ELEMENTARY RETENTION:
FACTORS, OUTCOMES AND ALTERNATIVES PERCEIVED BY
ELEMENTARY TEACHERS, KINDERGARTEN THROUGH FIFTH GRADE

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Clinical Research Study Committee

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Major Advisor

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Abstract

The purpose of this study was threefold: first to determine teachers’ perceptions of factors that contribute to the determination to retain or promote a student; second to determine teachers’ perceptions of the outcomes most likely to occur when a child is retained; and third to determine teachers’ perceptions of the potential alternatives to grade retention in the Park Hill School District in Kansas City, Missouri. In addition, the study addressed demographic data relating to years of experience for the respondents, the grade level taught by each respondent, and whether the respondent had ever retained a student.

The design of this study is survey research. The survey instrument in this study consisted of 20 statements that were assessed on a 5-point Likert-type scale. The methodology used in this study was quantitative in design. The survey was distributed to 204 elementary teachers in the Park Hill School District in suburban Kansas City, Missouri. Of the 204 surveys that were distributed, 147 were completed for a 72% completion rate. One-sample $t$ tests were performed to test the hypotheses regarding factors, outcomes and alternatives related to grade retention.

Analysis of data revealed that elementary teachers agreed or strongly agreed that a student’s maturity level, academic performance and birth date are factors they use to determine whether a student should be retained. Elementary teachers disagreed or strongly agreed that race, gender, and socioeconomic background were factors used in determining grade retention. Elementary teachers agreed or strongly agreed that a student’s maturity level and academic performance are outcomes associated with grade retention. Lastly, results showed that elementary teachers agreed or strongly agreed that differentiated instruction is an effective alternative to grade retention. The Triumphs
Reading Program and social promotion received the lowest ratings for alternatives to grade retention.
Acknowledgments

Many people contributed to my educational background and supported me throughout my doctoral program. First and foremost, I thank my parents who shared with me the value of education. I would like to extend a sincere appreciation and gratitude to Dr. Susan Rogers, my major advisor for her steadfast support, confidence and guidance; without her leadership and dedication I would not have reached this professional goal. Her high expectations served as a motivating force throughout this process. I would also like to extend a sincere thank you to Peg Waterman who always had time to assist me in editing my work and who provided me feedback in the most considerate and kind way.

In addition, thank you to the other faculty and staff in the doctoral program at Baker University and to the members of my doctoral committee for their expertise: Dr. Willie Amison, Dr. Sandra J. Schumm, Dr. Brad Tate and Dr. James D. Singer. Gratitude is also expressed to Dr. James Singer who is my former principal and then became my colleague and mentor; his friendship and support have always been an inspiration to me. I would also like to acknowledge Baker Cohort 2 and the support I received from my cul-de-sac colleagues and dear friends, Kerry and Lezlee. Last but certainly not least, I would like to thank my husband, Tim, for his encouragement over the past 3 years as I pursued this goal.
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CHAPTER ONE
INTRODUCTION AND RATIONALE

Grade retention, or requiring students to repeat a grade, is a controversial issue in education. Grade retention has been the alternative to social promotion where students are promoted from one grade to the next with their peers despite their academic performance. In the 1860s, it was a common practice to group elementary children by grade levels, with promotion to the next grade level occurring only if mastery of the content had been achieved. Consequently, retention rates in the 1880s were extremely high, with approximately 70% of all students in any single year being retained (Thomas, 2001). During the 1930s, Steiner (1986) concluded social scientists were concerned that grade retention had harmful effects on a child’s social and emotional development, and the practice of social promotion became more prevalent.

Goodland (1954) studied grade retention between 1924 and 1948. He found that grade retention had no positive effect on academic performance. The 1960s and 1970s saw a pendulum swing further toward social promotion, where students were advanced to the next grade level despite their mastery of grade-level skills. The mood of society during this time was that every child should be equally educated and that the achievement gap had to be narrowed. To this end, President Johnson introduced his Great Society programs and the Elementary and Secondary Act of 1965, which earmarked federal dollars for poor children in schools (Young & Adler 2001).

In the 1980s, students were expected to meet higher standards and rigorous testing and graduation requirements; this decade was identified as the back-to-the-basics movement. In 1983, the National Commission on Excellence in Education published A
Nation at Risk, which blamed America’s economic problems on public education. The report cited poor teaching as a major factor in school failure and called for stricter graduation requirements, higher academic standards, implementation of high-stakes testing, and the use of grade retention for students who were failing. Retaining students once again became a common practice in public schools. According to Shepard and Smith (1989), retention rates increased from 20% in 1980 to 32% by 1992. In a 1986 Gallup Poll, 72% of United States citizens preferred more rigorous standards for grade promotion (Fager & Richen, 1999).

In the 1990s, President Clinton made it clear that putting an end to social promotion was part of his reform agenda. Individual states put in place their own guidelines for academic excellence. The accountability movement had begun and public schools again became focal points for political issues. In the State of the Union addresses in 1998 and 1999, Clinton challenged the country to stop promoting children who had not learned the necessary grade level material (Heubert & Hauser, 1999).

In 2002, the No Child Left Behind Act encouraged the pendulum to swing still farther away from social promotion and to support grade retention by pressuring states to use standardized testing as a primary method to measure student academic performance. Grade level tests began to determine whether a child was promoted to the next grade or retained for another year in the same grade (Smik, 2001). Never before had a federal law taken so much authority and put so much pressure on states and schools in educating students. High expectations and accountability had been put in writing; penalties, such as grade retention, were the direct result of this legislation (Dixon, 2005).
Accountability and school reform seem to have always been a part of the educational landscape. At times, reform involves a major shift: a pendulum swing from one idea to another. Educators and policymakers will continue to dispute whether grade retention or social promotion should be used in schools to help low-achieving students meet grade level standards (Xia & Glennie, 2005). As educational leaders seesaw between the practices of grade retention and social promotion, the question of why policymakers think that retaining a student is effective is a fundamental issue that should not go unheeded (Wise, 2002).

Background of the Study

The setting for this study was the Park Hill School District located in southern Platte County in Kansas City, Missouri. Table 1 presents the district’s elementary enrollment data for 2008–2009 school year by grade and school. Park Hill is a public school district, with pre-kindergarten programs through grade 12. As of the fall of 2009, the district included nine elementary schools (including a sixth grade center), two high schools, a day treatment school, and a newly built Early Childhood Center. Predominantly rural in the past, the district is now a suburban district. Approximately 43% of the district lies within the city limits of Kansas City, Missouri. There are seven other incorporated communities located within the Park Hill School District: Riverside, Parkville, Houston Lake, Lake Waukomis, Weatherby Lake, Platte Woods, and Northmoor, as well as the unincorporated community of Waldron (Park Hill School District Demographic Profile, 2007-2008).
Table 1

2008 Elementary Enrollment by School and Grade

<table>
<thead>
<tr>
<th>Grade</th>
<th>Chinn</th>
<th>English Landing</th>
<th>Graden</th>
<th>Hawthorn</th>
<th>Line Creek</th>
<th>Prairie Point</th>
<th>Renner</th>
<th>Southeast</th>
<th>Union Chapel</th>
<th>Day School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>85</td>
<td>92</td>
<td>73</td>
<td>56</td>
<td>89</td>
<td>87</td>
<td>74</td>
<td>80</td>
<td>67</td>
<td>1</td>
<td>704</td>
</tr>
<tr>
<td>1</td>
<td>94</td>
<td>93</td>
<td>75</td>
<td>70</td>
<td>99</td>
<td>63</td>
<td>73</td>
<td>94</td>
<td>79</td>
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<td>2</td>
<td>86</td>
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<td>58</td>
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<td>88</td>
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<td>76</td>
<td>82</td>
<td>80</td>
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<td>721</td>
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<td>73</td>
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<td>748</td>
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<td>104</td>
<td>80</td>
<td>65</td>
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<td>742</td>
</tr>
<tr>
<td>5</td>
<td>90</td>
<td>102</td>
<td>78</td>
<td>67</td>
<td>69</td>
<td>87</td>
<td>86</td>
<td>81</td>
<td>90</td>
<td>5</td>
<td>755</td>
</tr>
<tr>
<td>Total</td>
<td>506</td>
<td>566</td>
<td>443</td>
<td>405</td>
<td>540</td>
<td>509</td>
<td>458</td>
<td>499</td>
<td>468</td>
<td>16</td>
<td>4410</td>
</tr>
</tbody>
</table>


According to the Park Hill School District Demographic Profile, homes in the district range from $150,000 to more than $1,000,000. The Park Hill School District annually spends $9,093.26 per pupil (Park Hill School District, 2007–2008). Elementary free and reduced population rates have increased over the past 2 years. In 2006, 20% (978) of elementary students qualified for free or reduced lunch, and in 2007, 24% (1,073) of elementary students qualified for free and reduced lunch. Table 2 presents the number of elementary regular classroom teachers by grade level who provide services to the students in the nine elementary schools in the Park Hill School District.
Table 2

*Number of Elementary Teachers by Grade Level*

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Number of Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>36</td>
</tr>
<tr>
<td>First Grade</td>
<td>36</td>
</tr>
<tr>
<td>Second Grade</td>
<td>33</td>
</tr>
<tr>
<td>Third Grade</td>
<td>34</td>
</tr>
<tr>
<td>Fourth Grade</td>
<td>32</td>
</tr>
<tr>
<td>Fifth Grade</td>
<td>33</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>204</strong></td>
</tr>
</tbody>
</table>


The district retains approximately 1% of the students each year in grades kindergarten through 12. Table 3 presents the retention data for elementary, middle, and high school students for the past 3 years. Over the last 3 years, 81 elementary students have been retained and 93 students in grades 6-12 have been retained. The data provided in the table is misleading for the middle and high school students. The students who were retained at one of the two district high schools represent 60 of the 93 students listed in the table. This number represents the students who had not earned the required number of credits to graduate from high school. The 33 students represent middle school students who were retained. The Park Hill School District (2006) has developed policy IKE-R that
outlines the procedures and timelines teachers must follow when retaining a student.

Policy IKE – R states that

retention may be considered when, in the judgment of the professional staff, it is
in the best educational interest of the student involved …the recommendation to
retain a student shall result from a thorough discussion with the classroom
teacher(s), parent(s)/guardian(s), building administrator(s), and other appropriate
staff (p.1).

The changing demographics, the number of students who have been retained in the
district, and the district policy on retention initiated the current investigation to examine
the perceptions of elementary teachers regarding grade retention.

Table 3

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Elementary (K–5)</td>
<td>31</td>
<td>0.77</td>
<td>24</td>
</tr>
<tr>
<td>Middle/High Schools (6–12)</td>
<td>26</td>
<td>0.60</td>
<td>37</td>
</tr>
</tbody>
</table>

http://phschoolwires1.parkhill.k12.mo.us

Conceptual Framework

According to studies conducted by Jimerson, Anderson, and Whipple (2002),
between 1911 and 1999 no positive evidence for retaining students was found. In fact,
research showed negative effects. Jimerson et al. (2002) concluded:
It does not matter if the child is retained early (kindergarten through 3rd grade) or later (4th through 8th grades), across the studies, retention at any grade level is associated with later high school dropout, as well as other deleterious long-term effects. Retention is estimated to cost over $14 billion per year to pay for the extra year of schooling. Surveys of children’s ratings of twenty stressful life events in the 1980s showed that, by the time they were in 6th grade, children feared retention most after the loss of a parent and going blind. (p. 8)

Retaining students is a practice that educators and parents accept and utilize frequently; hoping to improve the academic or social performance of students. However, neither grade retention nor social promotion is likely to improve a child’s learning. According to Jimerson (1999), having a child repeat a grade is unlikely to fix the problems a child has experienced in school. Similarly, promoting a student with academic deficiencies to the next grade level, without additional support or alternatives, is not likely to be an effective intervention either. According to Jimerson, Woehr, and Kaufman (2004),

When faced with a recommendation to retain a child, the task is not to decide to retain or not to retain, but rather to identify specific intervention strategies to enhance the cognitive and social development of the child and promote his or her learning and success at school. (p. 1)

Social promotion and retention do a grave disservice to students. Both fail to ensure that all students acquire the necessary skills they need to succeed in school and beyond. Educators need to utilize alternatives that provide support to students who need it before they are passed or retained.
Problem Statement

Nationally, it is estimated that 7% to 9% of students are retained each year, which equates to approximately 2 million children who are required to repeat the same grade (Jimerson & Kaufman, 2003). Trends in education appear to indicate an increase in retention rates as grade level standards and school accountability become part of the educational arena. Grade retention remains a controversial educational practice, due to the accumulated research that indicates grade retention has negative and often harmful effects on academic achievement and other educational outcomes.

Parents, teachers, and principals play a significant role in the decision-making process regarding the decision to retain a student, and a refusal from any of these groups can result in promotion instead of retention, regardless of performance on standardized tests. While children who are retained comprise a group isolated from their peers based on low academic achievement or immaturity, their retention may reflect a subjective decision-making process based on behavior, parent involvement, and home environment (Jimerson, 1999).

Purpose of the Study

The purpose of this study was threefold: first, to determine teachers’ perceptions of factors that contribute to the determination of whether to retain or promote a student; second, to determine teachers’ perceptions of the outcomes that are most likely to occur when a child is retained; and third, to determine teachers’ perceptions of the potential alternatives to grade retention.
Significance of the Study

Grade retention is a difficult and emotional issue that has faced schools for years. Research has not determined retention to be a sound pedagogical practice (Black, 2004), and it is important to understand the perceptions that teachers have pertaining to grade retention when they continue to practice it. While principals and teachers realize that repeating a grade is sometimes necessary, due to district policy or state department of education guidelines, this experience can have a lasting effect on the student who is retained. Because the effects are not only educational, but also psychological and social, the decision to retain a student must be given careful and thoughtful consideration (Hesse, 2002). Throughout the school year, teachers gather information to assist in making recommendations whether to retain a student or to promote him or her to the next grade.

To understand the teacher’s position more clearly, the current study gathered the unique perceptions of teachers regarding grade retention. The research was designed to determine teachers’ perceptions on the factors that contribute to grade retention, the outcomes resulting from grade retention, and potential alternatives to grade retention. The results of this study were made available to the Park Hill School District and could have multiple influences. First, it could necessitate the revision of the current policy on retention. Secondly, elementary teachers may change their philosophies, perceptions, and practices regarding retention. Additionally, the study adds to the current literature on grade retention and further promotes effective alternatives to grade retention.
Delimitations

Delimitations establish the boundaries set by the researcher of the study (Roberts, 2004). This research study was delimited to the Park Hill School District in Kansas City, Missouri. Only teachers who teach grades kindergarten through fifth grade in Park Hill were surveyed because more students are actually retained each year at the elementary level than at either middle or high school.

Assumptions

There are certain assumptions that the researcher makes when conducting survey research. Assumptions are guesses that are accepted for purposes of the research. According to Lunenberg and Irby (2008), “delineation of assumptions provides a basis for formulating research questions or stating hypotheses and for interpreting data resulting from the study; and assumptions provide meaning to the conclusion and lend support to the recommendations” (p.135).

Assumptions for the current study included:

1. Elementary teachers fully understood the survey questions and answered honestly.
2. The survey presented an unbiased message and did not attempt to lead the elementary teachers in any particular direction.
3. Elementary teachers were aware of the Missouri laws on retention and the Park Hill policy on retention.

Research Questions

Research questions help to determine the direction of the study. The following research questions were addressed to determine teachers’ perceptions on grade retention:
1. What factors most influence a teacher’s recommendation to retain a student?

2. What outcomes are perceived to be most likely to occur when retaining a student?

3. What factors are perceived to be the most effective alternative to grade retention?

Definition of Terms

According to Roberts (2004), this section “provides the definition for terms used that do not have a commonly known meaning or terms that have the possibility of being misunderstood” (p. 129). The following terms were used as defined throughout the study:


Grade retention. A practice that requires a student to repeat the same grade level (Jimerson et al., 2004).

Looping: “A practice that allows single-grade teachers to remain with the same class for a period of 2 or more years” (Forsten et al., 1997).

Social promotion. The practice of promoting students from one grade to the next regardless of their performance on grade level standards (Jimerson et al., 2004).

Standards. The criteria by which student performance levels are determined for a grade promotion (Missouri Department of Elementary and Secondary Education, 2007).

Standardized tests. A test that is developed using standard procedures and is administered and scored in a consistent manner for all test takers (“Assessment plan,” 2007–2008).
Overview of Methods

The design of this study is survey research. The methodology used in this study was quantitative in design using a Likert scale survey of 20 questions. The survey measured teachers’ perceptions of factors, outcomes, and alternatives regarding grade retention. The survey instrument was modified from a previous instrument developed by Dr. Julie Nicholson. Permission for the additions and modifications is included in Appendix A. The first part of the survey assessed factors such as a student’s birth date, level of maturity, academic performance, and socioeconomic background. The second part of the survey contained six probable outcomes, such as increases in maturity, confidence, and academic performance that could result from a student being retained. The third part of the survey contained seven items on effective alternatives to grade retention. Summer school, differentiated instruction, after-school reading clubs, multiage classrooms, and looping are presented in the survey as potential alternatives to the traditional practice of grade retention. A copy of the survey is located in Appendix B.

The survey was distributed to 204 elementary teachers in the Park Hill School District. Once the data was collected through an electronic Zoomerang survey at Zoomerang.com, the researcher entered the data into Statistical Package for the Social Sciences software (SPSS) to analyze. A one-sample $t$ test was performed to test each of the hypotheses regarding factors, outcomes, and alternatives regarding grade retention.

Organization of the Study

This research study is presented in five chapters. Chapter One included the problem statement, background of the study, significance of the study, purpose of the study, research questions, and definition of key terms used throughout the study. Chapter
Two presents a historical review of grade retention research, along with literature on factors that influence grade retention, the probable outcomes that influence grade retention, and possible alternatives to grade retention. Chapter Three describes the research design for the study, population, instrumentation, measurement, data collection procedures, hypothesis tests, and the statistical analysis. An analysis of the data, hypothesis testing, and findings are presented in Chapter Four. Chapter Five includes major findings of the study, implications for actions, and recommendations for future studies on retention.
CHAPTER TWO
REVIEW OF LITERATURE

Introduction

In response to public and political demands to improve the value of education, more school districts have embraced the practice of grade retention. There are two sides of the coin: proponents of grade retention, who feel that students should not be promoted until they meet certain grade level standards, and opponents of grade retention, who fear the negative consequences on students’ self-esteem and the potential probability that grade retention will cause students to drop out of school. The increased cost to educate students for an additional year can be justified if the retention helps the academic performance of the retained students. However, if grade retention does not improve academic performance, educators must seek alternatives other than grade retention to assist students who are struggling.

Historical Review of Grade Retention Research

Grade retention research overwhelmingly finds that grade retention is not effective. In 1975, Jackson made accessible the first meta-analysis of research on the effects of grade retention. His analysis included 44 studies published from 1911-1973. Jackson examined low-achieving students, or those with socioemotional adjustment issues, to see if they benefited from grade retention or social promotion to the next grade. Jackson suggested that grade retention might benefit some students; however, grade promotion appears to produce even greater benefits. Jackson concluded, “There is no reliable body of evidence to indicate that grade retention is more beneficial than grade promotion for students with serious academic or adjustment difficulties” (p. 627).
Almost a decade after Jackson’s review, Holmes and Matthews (1984) reviewed 650 studies and selected 44 to examine. These 44 studies included 4,208 non-promoted students and 6,924 promoted students. The studies addressed five areas: academic achievement, personal adjustment, self-concept, attitude toward school, and attendance. Holmes and Matthews’ meta-analysis discovered significant differences concerning the promoted students in each area that was compared. The retained students were found to have lower academic achievement, poorer personal adjustment, lower self-concept, and greater dislike of school when compared to their promoted peers.

While Holmes and Matthew (1984) were conducting their meta-analysis, Niklason was conducting her research on grade retention in Utah. Niklason (1984) examined the process and outcomes of retention in two Utah school districts with opposing views on retention practices. The suburban school district with over 40,000 students opposed grade retention practices, while the urban district with approximately 20,000 students favored grade retention. Nicklason sought to answer three questions:

1. What are the actual retention practices in the two districts?
2. How do children recommended for retention compare with a control group of children in the districts?
3. What are the effects of retention compared to promotion on these academically similar functioning children? (p. 492)

Niklason (1984) found that students in the urban district were seven times more likely to be retained than were students in the suburban district. She asserted that many of the students recommended for retention were at the acceptable level of achievement based on the Wide Range Achievement Test; however, they were still retained. Her study
supported Holmes’ and Matthews’ conclusions that promoted students had more gains in reading than students who were retained. Niklason concluded, “Retaining students did not serve the intended purpose of increasing the student’s growth academically or in personal or social adjustments” (p. 496).

In 1987, Niklason reanalyzed her Utah school study to examine more closely the practice of grade retention and the impact on students. She added the following three variables to address questions related to subgroups of students: “grouped (retained vs. promoted), school district (remediation vs. no remediation), and ability level of students (high vs. low)” (p. 342). In her reanalysis, Niklason (1987) found that students who were recommended for retention, but promoted, made more progress than the students who were retained. In addition, she discovered that students who were retained in grades two through six performed better academically after being retained, compared to those students who were retained in kindergarten and first grade. However, it should be noted that Niklason did not follow these students’ achievement trajectory past sixth grade. In addition, the remediation program was not influential in helping retained students improve their academic performance comparable to the increase in gains that occurred by the low-performing promoted students.

Holmes (1989) completed a meta-analysis of research on retention, which included an additional 63 studies published between 1925 and 1989, where retained students were followed and compared to students who were promoted. Holmes found that 54 studies representing 85% of the total studies showed negative effects from retention, including lower academic achievement and problems associated with socioemotional
adjustment. In the nine studies that showed positive results, the benefits of retention diminished over time.

Hagborg and Masella (1991) questioned the correlation between non-promotion at the elementary level and the academic and socioemotional adjustment of students at the secondary level. The study they conducted examined a sample of 1,200 students from a school district in New York State. They found that the achievement scores of the retained students as measured by the Comprehensive Test of Basic Skills (CTBS) were significantly lower when compared to students who were promoted. They also found a correlation between both achievement and socioemotional adjustments of students who were retained in the upper grades and “lower grades, less positive school attitudes, less time on homework, lower educational expectations, and higher levels of discipline problems” (p. 312).

Hagborg, Masella, Palladina & Shepardson (1991) noted that their study showed no convincing findings on grade retention. Also, they found evidence that those high school students who were retained and made positive gains in elementary school demonstrated no evidence of sustaining positive academic gains when they reached high school. It was difficult for the students who were retained to catch up with their classmates because their academic gains were so small.

Jimerson and Kaufman (2003) reported, from the three meta-analyses discussed previously in this chapter (Jackson, 1975; Holmes and Matthew 1984; and Holmes, 1989), the data overwhelmingly supported the view that the practice of grade retention is harmful to students. These three studies, combined, totaled over 1000 analyses of achievement. Results revealed, “an increased rate of school dropouts, more behavior
problems, higher levels of distress, and more substance abuse and reckless behaviors” (p. 624). Holmes and Matthews (1984) suggested, “The burden of proof falls on the proponents of retention to show there is compelling logic indicating success of their plans when so many other plans have failed” (p. 232). Although there appears to be short term gains, there is no research that supports retention. Grade retention requires children to devote an entire year repeating a grade, yet this practice produces minimal benefits or even harmful consequences.

Factors Associated with Grade Retention

*Academic Performance and Grade Level Mastery*

Surfacing from the research on retention are many factors that play a part in determining whether a student is retained or promoted to the next grade level. A study conducted by Hesse (2002) surveyed kindergarten teachers in central Minnesota to gather their perspectives on factors associated with grade retention. Seven factors were identified on the survey instrument, and each factor received a mean score. Results from the study showed that the strongest factors associated with a kindergarten student’s retention were academic performance ($M = 4.372$), maturity level ($M = 4.357$), and birth date ($M = 3.721$). Socioeconomic background ($M = 1.488$) and race ($M = 1.419$) received the weakest rating by the kindergarten teachers.

Rachal and Hoffman (1985) completed a 3-year longitudinal study examining 1,198 students to determine whether grade retention was more effective in the earlier grades than in later grades. The research used the Louisiana Basic Skills Testing (BST) Program and followed two groups of students: one group had been retained in second grade, and the other group had been retained in third grade. No statistically significant
difference was found in achievement between the two groups. The study also found that remedial services were an essential component in raising student achievement for both groups.

Another study relating to academic performance was conducted by Zimny (2003) in the Dallas Independent School District to examine the relationships between retention in the primary grade levels (kindergarten through second) and these students’ achievement in fifth grade, as measured by the Stanford 9 Reading and Math Test scores. Her findings showed that promoted students who had attended 6 years of school performed significantly better on the reading and math portions of the Stanford 9 Test than did the retained students by the time they had completed fifth-grade. Students who were promoted scored 10 points higher on average in reading and almost nine points higher on average in math than did the students who were retained. It was found that retention was not effective in allowing students to perform at the same level as their promoted peers.

Light’s Retention Scale is a tool meant to assist school professionals in determining whether students would benefit from retention (Light, 1986). The scale includes 19 criteria: sex, age, knowledge of English language, physical size, grade level, previous retention, number of siblings, parents’ school participation, background, transiency, attendance, IQ, history of learning disabilities, present level of academic performance, attitude towards retention, motivation, immaturity, emotional problems, and history of delinquency. Parents and/or teachers rate the potential student on a scale from 0 to 5 on the 19 items. A score of 0 indicates that the child would benefit from retention and a score of 5 indicates that the child would not benefit from retention. The sum of the
ratings is used to categorize the student’s suitability for retention as excellent, good, fair, marginal, poor, or unsuitable. Light (1986) cautioned, the Light’s Retention Scale “is intended to provide guidance in determining whether a student should be retained, and it should not be used as the sole criterion for retention” (p. 5).

Several researchers have investigated Light’s Retention Scale. Watson (1979) suggested that the scale might not predict achievement gains during the repeated year. Sandoval (1980) established that the scale lacked validity and reliability. Westbury (1994) conducted a study of 93 students who had been retained in first or second grade. Eleven of the 19 categories on the Light’s Retention Scale were available across schools for comparison. Results showed that the Light’s Retention Scale was not a reliable or valid instrument. The selected scale items did not predict improvement in cognitive ability among the students and results were opposite of what would be expected, with poor retention candidates showing significant improvement in nonverbal cognitive ability over time. Westbury concluded that,

There is currently no way to predict reliably which students will benefit from retention, and, given the potential negative consequences of retention, it may be preferable to abandon the practice until reliable and valid indicators are developed. In the meantime, educators should seek ways, such as remedial instruction, to help students improve their performance while keeping them with their age peers (p. 4).

*Socioeconomic Background*

Educational surveys have identified children who are more at risk for retention. Most at-risk children include children living in poverty and those parents were
highschool dropouts (Dawson, 1998). Reynolds (1992), conducted a study that compared 1,225 low socioeconomic African-American retained students with 200 promoted students. The two groups were matched with regard to their math and reading scores, as well as teacher ratings. The retained students gained 5 months in their reading scores, according to the Iowa Test of Basic Skills, during the year they were retained. The students who were promoted gained 7 months on their reading scores. This study reveals that students gain just as much, if not more, from not being retained, even though the grade level standards may be too difficult for the students.

*Birthdate*

A recent retention trend is to have students repeat kindergarten so that they have an extra year to mature. Many parents choose to hold back their kindergarten age children because of their birth date. In Missouri, students must be 5 years of age before August 1 in order to enroll in kindergarten (Missouri Revised Statutes, 1996). Parents may decide to wait to enroll their children in kindergarten, if they have a June or July birthday, to allow them an extra year to mature. Likewise, teachers often use a child’s date of birth as a criterion for retention.

Ladig (1991) conducted a study in a suburban Minnesota school district to compare students who had delayed entry into kindergarten with students who started kindergarten on time. The study focused on achievement, social/emotional status, and athletic competence. In elementary school, the delayed entry students’ academic achievement scores were the same as students who started school with their same-age peers. However, by high school the delayed entry students’ scores were below those of the students who had started school with peers. No differences were found in social
or emotional status, but the delayed entry students were found to be more involved in sports.

*Academic Performance*

A study conducted by Jimerson, Carlson, Egland, Rotert, and Sroufe (1997) found that 29 students who were retained in the primary grades (kindergarten through second) were characterized as being significantly less confident, less self-assured, and less engaged with their peers. As reported by their teachers, these students were unpopular and less socially experienced, and they displayed significantly more maladaptive behaviors than the low-achieving students who were promoted, et al. While the reason given for retaining these students was academic performance, the results of the longitudinal study revealed no difference between the retained and the comparison groups on academic performance or ability measures in sixth grade or when they turned 16 years of age, et al. The low-achieving promoted groups displayed better emotional health and self-esteem ratings; however, there were no significant differences in reading comprehension or math calculation. Retention did not appear to benefit the 29 students academically, and retention was ineffective in terms of their social adjustment, despite spending the extra year in school.

*Level of Maturity*

Thomas (2001) investigated the similarities and differences between primary grades (k-3), upper grades (4-6), and junior high school (7-8) teacher attitudes regarding grade retention after the first year of the Pupil Promotion and Retention Legislation in California. The case study sampled 497 teachers. Teachers in the lower grades were less supportive of retention as an intervention than were upper grade teachers. Even though
primary teachers reported they rarely used grade retention as an intervention, they indicated that retention should be used for development and maturity rather than academic reasons. In contrast, teachers in grades 4-6 supported retention in an effort to improve academic achievement and motivation of their students.

Wang and Johnstone (1997) examined the pre-first grade program of the Irving Independent School District (Texas) by looking at four different study groups. The first groups of students were placed in a pre-first grade, which is a transition between kindergarten and first grade. Students were placed in groups based on their level of maturity. This first study examined the relationship between students' age, gender, ethnicity, and pre-first placement in samples for 4 years. This study was composed of students who were young for their grade, male, and Hispanic American. The second study compared elementary school students in grades 5, 6, and 7 who attended the pre-first grade class with 107 students who were recommended for the pre-first but who did not attend. The third study compared recommended pre-first students and those who were recommended but who did not attend, in regards to promotion and special education placement, with peers who were never recommended. The fourth study compared students who refused the pre-first grade classroom with students who were promoted to first grade.

Wang and Johnstone (1997) found that regardless of participation in pre-first grade class, recommended students did not achieve as well as their promoted peers concerning later retention, placement in special education classes, maturity level, or achievement scores on the Texas Assessment of Academic Skills. The additional year of instruction did not help pre-first students’ academic performance. In addition, a more
than expected number of students who had been recommended for the pre-first grade classroom were placed in special education later in school.

Race and Gender

Meisels and Liaw (1993) examined data from the 1988 National Educational Longitudinal Study to look at the effect of retention on 16,623 students. They compared students who were retained in kindergarten through third grade with students who were retained in fourth through eighth grade. An additional comparison examined students who were retained in kindergarten through eighth grade with students who had never been retained. Meisels and Liaw found.

29.9% of African American students were retained, as compared to 25.2% of Hispanic and 17.2% of White students. Twenty-four percent of the boys were retained compared to 15.3% of girls being retained. Thirty-three point nine percent of students from low socioeconomic backgrounds were retained as compared to 8.6% of students from a higher socioeconomic group” (p. 71).

A study conducted by the National Center for Educational Statistics (2002) examined a weighted sample of tenth graders to check the rates of students who were retained by race, gender, socioeconomic status, region of the country, and achievement scores (Roper, 2008). Roper found that males were retained more than females, with African American males significantly more likely to be retained than other males. Table 4 presents the estimated grade retention rates for the tenth grade students by race/ethnicity and gender. The percentage indicates the number of tenth graders retained at least once in their academic schooling.
Table 4

*Estimated Grade Retention Rates for Tenth Grade Students by Race/Ethnicity and Gender*

<table>
<thead>
<tr>
<th></th>
<th>African American</th>
<th>White</th>
<th>Asian/Pacific Islander</th>
<th>Hispanic</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>27%</td>
<td>13%</td>
<td>11%</td>
<td>18%</td>
<td>13%</td>
</tr>
<tr>
<td>Females</td>
<td>16%</td>
<td>7%</td>
<td>6%</td>
<td>14%</td>
<td>18%</td>
</tr>
</tbody>
</table>


Outcomes Associated with Grade Retention

*Confidence and Positive Leader in the Class*

Nicholson (2005) surveyed kindergarten teachers and elementary principals in a South Carolina school district to determine their attitudes and perceptions regarding grade retention. The survey was divided into three parts: factors, outcomes, and alternatives. Part two of the survey contained six statements that focused on outcomes associated with grade retention. The participants responded to the six items with a yes or no answer. Nicholson (2005) found that more than 90% of kindergarten teachers indicated that students who are retained are more mature the following year. More than two thirds of the teachers indicated that students who were retained would be positive leaders in the class the following year. Three fourths of the teachers surveyed indicated that grade retention improved academic performance, increased student chances for long-term success in school, and had a positive effect on a student’s life. Nicholson found that teachers perceived all six outcomes are outcomes associated with grade retention.
Findings for the elementary principals were similar to the kindergarten teachers. More than half of the principals viewed the six outcomes as probable outcomes associated with grade retention.

Teachers can make confidence-building activities part of their regular classroom routines without having to impose the practice of grade retention. Holt asserts that, “Most children in school are scared most of the time, many of them very scared” (p.92). He says that students are “afraid of failure, afraid of being kept back, afraid of being called stupid, afraid of feeling themselves stupid” (p. 71). According to Ciaccio (2004), when students lack confidence, their achievement is negatively affected. Fortunately, a teacher has the ability to enhance a child's confidence. Ciaccio stated that a teacher should first, “Make sure that a student does well on tests...followed by getting the student involved in class, using descriptive praise, and upholding high expectations for all students” (p. 33). Student confidence affects students’ ability to learn, and teachers can help create the belief that a student has the ability to succeed.

*Maturity*

The concerns educators have about student maturity are often subjective. Abidin, Golladay, and Howerton (1971) conducted a study on first grade students who had been retained. They found that 28 % of the time, teachers who retained students recorded immaturity on the student’s cumulative folders as the reason for retenion. Vail (2002) investigated the efficacy of early grade retention on the achievement of fifth grade students in Texas. In general, children retained as a group did not perform as well as children who were not retained or identified as at-risk. It is important to note that the passing rates of retained children were significantly greater than the poor predications
would indicate. Parents of the 62 students who were retained were asked about why their child was held back and their feelings at the time the retention occurred. Ninety-two percent of parents were positive regarding their perception of the retention experience. One parent noted, “My son’s birthday is in July and we felt he would do better in the long run with the extra year of maturity” (Vail, 2002, p. 68). Parents seem to look favorably on retention for certain children. However, studies on parent attitudes on retention found that parents were misinformed about the lack of documented research on academic gains after retention (Shepard & Smith, 1989).

Long-Term Success

Some educators believe that it is best to retain a child at an early age, such as kindergarten or first grade. Shepard and Smith (1989) and Mantzicopoulos (1997) supported this idea and reported that kindergartners and first graders who were retained for being immature showed no difference in adjustment at this young age. The researchers cautioned that, by fourth grade, adjustment problems could lead to other social and educational issues. Jimerson (1999), however, stated that even those children who are retained in kindergarten and first grade are negatively affected by grade retention concerning school attitude and self-esteem. Likewise, if a student is older (fourth grade or higher) and is retained because of immaturity, there is more probability of the child having difficulties adjusting, with negative social and personal problems related to the grade retention rather than related to lack of social maturity (Jimerson, 1999; Mantzicopoulos, 1997).

An analysis of multiple studies on grade retention indicated that students who are retained have lower self-esteem and higher rates of absenteeism than do their promoted
peers. These two factors are characteristics identified in students who drop out of school (Jimerson, 2001). Lower self-esteem and poor attendance influence a student’s ability to experience success in school. Likewise, Jimerson found that students who drop out of school are at a disadvantage for maintaining employment and experience higher rates of mental health problems, criminal activity, and substance abuse than do students who receive a high school diploma.

Effect on a Student’s Life

Education is in a constant state of change as we enter the 21st century: virtual classrooms, global economies, increased competition for funding, and increases in standards and accountability. In order to plan effectively in this climate of change, education must be able to foresee changes affecting student life. Will grade retention help prepare students for our changing world?

According to Jimerson et al. (2002), grade retention is the strongest indicator that a student will drop out of school. A study by Youth in Transition found that students who had repeated a grade before entering high school were 40 % to 50 % more likely to drop out of school (Nicholson, 2005). Dropping out of school is the biggest predictor for low-level adult accomplishment (Fine, 1991). According to the National Research Council, students who are retained and drop out of school are more likely to be unemployed, to live on public assistance, or to be in prison (Jimerson & Kaufman, 2003). The National Association of School Psychologists (1998) found that approximately 50 % of students who repeat a grade end up being placed in special education classes. They reported that, at the secondary level, students who are retained have an increased risk of alcohol, cigarette, and drug use, and an increased risk of violent behaviors (Wise, 2002).
Roberts (2008) studied the social and educational effects of grade retention from the perspective of school faculty. Interviews were held with 19 educators, and 17 cited weak academic skills, lack of maturity, and absenteeism as reasons why they recommended retention. After discussing the reasons for retention, the respondents were asked to articulate their rationale for retaining a student. Punishment and student accountability were rationale given by the respondents.

*Academic Performance*

For many years, research has been conducted to determine if retaining students provides an academic benefit. Witmer et al. (2004) concluded, “Years of research have shown that retention provides limited academic advantages to students, and yet the practice continues” (p. 20).

Data from the Early Childhood Longitudinal Study-Kindergarten cohort (ECLS-K) was reviewed by Smith (2008). The study followed 12,000 public and private school children from 1998 when they entered kindergarten to the spring of 2000. The retained kindergarten students were compared with the promoted kindergarten students. The repeating kindergarten students, after 2 years of kindergarten, were about 6 months behind their promoted peers. Smith determined that, if the retained kindergarten students had been promoted, all but the very lowest would have had higher academic achievement.

Research-based conclusions regarding the effects of grade retention were also noted by Reynolds, Temple, and McCoy (1997), who reported three reasons why grade retention was an ineffective practice for students.

1. The decision to retain was made haphazardly and for non-academic reasons.
2. Retained children did not do better academically after they were made to repeat a grade. It was found that, over time, the retained students fall farther behind those not retained.

3. Grade retention policies had the unintended effect of contributing to the school dropout problem. (p. 36)

A study by the University of Georgia examined the academic performance of 11,000 students who had been retained; the study showed that repeating a grade had a negative effect on academic performance. Students tended to fall farther behind the second year and continued to fall behind as they progressed through the grade levels (McBrien, 1998).

Alternatives to Retention

It is important for schools and teachers to implement strategies to ensure students meet rigorous standards the first time. Jimerson, Pletcher, and Graydon (2006) emphasized that when selecting and implementing interventions, it is important to consider the “development, cultural, linguistic, and gender differences among students” (p. 90). An education system has several options to help low-achieving students master grade level material. According to Jimerson (2001):

It seems prudent to move beyond the question “to retain or not to retain.” In isolation, neither social promotion nor grade retention will solve our nation’s educational ills nor facilitate the academic success of children. Instead, attention must be directed toward alternative remedial strategies. Researchers, educators, administrators, and legislators should commit to implement and investigate
specific remedial intervention strategies designed to facilitate socioemotional adjustment and educational achievement in our nation’s youth. (p. 435).

**Summer School**

Many school districts use summer school as an alternative to grade retention. Traditional summer school programs provide instruction during the summer months after the completion of a 9-month school year. Increasingly, educators push for more summer school programs, better summer school programs, and longer summer school programs (Smith, 2008). Some believe that if students could go to school in the summer, they could be instructed, promoted, and sent on to the next grade, full of all the information they somehow missed during the regular school year. Summer school could be mandated for students who did not meet grade-level standards during the school year. For example, a policy in Chicago Public Schools establishes standards of promotion for students who have completed third, sixth, and eighth grades. If students do not meet minimum grade-level reading and math scores, attendance, and grade card criteria, they are either retained or required to attend summer school (Chicago Public Schools, 1997).

A recent meta-analysis of 93 evaluations of summer school programs during elementary school provided important insights regarding effectiveness (Cooper, Charlton, Valentine, & Muhlebruck, 2000).

First, summer school programs that provide remedial interventions enhance the development of knowledge and skills of participants. Second, summer programs that focus on strengthening achievement also show a positive educational effect. Third, middle-class students benefit more from summer school programs than same-age students from lower socioeconomic backgrounds. … Summer school
programs have larger positive effects when they provide small-group or individualized instruction (p. 19).

The 3-month break that students typically take from school raises the question of what impact this long summer period has on students. The meta-analysis by Cooper, Nye, Charlton, Lindsay, and Greathouse (1996) on summer learning loss showed that the loss was equivalent to at least 1 month of instruction. Children’s achievement on average was at least 1 month lower when they returned to school in the fall than when they left in the spring.

An inclusive evaluation of Chicago Public Schools’ Summer Bridge Program found positive gains in achievement scores among third, sixth, and eighth graders. The third and sixth graders were given 90 hours of summer instruction over a 6-week period. The eighth grade students received a total of 140 additional hours of summer instruction. Students in sixth and eighth grade saw greater gains in achievement (Roderick, Engle, & Nagaoka, 2003). Factors related to the achievement gains in the Chicago Public School summer program were also studied. Students who had the same teacher during the school year and the summer program made larger gains.

*Differentiated Instruction*

Differentiated instruction is an alternative that is widely used in schools to address the varying academic needs of students. Teachers can no longer approach teaching with a one-size-fits-all model (Tomlinson, 1999). Instead, teachers need to combine the knowledge of their students with the knowledge of content and flexibility of instruction that in turn matches the individual learning needs of their students (Finley, 2008).
Differentiated instruction is a practice that has been utilized in schools for more than 100 years. Teachers discovered accommodating students’ needs being essential in instructing the many ages and abilities of their students during the time of the one-room schoolhouse. However, drill and practice and graded classrooms are ways of teaching that many students still experience in schools today (Darling-Hammond & Bransford, 2005). Roderick et al. (2003) reported teachers who differentiated the curriculum by giving feedback based on individual learning needs and who worked with students outside the class saw greater gains in achievement.

Tomlinson (2003) emphasized the importance of acknowledging that students learn at different rates and it is the teacher’s responsibility to find ways that match the different learning styles of students to the instruction that is delivered. The absence of meeting individual learning needs continues to enable the one-size-fits-all method of teaching common in many schools today. According to Protheroe (2007), “While it is important for educators to stay current on research on retention, it is even more important that they direct increased–and smarter–school efforts toward providing differentiated instruction that reduces the incidence of student failure” (p. 33).

Recent increased emphasis on standards and accountability has forced attention on students who do not meet grade level standards. In response, schools have strengthened their efforts to align instruction and curriculum with state standards. Schools and districts that placed an emphasis on alignment have seen the academic benefits for low-performing students (Protheroe, 2007). The Education Trust (2005) identified how schools with high and average impact on the academic performance of low-performing students used assessment data:
The high-impact schools typically had early warning systems to catch students before they failed. Some schools created intervention teams to study data about individual students and then developed a learning plan for individual students similar to the individual plan used with special education students (p.1).

**Triumphs Reading Program**

The Triumphs Reading program is an alternative to retention that involves using specialized materials written for students who are not reading on grade level. Students who are identified through reading screenings are placed in a reading support class, and the reading teacher utilizes the Triumphs program as his or her reading resource for instruction. The philosophy behind utilizing the Triumphs series is that it allows the reading support teacher to frontload the curriculum for the students a week prior to their exposure in the regular classroom. The goal is to create background knowledge and connections for students in a small group setting. Students get a jump-start on reading material that is introduced in a whole-class environment a week early. According to Steve McClung, president of McGraw-Hill,

*Reading Triumphs* is a research-based intervention program designed for elementary students reading two or more years below grade level. The program provides explicit instruction for tested skills to ensure reading mastery. *Reading Triumphs* also offers targeted resources so teachers have what they need when they need it. (p. 1)

**After-School Reading Clubs**

An alternative related to specialized reading programs is the use of after-school reading clubs. Educators are seeking creative alternatives to increase learning time for
students. One way to increase learning time for students is to offer after-school programs. The relationship between reading practice and achievement is clear (Allington, 2001). One way to give students more time for reading is to provide them with an after-school program that targets reading instruction. After-school time can be an effective avenue that schools utilize to enhance academic achievement for students. Results from the National Assessment of Educational Progress (NAEP) show that students are not meeting grade-level reading standards. In 2003, only 31% of fourth-graders and 32% of eighth-graders scored at or above the proficient level in reading. Only 15% of fourth grade children who were eligible for free or reduced lunch performed at the proficient level on the reading assessment (Miller, 1999). Miller stated,

Students who attend high-quality programs for a significant period of time show improvement in academic performance and social competence, higher scores on achievement tests, lower levels of grade retention, improved behavior in school, increased competence and sense of self as a learner, better work habits, fewer absences from school, better emotional adjustments and relationships with parents, and a greater sense of belonging in the community (p. 2).

Vandell, Reisner, and Pierce (2007) conducted a 2-year longitudinal study of promising after-school programs to determine the effect on 3,000 students in 35 elementary and middle schools who participated in quality after-school programs. Findings from this study indicated that elementary and middle school students who participated in the after-school programs, across 2 years, showed significant gains in standardized math and reading test scores. In addition, students who regularly
participated in after-school programs demonstrated improved work habits and task persistence.

According to Little, Wimer, and Weiss (2008), participation in after-school programs makes a difference. Approximately 10 years of research and evaluation studies confirms that, “Children who participate in after-school programs can reap a host of positive benefits in a number of outcome areas—academic, social/emotional, prevention, and wellness” (p. 2).

Social Promotion

Social promotion remains a hidden problem. Few are willing to admit the extent to which social promotion takes place, much less keep track of it. In most states and school districts, promotion and retention decisions are made on a case-by-case basis, under guidelines developed by states or districts. According to the Educational Projects in Education Research Center (2004),

Social promotion is the practice of passing students along from grade to grade with their peers, even if the students have not satisfied academic requirements or met performance standards at key grades. It is called "social" promotion because it is often carried out in the perceived interest of a student's social and psychological well-being (p. 1).

Social promotion and grade retention are real dilemmas for the educational community. Lowering the standard to create social equality can only harm a child. Likewise, having a child repeat the same grade is not the answer either.

According to the Education Week “Quality Counts” report (2004), in nine states—Delaware, Florida, Georgia, Louisiana, Mississippi, Missouri, North Carolina, Texas, and
Wisconsin—grade-to-grade promotion in certain grades depends on student performance on a statewide exam. With pressure increasing to hold students accountable for performance and to end social promotion, educators often feel they have few choices.

Lloyd (2008) cited data collected for the *Education Week* “Quality Counts 2007” report,

Seven mostly southern states—Delaware, Florida, Georgia, Louisiana, North Carolina, Texas, and Wisconsin—require students to pass promotion exams in order to enter the next grade. All of these states administer their promotion exams in the eighth grade or earlier. In comparison, the number of states mandating that students pass exit exams in order to earn a standard high school diploma is over three times as high, increasing from 17 to 22 in the same time period. (p. 1).

An interesting comparison is that three times as many states mandate students pass exit exams in order to be awarded their high school diploma. While some school policies may attempt to end the practice of social promotion using alternatives that do not involve state exams, states have generally been less hesitant to bar low-performing students from advancing to the next grade level than to refuse them a diploma (Bausell, 2007). States, districts, and schools must begin taking responsibility for ending social promotion. Taking responsibility involves setting clear expectations and clear policies for promotion and adopting measures to hold everyone responsible for the academic performance of all students.

In February 2009, Congress approved an economic stimulus bill that provided $100 billion in emergency aid for public schools and colleges. Arne Duncan, Secretary of Education, stated he “intended to reward school districts for raising student achievement
and withhold money from states that are not... allocating money...for after-school and weekend tutoring programs, for schools that serve the nation’s neediest children and Head Start preschool programs” (Dillon, 2009). This new legislation could assist in reducing the number of grade retentions in the nation’s schools as money becomes available to fund alternatives rather than promote grade retention.

**Looping**

Besides the traditional alternatives to retention, many schools have attacked the problem during regular school hours. One particular practice is that of looping. Looping is a classroom structure where a teacher and group of students stay together for more than one year. For example, a teacher has a particular group of students as fourth graders and then teaches this same group of students as fifth graders. The philosophy behind looping is that the extra year allows the teacher to build stronger relationships with children, address individual learning needs, increase self-esteem, reduce behavior problems and allows for more instruction time (Kenny, 2007).

According to Krogmann and Van Sant (2000), “Of the 3,200 minutes spent in the classroom during the first two weeks of school, an average of 390 minutes were spent on developing rules, routines, and building student relationships” (p. 13). In a looped classroom, those rules, routines, and relationships have already been established the previous year. Krogmann and Van Sant noted that teachers feel it takes up to 3 months to understand the individual learning needs of their students. At the beginning of the school year, looped teachers have already had a year to determine specific strengths and weakness of their students and to understand their different learning styles, which enables the educators to teach to students’ individual needs right from the start of the school year.
Krogmann and Van Sant reasoned this gives students in looped classes more focused instructional time and increased achievement than students have in non-looped classes.

Educators have an obligation to provide a classroom environment that supports the diverse learning needs of their students. Jimerson et al. (2006) wrote:

It is essential to accept the responsibility of facilitating the progress of students who do not meet school/district/state standards…it is vital that we continue the quest for effective alternatives and strategies to help children succeed in school (p. 95).

Both grade retention and social promotion fall short in improving learning or facilitating positive achievement and adjustment outcomes for students. Neither repeating a grade nor moving on to the next grade provides students with the supports they need to improve. Holding schools accountable for student learning requires effective intervention strategies that provide educational opportunities and assistance to promote the social and cognitive development of students (Jimerson & Kaufman, 2003).

Summary

Chapter Two presented a historical overview of the research on grade retention. The historical review included three meta-analyses that have been conducted on retention over the past 75 years. The research does not support the use of retention as a practice to help low-achieving students. In addition, this chapter included an overview of research on probable factors associated with grade retention, possible outcomes associated with grade retention and potential alternatives to grade retention. The research supports the use of interventions as alternatives to grade retention as a way to facilitate the academic and social development of low-achieving students. This review of literature provides the
foundation to support the need to provide effective interventions in lieu of grade retention that are designed to address factors that place students at risk for school failure.

Chapter Three examines the research design for the study, population, sampling procedures, instrumentation, measurements, data collection procedures, hypothesis tests, and statistical analyses.
CHAPTER 3

METHODS

Introduction

The purpose of this study was to determine the perceptions of elementary teachers of factors that influence grade retention, the outcomes related to grade retention, and effective alternatives to grade retention in the Park Hill School District. In addition, the study addressed demographic data relating to years of experience for the respondents, the grade level taught by each respondent, and whether the respondents had ever retained a student. Chapter Three presents the research design, population, sampling procedures, instrumentation, measurement, data collection procedures, data analysis, hypothesis tests, and limitations of this study.

Research Design

The design of this study is survey research. According to Gall, Gall, and Borg (2003) the survey is recognized as the most frequently used data collection method for survey research assessing phenomena that are not directly observable. Gall et al. asserted that “Survey research is a form of descriptive research that involves collecting information about research participants’ beliefs, attitudes, interests, or behavior” (p. 180). The advantage of the survey over many other research methods is that it is usually quicker and broader in coverage. The current quantitative study determined the perceptions of teachers on factors such as birth date, maturity level, gender, and socioeconomic status that contributed to grade retention, and outcomes such as increased confidence, long-term success in school, positive effect on life, improved academics, and maturity level associated with grade retention. In addition, the study investigated
teachers’ perceptions on the potential alternatives to grade retention of summer school, Triumphs Reading Program, looping, multiage classes, and social promotion.

Population and Sample

The population for this study was elementary teachers, kindergarten through fifth grade, within the Park Hill School District. During the 2008–2009 school year, the Park Hill School District employed 305 classroom teachers. At the elementary level, 204 classroom teachers were directly responsible for following the procedures outlined in the district policy on retention. While input was sought from other staff members, classroom teachers were the primary source of recommendations to retain a student (Park Hill School District, 2009). The study focused on the perceptions of these 204 classroom teachers.

Sampling Procedures

The sample for this study was purposeful rather than random, as all elementary schools within the Park Hill School District were selected to be surveyed. According to Lunenburg and Irby (2008), “Purposive sampling involves selecting a sample based on the researcher’s experience or knowledge of the group to be sampled…. Clear criteria provide a basis for describing and defending purposive samples” (p. 175). The purposive sample of teachers selected to participate were classroom teachers from all nine elementary schools within the district. The 204 regular classroom teachers were distributed across all grades, kindergarten through fifth.

The rationale for selecting only elementary teachers is that they teach all subjects to the students, and retention rates in the district indicate that elementary teachers retain more students than do middle and high school teachers. Table 3 in Chapter One presents
the retention data for elementary, middle, and high school teachers in the Park Hill School District. Regular elementary classroom teachers also play a vital role in the decision of whether retain or promote a student. They are responsible for following the procedures and timelines of the district retention policy. Therefore, it is crucial to attain their perceptions on grade retention.

**Instrumentation**

According to Slavin (1992), surveys are an exceptional means of collecting attitudinal and perception information; this mode of data collection was used in the study. The instrument used for this study is found in Appendix B. The survey instrument was modified from a previous instrument developed by Dr. Julie Nicholson. Permission for the additions and modifications is included in Appendix A. The following modifications were made to the survey:

1. Demographic data related to grade level taught, number of years taught, and whether the respondent had ever retained a student were added to the survey.
2. The scale for the survey was changed from a yes/no format to a 5-point Likert-type scale.
3. Modifications on three of the items relating to alternatives to grade retention were made to reflect district specific programs.

The researcher organized the survey in order to elicit the teachers’ perceptions about three different categories: factors, outcomes, and alternatives. These categories align well with the previous research on grade retention. When the participants saw the items on Zoomerang they were randomized to eliminate bias.
The participants were asked to respond to seven statements that addressed factors related to retention.

Factors

1. A student’s birth date influences a teacher’s recommendation to retain.
2. A student’s gender influences a teacher’s recommendation to retain.
3. A student’s race influences a teacher’s recommendation to retain.
4. A student’s level of maturity influences a teacher’s recommendation to retain.
5. Academic performance influences a teacher’s recommendation to retain.
6. Socioeconomic background influences a teacher’s recommendation to retain.
7. A student should be promoted only if he/she achieved grade level mastery.

The participants were asked to respond to six statements that addressed outcomes of retention.

Outcomes

1. Students who are retained are more mature the following year.
2. Students who are retained gain confidence the following year.
3. Grade retention increases the student’s academic performance the following year.
4. Grade retention increases the chance for better long-term success in school.
5. Grade retention has a positive affect on a student’s life.
6. Students who are retained are positive leaders in the class the following year.

The participants were asked to respond to seven statements that addressed alternatives related to retention.
Alternatives

1. Summer school is an effective alternative to grade retention.
2. Differentiated instruction is an effective alternative to grade retention.
3. The Triumphs Reading Program is an effective alternative to grade retention.
4. Afterschool reading clubs are an effective alternative to grade retention.
5. Multiage classrooms are an effective alternative to grade retention.
6. Social promotion is an effective alternative to grade retention.
7. Looping is an effective alternative to grade retention.

The complete survey as presented is included in Appendix B.

Measurement

To begin this survey participants were asked demographic information regarding the grade level taught, the number of years teaching, and whether or not they had ever retained a student. The survey instrument in this study consisted of 20 items on the survey that were assessed on the following 5-point Likert-type scale:

Strongly Disagree = 1, Disagree = 2, Undecided = 3, Agree = 4, and Strongly Agree = 5.

Validity and Reliability

A pilot study was conducted with eight experts to verify the validity of the modified survey instrument. All eight experts were practicing elementary principals in the Park Hill School District who had retained students during their careers as administrators. Their years of experience as a practicing administrator ranged from 2 years to 15 years. The survey was administered to the principals to determine if it appeared to be a valid measure of the perceptions of teachers on factors that contribute to
grade retention, outcomes associated with grade retention, and the potential alternatives to grade retention.

All eight principals agreed that the seven factors (birth date, gender, race, maturity level, academic performance, socioeconomic status, and grade level mastery) were contributors to the decision to retain a student in a grade. Regarding the six outcomes (increased maturity, increased confidence, improved academics, long-term success in school, positive effect on life, and positive leaders in class); all principals agreed that the items were outcomes associated with grade retention.

The principals discussed potential alternatives to grade retention, including summer school, individual reading plans, Triumphs Reading, after-school reading clubs, looping, multiage classes, and social promotion. All eight of the principals agreed that differentiated instruction was an alternative that could result in a student avoiding retention. One principal stated that the way a teacher presents content and skills can greatly enhance the opportunities for students to learn. Six of the principals felt that individual reading plans were not an alternative. In the Park Hill School District, if a student receives specialized instruction in reading, an individual reading plan is written based on the results from a diagnostic reading assessment. The plan is a prerequisite to receiving specialized reading instruction from the building reading specialist. Therefore, the survey item on individual reading plans was replaced with teacher-differentiated instruction.

Data Collection Procedures

The Director of Assessment, Research, and Evaluation for the Park Hill School District was contacted to obtain written permission to administer the survey. Typically,
teachers and principals begin conversations regarding retention of students during second semester. Knowing retention conversations were being held, this was a good time to administer the survey.

Written permission was received from the Director of Research Assessment and Evaluation from the Park Hill School District. The Park Hill approval request and approval documents are included in Appendix C. In addition, the Clinical Research Study committee at Baker University and the Baker University Institutional Review Board granted permission for this study. Copies of the Institutional Review Board and approval letter are included in Appendix D. A pilot test of the electronic survey was administered to the researcher’s advisor, the Director of Research, Assessment, and Evaluation, and two elementary reading teachers within the Park Hill School District. Minor modifications in formatting were made, based on the feedback from the pilot test.

The researcher met with the elementary administrative team in February 2009 to inform them that the survey would be sent electronically, and that their teachers would be asked to complete the survey within 1 week. The survey link was sent via email to 204 regular classroom elementary teachers in the Park Hill School District. The survey and cover letter are included in Appendix B. Survey output reports were generated from the Zoomerang survey and the data were entered into SPSS for statistical analysis (see Appendix E).

All respondents asked to complete the survey were informed that no individuals would be identified by responses or by schools. The survey link was sent electronically to ensure anonymity, and consent was given when respondents deployed the survey link. The data from the survey was retrieved from Zoomerang. Dr. Jeff Klein, Director of Research
and Evaluation for the Park Hill School District, downloaded the data from the survey so that confidentiality was maintained. No risk was involved to any participant who elected to respond to the electronic survey.

Data Analysis and Hypothesis Testing

A quantitative methodology was used to gain insight into the perceptions of elementary teachers regarding grade retention. After the results of the Zoomerang survey were compiled, an Excel spreadsheet was produced that included all the teachers who completed the survey and the answers for each item. The data were imported from Excel into SPSS by hand. Data were first analyzed and reported using descriptive statistics. Information on the surveys that related to the number of years of experience, the grade level taught, and whether the respondent had ever retained a student was presented using frequency tables. Frequency of responses was also reported for each of the Likert scale items.

One-sample $t$ tests were conducted to determine if responses were significantly different from 3, the middle of the Likert scale, used to test the hypotheses. A significant difference provided evidence for agreement or disagreement about each factor, outcome or alternative as presented in the description of each hypotheses test below.

*Factor x* was replaced with a student’s birth date, gender, race, level of maturity, current academic performance, socioeconomic status, and grade level mastery. Seven hypothesis tests were conducted.

1. Teachers agree or strongly agree that *factor x* influences a teachers’ recommendation to retain students. This hypothesis was tested at the .05 level of significance.
Outcome $x$ was replaced with increased maturity, confidence, academic performance, long-term success in school, positive effects on life, and positive leaders. Six hypothesis tests were conducted.

2. Teachers agree or strongly agree that outcome $x$ is an outcome associated with grade retention. This hypothesis was tested at the .05 level of significance.

Alternative $x$ was replaced with summer school, individual reading plans, Triumphs Reading program, after-school reading clubs, multiage classrooms, social promotion, and looping. Seven hypothesis tests were conducted.

3. Teachers agree or strongly agree that alternative $x$ is a positive alternative to grade retention. This hypothesis was tested at the .05 level of significance.

Limitations

According to Roberts (2004), “Limitations are features of a study that may negatively affect the results or the ability to generalize. Limitations are usually areas over which you have no control” (p. 146). The following were limitations of the current research study:

1. The survey was distributed only to elementary teachers within the Park Hill School District. Therefore, the results may not be generalized beyond the specific population from which the sample will be drawn.

2. The researcher is personally acquainted with many of the participants; therefore, prior acquaintances may be influential.

3. The survey was distributed electronically rather than on paper. Respondents may have felt that their responses could be identified by their user login within the network, and they might not have answered the questions openly
and honestly. A cover letter stating the confidentiality and privacy of the
survey was included within the survey in an attempt to minimize such anxiety
by the respondents.

Summary

The purpose of this study was threefold: first, to determine teachers’ perceptions
on factors that contribute to the determination of whether to retain or promote a student;
second, to determine teachers’ perceptions of the outcomes most likely to occur when a
child is retained; and third, to determine teachers’ perceptions of the potential alternatives
associated with grade retention.

This study was conducted in the spring of 2009 and surveyed elementary teachers
in grades kindergarten through fifth grade in the Park Hill School District. The
methodology used in this study was quantitative in design. The researcher used a
quantitative design to analyze the survey data from elementary teachers on factors,
outcomes, and alternatives associated with grade retention. The Likert-type scale
responses from the survey were analyzed using descriptive statistics. A series of $t$ tests
were performed to determine if there were significant differences between teachers. The
study was distributed only to elementary teachers within the Park Hill School District and
the researcher is personally acquainted with many of the participants. These limitations
may affect the ability to generalize the results of the study. Chapter Four presents the
results of the study.
CHAPTER FOUR

RESULTS

Introduction

The current study was conducted in the Park Hill School District as a result of the changing demographics, the number of students who were retained, and the district policy on grade retention. The purpose of this study was threefold: first, to determine teachers’ perceptions on factors that contribute to the determination of whether to retain or promote a student; second, to determine teachers’ perceptions of the outcomes most likely to occur when a child is retained; and third, to determine teachers’ perceptions of the potential alternatives to grade retention. The design of this study was survey research.

The following research questions guided the review of literature, the methodology, the procedures used to collect and analyze the data, and the presentation of the major findings that resulted from the investigation:

1. What factors most influence a teacher’s recommendation to retain a student?
2. What outcomes are perceived to be most likely to occur when retaining a student?
3. What factors are perceived to be the most effective alternative to grade retention?

Descriptive Statistics

The instrument used in this study, a survey with 20 Likert-type items, was administered to elementary classroom teachers within the Park Hill School District. The survey contained three parts. Part 1 focused on factors associated with grade retention. Part 2 addressed outcomes associated with grade retention. Part 3 examined possible
alternatives to grade retention. The respondents were given five answer choices that ranged from *strongly disagree* to *strongly agree*. The study also examined demographic data relating to years of experience, grade level taught, and whether the respondent had ever retained a student. The demographics of the respondents were disaggregated by response rate, grade level, years of experience, and whether the respondents had ever retained a student. The number who completed the survey and the percentage of potential respondents at each grade level are shown in Table 4. Of the 204 surveys that were distributed, 150 were started, but only 147 were completed for a 72% completion rate.

Table 5

*Respondents to the Survey Regarding Grade Retention*

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>25</td>
<td>69</td>
</tr>
<tr>
<td>First Grade</td>
<td>30</td>
<td>83</td>
</tr>
<tr>
<td>Second Grade</td>
<td>23</td>
<td>69</td>
</tr>
<tr>
<td>Third Grade</td>
<td>27</td>
<td>79</td>
</tr>
<tr>
<td>Fourth Grade</td>
<td>24</td>
<td>75</td>
</tr>
<tr>
<td>Fifth Grade</td>
<td>18</td>
<td>54</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>147</td>
<td>72</td>
</tr>
</tbody>
</table>

Years the respondents have been employed as a teacher and the number of teachers in each category are presented in Table 5. Approximately 50% of the respondents have 11 or more years experience as a teacher.
Table 6

Numbers of Years Respondents Have Been Employed as a Teacher

<table>
<thead>
<tr>
<th>Years of Teaching Experience</th>
<th>Number of Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–5 years</td>
<td>32</td>
</tr>
<tr>
<td>6–10 years</td>
<td>43</td>
</tr>
<tr>
<td>11–15 years</td>
<td>23</td>
</tr>
<tr>
<td>16 + years</td>
<td>49</td>
</tr>
</tbody>
</table>

Factors Associated with Grade Retention

The final question in this part of the survey related to whether the respondents had ever retained a student. Seventy-two of the respondents stated that they had retained a student and 75 stated that they had not ever retained a student. The number of responses of strongly disagree, disagree, undecided, agree, and strongly agree on factors associated with grade retention is presented in Table 6. Approximately 98% of the respondents agreed or strongly agreed that academic performance influences a teacher’s recommendation to retain a student. In addition, 74% of the respondents agreed or strongly agreed that a student’s birth date is a factor for retention, and 82% of the respondents agreed or strongly agreed that a student’s level of maturity influences their decision to retain a student. While 93% disagreed or strongly disagreed that a student’s race influences a teacher’s recommendation to retain a student, 80% of the respondents disagreed or strongly disagreed that a student’s gender influences their recommendation to retain a student. Finally, 77% of the respondents disagreed or strongly disagreed that socioeconomic background influences their decision to retain a student. In regard to the factor of grade level mastery, 52% disagreed or strongly disagreed and 31% agreed or
strongly agreed that a student should be promoted only if he/she has achieved mastery of grade level skills.

Table 7

*Number of Responses Associated with Grade Retention Factors*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth date</td>
<td>6</td>
<td>18</td>
<td>14</td>
<td>92</td>
<td>17</td>
</tr>
<tr>
<td>Gender</td>
<td>57</td>
<td>62</td>
<td>8</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>Race</td>
<td>76</td>
<td>62</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Maturity</td>
<td>1</td>
<td>11</td>
<td>14</td>
<td>92</td>
<td>29</td>
</tr>
<tr>
<td>Academic Performance</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>92</td>
<td>53</td>
</tr>
<tr>
<td>Socioeconomic Background</td>
<td>50</td>
<td>64</td>
<td>13</td>
<td>19</td>
<td>1</td>
</tr>
<tr>
<td>Grade Level Mastery</td>
<td>10</td>
<td>67</td>
<td>24</td>
<td>40</td>
<td>6</td>
</tr>
</tbody>
</table>

*Outcomes Associated with Grade Retention*

The number of responses for each option on outcomes associated with grade retention is shown in Table 5. Only 51% of the respondents agreed or strongly agreed that academic performance increases the following year if the student is retained. Approximately 40% of the respondents agreed or strongly agreed that grade retention increases a student’s confidence, maturity level, and their long-term success in school. Approximately 45% of the respondents disagreed or strongly disagreed that retention has a positive effect on a student’s life and that students are positive leaders in the class the following year.
### Table 8

**Number of Responses Associated with Outcomes of Grade Retention**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maturity</td>
<td>2</td>
<td>28</td>
<td>55</td>
<td>55</td>
<td>7</td>
</tr>
<tr>
<td>Confidence</td>
<td>8</td>
<td>38</td>
<td>40</td>
<td>51</td>
<td>10</td>
</tr>
<tr>
<td>Academic Performance</td>
<td>3</td>
<td>20</td>
<td>49</td>
<td>68</td>
<td>7</td>
</tr>
<tr>
<td>Long-term success in school</td>
<td>5</td>
<td>29</td>
<td>50</td>
<td>54</td>
<td>9</td>
</tr>
<tr>
<td>Positive effect on a student’s life</td>
<td>12</td>
<td>33</td>
<td>73</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Positive Leaders in the class</td>
<td>8</td>
<td>58</td>
<td>51</td>
<td>28</td>
<td>2</td>
</tr>
</tbody>
</table>

### Alternatives Associated with Grade Retention

The number of responses for each option on alternatives associated with grade retention is shown in Table 8. Approximately 68% of the respondents agreed or strongly agreed that differentiated instruction was an effective alternative to grade retention. Approximately 38% of the respondents agreed or strongly agreed that afterschool reading clubs, multiage classroom, and looping are effective alternatives, whereas approximately 40% of the respondents agreed or strongly agreed that summer school and the Triumphs Reading program are effective alternatives to grade retention. Last, 44% of the respondents disagreed or strongly disagreed that social promotion was an effective alternative to grade retention.
Table 9

*Number of Responses Associated with Alternatives to Grade Retention*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer school</td>
<td>7</td>
<td>38</td>
<td>41</td>
<td>56</td>
<td>5</td>
</tr>
<tr>
<td>Differentiated instruction</td>
<td>10</td>
<td>19</td>
<td>25</td>
<td>82</td>
<td>18</td>
</tr>
<tr>
<td>Triumphs Reading</td>
<td>4</td>
<td>33</td>
<td>50</td>
<td>54</td>
<td>9</td>
</tr>
<tr>
<td>Afterschool reading clubs</td>
<td>5</td>
<td>47</td>
<td>39</td>
<td>50</td>
<td>7</td>
</tr>
<tr>
<td>Multiage classrooms</td>
<td>8</td>
<td>30</td>
<td>57</td>
<td>48</td>
<td>7</td>
</tr>
<tr>
<td>Social promotion</td>
<td>5</td>
<td>57</td>
<td>66</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Looping</td>
<td>0</td>
<td>29</td>
<td>59</td>
<td>52</td>
<td>2</td>
</tr>
</tbody>
</table>

**Hypothesis Testing**

**Factors**

One-sample *t* tests were conducted to test the following hypotheses regarding factors that influence a teacher’s recommendation to retain a student. The results of each test are included with the hypothesis in the paragraphs that follow. The data for factors hypothesis tests are found in Table 9.

H1: A student’s birth date influences a teacher’s recommendation to retain. The results of the *t* test indicated that H1 was supported. The positive *t* statistic, 8.10 (*p* = .000), indicated a statistically significant finding that the respondents either agreed or strongly agreed (*m* = 3.65, *SD* = .977) that a student’s birth date influences a teacher’s recommendation to retain a student.
H2: A student’s gender influences a teacher’s recommendation to retain. The results of the \( t \) test indicated that H2 was not supported. The negative \( t \) statistic, \(-12.39\) \((p = .000)\), indicated a statistically significant finding that the respondents either disagreed or strongly disagreed \((m = 1.95, SD = 1.041)\) that a student’s gender influences a teachers’ recommendation to retain.

H3: A student’s race influences a teacher’s recommendation to retain. The results of the \( t \) test indicated that the hypothesis was not supported. The negative \( t \) statistic, \(-23.92\) \((p = .000)\), indicated a statistically significant finding that the respondents either disagreed or strongly disagreed \((m = 1.58 SD = .721)\) that a student’s race influences a teachers’ recommendation to retain.

H4: A student’s level of maturity influences a teacher’s recommendation to retain. The results of the \( t \) test indicated that the hypothesis was supported. The positive \( t \) statistic, \(13.38\) \((p = .000)\), indicated a statistically significant finding that the respondents either agreed or strongly agreed \((m = 3.91, SD = .830)\) that a student’s level of maturity influences a teachers’ recommendation to retain.

H5: Academic performance influences a teacher’s recommendation to retain. The results of the \( t \) test indicated that the hypothesis was supported. The positive \( t \) statistic, \(30.66\) \((p = .000)\), indicated a statistically significant finding that the respondents either agreed or strongly agreed \((m = 4.34, SD = .530)\) that a student’s academic performance influences a teachers’ recommendation to retain.

H6: Socioeconomic background influences a teacher’s recommendation to retain. The results of the \( t \) test indicated that the hypothesis was not supported. The negative \( t \) statistic, \(-11.72\) \((p = .000)\), indicated a statistically significant finding that the respondents
either disagreed or strongly disagreed \((m = 2.03, SD = 1.006)\) that socioeconomic background influences a teachers’ recommendation to retain.

H7: A student should be promoted only if he/she achieved grade level mastery.

The results of the \(t\) test indicated that the hypothesis was not supported. The negative \(t\) statistic, \(-2.95 (p = .004)\), indicated a statistically significant finding that the respondents either disagreed or strongly disagreed \((m = 2.74, SD = 1.050)\) that a student should be promoted only if he/she achieved grade level mastery.

Table 10

*Perceptions of Factors Associated with Retention by Elementary Teachers (n = 147)*

<table>
<thead>
<tr>
<th>Factors</th>
<th>(t) Value</th>
<th>(M)</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth date</td>
<td>8.11</td>
<td>3.65</td>
<td>.977</td>
</tr>
<tr>
<td>Gender</td>
<td>-12.39</td>
<td>1.95</td>
<td>1.041</td>
</tr>
<tr>
<td>Race</td>
<td>-23.92</td>
<td>1.58</td>
<td>.720</td>
</tr>
<tr>
<td>Maturity level</td>
<td>13.38</td>
<td>3.91</td>
<td>.830</td>
</tr>
<tr>
<td>Academic performance</td>
<td>30.66</td>
<td>4.34</td>
<td>.530</td>
</tr>
<tr>
<td>Socioeconomic background</td>
<td>-11.72</td>
<td>2.07</td>
<td>1.006</td>
</tr>
<tr>
<td>Grade level mastery</td>
<td>-2.95</td>
<td>2.75</td>
<td>1.050</td>
</tr>
</tbody>
</table>

Outcomes

A one-sample \(t\) test was conducted to test the following hypotheses regarding outcomes perceived to be most likely to occur when retaining a student. The data for outcomes hypothesis tests are found in Table 10.
H8: Students who are retained are more mature the following year. The results of the t test indicated that the hypothesis was supported. The positive t statistic, 3.52 ($p = .000$), indicated a statistically significant finding that the respondents either agreed or strongly agreed ($m = 3.25, SD = .867$) that students who are retained are more mature the following year.

H 9: Students who are retained gain confidence the following year. The results of the t test indicated that the hypothesis was not supported. The positive t statistic, 1.46 ($p = .140$), did not indicate a statistically significant finding ($m = 3.13, SD = 1.045$) that students who are retained gain confidence the following year.

H10: Grade retention increases the student’s academic performance the following year. The results of the test indicated that the hypothesis was supported. The positive t statistic, 5.40 ($p = .000$), indicated a statistically significant finding that the respondents either agreed or strongly agreed ($m = 3.38, SD = .855$) that grade retention increases the student’s academic performance the following year.

H 11: Grade retention increases the chance for better long-term success in school. The results of the t test indicated that the hypothesis was supported. The positive t statistic, 2.92 ($p = .004$), indicated a statistically significant finding that the respondents either agreed or strongly agreed ($m = 3.23, SD = .949$) that grade retention increases the chance for better long-term success in school.

H12: Grade retention has a positive effect on a student’s life. The results of the t test indicated that the hypothesis was not supported. The negative t statistic, -2.20 ($p = .290$), did not indicate a statistically significant finding that the respondents either
disagreed or strongly disagreed \((m = 2.84, SD = .899)\) that grade retention has a positive effect on a student’s life.

H13: Students who are retained are positive leaders in the class the following year. The results of the \(t\) test indicated that the hypothesis was not supported. The negative \(t\) statistic, \(-4.14\) \((p = .000)\), indicated a statistically significant finding that the respondents either disagreed or strongly disagreed \((m = 2.70, SD = .888)\) that students who are retained are positive leaders in the class.

Table 11

*Perceptions of Outcomes Associated with Grade Retention by Elementary Teachers\((n = 147)\)*

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>(t) Value</th>
<th>(M)</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maturity</td>
<td>3.52</td>
<td>3.25</td>
<td>.867</td>
</tr>
<tr>
<td>Confidence</td>
<td>1.49</td>
<td>3.13</td>
<td>1.044</td>
</tr>
<tr>
<td>Academic performance</td>
<td>5.40</td>
<td>3.38</td>
<td>.855</td>
</tr>
<tr>
<td>Success in school</td>
<td>2.92</td>
<td>3.23</td>
<td>.949</td>
</tr>
<tr>
<td>Positive effect on life</td>
<td>2.20</td>
<td>2.84</td>
<td>.9</td>
</tr>
<tr>
<td>Positive leaders</td>
<td>-4.14</td>
<td>2.70</td>
<td>.899</td>
</tr>
</tbody>
</table>

*Alternatives*

A one-sample \(t\) test was conducted to test the following hypotheses regarding what factors are perceived to be the most effective alternatives to grade retention. The data for alternatives hypothesis tests are found in Table 11.
H14: Summer school is an effective alternative to grade retention. The results of the $t$ test indicated that the hypothesis was not supported. The positive $t$ statistic, 1.18 ($p = .241$), did not indicate a statistically significant finding ($m = 3.10, SD = .907$) that summer school was an effective alternative to grade retention.

H15: Differentiated instruction is an effective alternative to grade retention. The results of the $t$ test indicated that the hypothesis was supported. The positive $t$ statistic, 8.25 ($p = .000$), indicated a statistically significant finding that the respondents either agreed or strongly agreed ($m = 3.63, SD = .930$) that differentiated instruction is an effective alternative to grade retention.

H16: The Triumphs Reading Program is an effective alternative to grade retention. The results of the $t$ test indicated that the hypothesis was not supported. The negative $t$ statistic, -1.000 ($p = .319$), did not indicate a statistically significant finding ($m = 2.93, SD = .907$) that the Triumphs Reading Program is an effective alternative to grade retention.

H17: Afterschool reading clubs are an effective alternative to grade retention. The results of the $t$ test indicated that the hypothesis was not supported. The positive $t$ statistic, .75 ($p = .454$), did not indicate a statistically significant finding ($m = 3.06, SD = .978$) that afterschool reading clubs are an effective alternative to grade retention.

H18: Multiage classrooms are an effective alternative to grade retention. The results of the $t$ test indicated that the hypothesis was not supported. The positive $t$ statistic, 1.96 ($p = .052$), did not indicate a statistically significant finding ($m = 3.15, SD = .915$) that multiage classrooms are an effective alternative to grade retention.
H19: Social promotion is an effective alternative to grade retention. The results of the t test indicated that the hypothesis was not supported. The negative t statistic, -5.79 (p = .000), indicated a statistically significant finding that the respondents disagreed or strongly disagreed (m = 2.63, SD = .790) that social promotion is an effective alternative to grade retention.

H20: Looping is an effective alternative to grade retention. The results of the t test indicated that the hypothesis was not supported. The positive t statistic, 1.43 (p = .155), did not indicate a statistically significant finding (m = 3.10, SD = .857) that looping is an effective alternative to grade retention.

Table 12

*Perceptions of Alternatives Associated with Grade Retention by Elementary Teachers*

*(n = 147)*

<table>
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<tr>
<th>Alternatives</th>
<th>t Value</th>
<th>M</th>
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<tr>
<td>Summer school</td>
<td>1.18</td>
<td>2.93</td>
<td>.907</td>
</tr>
<tr>
<td>Differentiated instruction</td>
<td>8.25</td>
<td>3.63</td>
<td>.930</td>
</tr>
<tr>
<td>Triumphs Reading</td>
<td>-1.00</td>
<td>2.93</td>
<td>.907</td>
</tr>
<tr>
<td>After school reading clubs</td>
<td>.75</td>
<td>3.06</td>
<td>.978</td>
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<tr>
<td>Multiage</td>
<td>1.96</td>
<td>3.15</td>
<td>.915</td>
</tr>
<tr>
<td>Social promotion</td>
<td>-5.79</td>
<td>2.63</td>
<td>.790</td>
</tr>
<tr>
<td>Looping</td>
<td>1.43</td>
<td>3.10</td>
<td>.857</td>
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</tbody>
</table>
Summary

The study utilized SPSS computer statistical software to generate frequency tables and to conduct one-sample $t$ tests to determine teachers’ perceptions of factors that contribute to the determination of whether to retain or promote a student, the outcomes most likely to occur when a child is retained, and the potential alternatives associated with grade retention.

Chapter 4 presented the findings of the statistical analysis used to describe the sample and to test hypotheses to address the three research questions formulated for the study. Chapter 5 provides a discussion of the findings in relationship to the literature, implications for practice, recommendations for future research, and conclusions.
CHAPTER FIVE

INTERPRETATION AND RECOMMENDATIONS

Introduction

Grade retention has been a highly controversial educational topic. The decision to have a student repeat a grade is one decision that has life-long consequences. Educators have a responsibility to identify those variables that are associated with grade retention and provide effective learning opportunities that promote success for all students. The first part of this chapter provides an overview of the problem, the purpose of the study, and the methodology. The second part of this chapter reports the major findings, implications for actions, and recommendations for further research.

Study Summary

Overview of Problem

It is important to understand the perceptions that teachers have pertaining to grade retention and why they continue to utilize retention as a practice to help students who are not meeting academic standards. The changing demographics, the number of students who have been retained in the district, and the district policy on retention were additional causes that initiated the current investigation to examine the perceptions of elementary teachers regarding grade retention in the Park Hill School District.

Purpose Statement

The purpose of this study was threefold: first to determine teachers’ perceptions on factors that contribute to the determination of whether to retain or promote a student; second to determine teachers’ perceptions of the outcomes most likely to occur when a
child is retained; and third to determine teachers’ perceptions of the potential alternatives related to grade retention.

**Review of Methodology**

The design of this study was survey research. The methodology used in this study was quantitative in design. The survey was distributed to 204 elementary teachers with a 72% return rate in the Park Hill School District in Kansas City, Missouri. For this study, the dependent variables included the perception of teachers on factors, outcomes, and alternatives associated with grade retention. Once the data was collected through an electronic survey, the researcher entered the data into SPSS software to analyze. One-sample *t* tests were performed to test the hypotheses related to the factors, outcomes, and alternatives regarding grade retention.

**Major Findings**

The major findings from this research study examining the perceptions of elementary teachers on factors, outcomes, and alternatives associated with grade retention are described in the following three sections.

**Factors**

Surfacing from the research on retention are the many factors that play a part in determining whether a student is retained or promoted to the next grade level. The following research question regarding factors associated with retention was addressed in this study: What factors most influence a teacher’s recommendation to retain a student? Elementary teachers agreed or strongly agreed that a student’s maturity level, academic performance, and birth date are factors they use to determine if a student is retained. Elementary teachers disagreed or strongly disagreed that race, gender, socioeconomic
background, and grade level mastery were factors they used to determine if a student should be retained. Elementary teachers were inconsistent (46% disagreed, 27% agreed, and 16% were neutral) regarding whether students’ not meeting grade level standards was a factor related to retention.

**Outcomes**

The perception is that one more year in the same grade should generate positive outcomes regarding academic performance. However, research does not support the use of grade retention as a means to increase academic performance. The following research question regarding outcomes associated with retention was addressed in this study: What outcomes are perceived to be most likely to occur when retaining a student? Elementary teachers agreed or strongly agreed that a student’s increased maturity level, academic performance, and their long-term success in school are outcomes associated with grade retention. Half of the elementary teachers were neutral regarding their perceptions that retention has a positive effect on a student’s life. Teachers disagreed or strongly disagreed that students who are retained will be positive leaders in the class the following year.

**Alternatives**

Research indicates that there is little to be gained from grade retention and promotes the use of effective alternatives for low-achieving students. The following research question related to alternatives associated with retention was addressed in this study: What factors are perceived to be the most effective alternatives to grade retention? Results showed that elementary teachers agreed or strongly agreed that differentiated instruction is an effective alternative to grade retention. Summer school, the Triumphs
Reading Program, afterschool reading clubs, multiage classrooms, and looping were not found to be effective alternatives that elementary teachers utilized in lieu of grade retention. However, teachers disagreed or strongly disagreed that social promotion was an effective alternative to grade retention.

An interesting finding was that 98% of the teachers in this study stated that academic performance is a factor that influences their decision to retain a student. Conversely, only half of these same teachers agreed or strongly agreed that academic performance increases the following year the student is retained. One would think that if a teacher used a student’s performance as a factor when retaining that the retention would produce increased performance; why else would a teacher make the recommendation?

It was surprising that teachers disagreed that meeting grade level standards was not a factor they use when retaining students. Academic performance and grade level standards seem to be closely related. If students have mastered the grade level standards then they would demonstrate high academic performance. Moreover, if students have not mastered grade level standards then they would exhibit lower academic performance thus prompting a recommendation from the teacher for retention.

Findings Related to the Literature

The research provides support for both sides of the debate regarding retention and promotion. However, the research that supports the use of retention is based on the perceptions of educators or parents and not achievement trajectories. According to Jimerson et al (2004), "initial improvements in achievement may occur the following year the student is retained. However many research meta-analyses show that achievement gains decline within 2 to 3 years" (p.2). Teachers have limited knowledge
regarding the research on grade retention, thus creating a gap between research and practice (Xia and Glennie, 2005). For example, teachers often compare the retained students’ achievement the second time they are in the grade with the achievement the first time they were in the grade. This type of comparison produces false conclusions regarding the effects of retention. In contrast, the comparison should be made between the retained student and a similar student who was promoted. Research shows that retained students would have made just as much or more academic progress without the retention (Xia and Glennie, 2005).

Research conducted in the Park Hill School District regarding maturity as a factor used when retaining a child supports previous research by Abidin, Golladay, and Howerton (1971). They found that 28% of the time, teachers who retained students recorded immaturity on the student’s cumulative folders as the reason for retention.

The results of the Park Hill research study regarding the factors of increased maturity level, academic performance, and birth date support the research conducted by Hesse (2002). Hesse surveyed kindergarten teachers in central Minnesota to gather their perspectives on factors associated with grade retention. Results from Hesse’s study showed that the strongest factors associated with kindergarten student retention were academic performance, maturity level, and a student’s birth date. In contrast to Holmes and Matthew (1984), the Park Hill research found that 98% of the elementary teachers agree or strongly agreed that academic performance is a factor that influences their decision to retain a student. However, only 51% of the teachers agreed or strongly agreed that academic performance increases the following year the student is retained.
While Hesse (2002) and the Park Hill research did not find that teachers use race, gender, or socioeconomic status as factors when retaining students, research indicates that some groups of children are more likely to be retained than others. According to Meisels and Law (1993), who examined data from the National Educational Longitudinal Study, found 29.9% of African American students were retained, as compared to 17.2% of White students. Thirty-three point nine percent of students from low socioeconomic backgrounds were retained as compared to 8.6% of students from higher socioeconomic groups. Jimerson (2004) found that those children who are at highest risk for retention are Black or Hispanic males, live in poverty, have a late birthday, have frequent school changes, have reading and behavior problems and low self-esteem.

Studies examining student adjustment and achievement through high school and beyond report various negative outcomes associated with grade retention (Jimerson, 1999). Holmes and Matthews’ (1984) meta-analysis of research comparing promoted and non-promoted students discovered differences between the two groups in each area that was compared. The retained students were found to have lower academic achievement, poorer personal adjustment, lower self-concept, and greater dislike of school when compared to their promoted peers.

Regarding outcomes associated with grade retention, teachers in the Park Hill School District agreed or strongly agreed that maturity, academic performance, and long-term success in schools were outcomes they associated with grade retention. These results concur with the research conducted by Nicholson (2005) in a South Carolina school district. Nicholson found that more than 90% of kindergarten teachers indicated that students benefited from grade retention by gaining maturity the following year.
Three fourths of the teachers surveyed indicated that grade retention improved academic performance, increasing student chances for long-term success in school. In contrast, teachers in the Park Hill School District did not agree or strongly agree that retention would have a positive effect on a student’s life, would increase student confidence, or that students would be positive leaders in class the following year of the retention. The Park Hill research does not support the findings from Nicholson’s study in South Carolina. The difference in the results may be due to the fact that only kindergarten teachers were sampled in South Carolina compared to this study in the Park Hill School District that surveyed kindergarten through fifth grade teachers.

The Park Hill research study does not support the research conducted by Zimny (2003) in the Dallas Independent School District. Zimny found that promoted students performed significantly better on the reading and math portions of the Stanford 9 Test than did the retained students by the time they had completed fifth-grade. These finding could change if the researcher would continue to follow the retained students through their high school years. As Holmes and Matthew (1984) found, retained students have lower academic achievement, poorer personal adjustment, lower self-concept, and greater dislike of school when compared to their promoted peers.

The research from the Park Hill School District found that teachers agreed or strongly agreed that an outcome from grade retention was that a student would have long-term success in school. Conversely, they disagreed or strongly disagreed that retention would have a positive effect on a student’s life. Research described in chapter two depicts dismal long-term outcomes for retained students, regardless of the grade level in which the students were retained. According to Jimerson, Anderson and Whipple (2002),
research between 1911 and 1999 has found no positive evidence for retaining students. In addition, Holmes (1989) completed a meta-analysis of research on retention and found that 85% of the total studies showed negative effects from retention.

While many accept that retention is not the ideal solution for students who are struggling in schools, the lack of clearly communicated, practical alternatives could be preventing schools from attempting other strategies to ensure student learning. Differentiated instruction was the only alternative supported by the Park Hill research. According to Protheroe (2007), “While it is important for educators to stay current on research on retention, it is even more important that they direct increased—and smarter—school efforts toward providing differentiated instruction that reduces the incidence of student failure” (p. 33). Park Hill teachers did not perceive summer school, multiage grouping, extended day, early reading programs, and looping as effective alternatives. Jimerson’s (2004) research does support the use of these strategies in lieu of retention. Teachers might have considered looping and multiage grouping as alternatives if they were more frequently practiced in the Park Hill School District where the sample was taken. Currently, no elementary schools practice multiage grouping, and the use of looping as a strategy is used only in a few classrooms across the district.

Alternatives to grade retention are essential whenever a student is struggling. When considering the pros and cons of a decision to retain or promote a student, it is vital to articulate to educators and parents that a century of research has failed to show the benefits of grade retention over promotion to the next grade for any group of students. A review of the research literature has shown that preschool programs, systematic assessment strategies, early reading programs, school-based mental health programs,
summer school, tutoring programs, age-appropriate and culturally sensitive instructional strategies, and student support teams are evidence based alternatives to grade retention. Therefore, the focus must be on implementing research-based intervention strategies to promote social and cognitive competence and facilitate the academic success of all students (Jimerson, 1999).

Conclusions

Implications for Action

The implications section of this chapter describes the practical approaches that incorporate the research results into practice (Roberts, 2004). Based on this research study it is recommended that the Park Hill School District examine their policy on grade retention to see if it includes a systematic plan for the students during the years following the retention. Typically, teachers only know how students perform the immediate years following the retention. Therefore, they have a narrow view of the long-term effects on achievement. According to the Park Hill School District policy on retention (IKE – R), the final step in the retention process is to conduct a conference with parents and school personnel, and to sign a form letter stating agreement with the decision to retain. There is no formal plan in the policy for the student the following year other than having them repeat the same grade and the same program that was not effective the first time (Park Hill School District 2006). Embedded within policy should be requirements that address the factors related to why the retention was recommended. Elementary teachers within the Park Hill School District indicated that they use academic performance as a determining factor regarding retention; however, only half of these same teachers felt that retention improved academic performance the following year. There is a degree of
perplexity between teachers’ perceptions of the factor academic performance and the outcome of improving academic performance. Teachers agreed or strongly agreed academic performance was an important factor when retaining a student, but they disagreed or strongly disagreed that increased academic performance would result from the retention. The elementary teaching staff in the Park Hill School District should be made aware of the research and the inconsistency that exists regarding academic performance as a factor and an outcome so that more informed decisions could be made.

Regarding effective alternatives, the elementary teachers in Park Hill agreed or strongly agreed that differentiated instruction was an effective alternative to grade retention. However, approximately 38% of the teachers agreed or strongly agreed that afterschool reading clubs, multiage classrooms, the Triumphs Reading program, summer school, and looping were effective alternatives. Even though the perceptions of the Park Hill teachers did not indicate agreement on any other alternative other research does support the use of intervention programs that address the factors that place students at risk for school failure; specifically, those interventions that target the individual learning needs of students. The Park Hill School District should examine research-based alternatives that individualize instruction for students, and then provide the necessary training for teachers to implement these strategies. Integrating research-based interventions and instructional strategies into school policies and practices will enhance academic and social outcomes for all students.

Recommendations for Future Research

The following recommendations for future research have been prepared by the researcher. The first recommendation is to replicate this study in rural, urban, and
suburban school districts in Missouri. The researcher could then analyze the degree to which school districts have similar perceptions or if the conclusions are unique to the teachers in the Park Hill School District.

The second recommendation is to conduct a study on the effectiveness of reading remediation programs such as the Triumphs Reading Program so that schools could determine which reading research-based programs are effective. According to research, the most notable academic deficit for retained students at the elementary level is in reading (Jimerson, 1999). Therefore, it is crucial that schools utilize an intense reading program to address the literacy needs of struggling students.

The third recommendation is to conduct further research on probable factors and outcomes associated with retention. Possible outcomes related to retention such as academic performance, dropping out of school, behavior, and self-esteem could be researched. Data should be included from students, parents, teachers, and principals, as these groups are vital to the educational process and the decision for retention or promotion.

The fourth recommendation is to conduct research in school districts that retain a disproportionate number of minority students. The data should be disaggregated by race to determine whether a disproportionate number of students from a minority group are retained. In addition, the data should be disaggregated by teacher to determine if certain groups or grade levels retain more students than others.

The fifth recommendation is to conduct additional studies that compare the perceptions of elementary teachers who teach different grade levels and who have varying levels of teaching experience on factors, outcomes, and alternatives to grade
retention. More studies could compare the perceptions of teachers who have and who have not ever retained a student on factors, outcomes, and alternatives. In addition, the research might look at academic performance as a factor and an outcome to compare teachers’ perceptions.

Concluding Remarks

The current study was conducted, first, to determine teachers’ perceptions of factors that contribute to the determination of whether to retain or promote a student; second, to determine teachers’ perceptions of the outcomes most likely to occur when a child is retained; and, third, to determine teachers’ perceptions of the potential alternatives related to grade retention. The research study shows that Park Hill elementary teachers agreed or strongly agreed that maturity, academic performance, and birth date are factors they associated with grade retention. Teachers also agreed or strongly agreed that maturity, academic performance, and long-term success in school were outcomes associated with retention. Finally, teachers agreed or strongly agreed that differentiated instruction was an effective alternative to grade retention. However, teachers did not agree or strongly agree that afterschool reading clubs, multiage classrooms, the Triumphs Reading program, summer school, and looping were effective alternatives.
REFERENCES


Minnesota, Minneapolis.

Publications.

century: Their potential and what it takes to achieve it. *Issues and Opportunities

/2008/01/03/sow0103.h27.html.

and strategies for students in the social and behavioral sciences*. Thousand Oaks,
CA: Corwin Press.

Mantzicopoulos, P. Y. (1997). Do certain groups of children profit from early retention?
A follow-up study of kindergartners with attention problems. *Psychology in
Schools, 34*, 115-127.

on March 6, 2009 from http://school.familyeducation.com/developmental-
delay/parents-and-school/38672.html.

programs for complete reading intervention solution.* [Press release]. Retrieved


Appendix A: Permission to Use Survey
Halverstadt, LuAnn

To: Julie Kanagy
Subject: RE: permission to use your survey

-----Original Message-----
From: Julie Kanagy [mailto:jkanagy@oconee.k12.sc.us]
Sent: Tuesday, June 24, 2008 2:26 PM
To: Halverstadt, LuAnn
Subject: RE: permission to use your survey

I would consider it an honor. Let me know if I can help you in any way. I am interested in
knowing how your research turns out. Thanks, Julie Kanagy

From: Halverstadt, LuAnn [mailto:Halverstadtl@parkhill.k12.mo.us]
Sent: Tue 6/24/2008 11:40 AM
To: Julie Kanagy
Subject: permission to use your survey

Julie,

My name is LuAnn Halverstadt, I am principal at Graden Elementary in Kansas City, Missouri.
I am currently working on my doctoral dissertation. My topic is retention and in my
searching I came across your dissertation. I was hoping to get your permission to use your
survey instrument that you developed. It fits nicely with the research I have been doing
and I would like to expand your research to my district to see if we have similar
perceptions. I am wanting to make the following recommendations:

1. Demographic data related to grade level taught, number of years taught, and whether or not
   the respondent had ever retained a student were added to the survey.
2. The scale for the survey was changed from a yes/no format to a 5-point Likert scale.
3. Modifications on three of the items relating to alternatives to grade retention were made
to reflect district specific programs.

Thank you and I look forward to hearing from you,

LuAnn

NOTE: Email is provided to employees for the instructional and administrative needs of the
district. E-mail correspondence to/from a district e-mail account may be considered public
information and subject to release under the South Carolina Freedom of Information Act or
pursuant to subpoena.
Appendix B: Cover Letter and Survey
Dear Park Hill Classroom Teachers

My name is LuAnn Halverstadt. In addition to being the principal at Graden Elementary, I am currently a doctoral student at Baker University conducting a research study titled Elementary Retention: Factors, Outcomes, and Alternatives Perceived By Elementary Teachers. The purpose of my study is to gather perspectives on the issue of grade retention in the Park Hill School District. This study was approved by Dr Jeff Klein, Executive Director of Research, Assessment and Evaluation.

The information provided through the questionnaire will be presented to the superintendent’s cabinet, the elementary administrative team, and each elementary staff to provide research on the issue of grade retention. Your responses to this study are anonymous; no individual will be identified with his or her responses or be identified by school. The responses are confidential as no individual results will be shared. Your participation in the survey is voluntary, once you click on the survey link you are giving your consent to participate.

Your responses are very important to the success of my study. The purpose of this study is to determine the factors associated with grade retention, probable outcomes and potential alternatives as perceived by elementary teachers, in the Park Hill School District. The information you provide is important for students and school districts, when deciding to retain or promote a student. Completing the questionnaire should require no more than 15 minutes.

I appreciate you completing and submitting the questionnaire by February 20, 2009. If you have any questions or if you would like a copy of the results of this study, you may contact me via email at Halverstadt@parkhill.k12.mo.us

Regards,

LuAnn Halverstadt, Principal
Survey for Elementary Teachers Regarding Grade Retention

Click on a circle to indicate the grade you teach
Kindergarten	First	Second	Third	Fourth	Fifth

Indicate the number of years you have been employed as a teacher:
___ 0-5 years	___ 6-10 years	___ 11 - 15 years	___ 16+ years

Have you ever retained a student?
___ yes	___ no

Please click the response that best represents your perception.
1 = Strong Disagree 2 = Disagree 3 = Undecided 4 = Agree 5 = Strongly Agree

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<td>7. A student should be promoted only if he/she achieved grade level mastery</td>
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<td>8. Students who are retained are more mature the following year.</td>
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<td>9. Students who are retained gain confidence the following year.</td>
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<td>10. Grade retention increases the student’s academic performance the following year.</td>
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<td>11. Grade retention increases the chance for better long-term success in school.</td>
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<td>12. Grade retention has a positive affect on a student’s life.</td>
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<td>13. Students who are retained are positive leaders in the class the following year.</td>
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<td>14. Summer School is an effective alternative to grade retention.</td>
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<td>16. The Triumphs Reading program is an effective alternative to grade retention</td>
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<td>17. Afterschool reading clubs are an effective alternative to grade retention.</td>
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<td>18. Multilevel classrooms are an effective alternative to grade retention.</td>
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<td>19. Social promotion is an effective alternative to grade retention.</td>
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<td>20. Looping is an effective alternative to grade retention.</td>
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Appendix C: Park Hill Approval
Research Checklist and Approval

Date: January 7, 2008

Submitted to: Director of Research, Evaluation & Assessment

Submitted by: LuAnn Halverstadt

Research Proposal Title: Retaining Children in Elementary School: Perceptions of Elementary Teachers

Principal Investigator(s): LuAnn Halverstadt

Checklist

☐ Completed "Application to Conduct Research in PHSD"
☐ Copy of "Informed consent" letter to study population/parents
☐ Copies of measurement instruments
☐ Approval from university human subjects committee (IRB) if applicable
☐ Three (3) copies of your complete application package

Approval of this research is contingent on adherence to district procedures as outlined in the document entitled "Application to Conduct Research" and the information provided with the application. The district must be notified of any substantive changes to the information contained in the application. The district reserves the right to withdraw approval of research if the research is deemed to no longer be in the best interests of the Park Hill students, staff, or the district.

Research Application: ☐ Approved ☐ Denied Date: 1-14-08

Signatures

Director of Research, Evaluation, and Assessment

N/A

Principal

Principal

Principal

1/14/2008
Application to Conduct Research in PHSD

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I have read and understand the process of application to conduct research in the Park Hill School District. I also verify that the information provided in this application is accurate to the best of my knowledge.

Signature: ________________ Date: 1/14/09

Is this study part of your work for a degree?

☐ Yes  ☐ No

If Yes, complete the following:

☐ Ph.D.  ☐ Ed.D.  ☐ M.A./M.S

☐ Undergraduate  ☐ Other

University or College: Baker University

Date of IRB Approval (or date of application if pending): February 9, 2009

Advisor's Name: Dr. Susan Rogers

Advisor's Telephone Number: 913-491-4432

1) Title and purpose of study

ELEMENTARY RETENTION: FACTORS, RESULTS, AND ALTERNATIVES PERCEIVED BY ELEMENTARY TEACHERS, KINDERGARTEN THROUGH FIFTH GRADE. The purpose of this study is to determine teachers’ perceptions on factors such as birth date, maturity level, gender, and socioeconomic status that contribute to grade retention. The study also examined outcomes, such as increased confidence, long-term success in school, positive effect on life, improved academics, and maturity level that contribute to grade retention. In addition, the study investigated teachers’ perceptions on the potential alternatives, such as summer school, individual reading plans, looping, multi-age classes, and social promotion related to grade retention in the Park Hill School District.

2) Timeline

February 2009

3) Benefits to the district

The information provided through the study will be presented to the superintendent’s cabinet, the elementary administrative team, and each elementary staff to help them when making decisions on whether to retain or promote a student. Benefits of this survey could yield a change in the retention policy for the Park Hill School District.

4) Research Design Summary

Research Questions:
What factors most influence a teacher’s recommendation to retain a student?
What outcome is perceived to be the most effective when retaining a student?
What factor is perceived to be the most effective alternative to grade retention?
The design of this study is survey research. The survey instrument was modified from a previous study - survey is attached.

2/8/2009
5) **Assurance of anonymity of PHSD students & staff**
   Responses to this study will be confidential; no individual will be identified with his or her responses or be identified by school.

6) **Risks of the research**
   No risks of the proposed investigation to students, staff, or the district.

7) **District involvement**
   Permission to survey the elementary classroom teachers, kindergarten through fifth grade. A total of 204 teachers will be surveyed.

8) **Funding Sources**
   None

9) **IRB approval**
   Pending
Appendix D: IRB and Approval Letter
IRB Request

Date February 2, 2009

IRB Protocol Number

(IRB use only)

I. Research Investigator(s) (students must list faculty sponsor first)

Department(s) School of Education Graduate Department

Name  Signature
1. Dr. Susan Rogers  
2. Dr. Willie Amison
3. Dr. Sandra J. Schumm
4. Dr. James Singer

Principal investigator and faculty sponsor contact information (Name, address, phone, and email):

Principal investigator: LuAnn Halverstadt
Phone: 816-820-6831
Email: halverstadtl@parkhill.k12.mo.us

Faculty sponsor: Dr. Susan Rogers
Phone: 913-344-1226
Email: srogers@bakeru.edu

Expected Category of Review: X Exempt ___ Expedited ___ Full ___ Renewal

II. Protocol Title
Elementary Retention: Factors, Outcomes, and Alternatives Perceived By Elementary Teachers, Kindergarten Through Fifth Grade.

III. Summary:
In a sentence or two, please describe the background and purpose of the research.
The purpose of this study is to determine the perceptions of elementary teachers on factors that influence grade retention, the probable outcomes that influence grade retention, and effective alternatives to grade retention in the Park Hill School District. In addition, the study addressed demographic data relating to years of experience for the respondents, the grade level taught by each respondent, and whether the respondent had ever retained a student. The results of this study will be made available to the Park Hill School District and could necessitate the need to revise the current policy on retention. In addition, elementary teachers could change their philosophies, perceptions, and practices regarding retention. Finally, the results of the study will add to the current literature on grade retention and further promote effective alternatives to grade retention.
Briefly describe each condition or manipulation to be included within the study.
There is no manipulation to be included within this study. The condition of this study will involve collecting survey data from all elementary classroom teachers in grades kindergarten through fifth grade in the Park Hill School District.

What measures or observations will be taken in the study? If any questionnaire or other instruments are used, provide a brief description and attach a copy.
Participants in this study will be asked to complete an online Zoomerang survey containing 20 items divided into 3 parts, part 1 addresses items related to factors that influence grade retention, part 2 addresses the probable outcomes that influence grade retention, and part 3 addresses effective alternatives to grade retention. The beginning of the survey will include the following demographic data: years of teaching experience, grade level taught, and if the teacher had ever retained a student. The survey is being modified from a previous study with permission. See attached copy of the survey.

Will the subjects encounter the risk of psychological, social, physical or legal risk? If so, please describe the nature of the risk and any measures designed to mitigate that risk.
Subjects will not encounter any type of risk because the data will be collected anonymously.

Will any stress to subjects be involved? If so, please describe.
Participants will not be subjected to any stress since the data will be collected anonymously.

Will the subjects be deceived or misled in any way? If so, include an outline or script of the debriefing.
Participants will not be deceived or mislead in any way. The survey will be sent electronically and will include a cover letter that states the results are anonymous and that individual results will not be shared. See attached email.

Will there be a request for information which subjects might consider to be personal or sensitive? If so, please include a description.
No requests for information of a personal or sensitive nature are planned for this study.

Will the subjects be presented with materials which might be considered to be offensive, threatening, or degrading? If so, please describe.
No offensive, threatening or degrading materials will be used in this study.

Approximately how much time will be demanded of each subject?
Approximately 15 minutes will be required for each subject to complete the electronic survey. Subjects will only be required to complete the survey once.
Who will be the subjects in this study? How will they be solicited or contacted? Provide an outline or script of the information which will be provided to subjects prior to their volunteering to participate. Include a copy of any written solicitation as well as an outline of any oral solicitation.
All classroom elementary teachers, grades kindergarten through fifth teaching within the Park Hill School District during the 2008 – 2009 school year will receive the survey electronically. The survey will also collect demographic data relating to years of experience, grade level taught, and if the subject has ever retained a student. The demographic data cannot be used to identify individual teachers.

What steps will be taken to insure that each subject’s participation is voluntary? What if any inducements will be offered to the subjects for their participation?
All classroom elementary teachers, grades kindergarten through fifth grade will be selected to participate in the survey. Prior permission from Dr. Jeff Klein, Executive Director of Research, Assessment and Evaluation in the Park Hill School District has been granted. The following information is included in the cover letter: Responses to this study are anonymous; no individual will be identified with his or her responses or be identified by school. The responses are confidential as no individual results will be shared. No inducements will be required for this study.

How will you insure that the subjects give their consent prior to participating? Will a written consent form be used? If so, include the form. If not, explain why not.
The surveys will be sent to all grade level teachers, grades kindergarten through fifth, so the consent to participate is implied when the teachers complete the survey and is included in the cover letter. Completing the survey is voluntary for the teachers.

Will any aspect of the data be made a part of any permanent record that can be identified with the subject? If so, please explain the necessity.
No aspect of the data will be made a part of a permanent record that will individually identify any subject participating in this study.

Will the fact that a subject did or did not participate in a specific experiment or study be made part of any permanent record available to a supervisor, teacher or employer? If so, explain.
All classroom teachers, grades kindergarten through fifth grade were selected to participate in the survey. The responses to this study are anonymous; no individual will be identified with his or her responses or be identified by school. The responses are confidential as no individual results will be shared or part of any permanent record.

What steps will be taken to insure the confidentiality of the data?
Responses to this study are anonymous; no individual will be identified with his or her responses or be identified by school. The responses are confidential as no individual results will be shared. No inducements will be required for this study. The survey will be sent electronically to insure anonymity. The data from survey will be retrieved from Zoomerang. Dr. Klein, Director of Research and Evaluation for the Park Hill School District will download the data from the survey so that confidentiality is maintained.

If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subjects or society?
There will be no risks to selected respondents.

Will any data from files or archival data be used? If so, please describe
No data will be retrieved from file.
23 February 2009

LuAnn Halverstadt
Graduate School of Education
Baker University

Dear Ms. Halverstadt:

The Baker University IRB has reviewed your research project application (M-0058-0209-0223-G) and approved this project under Exempt Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

The Baker University IRB requires that your consent form must include the date of approval and expiration date (one year from today). Please be aware of the following:

1. At designated intervals (usually annually) until the project is completed, a Project Status Report must be returned to the IRB.
2. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
3. Notify the OIR about any new investigators not named in original application.
4. Any injury to a subject because of the research procedure must be reported to the IRB Chair or representative immediately.
5. When signed consent documents are required, the primary investigator must retain the signed consent documents for at least three years past completion of the research activity. If you use a signed consent form, provide a copy of the consent form to subjects at the time of consent.
6. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.

Please inform Office of Institutional Research (OIR) or myself when this project is terminated. As noted above, you must also provide OIR with an annual status report and receive approval for maintaining your status. If your project receives funding which requests an annual update approval, you must request this from the IRB one month prior to the annual update. Thanks for your cooperation. If you have any questions, please contact me.

Sincerely,

Marc L'Carte, PhD
Chair, Baker University IRB

cc: Susan Rogers
Appendix E: SPSS Output
T-Test

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### One-Sample Test

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