined by the statistical analysis procedure of Discriminant Analysis?

Null Hypotheses

Null Hypothesis 1

The TRBKQ (Witmer et al., 2004) is not a reliable instrument as determined by the statistical analysis procedure of Cronbach's Alpha (0.7 or greater).

Null Hypothesis 2

Confirmatory construct validity for the TRBKQ (Witmer et al.) cannot be established as determined by the statistical analysis procedure of Principal Components Factor Analysis (p value = 0.05) with Varimax Rotation (0.60 correlation).

Null Hypothesis 3

There is no difference in beliefs, propositional and/or practical knowledge between principals, teachers (K, 1, 2, 3, 4, 5, 6) by TRBKQ (Witmer et al.) items as determined by the statistical analysis procedure of an ANOVA (p value = 0.05).

Research Methods

Research Design

The research design for this study will consist of a non-experimental quantitative survey case study. The TRBKQ (Witmer et al., 2004) will be used to collect data. The

purpose of the questionnaire design is to gather quantitative data regarding the specific phenomena of beliefs and knowledge of retention within a purposive sample (Arnold, Cooper, & Robertson, 1998; Thomas & Brubaker, 2000). The current study is classified as a non-experimental quantitative survey case study design due to the fact that there is only a single observation or measurement occurring at a specific time in the selected school district (Trochim, 2002). The weakness to the current study design is that it is a one shot opportunity to gather data and a cause and effect relationship cannot be established (Trochim, 2002). The purposive sample of elementary teachers and principals were chosen due to their knowledge and expertise in the area of elementary education (Trochim, 2002). Teachers (K, 1, 2, 3, 4, 5, 6), principals and years of experience have been identified as independent variables while beliefs, practical or propositional knowledge has been identified as dependent variables in the current study. See Table 2 for a summary of variables found within the TRBKQ (Witmer et al., 2004).

Table 2

Summary of Variables found in the TRBKQ

Independent Variable (n=9)	Dependent Variables (n=3)
Principals	Beliefs
Teachers (k, 1, 2, 3, 4, 5, 6)	Propositional Knowledge
Years of Experience	Practical Knowledge
	(As defined by the survey instrument)

Population and Sample

The population for the current study will involve elementary teachers and principals in a selected Missouri public school district. Written permission to survey teachers and principals will be requested from the selected school district superintendent.

There are eighteen elementary schools and one alternative elementary school in the selected school district. The purposive sample of teachers were predetermined in order to gather information since teachers possess critical information about students and make recommendations to principals regarding grade retention (Trochim, 2002). Principals and administrative interns were another predetermined sample that will receive a questionnaire due to the fact that principals make the final decision in regards to retaining or promoting students in the selected school district.

Sample size. The size of the self-selected study group will be determined by those willing to voluntarily complete the TRBKQ (Witmer et al., 2004). The desired sample size was determined by using a sample size calculator (Creative Research Systems, 2003). The total population for the study will be 273; teachers (n=254) and principals (n=19). Using the sample size calculator with a 95% confidence level and a confidence interval of 10%, at least 70 teachers will need to respond to the TRBKQ (Witmer et al., 2004) to represent the desired population (Creative Research Systems, 2003). Nineteen principals will receive the TRBKQ (Witmer et al., 2004). Using the sample size calculator with a 95% confidence level and a confidence interval of 10%, at least 16 respondents will be necessary to represent the desired population (Creative Research Systems, 2003). The researcher's school will not be included in the study.

Instrumentation

According to Arnold et al., (1998), questionnaires are a research tool used to evaluate an individual's attitudes or beliefs. The original instrument for this study was developed by Tomchin and Impara (1992) and was titled the *Teacher Retention Beliefs Questionnaire* (TRBQ). Content validity for the TRBQ was established by field-testing

the instrument in a school system in order to verify the validity of each question (Tomchin & Impara, 1992). Revisions were completed based on feedback received from teachers who participated in the field-testing. Since nothing could be found regarding reliability and construct validity, the current study will examine these psychometric properties.

Witmer, Hoffman & Nottis (2004) added sixteen questions to the original TRBQ to assess teachers' knowledge pertaining to retention. Enters (1994) also contributed knowledge questions to the original TRBQ and were used by Witmer, Hoffman & Nottis (2004) in their instrument. The new instrument, and the one used for this study is the *Teacher Retention Beliefs and Knowledge Questionnaire* (TRBKQ) (Witmer et al., 2004). The TRBKQ (Witmer et al., 2004) will be electronically distributed to participants in the current study. Participants will receive an email explaining the current study and stating that their participation in the study is completely voluntary. A link will be provided in the email to the questionnaire. The link will remained open for a period of two weeks.

Questions on beliefs. The TRBKQ (Witmer et al., 2004) contained three parts. Belief questions of the TRBKQ (Witmer et al., 2004) are summarized in Table 3. Part I of the questionnaire consisted of twenty questions designed to measure beliefs principals and teachers have regarding retention. Questions in part I utilized a four point Likert Scale ranging from (1) Agree, (2) Tend to Agree, (3) Tend to Disagree, (4) Disagree. A Likert Scale is a method used to measure data in intervals (Trochim, 2000). Questions seven, twelve, sixteen, and eighteen were modified from the TRBQ (Tomchin & Impara, 1992) to reflect the elementary school design in the selected school district. Question

seven was changed from “Retaining a child in grade 4-7 harms the child’s self-concept” to “ Retaining a child in grade 4-6 harms the child’s self-concept”. Question twelve was changed from “Retention in grades 4-7 is an effective means of giving an immature child a chance to catch up” to “Retention in grades 4-6 is an effective means of giving an immature child a chance to catch up”. Question sixteen was changed from “In grade 4-7, over-age children (more than a year older than their classmates) cause more behavior problems than other children” to “In grade 4-6, over-age children (more than a year older than their classmates) cause more behavior problems than other children”. Question eighteen was changed from “Retention in grades in 4-7 permanently labels a child” to “Retention in grades 4-6 permanently labels a child”.

Questions on practical and propositional knowledge. Part II of the questionnaire was developed to assess respondents’ knowledge on retention. Knowledge questions of the TRBKQ (Witmer et al., 2004) are summarized in Table 3. Thirteen multiple-choice (MC) questions and three open ended (OE) questions make up part II of the TRBKQ (Witmer et al., 2004). Content validity for the knowledge portion of the questionnaire was established by having five professors from the department of education of a small private university provided feedback on the validity of the questions (Witmer et al., 2004) Questions twenty-three, twenty-five, twenty-seven, thirty, and thirty-three were designed to measure principal and teacher practical knowledge. Questions twenty-one, twenty-two, twenty-four, twenty-six, twenty-eight, twenty-nine, thirty-one, and thirty-two were designed to measure principal and teacher propositional knowledge.

Demographic information. Part III of the questionnaire will collect demographic information about principals and teachers. Respondents will indicate if they are a teacher (k, 1, 2, 3, 4, 5, 6), or an administrator.

Table 3

Summary of Questionnaire Items

Question #	Response Type	Measures
1-20	Likert	Beliefs
21	MC	Propositional Knowledge
22	MC	Propositional Knowledge
24	MC	Propositional Knowledge
26	MC	Propositional Knowledge
28	MC	Propositional Knowledge
29	MC	Propositional Knowledge
31	MC	Propositional Knowledge
32	MC	Propositional Knowledge
23	MC	Practical Knowledge
25	MC	Practical Knowledge
27	MC	Practical Knowledge
30	MC	Practical Knowledge
33	MC	Practical Knowledge

Note. Likert=Rating scale from 1 to 4; MC=Multiple Choice

Data Collection and Analysis

The Office of Institutional Research at a regional Missouri university will be requested to electronically set up, distribute, and collect data on teacher and principal beliefs and knowledge regarding grade retention. No reported data will identify respondents by name, only nominal data by groups and not individuals will be provided to the researcher. Data will be kept in secure location by the researcher for a period of five years then destroyed. Data will be electronically entered into the Statistical Package

for the Social Sciences (SPSS, 2005) for analysis. A summary of statistical analyses is discussed below and presented in Table 4.

Cronbach's Alpha. Item-total analysis is a statistical method used to assess the internal consistency and reliability of a set of data (Cronk, 1999). "The greater the consistency in responses among items, the higher the coefficient alpa will be" (Green & Salkind, 2003, p. 311) Cronbach's Alpha is used to …"determine the degree to which all the items are measuring the same construct" (Cronk, 1999, p.102). The statistical technique of Cronbach's Alpha (0.7 or greater) will be utilized to establish reliability of the TRBKQ (Witmer et al., 2004) for Research Question 1.1 (Mertler &Vannatta, 2006).

Factor Analysis-Principal Components Analysis. Factor analysis is the statistical process of reducing variables and identifying clusters of variables that are correlated to a few factors (Fraenkel & Wallen, 2003). Mertler and Vannatta (2005) described factor analysis as a "process by which the number of variables is reduced by determining which variables cluster together, and factors are the groupings of variables that are measuring some common entity or construct" (p. 249). The TRBKQ (Witmer et al., 2004) has 33 dependent variables and three super variables consisting of beliefs, practical and propositional knowledge. Factor analysis will be used to determine if the 33 dependent variables can be described by the super variables.

The second stage of the Factor Analysis is the rotation of the factors. Factors are rotated to provide for more meaning and make factors more interpretable (Green & Salkind, 2003; Mertler & Vannatta, 2005) An Eigen Value greater to or equal to 1 will be used to determine which factors will be retained (Green & Salkind, 2003). Principal Components Factor Analysis (p value = 0.05) with Varimax Rotation (0.04 correlation)

will be used to determine construct validity (Mertler & Vannatta, 2006) of the TRBKQ (Witmer et al., 2004) for Research Question 1.2.

One-Way Analysis of Variance. According to Fraenkel and Wallen (2003) to determine if a significant difference exists between more than two groups, the statistical technique to be applied is the One-Way Analysis of Variance (ANOVA). One-Way Analysis of Variance (ANOVA) (p value = 0.05 or less) will be used to determine if significant differences or similarities exist between teacher and principal beliefs regarding grade retention for Research Question 3 (Green & Salkind, 2003). Differences and similarities will be determined between teachers' beliefs regarding grade retention based on grade level taught.

Descriptive Statistics. Descriptive statistics are used to describe a large amount of data using a few indices (Fraenkel & Wallen, 2003; Trochim, 2002). The indices of percents, mean and standard deviation will be computed for questions one through thirty-three of the TRBKQ (Witmer et al., 2004) for Research Question 2. Descriptive statistics will be presented by survey items, by teachers (k, 1, 2, 3, 4, 5, 6) and principals.

Discriminant Analysis. According to Mertler and Vannatta (2003) the procedure of Discriminant Analysis can be used "to predict membership in a particular group for new or future subjects from the same population" (p. 282). In Discriminant Analysis, independent variables are referred to as predictors and dependent variables are referred to as group membership (Green & Salkind, 2003). Within the TRBKQ (Witmer et al., 2004), principals, teachers (k, 1, 2, 3, 4, 5, 6) and years of experience would be predictors and beliefs, propositional and practical knowledge would be classified as group membership. The statistical techniques of Discriminant Analysis (p value = 0.05 or less)

will be used to predict group membership for beliefs and knowledge for principals and teachers for Research Question 4 (Green & Salkind, 2003).

Table 4

Summary of Analysis for Research Questions

Research Question	Survey Question	Analysis
1.1	1-33	Cronbach's Alpha (0.7 or greater)
1.2	1-33	Principal Component Factor (p value = 0.05) (Eigen value = or greater than 1.0) Analysis W/Varimax Rotation (0.60 correlation)
2	1-33	Descriptive Statistics
3	1-33	ANOVA (p value = 0.05 or less)
4	1-33	Discriminant Analysis (p value = 0.05 or less)

Summary

The current chapter described the research methodology that will be used to gather, analyze, and interpret data to determine current status of beliefs and knowledge of principals and teachers in the selected school district. The TRBKQ (Witmer et al., 2004) will be administered to elementary teachers and principals in a selected school district examining their beliefs and knowledge regarding grade retention. Statistical analyses will be performed to establish reliability and construct validity of the TRBKQ (Witmer et al., 2004) Beliefs of teachers (K, 1, 2, 3, 4, 5, 6), and principals will be identified and the type of knowledge, either practical or propositional, teachers and principals use as a basis for their beliefs will be established.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

The analysis of data will be completed in accordance with the research questions that guided the present study. First, the reliability of the *Teacher Retention Beliefs and Knowledge Questionnaire* (TRBKQ) will be established by the statistical technique of Cronbach's Alph (0.7 or greater). Second, the construct validity of the TRBKQ will be determine by utilizing Components Factor Analysis (p value= 0.05) with a Varimax Rotation (.0.04). Third, the beliefs and knowledge of principals and teachers regarding grade retention will be determined by utilizing descriptive statistics to report the indices of percent, mean and standard deviation. Finally, the statistical technique of Discriminant Analysis (p value = 0.05 or less) will be conducted to predict group membership for beliefs and knowledge for principals and teachers.

Population

The selected school district provided 273 email addresses for elementary classroom teachers and principals. Elementary classroom teachers (n=254) and principals (n=19) were emailed and requested to participate in the current study. One hundred and fifty-eight questionnaires were completed, with 132 completed by teachers, 19 completed by principals and, by 7 who did not identify their current position. The sample size that was used for analysis of data will be teachers (n=132) and principals (n=19) for a total sample population of 158 (n=158). The desired sample size of 70 teachers with a 95% confidence level and a confidence interval of 10% was determined by using a sample size calculator (Creative Research Systems, 2003). With a total teacher population of 254, the 132 respondents resulted in a 95% confidence level with a 5.92% confidence interval

(Creative Research Systems, 2003). The desired sample size of 16 principals with a 95% confidence level and a confidence interval of 10% were determined by using a sample size calculator (Creative Research Systems, 2003). With a principal population of 19, the 19 respondents resulted in a 95% confidence level with a 0% confidence interval (Creative Research Systems, 2003)

Findings

Research Question 1.1. Is the TRBKQ (Witmer et al., 2004) reliable as determined by the statistical analysis procedure of Cronbach's Alpha?

Null Hypothesis 1. The TRBKQ (Witmer et al., 2004) is not a reliable instrument as determined by the statistical analysis procedure of Cronbach's Alpha (0.7 or greater).

The *Statistical Package for Social Sciences* (SPSS, 2005) was utilized to determine the reliability of the TRBKQ (Witmer et al., 2004). Based on the findings of the principal component factor analysis with a varimax rotation, the statistical analysis of Cronbach's alpha was applied utilizing reduced data. Reliability analysis was conducted on Part I of the TRBKQ (Witmer et al.) that assessed beliefs of principals and teachers, Part II that assessed knowledge of principals and teachers, and Part I and II combined of the TRBKQ (Witmer et al.). Findings indicated that Part I of the TRBKQ (Witmer et al.) had a reliability factor of .482. Part II of the TRBKQ (Witmer et al.) had a reliability factor of -.011. Part I and Part II combined of the TRBKQ (Witmer et al.) had a reliability factor of .264. The null hypothesis for research questions 1.1 is accepted. A summary of the reliability of the TRBKQ (Witmer et al.) is presented in Table 5.

Table 5

Reliability of the TRBKQ

Items	Cronbach's Alpha	N
Part I 1-20	.482	11
Part II 21-33	-.011	8
Part I & II 1-33	.264	19

Research Question1.2. Can confirmatory construct validity for the TRBKQ (Witmer et al.) be established as determined by the statistical analysis procedure of Principal Components Factor Analysis with Varimax Rotation?

Null Hypothesis 2. Confirmatory construct validity for the TRBKQ (Witmer et al.) cannot be established as determined by the statistical analysis procedure of Principal Components Factor Analysis (p value = 0.05) with Varimax Rotation (0.60 correlation).

Utilizing the statistical technique of principal components factor analysis with a varimax rotation, an analysis was conducted to determine confirmatory construct validity for Part I and Part II of the TRBKQ (Witmer et al.). Due to the complete different constructs of beliefs and knowledge that were being measured by the TRBKQ (Witmer et al.), the analysis will be conducted separately for Part I and Part II.

Part I. Principal components factor analysis identified 4 components in Part I of the TRBKQ. Only items with an eigenvalue greater than 1 were retained. Component 1 accounted for 34.58% of the variance, component 2 for 15.72% of the variance, component 3 for 12.27% of the variance, and component 4 for 10.14% of the variance, for a cumulative variance of 72.72%. Mertler and Vannatta (2005) recommended the

retention of components that account for at least 70% of the cumulative variance. A summary of initial eigenvalues and percentage of variance for Part I of the TRBKQ are presented in Table 6.

Table 6

Initial Eigenvalues and Percentages of Variance for Part I for TRBKQ Components 1-4

Components	Initial Eigenvalues	% of Variance
1	3.80	34.58
2	1.72	15.72
3	1.35	12.27
4	1.11	10.14

Figure 1 depicts a scree plot that identifies 4 components of Part I of the TRBKQ with eigenvalues greater than 1 that were above the bend in the line and were retained. A scree plot is another method used to determine components to be retained (Mertler & Vannatta, 2006). The researcher identified 4 components from the principal components factor analysis with a varimax rotation: components 1 and 3, negative effects of retention; component 2, retention policy; and component 4, student behavior. The null hypothesis for research question 1.2 was rejected as 4 constructs were identified.

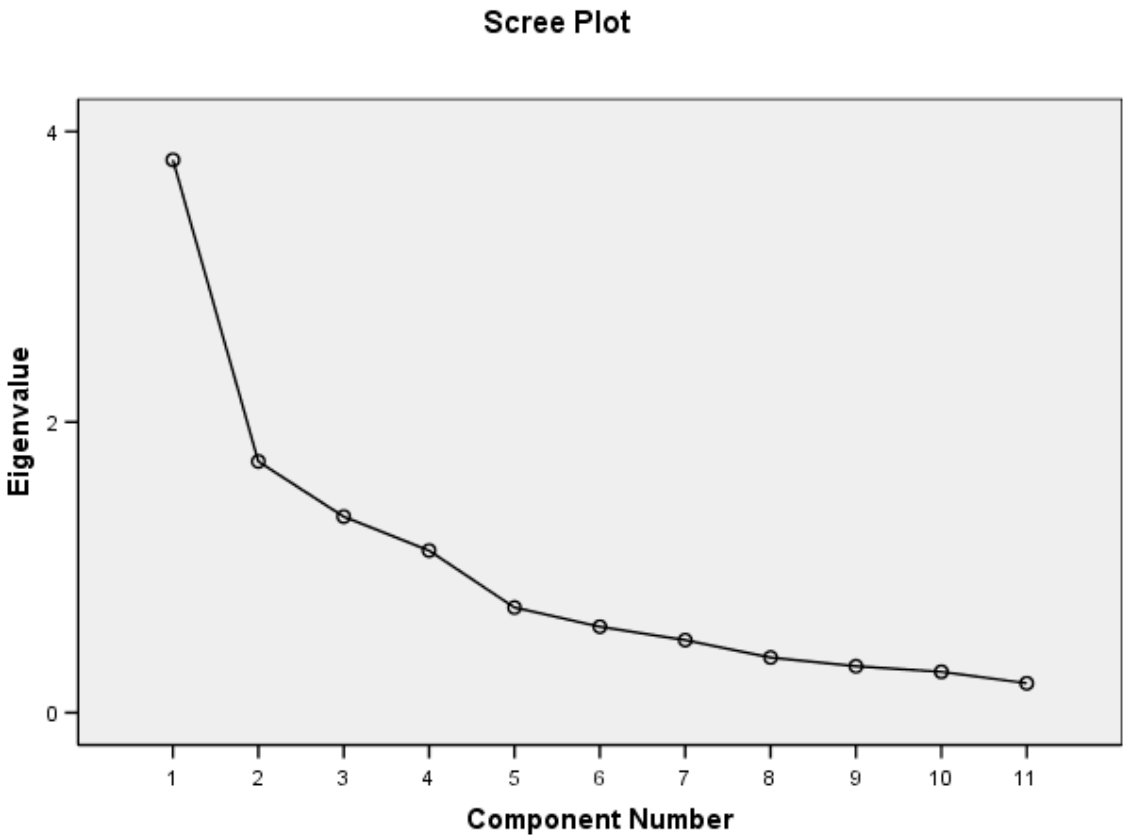


Figure 1. Scree plot of the eigenvalues.

Part II. Principal components factor analysis identified 4 components in Part II of the TRBKQ. Only items with an eigenvalue greater than 1 were retained. Component 1 accounted for 18.18% of the variance, component 2 accounted for 14.74% of the variance, component 3 accounted for 12.61%, and component 4 accounted for 11.34% of the variance for a cumulative of 49.08%. A summary of initial eigenvalues and percentage of variance for Part II of the TRBKQ are presented in Table 7.

Table 7

Initial Eigenvalues and Percentages of Variance for Part II for TRBKQ Components 1-4

Components	Initial Eigenvalues	% of Variance
1	1.63	18.18
2	1.32	14.74
3	1.02	12.61
4	1.02	11.34

Figure 2 depicts a scree plot that identifies the 4 components of Part II of the TRBKQ with eigenvalues greater than 1 that were retained as compared to the other components that were not retained. The researcher identified the 4 components from the principal components factor analysis with a varimax rotation: component 1, negative effects of retention; component 2, best practice; components 3, predictors of retention; and component 4, student behaviors. The null hypothesis for research question 1.2 was rejected as 3 constructs were identified.

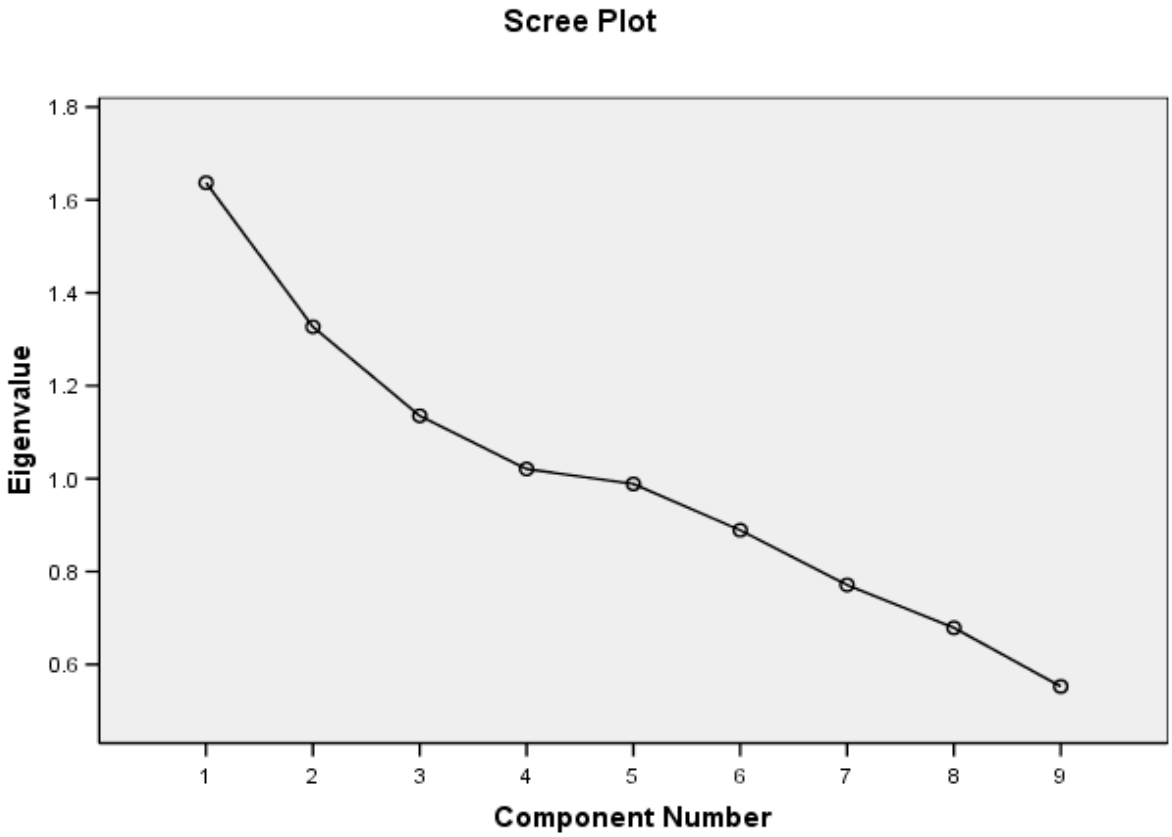


Figure 2. Scree plot of the eigenvalues.

Findings from item reduction process. Through the statistical analysis of principal components factor analysis with a varimax rotation, data was reduced by eliminating all items below .600 on part I and II of the TRBKQ (Witmer et al., 2004). Part I had 9 items (4, 6, 8, 9, 10, 11, 12, 13, 19) dropped from the survey. Part II had 4 items (23, 26, 29, 32) dropped for the survey.

Research Question 2. What are the beliefs and knowledge of principals, teachers (K, 1, 2, 3, 4, 5, 6) regarding the use of grade retention based on the TRBKQ (Witmer et al.) using descriptive analysis to determine percents, mean and standard deviation?

The *Statistical Package for Social Sciences* (SPSS, 2005) was utilized to determine beliefs of principals and teachers (K, 1, 2, 3, 4, 5, 6) regarding the use of grade retention. The following data will be analyzed utilizing items retained through principal component factor analysis with a varimax rotation.

It was found that 60% of teachers agreed with the statement "retention is an effective means of preventing students from facing daily failure in the next higher grade", while 68% of principals disagreed with the statement. Fifty-two percent of teachers believed retention was necessary for maintaining grade level standards as opposed to 84% of principals who believed retention was not necessary for maintaining standards. Results indicated that teachers (72%) did not think that retention in grades K-3 would harm a child's self-concept while both teachers (80%) and principals (95%) indicated that retention would harm a child's self-concept in grades 4-6. It was found that teachers (77%) and principals (100%) believed that retention should take place no later than third grade. Findings have indicated that teachers (67%) did not believe retained students in K-3 caused more behavioral problems while principals (63%) believed retained students caused more behavioral problems in K-3. In grades 4-6, both teachers (66%) and principals (84%) believed retained students caused more behavioral problems than non-retained students. Teachers (88%) and principals (63%) disagreed with the statement "retention in grades K-3 permanently labels a child", but teachers (52%) and principals (79%) agreed with the statement "retention in grades 4-6 permanently labels a child". It was found that 95% of teachers and 78% of principals disagreed with the statement "children should never be retained".

Discussion of findings. There is a disparity between the beliefs of teachers and principals in the selected school district, and what current research has identified as best practice. The use of retention in the selected school district is a widely accepted practice among teachers. Principals do not agree with the practice of retention, but do not rule out the use of retention, especially in the primary grades. Teachers believed that retention in the primary grades would not have as great an impact on students socially or emotionally as compared to students in the upper grades. Principals believed that retention anytime in the elementary grades would harm a child's self-concept. Principals and teachers believed that retention in the upper grades labels students; therefore, negatively affecting their self-concept, and resulting in more behavioral issues. Teachers believed that retention is not about the effort of students; however, it is about whether or not they can meet grade level expectations.

A reduced item summary of descriptive statistics for the beliefs of principals and teachers (K-6) are presented in Table 5. A complete summary of beliefs for principals and teachers (K, 1, 2, 3, 4, 5, 6) are presented in Appendix F.

Table 8

Part I Reduced items results of the Teacher Retention Beliefs and Knowledge Questionnaire (TRBKQ)

Item	Grade	Agree	Disagree	M	SD	N
1. Retention is an effective means of preventing students from facing daily failure in the next higher grade.	K-6	60%	40%	2.23	.88	131
	P	32%	68%	2.84	.83	19
2. Retention is necessary for maintaining grade level standards.	K-6	52%	48%	2.76	.84	130
	P	16%	84%	3.15	.83	19
3. Retaining a child in grade K-3 harms a child's self-concept.	K-6	28%	72%	2.89	.78	130
	P	63%	37%	2.36	.83	19

Item	Grade	Agree	Disagree	M	SD	N
5. Students who do not apply themselves should be retained.	K-6	26%	74%	2.94	.84	129
	P	5%	95%	3.47	.61	19
7. Retaining a child in grades 4-6 harms a child's self-concept.	K-6	80%	20%	1.90	.74	126
	P	95%	5%	1.42	.61	19
14. If students are to be retained, they should be retained no later than third grade.	K-6	77%	23%	1.98	.81	126
	P	100%	0%	1.53	.51	19
15. In grades K-3, over-age children (more than a year older than their classmates) cause more behavior problems than other children.	K-6	33%	67%	2.74	.77	124
	P	63%	32%	2.37	.96	19
16. In grade 4-6, over-age children (more than a year older than their classmates) cause more behavior problems than other children.	K-6	66%	44%	2.26	.85	127
	P	84%	16%	1.89	.66	19
17. Retention in grades K-3 permanently labels a child.	K-6	12%	88%	3.21	.66	127
	P	37%	63%	2.68	.75	19
18. Retention in grades 4-6 permanently labels a child.	K-6	52%	48%	2.55	.94	126
	P	79%	21%	1.95	.85	19
20. Children should never be retained.	K-6	5%	95%	3.52	.63	126
	P	22%	78%	2.79	1.22	18

Note. Responses "tend to agree" and "agree" were combined into the category of "agree". Responses "tend to disagree" and "disagree" were combined into the category of "disagree". P = Principal.

Part II of the TRBKQ (Witmer et al., 2004) was analyzed to determine knowledge, propositional or practical, of principals and teachers (K, 1, 2, 3, 4, 5, 6) regarding the use of grade retention. The following data will be analyzed utilizing items retained through principal component factor analysis with a varimax rotation.

Discussion of findings. A disconnect exists in the knowledge possessed by principals and teachers regarding grade retention. Principals had the same or higher

percent of questions answered correctly on 8 of the 9 items assessing knowledge regarding grade retention. Principals follow students year after year, and therefore have privileged information regarding students' behaviors and academic records during the elementary school years. Teachers are only privileged to information on students they are teaching the current year. Very few principals and teachers are aware of the current educational position concerning grade retention and social promotion. Principals and teachers had very little knowledge concerning how peers accept students who had been retained.

A summary of reduced items descriptive statistics of percent of answers correct, mean, and standard deviation principals and teachers (K-6) are presented in Table 6. A complete summary of descriptive statistics for principals and teachers (K, 1, 2, 3, 4, 5, 6) are presented in Appendix G.

Table 9

Part II Reduced results of the Teacher Retention Beliefs and Knowledge Questionnaire (TRBKQ)

Item	Grade	% Correct	M	SD	N
21. What is the current educational position on retention and social promotion?	K-6	8%	1.79	1.06	126
	P	11%	1.42	1.17	18
22. Whether a student is promoted or retained, what does the majority of the current research say about the long-term effects on students' academic achievement?	K-6	39%	2.25	1.19	124
	P	39%	2.11	1.29	18
24. In general, what does the current research say about an extra year in Kindergarten, pre-kindergarten programs and/or transitional programs?	K-6	7%	2.64	.84	124
	P	28%	2.32	1.38	18
25. According to current research, which student is most likely to drop out of school?	K-6	52%	2.46	.72	126
	P	100%	2.00	0.00	19
27. According to current research, which student is most likely to be retained?	K-6	62%	1.87	.70	124
	P	89%	1.84	.76	18

Item	Grade	% Correct	M	SD	N
28. What does the current research suggest when comparing the behavior of students who have been retained or socially promoted with students who have NOT been retained or promoted?	K-6	44%	2.61	1.41	124
	P	63%	2.53	.90	19
30. Tricia, Jen, Michelle, and Julie are all struggling academically. According to current research, which student would you expect to perform better academically three or four years from now?	K-6	12%	2.97	1.06	124
	P	26%	3.16	.83	19
31. In general, what does the majority of research say about peer relatedness and grade retention in the elementary grades?	K-6	5%	2.50	.71	123
	P	0%	2.26	.99	18
33. According to current research, which student will most likely be causing the most behavior problems in the elementary grades?	K-6	44%	2.89	1.06	124
	P	58%	3.16	1.04	19

Note. P = Principal

Reduced items 21, 22, 24, 28, and 31 on the TRBKQ (Witmer et al., 2004) were designed to assess propositional knowledge. Reduced items 25, 27, 30, and 33 on the TRBKQ (Witmer et al., 2004) were designed to assess practical knowledge. Findings have indicated that teachers (42.39%) possessed greater practical knowledge than propositional knowledge (20.68%). It was found that principals possessed greater practical knowledge (68.25%) as compared to propositional knowledge (28.2%). Principals (28.2%) possessed greater propositional knowledge than teachers (20.68%). Principals (68.25%) also possessed greater practical knowledge than teachers (42.39%). Percentages represent correct responses to questions designed to assess either practical or propositional knowledge.

Discussion of findings. The beliefs of principals and teachers are based on the knowledge they possess. Principal and teachers possess very little knowledge concerning current research findings on grade retention. Principal and teachers rely on their

knowledge from practice to make decisions regarding grade retention. The knowledge base for principals and teachers is grounded more in practical or tacit rather than propositional or explicit knowledge. A summary of reduced items of propositional and practical knowledge of principals and teachers is presented in Table 7.

Table 10

Knowledge Regarding Grade Retention

Grade	Propositional	Practical
K	20%	37.5%
1	17%	41.5%
2	21.2%	39%
3	24.2%	40.5%
4	32.6%	55.75%
5	16.2%	48.75%
6	13.6%	33.75%
K-6	20.68%	42.39%
P	28.2%	68.25%

Note. Percentages represent correct responses to propositional and practical knowledge questions.

Research Question 3. Is there a difference in beliefs, propositional and/or practical knowledge between principals, teachers (K, 1, 2, 3, 4, 5, 6) by TRBKQ (Witmer et al.) items as determined by the statistical analysis procedure of a one-way analysis of variance (ANOVA)?

Null Hypothesis 3. There is no difference in beliefs, propositional and/or practical knowledge between principals, teachers (K, 1, 2, 3, 4, 5, 6) by TRBKQ (Witmer et al.) items as determined by the statistical analysis procedure of an ANOVA (p value = 0.05).

The *Statistical Package for Social Sciences* (SPSS, 2005) was utilized to determine if a difference exist in beliefs between principals and teachers (K, 1, 2, 3, 4, 5, 6) regarding grade retention using the reduction data. Findings have indicated there is a difference in beliefs between principals and teachers (K, 1, 2, 3) for item 1 on the

TRBKQ (Witmer et al.) which stated, "retention is an effective means of preventing students from facing daily failure in the next higher grade". Principals and teachers (K, 1, 2, 3, 5, 6) had differing beliefs on whether retention is necessary for maintaining grade level standards. Results indicated that principals and teachers (1, 4, 5, 6) differed in their beliefs that retention in grades K-3 would harm a child's self-concept, while only teachers (4, 5) and principals differed in their beliefs that retention would harm a child's self-concept in grades 4-6. Differing beliefs were found between principals and teachers (K, 4, 6) on whether retention should take place no later than third grade. Only teachers in 4th grade had a different belief than principals on whether over aged students in K-3 caused more behavioral problems. Findings indicated a significant difference of the means between principals' and teachers' (K, 1, 2, 4, 5, 6) responses on item 17 of the TRBKQ that stated "retention in grades K-3 permanently labels a child", while only responses between principals and teachers (K, 4) indicated a significant difference of the means for item 18 on the TRBKQ (Witmer et al.) that stated "retention in grades 4-6 permanently labels a child". It was found that principals and teachers (K, 2, 3, 4, 5, 6) have different beliefs on the statement "children should never be retained". There was not a significant difference of the means for principals and teachers for item 16 on the TRBKQ (Witmer et al.). Overall, significant differences were found between principal and teacher beliefs regarding grade retention. The null hypothesis for research question 3 was rejected.

Discussion of Findings. There is a difference of beliefs between principals and teachers regarding the practice of retention. The majority of teachers believed that retention should come down to what the student has achieved, while principals believe it

is about student potential. Fourth grade teachers disagreed with principals on 8 of the 11 items. Fourth grade teachers are held to strict accountability with a state law called Senate Bill 319 (SB 319), which does not allow students to be promoted to the next grade unless they are reading at least one grade level below their current grade. This law takes all of the decision-making away from the teachers regarding students reading abilities and retention. Kindergarten teachers' beliefs differed from principals on 7 of the 11 items. Kindergarten teachers believed that grade level standards must be maintained, and retaining students in the primary grades will not affect students socially or emotionally.

A reduced item summary of the significant difference in the means between principals and teachers for Part I of the TRBKQ (Witmer et al.) are presented in Table 8. A summary of the One-Way Analysis of Variance (ANOVA) for Part 1 of the TRBKQ (Witmer et al.) is presented in Appendix H.

Table 11

One-Way Analysis of Variance (ANOVA) for Part 1 of the TRBKQ

	Grades						
Item	K	1	2	3	4	5	6
1. Retention is an effective means of preventing students from facing daily failure in the next higher grade.	*	*	*	*			
2. Retention is necessary for maintaining grade level standards.	*	*	*	*		*	*
3. Retaining a child in grade K-3 harms a child's self-concept.	*				*	*	*
5. Students who do not apply themselves should be retained.			*	*	*	*	*
7. Retaining a child in grades 4-6 harms a child's self-concept.					*	*	
14. If students are to be retained, they should be retained no later than third grade.	*				*		*

Item	Grades K	1	2	3	4	5	6
15. In grades K-3, over-age children (more than a year older than their classmates) cause more behavior problems than other children.					*		
16. In grade 4-6, over-age children (more than a year older than their classmates) cause more behavior problems than other children.							
17. Retention in grades K-3 permanently labels a child.	*	*	*		*	*	
18. Retention in grades 4-6 permanently labels a child.	*				*		
20. Children should never be retained.	*		*	*	*	*	*

Note. * Indicates a significant difference in the mean score at the 0.05 level.

Part II of the TRBKQ (Witmer et al., 2004) was analyzed using the Statistical Package for Social Sciences (SPSS, 2005) to determine if a difference exists in knowledge, propositional and practical, between principals and teachers (K, 1, 2, 3, 4, 5, 6) regarding the use of grade retention. Finding have indicated that there is not a significant difference of the means for items 21, 22, 24 28, and 31 on the TRBKQ (Witmer et al.). A difference of knowledge did exist between principals and teachers (2, 3, 6) on items 25, between principals and teachers (K) on item 30, and between principals and teachers (6) on item 33 on the TRBKQ (Witmer et al.).

Questions 21, 22, 24, 28, and 31 on the TRBKQ (Witmer et al., 2004) were designed to assess propositional knowledge. Findings have indicated there is no significant difference of the means for items 21, 22, 24, 28, and 31 that assessed propositional knowledge.

Questions 25, 27, 30, and 33 on the TRBKQ (Witmer et al., 2004) were designed to assess practical knowledge. There was a significant difference of the means between principals and teachers (2, 3, 6) for item 25, principals and teachers (1) for item 27,

principals and teachers (K) for item 30, and principals and teachers (6) for item 33 on the TRBKQ (Witmer et al.).

Discussion of findings. There was not a difference in the means between principals and teachers assessing their knowledge of current research findings. This would be a positive finding if it were not for the very low amount of knowledge that principals and teachers possessed concerning current research on the subject of grade retention. There was a difference in the means between principals and teachers assessing their knowledge based on everyday practice. Principal were able to correctly predict at a higher rate than teachers student behaviors associated with grade retention.

A reduced items summary of the significant difference in the means between principals and teachers for Part II of the TRBKQ (Witmer et al.) are presented in Table 9. A summary of the One-Way Analysis of Variance is presented in Appendix I.

Table 12

One-Way Analysis of Variance (ANOVA) for Part 1I of the TRBKQ

	Grades						
Item	K	1	2	3	4	5	6
21. What is the current educational position on retention and social promotion?							
22. Whether a student is promoted or retained, what does the majority of the current research say about the long-term effects on students' academic achievement?							
24. In general, what does the current research say about an extra year in Kindergarten, pre-kindergarten programs and/or transitional programs?							
25. According to current research, which student is most likely to drop out of school?			*	*			*
27. According to current research, which student is most likely to be retained?		*					

Item	Grades K	1	2	3	4	5	6
28. What does the current research suggest when comparing the behavior of students who have been retained or socially promoted with students who have NOT been retained or promoted?							
30. Tricia, Jen, Michelle, and Julie are all struggling academically. According to current research, which student would you expect to perform better academically three or four years from now?	*						
31. In general, what does the majority of research say about peer relatedness and grade retention in the elementary grades?							
33. According to current research, which student will most likely be causing the most behavior problems in the elementary grades?							*

Note. * indicates a significant difference of the mean at the 0.05 level.

Research Question 4. Can group membership be predicted for beliefs, propositional and practical knowledge for principals and teachers (K, 1, 2, 3, 4, 5, 6) based upon the TRBKQ (Witmer et al.) as determined by the statistical analysis procedure of Discriminant Analysis?

A discriminant analysis was conducted to determine if the variables of principal and teachers (K, 1, 2, 3, 4, 5, 6) could be used to predict group membership for beliefs, propositional and/or practical knowledge. Discriminant analysis was utilized to determine whether principals and teachers (K, 1, 2, 3, 4, 5, 6) could be used to predict group membership for beliefs. Function 1 (Eigenvalue=.395) was identified as the only significant discriminant function and accounted for 37.3% of the variance (Wilk's lambda = .390; p = .003). Function 2 (Eigenvalue=.268) was identified and accounted for 25.3% of the variance (Wilk's lambda=.554; p=.089). Function 3 (Eigenvalue=.186) was identified and accounted for 17.6% of the variance (Wilks' lambda=.689; p=.434).

Function 4 (Eigenvalue=.117) was identified and accounted for 11.1% of the variance (Wilks' lambda=.818; p=.811). Function 5 (Eigenvalue=.055) was identified and accounted for 5.2% of the variance (Wilks' lambda=.914; p=.959). Function 6 (Eigenvalue=.027) was identified and accounted for 2.6% of the variance (Wilks' lambda=.964; p=.971). Function 7 (Eigenvalue=.010) was identified and accounted for 1.0% of the variance (Wilks' lambda=.990; p=.939). A summary of the discriminant analysis for beliefs is presented in Table 10.

Table 13

Discriminant analysis for principals, teachers and beliefs

Function	Eigenvalue	% Variance	Wilk's Lambda	Chi Square	p-value
1	.396	37.3	.390	116.300	.003
2	.268	25.3	.544	75.224	.089
3	.186	17.6	.689	45.927	.434
4	.117	11.1	.818	24.879	.811
5	.055	5.2	.914	11.165	.959
6	.027	2.6	.964	4.555	.971
7	.010	1.0	.990	1.261	.939

Figure 3 depicts group membership for function 1 through 7 as identified through Wilks' Lambda test of functions with a significance level of .003. Functions 1 and 2 were analyzed and accounted for 62.6% of the variance. When principals and teachers (1, 3) recommend promotion of a student, they look at the classroom performance of failing. When teachers (K, 6) recommend promotion, they look at the classroom performance of passing. Teachers (2, 5) look at the classroom performance of passing when they recommend retention. Teachers (4) look at the classroom performance of failing when they recommend retention.

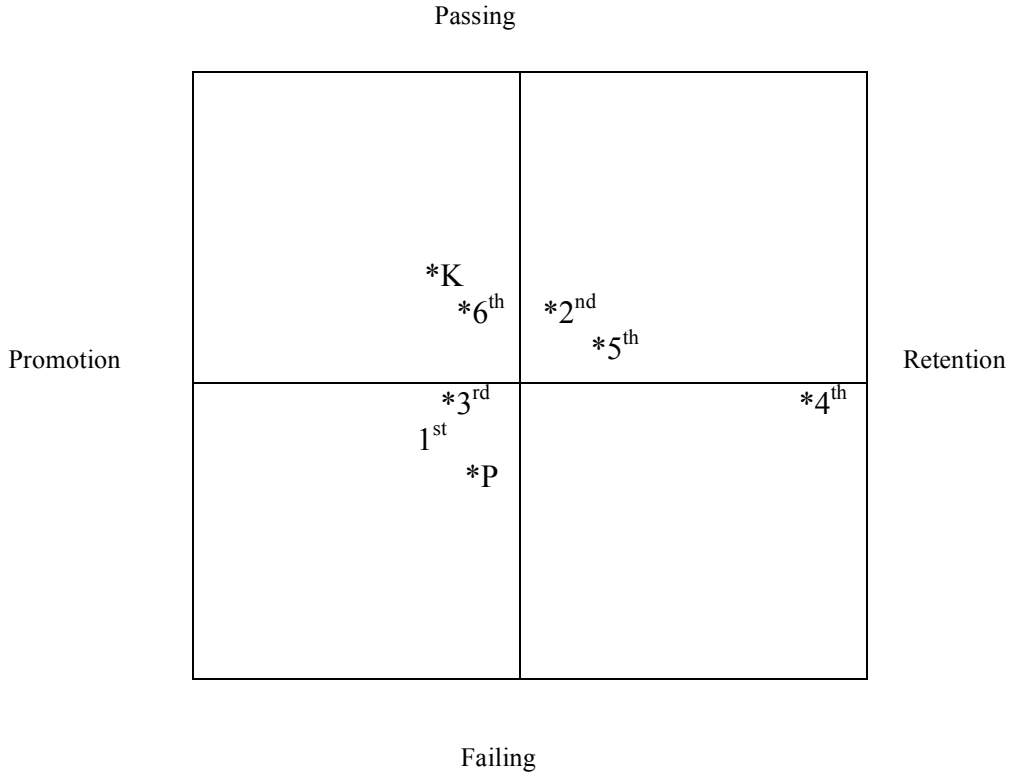


Figure 3. Prediction of group membership for beliefs of principals and teacher are: functions 1, promotion and retention; function 2, classroom performance of passing and failing.

Figure 4 depicts group membership for function 1 through 7 as identified through Wilks' Lambda test of functions with a significance level of .003. Functions 1 and 3 were analyzed and accounted for a cumulative variance of 80.2%. Principals and teachers (K, 2, 4) look at social development when they recommend promotion. When teachers (1, 5) recommend promotion, they look at academic achievement. Teachers (6) will look at academic achievement when recommending retention. Teacher (3) will look at social development when recommending retention.

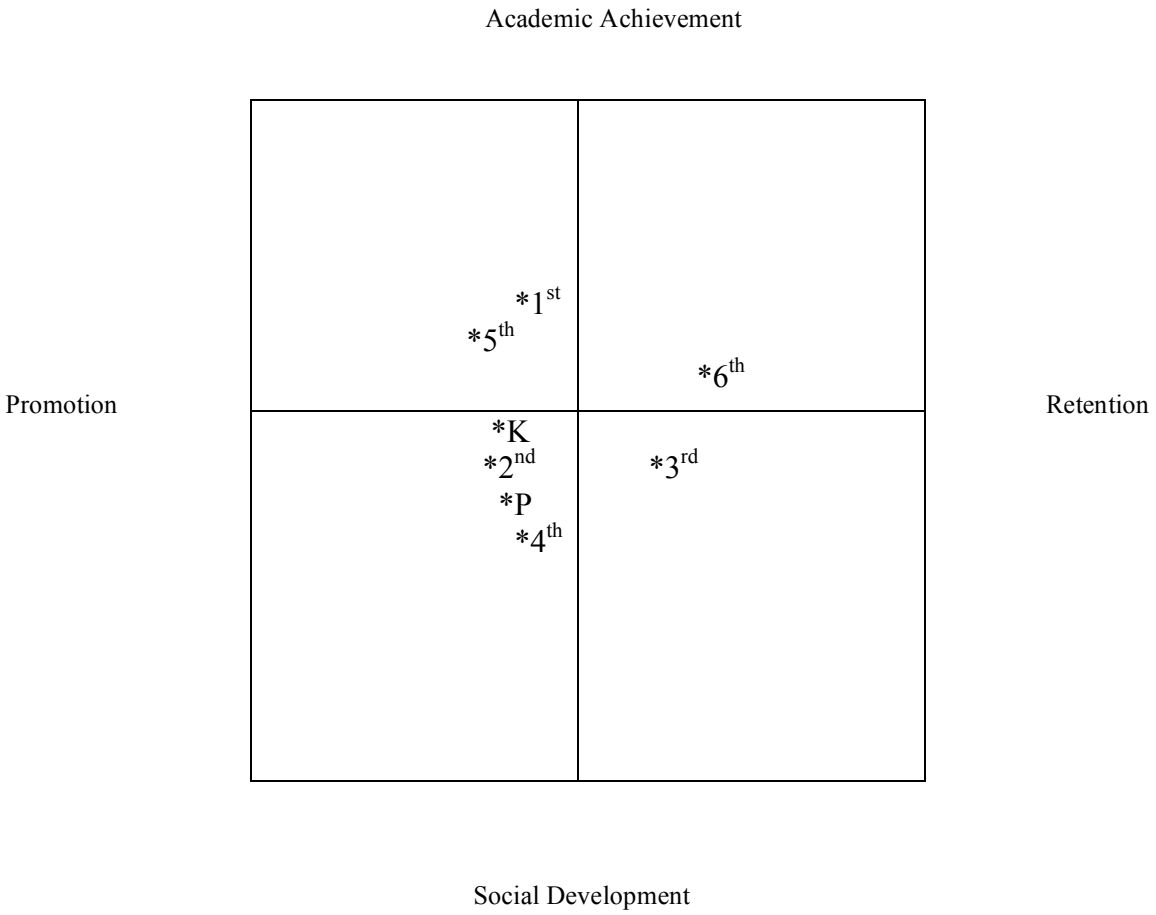


Figure 4. Prediction of group membership for beliefs of principals and teacher are: functions 1, promotion and retention and function 2, academic achievement and social development.

A discriminant analysis was conducted to determine whether principals and teachers (K, 1, 2, 3, 4, 5, 6) could be used to predict group membership for propositional knowledge. Seven functions were identified with no significant discriminant functions found. Function 1 (Eigenvalue=.221) was identified and accounted for 45.9% of the variance (Wilks' lambda=.637; p=.583). Function 2 (Eigenvalue=.091) was identified and accounted for 18.9% of the variance (Wilks' lambda=.778; p=.924). Function 3 (Eigenvalue=.084) was identified and accounted for 17.5% of the variance (Wilks' lambda=.849; p=.932). Function 4 (Eigenvalue=.047) was identified and accounted for

9.8% of the variance (Wilks' lambda .920; p=.971). Function 5 (Eigenvalue=.025) was identified and accounted for 5.1% of the variance (Wilks' lambda=.963; p=.975). Function 6 (Eigenvalue=.012) was identified and accounted for 2.5% of the variance (Wilks' lambda=.987; p=.957). Function 7 (Eigenvalue=.001) was identified and accounted for .2% of the variance (Wilks' lambda=.999; p=.936). A summary of the discriminant analysis for propositional knowledge is presented in Table 11.

Table 14

Discriminant analysis for principals, teachers and propositional knowledge

Function	Eigenvalue	% Variance	Wilk's Lambda	Chi Square	p-value
1	.221	45.9	.637	53.166	.583
2	.091	18.9	.778	29.638	.924
3	.084	17.5	.849	19.368	.932
4	.047	9.8	.920	9.865	.971
5	.025	5.1	.963	4.413	.975
6	.012	2.5	.987	1.534	.957
7	.002	.2	.999	.131	.936

A discriminant analysis was conducted to determine whether principals and teachers (K, 1, 2, 3, 4, 5, 6) could be used to predict group membership for practical knowledge. Five functions were identified, and no significant discriminant function was found. Function 1 (Eigenvalue=.200) was identified and accounted for 54.0% of the variance (Wilks' lambda=.705; p=.130). Function 2 (Eigenvalue=.0740 was identified and accounted for 20.1% of the variance (Wilks' lambda=.847; p=.626). Function 3 (Eigenvalue=.052) was identified and accounted for 13.9% of the variance (Wilks' lambda=.910; p=.674) Function 4 (Eigenvalue=.026) was identified and accounted for 7.1% of the variance (Wilks' lambda=.957; p=.689). Function 5 (Eigenvalue=.018) was identified and accounted for 4.9% of the variance (Wilks' lambda=.982; p=.509). A summary of the discriminant analysis for practical knowledge is presented in Table 12.

Table 15

Discriminant analysis for principals, teachers and practical knowledge

Function	Eigenvalue	% Variance	Wilk's Lambda	Chi Square	p-value
1	.200	54.0	.705	44.517	.130
2	.074	20.1	.847	21.218	.626
3	.052	13.9	.910	12.060	.674
4	.026	7.1	.957	5.629	.689
5	.018	4.9	.982	2.319	.509

Summary

This chapter provided the data analysis and findings for the study. The statistical technique of Cronbach's Alph (0.7 or greater) was utilized to determine that the *Teacher Retention Beliefs and Knowledge Questionnaire* (TRBKQ) is not a reliable instrument within the framework of this study for determing beliefs and knowledge of principals and teachers regarding grade retention. The researcher identified 4 components for part I of the TRBKQ (Witmer et al.) as components 1 and 3, negative effects of retention; component 2, retention policy; and component 4, student behavior. In Part II of the TRBKQ (Witmer et al.), negative effects of retention, best practice, predictors of retention and student behavior were identified. Teachers believed there are benefits to retaining students. Principals do not see any benefits in retaining students, but did not rule out the use of retention. Principals and teachers differed in their beliefs regarding grade retention. Teachers believed that retention should be based on student achievement, while principals believe it is about student potential. Principals and teachers possessed greater knowledge based on their own experiences and were not aware of current research findings. When principals and teachers are making decisions for retention or promotion, they base their decisions on academic achievement, social development, and classroom performance of failing or passing.

CHAPTER FIVE

DISCUSSION OF FINDINGS AND CONCLUSIONS

This study was conducted to examine the current status of beliefs and knowledge of principals and teachers regarding student retention and to establish the psychometric properties of the *Teacher Retention Beliefs and Knowledge Questionnaire* (TRBKQ) (Witmer, et al., 2004). This chapter presents a discussion of findings by research questions, establishes conclusions, identifies limitations to the study, and makes recommendations for further study.

Discussion of Findings

The discussion of findings will be completed in accordance with the research questions that guided this study. The research questions are presented below and discussed utilizing the findings from the data analysis of Chapter 4.

Research Question 1

1.1 Is the TRBKQ (Witmer et al., 2004) reliable as determined by the statistical analysis procedure of Cronbach's Alpha?

Null Hypothesis 1. The TRBKQ (Witmer et al., 2004) is not a reliable instrument as determined by the statistical analysis procedure of Cronbach's Alpha (0.7 or greater).

The null hypothesis for research questions 1.1 is accepted.

Reliability analysis was conducted on Part I of the TRBKQ (Witmer et al., 2004) which assessed beliefs of principals and teachers, Part II which assessed knowledge of principals and teachers, and Part I and II combined of the TRBKQ (Witmer et al.). The TRBKQ (Witmer et al.) is not a reliable instrument for measuring beliefs and knowledge

of principals and teachers regarding grade retention within the frameworks of the current study. Findings indicated that Part I of the TRBKQ (Witmer et al.) had a reliability factor of .482. While this is a good factor, it falls short of the desirable factor of .7 (Field, 2005). Part II of the TRBKQ (Witmer et al.) had a reliability factor of -.011. A factor of .00 or less indicates no reliability (Fraenkel & Wallen, 2003). Part I and II combined of the TRBKQ (Witmer et al.) had a reliability factor of .264.

1.2 Can confirmatory construct validity for the TRBKQ (Witmer et al., 2004) be established as determined by the statistical analysis procedure of Principal Components Factor Analysis with Varimax Rotation?

Null Hypothesis 2. Confirmatory construct validity for the TRBKQ (Witmer et al.) cannot be established as determined by the statistical analysis procedure of Principal Components Factor Analysis (p value = 0.05) with Varimax Rotation (0.40 correlation).

The null hypothesis for research questions 1.2 is rejected.

Part I. Principal components factor analysis identified 4 components in Part I of the TRBKQ (Witmer et al., 2004). The researcher identified the 4 components from the principal components factor analysis with a varimax rotation: components 1 and 3, negative effects of retention; component 2, policy and standards for retention; and component 4, student behaviors.

Part II. Principal components factor analysis identified 4 components in Part II of the TRBKQ (Witmer et al., 2004). The researcher identified the 4 components from the principal components factor analysis with a varimax rotation: components 1, negative

effects of retention; component 2, best practice, components 3, predictors of retention; and component 4, student behaviors.

Research Question 2

What are the beliefs and knowledge of principals, teachers (K, 1, 2, 3, 4, 5, 6) regarding the use of grade retention based on the TRBKQ (Witmer et al., 2004) using descriptive analysis to determine percents, mean and standard deviation?

Part I teacher results. Results of Part I of the TRBKQ (Witmer et al., 2004) that assessed beliefs of teachers and principals indicated that teachers support the use of retention as a legtimate school practice. The majority of teachers surveyed believed retention was an effective practice that prevented students from experiencing daily failure in the next grade. This result is consistent with Tomchin and Impara (1992) and Witmer, Hoffman, and Nottis (2004) who administered the same question in their respective studies. Teachers believed students should be retained in order to maintain grade level standards. Tomchin and Impara (1992) found the majority of teachers agreed that students should be retained in order to maintain grade level standards. These findings are supported by results from studies conducted by Di Maria (1999), Pouliot (1999), and Rogers (1995). The majority of teachers in the current study believed that if students are to be retained, retention should take place no later than 3rd grade. Teachers also believed that retention in K-3 would label students. Pomplum (1988) found through his research that teachers believed retention was more beneficial when it took place in the primary grades. The overwhelming majority of teachers disagreed with the statement "Children should never be retained". This is consistent with findings from studies conducted by Tomchin and Impara (1992) and Witmer et al. (2004).

Part 1 principal results. Principal results for Part I of the TRBKQ (Witmer et al., 2004) indicated that principals do not agree with the practice of student retention. Principals did not agree that retention is an effective practice in preventing students from experiencing daily failure in the next grade. The majority of principals did not believe that retention is necessary for maintaining grade level standards. Principals believed that retention in K-3 and K-4 could harm a child's self-concept.

Findings indicated that although the majority of principals did not agree with the practice of retention, they did believe that if retention is going to happen it should take place early in the primary grades. Principals did not agree that retention in K-3 would negatively label a student. Principals disagreed with the statement "children should never be retained".

Part II knowledge results. Principals and teachers both possessed greater knowledge based on their own experiences than knowledge based on current research findings regarding grade retention. This knowledge of their own experiences is their basis for decision-making regarding retention.

Is there a difference in beliefs, propositional and/or practical knowledge between principals, teachers (K, 1, 2, 3, 4, 5, 6) by TRBKQ (Witmer et al.) items as determined by the statistical analysis procedure of a One-Way Analysis of Variance (ANOVA)?

Null Hypothesis 3. There is no difference in beliefs, propositional and/or practical knowledge between principals, teachers (K, 1, 2, 3, 4, 5, 6) by TRBKQ (Witmer et al.) items as determined by the statistical analysis procedure of an ANOVA (p value = 0.05).

The null hypothesis for research question 3 is rejected.

The One-Way Analysis of Variance was utilized to determine if a significant difference existed in beliefs, propositional and/or practical knowledge between principals and teachers (K, 1, 2, 3, 4, 5, 6). In Part I of the TRBKQ (Witmer et al., 2004), significant differences between beliefs of principals and teachers (K, 1, 2, 3, 4, 5, 6) regarding grade retention was established. The majority of teachers believed that retention is based on a student's current academic performance, while principals believe it is about student potential. The decision whether or not to retain is based on teachers' beliefs about the student's current academic problems, and not on the student's future academic potential (Bonvin, 2003).

In Part II of the TRBKQ (Witmer et al.), which assessed propositional knowledge, a significant difference of the means could not be found for any items assessing principals and teachers knowledge on current research findings. In Part II of the TRBKQ (Witmer et al.), which assessed practical knowledge, a significant difference of the means could be established on all 4 of the survey items between principals and teachers assessing their knowledge based on experiences.

Research Question 4

> Can group membership be predicted for beliefs, propositional and practical knowledge for principals and teachers (K, 1, 2, 3, 4, 5, 6) based upon the TRBKQ (Witmer et al.) as determined by the statistical analysis procedure of Discriminant Analysis?

Discriminant analysis was used to determine if group membership could be predicted for beliefs, propositional and practical knowledge for principals and teachers. Only 1 significant factor was found for Part I of the TRBKQ (Witmer et al., 2004) to

predict group membership for beliefs of principals and teachers. In functions 1 through 2, teachers (4, 5) beliefs are retention based on academic achievement. Principals and teachers (1, 3) are promotion based on the classroom performance of failure. Teachers (K, 6) beliefs are promotion based on the classroom performance of passing. Teachers (2, 5) beliefs are retention based on the classroom performance of passing. Teachers (4) beliefs are retention based on the classroom performance of failing. In functions 1 through 3, Principals and teachers (K, 2, 4) beliefs are promotion based on social development. Teachers (1, 5) beliefs are promotion based on academic achievement. Teachers (6) beliefs are retention based on academic achievement. Teacher (3) beliefs are retention based on social development. In Part II of the TRBKQ (Witmer et al.,), there were not any significant factors identified to predict group membership for propositional or practical knowledge.

Conclusions

The following are conclusions derived from the current study:

*The results of this study concurred with current research findings on the beliefs of teachers regarding grade retention, especially the use of grade retention as a practice to remediate at-risk students.

*Teachers believed there are certain benefits to retention such as maintaining grade level standards, preventing students from failing in the next grade, and preventing behaviors in the classroom.

*Principals did not believe in the practice of grade retention, but did not rule out the use of retention. The selected school district has a retention policy that states when a student is to be retained or promoted. A logical conclusion is that

principals did not rule out the use of retention because they were adhering to district policy.

*Principals base their decisions whether to promote or retain on student potential and teachers base their decisions on current academic achievement.

*Principals and teachers possessed very little knowledge on the current research findings regarding grade retention. Principals and teachers are unaware of current research findings on interventions to help students who at risk for retention. Principals and teachers are unaware of the socio-emotional impact retention has on students and the long-term effects of retention.

*Principals and teachers rely on their own experiences for making decisions regarding grade retention.

* The knowledge base for principals and teachers is grounded more in practical rather than propositional knowledge.

*Principals and teachers do possess differences in beliefs and knowledge based on experience regarding grade retention.

Recommendations

The following are recommendations based on the conclusions:

*The issue of the efficacy of student retention and what current research states regarding student retention needs to be addressed in teacher and principal preparation programs at the university level.

*Professional development needs to be conducted with currently practicing teachers and principals to make them aware of what the current literature says concerning grade retention.

*Principals and teachers need effective training at the pre-service and service levels to promote differentiated teaching methodologies and educational programming to promote alternative interventions to retention. Interventions such as reading plans and prescriptive tutoring may benefit students who are at risk for retention.

*Policy makers at the federal, state, and local agencies should review promotion and retention guidelines in order to be in accordance with current research in this area.

The following are recommendations for further study:

*Part II of the TRBKQ (Witmer et al., 2004) could be utilized in teacher and principal preparation programs as a pre and post test to assess teacher and principal knowledge at the beginning and end of a course.

* Part II of the TRBKQ (Witmer et al.) could be utilized with practicing principals and teachers to assess their knowledge regarding grade retention.

*The study could be replicated with other populations to establish beliefs and knowledge of principals and teachers in other districts or states.

*The study could be replicated with the population of district level administrators, parents and policy makers.

*Action research could be conducted examining intervention strategies for at-risk students.

Limitations

1. A limitations to the current study is the reliability factor of the TRBKQ (Witmer et al., 2004).

2. The sample size of principals.

Summary

The use of grade retention is a widely accepted practice not only in the selected school district, but also in schools across the country (Jimerson, 2001a, 2001b; Tanner & Galis, 1997; Tanner & Combs, 1993). Beliefs play an integral role in the decision-making process of teachers (Bonvin, 2003; Pouliot, 2000). In order for beliefs of teachers and principals to change, the original beliefs must be disposed of before new beliefs can be established (Calderhead, 1996). Through this study, it was established that beliefs of teachers still support the use of retention as an acceptable practice, and while principals do not agree with the practice they do not rule out the use of retention. Differences in beliefs and knowledge between principals and teachers were established. Both propositional and practical knowledge was identified for principals and teachers. The reliability of the TRBKQ (Witmer et al., 2004) could not be established within the frameworks of this study. Constructs were identified giving the TRBKQ (Witmer et al.) validity and group membership for beliefs of principals and teachers could be predicted. The results of this study could be used to inform teacher and principal preparation programs, policy makers, and serve as a basis for professional development for practicing principals and teachers.

References

Alan, R. (2005). Fla. Board seeks social-promotion ban in all grades [Electronic version]. *Education Week, 24*(20).

Alexander, K. L., Entwisle, D. R., & Kabbani, N. (1999). Grade retention, social promotion and "third way" alternatives. [Electronic version] Paper prepared for the National Invitational Conference on Early Childhood Learning: Programs for a New Age. Alexandria, Virginia.

Anderson, G. E., Whipple, A. D., & Jimerson, S. R. (2003) Grade retention: Achievement and mental health outcomes [Electronic version]. *Plain Talk, The Newsletter for the Center for Development and Learning, 9*(2), 5-7.

Arnold, J., Cooper, C. L., & Robertson, I. T. (1998). *Work psychology: Understanding human behaviour in the workplace* (2nd ed.). London: Pitman.

Balitewicz, T. F., (1998). The long-term effects of grade retention. (ERIC Document Reproduction Service No. ED 424 616).

Balow, I. & Schwager, M. (1990). Retention in grade: A failed procedure. Riverside, CA: (ERIC Document Reproduction Service No. ED 315 710).

Black, S. (2004). Second time around [Electronic version]. *American School Board Journal.*

Bonvin, P. (2003). The role of teacher attitudes and judgment in decision-making: the case of grade retention [Electronic version]. *European Educational Research Journal*, *2*(2), 277-294.

Brooks, R., (2003). School retention: A common practice but is it effective [Electronic version]? *Plain Talk, The Newsletter for the Center for Development and Learning, 9*(2), 1-5.

Byrnes, D. A., & Yamamoto, K. (2001). Academic retention of elementary pupils: An insiders look [Electronic version]. *Education*, *106*(2), 208-214.

Calderhead, J., (1996). Teachers' beliefs and Knowledge [Electronic version]. In D. C. Berliner & R. C. Calfee (Eds.), *Handbook of Educational Psychology* p 709-725.

Clinton, W. (1999). *State of the Union Address (1999)* [Electronic version]. Washington, D. C.: U. S. Government Printing Office.

Clinton, W. (1998). *State of the Union Address (1998)* [Electronic version]. Washington, D. C.: U. S. Government Printing Office.

Cronk, B. C., (1999). *How to use SPSS: A step-by-step guide to analysis and interpretation.* Los Angeles, CA: Pyrczak Publishing.

Darling-Hammond, L., (1998). Avoiding both grade retention and social promotion [Electronic version]. *The School Administrator, 55* 18-21.

Denton, D. R. (2001). Finding alternatives to failure: Can states end social promotion and reduce retention rates? Atlanta, GA. (ERIC Document Reproduction Service No. ED 451 268).

Denton, D. R. (2000). Retention and promotion in South Carolina [Electronic version]. A white paper prepared for the South Carolina Department of Education by the South Regional Education Board.

Di Maria, M. J. (1999). Issues of social promotion. (Clearinghouse PS028203). (ERIC Document Reproduction Service No. ED 437 208).

Enters, T. (1994). Grade retention: A survey of elementary school teacher's beliefs [Electronic version]. Unpublished master's thesis. University of Wisconsin-Whitewater.

Fenstermacher, G. D. (1994). The knower and the known: The nature of knowledge in research on teaching [Electronic version]. In Linda Darling Hammond (Ed.), *Review of Research in Education, 20*, 3-36.

Field, A. (2005). *Discovering statistics using SPSS* (2nd Ed.). Thousand Oaks, CA: SAGE Publications Inc.

Fraenkel, J. & Wallen, N.E. (2003). *How to design and evaluate research in education.* (3rd ed.). New York: McGraw-Hill, Inc.

Green, S. B. & Salkind, N. J., (2003) *Using SPSS for windows and macintosh: Analyzing and understanding data* (3rd Ed.). Upper Saddle River, New Jersey: Prentice Hall.

Hagborg, W. J., (1993). Teacher and high school student grade retention attitudes. Paper presented at the annual meeting of the National Association of School Psychologists, Washington, DC. (ERIC Document Reproduction Service No. ED 356 221).

Hauser, R. M., (2000). Should we end social promotion? Truth and consequences. Madison, WI. (ERIC Document Reproduction Service No. ED 445 015).

Harrington-Lueker, D., (1998). Retention vs. promotion. *The School Administrator* Retrieved December 28, 2003 from the World Wide Web from http://www.aasa.org/publications/saarticledetail.cfm?

Hartke, K., (1999). The misuse of tests for retention [Electronic version]. *Thrust for Educational Leadership 28*(3), 22.

Holmes, C. T., & Saturday, J. (2000). Promoting the end of retention [Electronic version]. *Journal of Curriculum and Supervision, 12*(4) 300-314.

Hong, G., & Raudenbush, S. W. (2005). Effects of kindergarten retention policy on children's cognitive growth in reading and mathematics [Electronic version]. *Educational Evaluation and Policy Analysis, 27*(3) 205-224.

House, E. R., (1991). The perniciousness of flunking students [Electronic version]. *Education Digest, 56*(6).

Hyman, J. (1999). How knowledge works [Electronic version]. *The Philosophical Quarterly, 49*(197) 433-451.

Jimerson, S. R., Kaufman, A. M., Anderson, G. E., Whipple, A. D., Figueroa, L. R., Rocco, F., & O'Brien, K. M. (2002). Beyond grade retention and social promotion: Interventions to promote social and cognitive competence [Electronic version]. Manuscript submitted for publication.

Jimerson, S. R. (2001a). Meta-analysis of grade retention research: implications for practice in the 21st century [Electronic version]. *School Psychology Review, 30(3),* 420-437.

Jimerson, S. R. (2001b). A synthesis of grade retention research: Looking backward and moving forward [Electronic version]. *The California School Psychologist, 6,* 47-59.

Jimerson, S. R. (1999). On the failure of failure: Examining the association between early grade retention and education and employment outcomes during late adolescence [Electronic version]. *Journal of School Psychology, 37*(3), 243-272.

Jimerson, S. R. & Kaufman, A. M. (2003). Reading, writing, and retention: A primer on grade retention [Electronic version]. *Reading Teacher, 56*(7) 622-636.

Kinlaw, C. R. (2005). Sorting out student retention. 2.4 million children left behind [Electronic version]? Durham, NC: Duke University, Center for Child and Family Policy, Terry Sanford Institute of Public Policy.

Light, H. W. (1986). *Light's Retention Scale Manual.* Novata, CA: Academic Therapy Publications.

Mantzicopoulos, P. Y. (1997). Do certain groups of children profit from early retention? A follow-up study of kindergarteners with attention deficit problems [Electronic version]. *Psychology in the Schools, 34*(2) 115-127.

McCollum, P., Cortez, A., Maroney, Oanh, H. & Montes, F. (1999). Failing our children: Finding alternatives to in-grade retention. A policy brief. San Antonio, TX. (ERIC Document Reproduction Service No. ED 434 962).

McCoy, A. R. & Reynolds, A. J. (1998). Grade retention and school performance: An extended investigation [Electronic version]. Institute for Research on Poverty, Discussion Paper no. 1167-98.

Merrick, J., McCreery, K. & Brown, J. (1998). Student success in a standards-based system: Moving beyond social promotion and retention. A position paper of the Association of California School Administrators. (ERIC Document Reproduction Service No. 426 454).

Mertler, C. A., & Vannatta, R. A. (2006). *Advanced and multivariate statistical approach: Practical application and interpretation* (3rd Ed). Glendale, CA: Pyrczak Publishing.

Meisels, S. J., & Liaw, F. R. (1993) Failure in grade: Do retained students catch up [Electronic version]? Journal of Educational Research, 87(2) 69-77.

Morgan, G., (1997). *Images of organization.* Thousand Oaks, CA: SAGE Publications.

Morris, D. R., (2000). Assessing the implementation of high stakes reform: Aggregate relationships between retention rates and test results. New Orleans, LA. (ERIC Document Reproduction Service No. ED 447 215).

National Association of School Psychologists (2003). Position statement on student grade retention and social promotion [Electronic version]. Bethesda, MD.

Nonaka, I, & Takeuchi, H., (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation.* New York: Oxford University Press.

Owings, W. A., & Magilaro, S. (1998). Grade retention: a history of failure. *Educational Leadership.* Retrieved December 28, 2003 from the World Wide Web http//www.ascd.org/pubs/el/sep98/owings.html.

Parker, D. R., (2001). Social promotion or retention? Two wrongs still don't make a right [Electronic version]. *Leadership, 30*(4).

Patterson, D. M., (1996). The impact of grade retention on K-5 elementary students: Perceptions of educators in states served by the Southern Association of Colleges and Schools. Tuscaloosa, AL. (ERIC Document Reproduction Service No. ED 405 327).

Pomplun, M., (1988). Retention: the earlier, the better [Electronic version]? *Journal of Educational Research, 81*(5).

Pouliot, L. (1999). A double method approach for a double need: To describe teacher's beliefs about grade retention, and to explain the persistence of these beliefs. Paper presented at the Annual Meeting of the American Educational Research Association. Montreal, Quebec, Canada. (ERIC Document Reproduction Service No. ED 429 946).

Powell, P. J. (2005). *The effects of grade retention: Life histories of adults who were retained as children.* Unpublished doctoral dissertation, Northern Arizona University.

Rogers, M. J., (1995). Parent, teacher, and school administrator perceptions of grade retention and alternatives to grade retention (Doctoral dissertation, University of South Dakota, 1995).

Rudolph, A. R., & Jennings, J. (1999). Education and social promotion: What is the debate [Electronic version]? Paper prepared by the North Central Regional Educational Laboratory (NCREL).

SB 319, 91st General Assembly of the State of Missouri. (2001).

Selected Public School District (2006a). Administrative Handbook.

Selected Public School District (2006b). *Profiles of the Schools.*

Tanner, C. K, Galis, S. A. (1997). Student retention: Why is there a gap between the majority of research findings and school practice [Electronic version]. *Psychology in the Schools, 34(2),* 107-114.

Tanner, C. K, Combs, E. F. (1993). Student retention policy: The gap between research and practice [Electronic version]. *Journal of Research in Childhood Education, 8(1)*, 69-77.

Thomas, A. (2003). So if retention is so harmful, what do we do? Heading toward a long-term systemic solution. *Plain Talk, The Newsletter for the Center for Development and Learning, 9*(2), 10-14.

Thomas, R. M., & Brubaker, D. L. (2000). *Theses and dissertations: A guide to planning, research, and writing.* Westport, CT: Bergin & Garvey.

Thompson, C. L., & Cunningham, E. K. (2000). Retention and social promotion: Research and implications for policy. ERIC digest number 161. (ERIC Document Reproduction Services No. ED 449 241).

Tomchin, E. M., & Impara, J. C. (1992). Unraveling teachers' beliefs about grade retention. *American Educational Research Journal*, *29*(1) 199-223.

Trochim, M. K. (2002). *Research methods knowledge base.* Retrieved December 28, 2003 from the World Wide Web http://trochim.human.cornell.edu/kb/.

U. S. Department of Education (2001). *Executive summary*. Retrieved June 23, 2007 from the World Wide Web http://www.ed.gov/nclb/overview/into.execsumm.html.

U. S. Department of Education (1999). *Taking responsibility for ending social promotion: A guide for educators and state and local leaders*. Washington, D. C: U. S. Government Printing Office.

Verloop, N., Van Driel, J., & Meijer, P. (2001). Teacher knowledge and the knowledge base of teaching [Electronic version]. *International Journal of Educational Research, 35*, 441-461.

Viadero, D. (2000). Ending social promotion [Electronic version]. *Education Week, 19*(27) 40-43.

Walter, Deneen M., Borgers, & Sherry, B. (1995). Student retention: is it effective [Electronic version]? *School Counselor*, *42(4),* 300-310.

Witmer, S. M., Hoffman, L. M., Nottis, K. E. (2004). Elementary teachers' belief and knowledge about grade retention: How do we know what they know? *Education*, 125(2), 173-193.

Xia, C., & Glennie, E. (2005a). *Grade retention: A flawed education Strategy.* Durham, NC: Duke University, Center for Child and Family Policy, Terry Sanford Institute of Public Policy.

Xia, C., & Glennie, E. (2005b). *Cost-benefit analysis of grade retention.* Durham, NC: Duke University, Center for Child and Family Policy, Terry Sanford Institute of Public Policy.

Xia, C. & Glennie, E. (2005c). *Grade retention: The gap between research and practice.* Durham, NC: Duke University, Center for Child and Family Policy, Terry Sanford Institute of Public Policy.

Yamoto, K. (1980). "Children under stress, the causes and cures" [Electronic version]. *Family Weekly, Ogden Standard Examiner*, 6-8.

Appendix A

Teacher Retention Beliefs and Knowledge Questionnaire (TRBKQ)

Part 1 Please circle the number that corresponds with your beliefs with 1=Agree, 2=Tend to Agree, 3=Tend to Disagree, and 4=Disagree.

1. Retention is an effective means of preventing students from facing daily failure in the next higher grade.
1 2 3 4
2. Retention is necessary for maintaining grade level standards.
1 2 3 4
3. Retaining a child in grade K-3 harms a child's self-concept.
1 2 3 4
4. Retention prevents classrooms from having wide ranges in student achievement.
1 2 3 4
5. Students who do not apply themselves should be retained.
1 2 3 4
6. Knowing that retention is a possibility does motivate students to work harder.
1 2 3 4
7. Retaining a child in grades 4-6 harms a child's self-concept.
1 2 3 4
8. Retention is an effective means of providing support in school for the child who does not get support at home.
1 2 3 4
9. Students who do not make passing grades in 2 of the 3 major subject areas (reading, communications or math) should be retained?
1 2 3 4
10. Students who make passing grades, but are working below grade level should be retained.
1 2 3 4
11. Retention in grades K-3 is an effective means of giving the immature child a chance to catch up.
1 2 3 4
12. Retention is grades 4-6 is an effective means of giving the immature child a chance to catch up.
1 2 3 4
13. Students receiving services from a learning support teacher should not be retained.
1 2 3 4
14. If students are to be retained, they should be retained no later than third grade.
1 2 3 4
15. In grades K-3, over-age children (more than a year older than their classmates) cause more behavior problems than other children.
1 2 3 4

16. In grade 4-6, over-age children (more than a year older than their classmates) cause more behavior problems than other children.

1 2 3 4

17. Retention in grades K-3 permanently labels a child.

1 2 3 4

18. Retention in grades 4-6 permanently labels a child.

1 2 3 4

19. Children who have passing grades but excessive absences should be retained.

1 2 3 4

20. Children should never be retained.

1 2 3 4

Part II Please circle your response.

21. What is the current educational position on retention and social promotion?

a. Schools should keep both social promotion and grade retention.
b. Schools should end both social promotion and grade retention.
c. Schools should end social promotion and keep grade retention.
d. Schools should keep social promotion and end grade retention.

22. Whether a student is promoted or retained, what does the majority of the current research say about the long-term effects on students' academic achievement?

a. Retention does not effectively increase academic achievement among low-achieving students.
b. Social promotion does not effectively increase academic achievement among low-achieving students.
c. Neither social promotion nor retention effectively increase academic achievement.
d. Both social promotion and retention effectively increase academic achievement.

23. According to the current research, how will Steven, a first grader, most likely feel when her hears that he is going to be retained?

a. He will be indifferent towards the decisions.
b. He will feel relieved because now he can "catch up" on his basic skills.
c. He will feel like he is being punished.
d. He will feel happy because he will be the leader in the class.

24. In general, what does the current research say about an extra year in Kindergarten, pre-kindergarten programs and/or transitional programs?

a. Students do not experience any benefits from these extra-year programs.
b. Students become more mature as a result of these extra-year programs.

c. Students experience a benefit in academic achievement in these extra-year programs.
d. Students experience higher self-esteem from these extra-year programs.

25. According to current research, which student is most likely to drop out of school?

a. John who was held back one time in elementary school.
b. Brian who has been held back once in elementary school and once in middle school.
c. Matt who has been performing below average every school, but has never been retained.
d. David who was recommended for retention but was promoted to the next grade level.

26. In general, what does the majority of the current research say about grade retention and academic gains?

a. Academic gains are not noticed until three or fours years after the retention.
b. Any academic gains made during the repeated year increases over time.
c. Retained students make more academic gains than those who are promoted.
d. Any academic gains made during the repeated year fade over time.

27. According to current research, which student is most likely to be retained?

a. Brad, a White male, who is young for his grade and whose family is in the low socio-economic status (SES) group.
b. Jerome, an African-American male, who is young for his grade, family is in the low SES group.
c. Maria, a Hispanic female, whose primary language is not English, family is in the high SES group.
d. Lisa, a White female, the smallest and youngest in her class, family is in the high SES group.

28. What does the current research suggest when comparing the behavior of students who have been retained or socially promoted with students who have NOT been retained or promoted?

a. Grade retention is not associated with children's behavior problems.
b. Grade retention is associated with decreased rates of behavior problems.
c. Grade retention is associated with increased rates of behavior problems.
d. Social promotion is associated with increase rates of behavior problems.

29. In general, what does the majority of the current research say about retention and school drop out rate?

a. Students who are retained are more likely to drop out of school.
b. There is no correlation between being retained and dropping out of school.
c. Students who are retained are less likely to drop out of school.
d. Students are likely to drop out of school only if they have been retained more than once.

30. Tricia, Jen, Michelle, and Julie are all struggling academically. According to current research, which student would you expect to perform better academically three or four years from now?

a. Jen who was retained at the end of the year.
b. Michelle who was recommended for retention but was promoted to the next grade.
c. Tricia who was retained due to parent request.
d. Julie who was retained due to social immaturity.

31. In general, what does the majority of research say about peer relatedness and grade retention in the elementary grades?

a. Students will more often pick the retained student for help with academics, but not as a play partner.
b. Students will more often pick the retained student as a play partner, but not for help with academics.
c. Retained students are not treated differently by their peers in elementary school.
d. Promoted students experience rejection by their peers more often than retained students do.

32. In general, what does the majority of the current research say about retention and students' self-concept?

a. Children in kindergarten and first grade are unaffected because of their age.
b. Retention produces more positive effects than negative effects on students' self-concepts.
c. Retention has no effect on students' self-concepts.
d. Retention produces more negative effects than positive effects on students' self-concepts.

33. According to current research, which student will most likely be causing the most behavior problems in the elementary grades?

a. Scott who is age appropriate for his grade and was never retained.
b. Paul who is young for his grade due to his summer birthday.
c. Jessica who is age appropriate for her grade, but was promoted to the next level.
d. Kristin who is old for her grade due to being retained.

Part III. Please indicate:

Teacher Grade
( ) K
( ) First
( ) Second
( ) Third
( ) Fourth
( ) Fifth
( ) Sixth

( ) Administrator

Years of Experience
( ) 1-5 ( ) 5-10
( ) 10-15 ( ) 15-20
( ) 20-25 ( ) 25 & greater

Appendix B

Dear Colleague:

I am conducting a survey on principal and teacher beliefs and knowledge regarding grade retention in the elementary grades. This survey is part of my research for my dissertation entitled "Principal and Teacher Beliefs and Knowledge Regarding Grade Retention: A Case Study". You are invited to participate in the study by completing the attached questionnaire.

You participation in this study is important and your insight will be valuable to understanding principal and teacher beliefs and knowledge as they pertain to grade retention. The survey should take no longer than fifteen minutes to complete. All answers will be used only for this study and will be kept confidential. Results of the study will be reported in groups and no respondent will be identified individually. You participation in this study is voluntary and you may withdrawal from the study at any time. Your completion of the questionnaire will indicate consent to have your answers included in the results with all other respondents.

If you have any questions about this study or would like to know the results, please contact me by phone (816) 671-4310 or email solon.haynes@sjsd.k12.mo.us. My dissertation advisor is Dr. Philip Messner and he may be contacted by phone (660) 562-1478 or email pemday@mail.nwmissouri.edu.

Thank you for your participation in this study.

Sincerely,

Solon E. Haynes

Appendix C

March 8, 2006

Ellen S. Menaker, PhD, CPT
Chief of Research and Evaluation
Intelligent Decision System, Inc
5807 Trinity Parkway
Suite 200
Centreville, Va. 20120

Dear Dr. Menaker:

I am conducting research for my dissertation on principals and teachers' beliefs and knowledge about grade retention. I am requesting your permission to use the Teacher Retention Belief Questionnaire (TRBQ). The questionnaire will be given on a voluntary basis to principals and teachers in a selected Missouri school district. The TRBQ will be cited as followed:

Tomchin, E. M. & Impara, J. C. (1992). Unraveling teachers' beliefs about grade retention. *American Educational Research Journal*, 29(1), 199-223.

If credit line is different from citation above, please provide appropriate citation.

My doctoral advisor is:

Phillip E. Messner, EdD
Professor of Educational Leadership
College of Education and Human Services
Northwest Missouri State University
Maryville, MO 64468
Phone: (660) 562-1231

Thank you for your consideration in this matter.

Sincerely,
Solon E. Haynes

Please sign below granting permission.

Ellen S Menaker (formerly Tomchin)
Your Signature

3/17/06
Date

Appendix D

March 8, 2006

Stacie Witmer
School Psychology
Carlisle Area School District
623 West Penn Street
Carlisle, PA 17013

Dear Ms. Witmer:

I am conducting research for my dissertation on principals and teachers' beliefs and knowledge about grade retention. I am requesting your permission to use the Teacher Retention Beliefs and Knowledge Questionnaire (TRBKQ). The questionnaire will be given on a voluntary basis to principals and teachers in a selected Missouri school district. The TRBKQ will be cited as followed:

Witmer, S. M., Hoffman, L. M., Nottis, K. E. (2004). Elementary teachers' belief and knowledge about grade retention: How do we know what they know? *Education, 125*(2), 173-193.

If credit line is different from citation above, please provide appropriate citation.

My doctoral advisor is:

Phillip E. Messner, EdD
Professor of Educational Leadership
College of Education and Human Services
Northwest Missouri State University
Maryville, MO 64468
Phone: (660) 562-1231

Thank you for your consideration in this matter.

Sincerely,

Solon E. Haynes

Please sign below granting permission.

Stacie M. Witmer
Your Signature

3/20/06
Date

Good luck! Can't wait to hear about your results from the study.

Appendix E

April 1, 2007

To: Dissertation Advisory Committee
Institutional Review Board at University of Missouri – Columbia

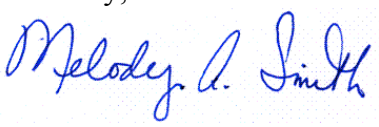
Re: Solon E. Haynes

Permission is granted for Solon E. Haynes to administer questionnaires to elementary teachers and principals in this school district in order to collect data for his dissertation entitled *Principal and Teacher Beliefs and Knowledge Regarding Grade Retention: A Case Study*.

The following are conditions for the study to be conducted in this school district: Participation in this study is voluntary and respondents may withdraw from the study at any time. All answer will be used only for this study and will be kept confidential. Results of the study will be reported in groups, and no respondents or district will be identified individually.

Feel free to contact me if I may assist you further.

Sincerely,



Melody A. Smith
Superintendent of Schools

Cc: Mrs. Cheri Patterson, Associate Superintendent
Mr. Brian Shindorf, Asst. Director K-6 Curriculum & Instruction
Mrs. Jaime Dial, Asst. Director 7-12 Curriculum & Instruction

Appendix F

Table 5

Part I Results of the Teacher Retention Beliefs and Knowledge Questionnaire (TRBKQ)

Item	Grade	Agree	Disagree	M	SD	N
1. Retention is an effective means	K	69%	31%	1.77	1.01	13
of preventing students from facing	1	65%	35%	2.26	1.05	23
daily failure in the next higher grade.	2	58%	42%	2.26	.73	19
	3	74%	26%	2.26	.81	19
	4	65%	35%	2.47	.94	17
	5	50%	50%	2.31	.79	16
	6	42%	58%	2.58	.83	24
	K-6	60%	40%	2.23	.88	131
	P	32%	68%	2.84	.83	19
2. Retention is necessary for	K	69%	31%	2.15	1.07	13
maintaining grade level standards.	1	52%	48%	2.57	.79	23
	2	58%	42%	2.37	.76	19
	3	53%	47%	2.47	.69	19
	4	31%	69%	2.88	.81	16
	5	50%	50%	2.38	.89	16
	6	54%	46%	2.38	.88	24
	K-6	52%	48%	2.76	.84	130
	P	16%	84%	3.15	.83	19
3. Retaining a child in grade K-3	K	15%	85%	3.31	.75	13
harms a child's self-concept.	1	50%	50%	2.45	.96	22
	2	26%	74%	2.74	.81	19
	3	26%	74%	2.63	.68	19
	4	12%	88%	3.12	.85	17
	5	25%	75%	3.00	.63	16
	6	29%	71%	2.96	.75	24
	K-6	28%	72%	2.89	.78	130
	P	63%	37%	2.36	.83	19
4. Retention prevents classrooms	K	15%	85%	3.00	1.08	13
from having wide ranges in student	1	13%	87%	3.26	.69	23
achievement.	2	17%	83%	3.17	.79	18
	3	21%	79%	3.26	.73	19
	4	18%	82%	3.47	.80	17
	5	19%	81%	3.25	.77	16
	6	4%	96%	3.33	.64	24
	K-6	15%	85%	3.25	.79	130
	P	16%	84%	3.31	.75	19

Item	Grade	Agree	Disagree	M	SD	N
5. Students who do not apply themselves should be retained.	K	8%	92%	3.08	.76	12
	1	9%	91%	3.39	.66	23
	2	26%	74%	2.89	.94	19
	3	21%	79%	3.00	.71	19
	4	44%	56%	2.65	1.00	16
	5	44%	56%	2.75	1.06	16
	6	29%	71%	2.88	.80	24
	K-6	26%	74%	2.94	.84	129
	P	5%	95%	3.47	.61	19
6. Knowing that retention is a possibility does motivate students to work harder.	K	62%	38%	2.38	.96	13
	1	48%	52%	2.48	.79	23
	2	58%	42%	2.37	.60	19
	3	63%	37%	2.47	.77	19
	4	59%	41%	2.53	1.00	17
	5	56%	44%	2.50	.89	16
	6	50%	50%	2.75	.90	24
	K-6	56%	44%	2.50	.84	131
	P	32%	68%	2.89	.74	19
7. Retaining a child in grades 4-6 harms a child's self-concept.	K	75%	25%	1.92	.76	13
	1	83%	17%	1.74	.79	23
	2	94%	6%	1.72	.57	19
	3	94%	16%	1.72	.57	18
	4	77%	23%	2.24	.83	13
	5	62%	38%	2.25	1.00	16
	6	83%	17%	1.74	.69	23
	K-6	80%	20%	1.90	.74	126
	P	95%	5%	1.42	.61	19
8. Retention is an effective means of providing support in school for the child who does not get support at home.	K	33%	67%	2.85	1.07	13
	1	17%	83%	3.09	.79	23
	2	53%	47%	2.58	.84	19
	3	21%	79%	2.90	.81	19
	4	15%	85%	3.29	.66	13
	5	31%	69%	2.88	.72	16
	6	30%	70%	2.87	.69	23
	K-6	29%	71%	2.92	.80	126
	P	5%	95%	3.52	.61	19
9. Students who do not make passing grades in 2 of the 3 major subject areas (reading, communications or math) should be retained?	K	92%	8%	1.69	.63	13
	1	57%	43%	2.39	.72	23
	2	68%	32%	2.11	.74	19
	3	84%	16%	1.79	.71	19
	4	69%	31%	2.24	.83	13
	5	75%	25%	2.13	.72	16
	6	71%	29%	2.06	.72	24
	K-6	74%	26%	2.03	.72	127
	P	32%	68%	2.68	1.16	19

Item	Grade	Agree	Disagree	M	SD	N
10. Students who make passing grades, but are working below grade level should be retained.	K	17%	83%	2.92	.86	13
	1	26%	74%	3.04	.71	23
	2	32%	68%	2.89	.81	19
	3	37%	63%	2.68	.58	19
	4	8%	92%	3.35	.70	13
	5	19%	81%	3.13	.89	16
	6	35%	65%	2.87	.87	23
	K-6	25%	75%	2.98	.77	126
	P	0%	100%	3.37	.50	19
11. Retention in grades K-3 is an effective means of giving the immature child a chance to catch up.	K	75%	25%	2.00	.71	13
	1	83%	17%	1.78	.85	23
	2	79%	21%	1.95	.71	19
	3	95%	5%	1.95	.40	19
	4	100%	0%	1.82	.53	13
	5	75%	25%	2.00	.89	16
	6	92%	8%	1.75	.68	24
	K-6	86%	14%	1.89	.68	127
	P	63%	37%	2.37	.68	19
12. Retention is grades 4-6 is an effective means of giving the immature child a chance to catch up.	K	33%	67%	2.70	.75	13
	1	0%	100%	3.35	.49	23
	2	32%	68%	2.68	.89	19
	3	42%	58%	2.63	.50	19
	4	38%	62%	2.82	.88	13
	5	25%	75%	2.88	1.09	16
	6	29%	71%	2.92	.83	24
	K-6	28%	72%	2.85	.78	127
	P	5%	95%	3.37	.76	19
13. Students receiving services from a learning support teacher should not be retained.	K	50%	50%	2.46	.78	13
	1	83%	17%	1.96	.64	23
	2	53%	47%	2.37	.83	19
	3	53%	47%	2.53	.70	19
	4	46%	54%	2.47	.87	13
	5	38%	62%	2.56	.81	16
	6	22%	78%	2.78	.80	23
	K-6	49%	51%	2.45	.78	126
	P	89%	11%	1.79	.79	19
14. If students are to be retained, they should be retained no later than third grade.	K	67%	33%	2.23	1.09	13
	1	74%	26%	1.78	.80	23
	2	95%	5%	1.68	.75	19
	3	84%	16%	1.89	.74	19
	4	77%	23%	2.12	.60	13
	5	75%	25%	2.00	.73	16
	6	70%	30%	2.17	.98	23
	K-6	77%	23%	1.98	.81	126
	P	100%	0%	1.53	.51	19

Item	Grade	Agree	Disagree	M	SD	N
15. In grades K-3, over-age children	K	42%	58%	2.77	1.09	13
(more than a year older than their classmates)	1	30%	70%	2.78	.85	23
cause more behavior problems than other	2	26%	74%	2.79	.54	19
children.	3	28%	72%	2.61	.78	18
	4	31%	69%	2.94	.75	13
	5	38%	62%	2.50	.63	16
	6	38%	62%	2.76	.78	21
	K-6	33%	67%	2.74	.77	124
	P	63%	32%	2.37	.96	19
16. In grade 4-6, over-age children (more than a	K	58%	42%	2.46	1.20	13
year older than their classmates) cause more	1	57%	43%	2.39	.89	23
behavior problems than other children.	2	74%	26%	2.21	.63	19
	3	79%	21%	2.11	.74	19
	4	77%	23%	2.06	.83	13
	5	69%	31%	2.19	.66	16
	6	46%	54%	2.38	.97	24
	K-6	66%	44%	2.26	.85	127
	P	84%	16%	1.89	.66	19
17. Retention in grades K-3 permanently labels	K	0%	100%	3.62	.51	13
a child.	1	22%	78%	3.13	.89	23
	2	5%	95%	3.26	.56	19
	3	16%	84%	3.00	.75	19
	4	8%	92%	3.31	.70	13
	5	13%	87%	3.13	.62	16
	6	21%	79%	3.04	.62	24
	K-6	12%	88%	3.21	.66	127
	P	37%	63%	2.68	.75	19
18. Retention in grades 4-6 permanently labels	K	33%	67%	2.92	1.16	13
a child.	1	50%	50%	2.41	.96	22
	2	58%	42%	2.47	.84	19
	3	74%	26%	2.21	.79	19
	4	46%	54%	2.75	1.00	13
	5	50%	50%	2.56	.81	16
	6	54%	46%	2.56	1.00	24
	K-6	52%	48%	2.55	.94	126
	P	79%	21%	1.95	.85	19
19. Children who have passing grades but	K	33%	67%	2.77	.93	13
excessive absences should be retained.	1	17%	83%	3.22	.67	23
	2	16%	84%	3.05	.62	19
	3	37%	63%	2.74	.85	19
	4	25%	75%	2.94	.77	12
	5	31%	69%	2.63	.89	16
	6	25%	75%	3.21	.78	24
	K-6	26%	74%	2.94	.79	126
	P	11%	89%	3.42	.69	19

Item	Grade	Agree	Disagree	M	SD	N
20. Children should never be retained.	K	0%	100%	3.62	.51	13
	1	17%	83%	3.35	.88	23
	2	0%	100%	3.67	.49	18
	3	5%	95%	3.58	.61	19
	4	0%	100%	3.53	.62	13
	5	6%	94%	3.50	.63	16
	6	8%	92%	3.38	.65	24
	K-6	5%	95%	3.52	.63	126
	P	22%	78%	2.79	1.22	18

Note. Responses "tend to agree" and "agree" were combined into the category of "agree". Responses "tend to disagree" and "disagree" were combined into the category of "disagree". P = Principal.

Appendix G

Table 6

Part II Results of the Teacher Retention Beliefs and Knowledge Questionnaire (TRBKQ)

Item	Grade	% Correct	M	SD	N
21. What is the current educational position on retention and social promotion?	K	17%	1.83	1.03	13
	1	0%	1.75	1.07	20
	2	0%	1.94	1.34	17
	3	5%	1.42	.90	19
	4	23%	2.12	1.11	17
	5	6%	1.56	.89	16
	6	8%	1.92	1.10	24
	K-6	8%	1.79	1.06	126
	P	11%	1.42	1.17	18
22. Whether a student is promoted or retained, what does the majority of the current research say about the long-term effects on students' academic achievement?	K	40%	2.55	1.37	11
	1	35%	2.48	1.24	23
	2	56%	1.89	1.13	18
	3	39%	2.22	1.22	18
	4	50%	2.25	1.06	16
	5	25%	2.19	1.16	16
	6	27%	2.19	1.16	22
	K-6	39%	2.25	1.19	124
	P	39%	2.11	1.29	18
23. According to the current research, how will Steven, a first grader, most likely feel when her hears that he is going to be retained?	K	50%	2.38	1.04	13
	1	74%	2.61	.84	23
	2	71%	2.53	.87	17
	3	63%	2.47	.96	19
	4	67%	2.44	.89	16
	5	50%	2.13	1.02	16
	6	64%	2.55	1.01	22
	K-6	63%	2.44	.95	126
	P	78%	2.53	1.17	18
24. In general, what does the current research say about an extra year in Kindergarten, pre-kindergarten programs and/or transitional programs?	K	8%	2.62	.77	13
	1	4%	2.70	.70	23
	2	6%	2.71	.77	17
	3	5%	2.53	.70	19
	4	17%	2.33	.90	15
	5	6%	2.88	.89	16
	6	0%	2.71	1.18	21
	K-6	7%	2.64	.84	124
	P	28%	2.32	1.38	18

Item	Grade	% Correct	M	SD	N
25. According to current research, which student is most likely to drop out of school?	K	42%	2.31	.75	13
	1	55%	2.41	.67	22
	2	56%	2.61	.78	18
	3	32%	2.74	.81	19
	4	67%	2.31	.70	16
	5	60%	2.20	.56	15
	6	52%	2.65	.78	23
	K-6	52%	2.46	.72	126
	P	100%	2.00	0.00	19
26. In general, what does the majority of the current research say about grade retention and academic gains?	K	50%	3.08	1.04	13
	1	55%	3.09	1.06	22
	2	39%	2.72	1.13	18
	3	32%	2.79	.98	19
	4	45%	3.07	1.10	15
	5	60%	3.13	1.13	15
	6	30%	2.60	1.14	20
	K-6	44%	2.93	1.08	122
	P	89%	3.47	1.35	18
27. According to current research, which student is most likely to be retained?	K	67%	1.85	.80	13
	1	52%	1.52	.51	21
	2	61%	1.89	.76	18
	3	58%	2.11	.74	19
	4	83%	1.94	.44	16
	5	63%	1.88	.62	16
	6	48%	1.90	1.00	21
	K-6	62%	1.87	.70	124
	P	89%	1.84	.76	18
28. What does the current research suggest when comparing the behavior of students who have been retained or socially promoted with students who have NOT been retained or promoted?	K	27%	2.75	1.45	13
	1	41%	2.86	1.08	22
	2	44%	2.94	1.06	18
	3	61%	2.89	.96	18
	4	73%	3.00	.93	16
	5	31%	2.94	1.12	16
	6	33%	2.57	1.12	21
	K-6	44%	2.61	1.41	124
	P	63%	2.53	.90	19
29. In general, what does the majority of the current research say about retention and school drop out rate?	K	25%	2.54	1.20	13
	1	41%	2.32	1.29	22
	2	50%	2.33	1.41	18
	3	44%	2.22	1.26	18
	4	64%	1.73	1.22	15
	5	63%	2.00	1.41	16
	6	45%	2.31	1.41	22
	K-6	47%	2.09	1.46	124
	P	79%	1.63	1.26	19

Item	Grade	% Correct	M	SD	N
30. Tricia, Jen, Michelle, and Julie are all struggling academically. According to current research, which student would you expect to perform better academically three or four years from now?	K	8%	2.38	1.32	13
	1	18%	3.09	.97	22
	2	6%	3.22	1.17	18
	3	11%	3.00	.97	18
	4	9%	3.07	1.03	15
	5	25%	2.88	1.09	16
	6	5%	3.14	.89	22
	K-6	12%	2.97	1.06	124
	P	26%	3.16	.83	19
31. In general, what does the majority of research say about peer relatedness and grade retention in the elementary grades?	K	8%	2.69	.75	13
	1	5%	2.57	.81	21
	2	0%	2.61	.70	18
	3	11%	2.11	.58	18
	4	0%	2.73	.80	15
	5	13%	2.25	.68	16
	6	0%	2.55	.68	22
	K-6	5%	2.50	.71	123
	P	0%	2.26	.99	18
32. In general, what does the majority of the current research say about retention and students' self-concept?	K	17%	1.62	1.12	13
	1	48%	2.78	1.28	23
	2	39%	2.39	1.38	18
	3	50%	2.89	1.28	18
	4	64%	3.13	1.30	15
	5	56%	3.00	1.37	16
	6	52%	2.61	1.44	23
	K-6	47%	2.63	1.31	126
	P	72%	3.00	1.60	18
33. According to current research, which student will most likely be causing the most behavior problems in the elementary grades?	K	33%	2.77	.93	13
	1	41%	2.78	1.09	22
	2	33%	2.61	1.14	18
	3	61%	3.11	1.18	18
	4	64%	3.29	.99	14
	5	47%	3.13	1.02	16
	6	30%	2.52	1.08	23
	K-6	44%	2.89	1.06	124
	P	58%	3.16	1.04	19

Note. P = Principal

Appendix H

Table 8

One-Way Analysis of Variance (ANOVA) for Part 1 of the TRBKQ

Item	Grade	Significant	M	SD	N
1. Retention is an effective means of preventing students from facing daily failure in the next higher grade.	K	.001*	1.77	1.01	13
	1	.028*	2.26	1.05	23
	2	.036*	2.26	.73	19
	3	.036*	2.26	.81	19
	4	.170	2.47	.94	17
	5	.063	2.31	.79	16
	6	.276	2.58	.83	24
	P		2.84	.83	19
2. Retention is necessary for maintaining grade level standards.	K	.001*	2.15	1.07	13
	1	.024*	2.57	.79	23
	2	.004*	2.37	.76	19
	3	.013*	2.47	.69	19
	4	.312	2.88	.81	16
	5	.007*	2.38	.89	16
	6	.003*	2.38	.88	24
	P		3.15	.83	19
3. Retaining a child in grade K-3 harms a child's self-concept.	K	.001*	3.31	.75	13
	1	.663	2.45	.96	22
	2	.126	2.74	.81	19
	3	.258	2.63	.68	19
	4	.004*	3.12	.85	17
	5	.016*	3.00	.63	16
	6	.013*	2.96	.75	24
	P		2.36	.83	19
4. Retention prevents classrooms from having wide ranges in student achievement.	K	.164	3.00	1.08	13
	1	.595	3.26	.69	23
	2	.384	3.17	.79	18
	3	.617	3.26	.73	19
	4	.752	3.47	.80	17
	5	.597	3.25	.77	16
	6	.816	3.33	.64	24
	P		3.31	.75	19
5. Students who do not apply themselves should be retained.	K	.159	3.08	.76	12
	1	.674	3.39	.66	23
	2	.026*	2.89	.94	19
	3	.042*	2.95	.71	19
	4	.048*	2.94	1.00	16
	5	.009*	2.75	1.06	16
	6	.016*	2.88	.80	24
	P		3.47	.61	19

Item	Grade	Significant	M	SD	N
6. Knowing that retention is a possibility does motivate students to work harder.	K	.100	2.38	.96	13
	1	.121	2.48	.79	23
	2	.060	2.37	.60	19
	3	.133	2.47	.77	19
	4	.206	2.53	1.00	17
	5	.178	2.50	.89	16
	6	.595	2.75	.90	24
	P		2.89	.74	19
7. Retaining a child in grades 4-6 harms a child's self-concept.	K	.074	1.92	.76	13
	1	.202	1.74	.75	23
	2	.256	1.72	.57	18
	3	.256	1.72	.57	18
	4	.002*	2.24	.83	17
	5	.002*	2.25	1.00	16
	6	.202	1.74	.69	23
	P		1.42	.61	19
8. Retention is an effective means of providing support in school for the child who does not get support at home.	K	.013*	2.85	1.07	13
	1	.057	3.09	.79	23
	2	.000*	2.58	.84	19
	3	.011*	2.90	.81	19
	4	.321	3.29	.66	17
	5	.012*	2.88	.72	16
	6	.006*	2.87	.69	23
	P		3.52	.61	19
9. Students who do not make passing grades in 2 of the 3 major subject areas (reading, communications or math) should be retained?	K	.000*	1.69	.63	13
	1	.038*	2.39	.72	23
	2	.002*	2.11	.74	19
	3	.000*	1.79	.71	19
	4	.011*	2.24	.83	17
	5	.004*	2.13	.72	16
	6	.001*	2.08	.72	24
	P		2.68	1.16	19
10. Students who make passing grades, but are working below grade level should be retained.	K	.133	2.92	.86	13
	1	.219	3.04	.71	23
	2	.076	2.89	.81	19
	3	.009*	2.68	.58	19
	4	.938	3.35	.70	17
	5	.418	3.13	.89	16
	6	.050*	2.87	.87	23
	P		3.37	.50	19

Item	Grade	Significant	M	SD	N
11. Retention in grades K-3 is an effective means of giving the immature child a chance to catch up.	K	.192	2.00	.71	13
	1	.013*	1.78	.85	23
	2	.095	1.95	.71	19
	3	.095	1.95	.40	19
	4	.033*	1.82	.53	17
	5	.167	2.00	.89	16
	6	.008*	1.75	.68	24
	P		2.37	.68	19
12. Retention is grades 4-6 is an effective means of giving the immature child a chance to catch up.	K	.026*	2.70	.75	13
	1	.953	3.35	.49	23
	2	.013*	2.68	.89	19
	3	.007*	2.63	.50	19
	4	.056	2.82	.88	17
	5	.091	2.88	1.09	16
	6	.090	2.92	.83	24
	P		3.37	.76	19
13. Students receiving services from a learning support teacher should not be retained.	K	.027*	2.46	.78	13
	1	.614	1.96	.64	23
	2	.037*	2.37	.83	19
	3	.007*	2.53	.70	19
	4	.016*	2.47	.87	17
	5	.007*	2.56	.81	16
	6	.000*	2.78	.80	23
	P		1.79	.79	19
14. If students are to be retained, they should be retained no later than third grade.	K	.020*	2.23	1.09	13
	1	.363	1.78	.80	23
	2	.622	1.68	.75	19
	3	.195	1.89	.74	19
	4	.037*	2.12	.60	17
	5	.104	2.00	.73	16
	6	.014*	2.17	.98	23
	P		1.53	.51	19
15. In grades K-3, over-age children (more than a year older than their classmates) cause more behavior problems than other children.	K	.138	2.77	1.09	13
	1	.078	2.78	.85	23
	2	.087	2.79	.54	19
	3	.301	2.61	.78	18
	4	.027*	2.94	.75	17
	5	.547	2.50	.63	16
	6	.099	2.76	.78	21
	P		2.37	.96	19

Item	Grade	Significant	M	SD	N
16. In grade 4-6, over-age children (more than a year older than their classmates) cause more behavior problems than other children.	K	.062	2.46	1.20	13
	1	.058	2.39	.89	23
	2	.244	2.21	.63	19
	3	.432	2.11	.74	19
	4	.549	2.06	.83	17
	5	.300	2.19	.66	16
	6	.064	2.38	.97	24
	P		1.89	.66	19
17. Retention in grades K-3 permanently labels a child.	K	.000*	3.62	.51	13
	1	.023*	3.13	.87	23
	2	.006*	3.26	.56	19
	3	.101	3.00	.75	19
	4	.005*	3.31	.70	16
	5	.039*	3.13	.62	16
	6	.056	3.04	.81	24
	P		2.68	.75	19
18. Retention in grades 4-6 permanently labels a child.	K	.007*	2.92	1.16	13
	1	.165	2.41	.96	22
	2	.120	2.47	.84	19
	3	.488	2.21	.79	19
	4	.019*	2.75	1.00	16
	5	.078	2.56	.81	16
	6	.312	2.29	1.00	24
	P		1.95	.85	19
19. Children who have passing grades but excessive absences should be retained.	K	.029*	2.77	.93	13
	1	.482	3.22	.67	23
	2	.188	3.05	.62	19
	3	.011*	2.74	.85	19
	4	.092	2.94	.77	16
	5	.005*	2.63	.89	16
	6	.455	3.21	.78	24
	P		3.42	.69	19
20. Children should never be retained.	K	.008*	3.62	.51	13
	1	.063	3.35	.88	23
	2	.002*	3.67	.49	18
	3	.005*	3.58	.61	19
	4	.012*	3.53	.62	16
	5	.019*	3.50	.63	16
	6	.045*	3.38	.65	24
	P		2.79	1.22	18

Note. * Indicates a significant difference in the mean score at the 0.05 level.

Appendix I

Table 9

One-Way Analysis of Variance (ANOVA) for Part 1I of the TRBKQ

Item	Grade	Significant	M	SD	N
21. What is the current educational position on retention and social promotion?	K	.793	1.69	1.03	13
	1	.649	1.75	1.07	20
	2	.340	1.94	1.34	17
	3	.642	1.42	.90	19
	4	.153	2.12	1.11	17
	5	.945	1.56	.89	16
	6	.336	1.92	1.10	24
	P		1.42	1.17	18
22. Whether a student is promoted or retained, what does the majority of the current research say about the long-term effects on students' academic achievement?	K	.666	2.55	1.37	11
	1	.734	2.48	1.24	23
	2	.235	1.89	1.13	18
	3	.737	2.22	1.22	18
	4	.798	2.25	1.06	16
	5	.680	2.19	1.16	16
	6	.880	2.41	1.00	22
	P		2.11	1.29	18
23. According to the current research, how will Steven, a first grader, most likely feel when her hears that he is going to be retained?	K	.353	2.38	1.04	13
	1	.746	2.61	.84	23
	2	.583	2.53	.87	17
	3	.459	2.47	.96	19
	4	.412	2.44	.89	16
	5	.077	2.13	1.02	16
	6	.596	2.55	1.01	22
	P		2.53	1.17	18
24. In general, what does the current research say about an extra year in Kindergarten, pre-kindergarten programs and/or transitional programs?	K	.633	2.62	.77	13
	1	.393	2.70	.70	23
	2	.405	2.71	.77	17
	3	.839	2.53	.70	19
	4	.638	2.33	.90	15
	5	.160	2.88	.89	16
	6	.365	2.71	1.18	21
	P		2.32	1.38	18
25. According to current research, which student is most likely to drop out of school?	K	.217	2.31	.75	13
	1	.061	2.41	.67	22
	2	.008*	2.61	.78	18
	3	.001*	2.74	.81	19
	4	.184	2.31	.70	16
	5	.402	2.20	.56	15
	6	.003*	2.65	.78	23
	P		2.00	0.00	19

Item	Grade	Significant	M	SD	N
26. In general, what does the majority of the current research say about grade retention and academic gains?	K	.109	3.08	1.04	13
	1	.074	3.09	1.06	22
	2	.007*	2.72	1.13	18
	3	.011*	2.79	.98	19
	4	.090	3.07	1.10	15
	5	.129	3.13	1.13	15
	6	.002*	2.60	1.14	20
	P		3.47	1.35	18
27. According to current research, which student is most likely to be retained?	K	.545	1.85	.80	13
	1	.036*	1.52	.51	21
	2	.634	1.89	.76	18
	3	.648	2.11	.74	19
	4	.795	1.94	.44	16
	5	.603	1.88	.62	16
	6	.672	1.90	1.00	21
	P		1.84	.76	18
28. What does the current research suggest when comparing the behavior of students who have been retained or socially promoted with students who have NOT been retained or promoted?	K	.530	2.75	1.45	13
	1	.285	2.86	1.08	22
	2	.213	2.94	1.06	18
	3	.276	2.89	.96	18
	4	.182	3.00	.93	16
	5	.235	2.94	1.12	16
	6	.835	2.57	1.25	21
	P		2.53	.90	19
29. In general, what does the majority of the current research say about retention and school drop out rate?	K	.071	2.54	1.20	13
	1	.122	2.32	1.29	22
	2	.132	2.33	1.41	18
	3	.208	2.22	1.26	18
	4	.885	1.73	1.22	15
	5	.463	2.00	1.41	16
	6	.122	2.31	1.39	22
	P		1.63	1.26	19
30. Tricia, Jen, Michelle, and Julie are all struggling academically. According to current research, which student would you expect to perform better academically three or four years from now?	K	.039*	2.38	1.32	13
	1	.817	3.09	.97	22
	2	.872	3.22	1.17	18
	3	.628	3.00	.97	18
	4	.781	3.07	1.03	15
	5	.411	2.88	1.09	16
	6	.926	3.14	.89	22
	P		3.16	.83	19

Item	Grade	Significant	M	SD	N
31. In general, what does the majority of research say about peer relatedness and grade retention in the elementary grades?	K	.274	2.69	.75	13
	1	.482	2.57	.81	21
	2	.397	2.61	.70	18
	3	.202	2.11	.58	18
	4	.193	2.73	.80	15
	5	.504	2.25	.68	16
	6	.552	2.55	.60	22
	P		2.26	.99	18
32. In general, what does the majority of the current research say about retention and students' self-concept?	K	.000*	1.62	1.12	13
	1	.176	2.78	1.28	23
	2	.031*	2.39	1.38	18
	3	.297	2.89	1.28	18
	4	.637	3.13	1.30	15
	5	.441	3.00	1.37	16
	6	.078	2.61	1.44	23
	P		3.00	1.60	18
33. According to current research, which student will most likely be causing the most behavior problems in the elementary grades?	K	.246	2.77	.93	13
	1	.193	2.78	1.09	22
	2	.088	2.61	1.14	18
	3	.755	3.11	1.18	18
	4	.868	3.29	.99	14
	5	.791	3.13	1.02	16
	6	.039*	2.52	1.08	23
	P		3.16	1.04	19

Note. * indicates a significant difference of the mean at the 0.05 level.

VITA

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