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EFFECTS OF COLLABORATION ON GRADE RETENTION

DECISION MAKING

By

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ABSTRACT

This study examined the impact of collaboration on both the processes and the outcomes of grade retention/promotion decision making. Fifty participants were recruited to participate in the study, with the requirement of having taught at least 1 full year as a classroom teacher in grades K-5. The study involved participants making retention/promotion decisions for 3 vignettes, each depicting a child through a description of characteristics. In addition, participants were asked to list all the relevant factors they considered in making the decision for each vignette. Repeated measures analysis of variance (ANOVA) showed that for 2 of 3 vignettes, group collaboration had a significant impact on the polarization of decisions. In addition, for all 3 vignettes, participants who collaborated before making the decision cited fewer total factors, and a fewer number of unique factors that they considered in making the decision. Results from the study suggest that group collaboration does play a significant role in affecting both the grade retention/promotion decision-making process, as well as the decision outcome.

CHAPTER 1

INTRODUCTION

Student grade retention, also referred to as non-promotion, grade repetition, or simply failing or flunking, is a very controversial practice throughout K-12 educational institutions in the United States. Grade retention is the mandated repetition of a grade level, and the accompanying skills and assignments, for a specific student. Across the United States, the numbers accompanying retention rates are staggering; five to ten percent of students are retained annually (over 2.4 million students each year), and research suggests that 30 to 50 percent of all students will be retained at least once by ninth grade (Jimerson & Wilson, 2001; Murray & Murray, 2001). According to a Florida Department of Education report (2005a), in the 2003-04 school years, over 200,000 students (8.1%) were retained in the state of Florida alone, with over 60,000 students retained in grades K-3. Despite the high prevalence of this practice, the research literature suggests very little support for the retention of students, with a large body of research citing severe negative impacts including poor long-term academic performance, adverse socio-emotional adjustment, and a strong correlation with student drop out rates (Balitewicz, 1998; Dennebaum & Kulberg, 1994; Holmes & Matthews, 1984; Jimerson, 1999; Jimerson, Anderson & Whipple, 1992; McCollum, Cortez, Maroney & Montes, 1999; Reynolds, 1992; Roderick, 1994; Shepard & Smith, 1990). In addition, the threat of retention practices serves as the largest cause of stress to a student's life, ranking even higher than the loss of a parent or going blind (Anderson, Whipple, & Jimerson, 2002).

Although much research has addressed the effects of retention practices on students' outcomes, very little research has addressed the decision making process that teachers experience in making retention decisions; specifically how retention decisions are made, by whom, and what different effects may be seen in student outcome depending on the decision making process (Eide & Showalter, 1999). The current study will begin to fill this void in the literature by examining the process by which grade retention decisions are made. More specifically, the purpose of this study will be to evaluate the role of collaborative decision making in influencing both the outcomes of grade retention decisions, as well as the factors that are considered in the decision making process.

Understanding grade retention from a decision making perspective is very important, as societal pressures have led to more stringent demands for accountability from students, teachers,

and school administration (Byrnes & Yamamoto, 1986). This has led to educational policy movements away from social promotion, the practice of promoting students to the next grade who have failed to meet performance standards or complete required coursework (United States Department of Education, 1999), towards more objective and defined achievement standards in order to be promoted. In addition, legal precedents are pushing retention policies towards a demand not only for more standardized decision making, but also towards more collaboration among multiple parties, representing the totality of student interests. Most past litigation has been sparked by decisions that were based on information yielded from only a single individual, like a school principal, and legal precedents call for decisions to be “made by a committee of educational professionals” (Murray & Murray, 2001, p. 39). As a result, many district policies mandate that decisions be made by a school-wide committee, or at the very least, by both a representative from the school and a parent or guardian (Freedman, 2006; Hartke, 1999). In view of these movements, it is important to assess how collaboration might serve to impact both the process and outcomes of the retention decision.

Years of group dynamics literature suggest that collaborative decisions can lead to unique phenomena, resulting in both positive and negative implications, which need to be accounted for by practitioners. One such example is the group polarization phenomenon, in which collaborating group members tend to collate towards more extreme positions than held prior to group discourse (Myers & Lamm, 1976). Although group polarization has been extensively researched in social psychology, law studies, business, and various other disciplines, addressing the group polarization phenomenon in educational decision making has been virtually neglected in both research and teacher training programs in education (Gutkin & Nemeth, 1997). Furthermore, no research could be found that has addressed this phenomenon in grade retention research.

Group polarization typically does not change the direction of a response, but rather strengthens the response towards the same initial direction as the average of individual responses before collaboration. Group polarization has been described through metaphor akin to developing a picture from exposed film; while the picture, like decisions, may be predetermined, collaboration, like film developing, will bring it out stronger (Myers & Lamm, 1976). So why would looking at group polarization be important, especially in grade retention decisions, if collaborative discourse does not change the direction of the outcome decision? Gutkin and

Nemith (1997), in a literature review looking at the relevance of group processes on school decision making efforts, suggested that, while polarization does not change the direction of the outcome, it does strengthen commitment towards such an outcome. More specifically, in looking at grade retention decisions, if group members are more committed to a decision after collaborative discourse, they may be more likely to design and implement strategies relating to the decision that coincide with such commitment levels (Gutkin & Nemith, 1997). For example, if school retention decision committee members are more committed after group discussion to the decision to retain a student, they may be more likely to expend greater efforts in designing and implementing strategies to help the student achieve greater academic and social outcomes in the repeated year. Likewise, if a committee is similarly polarized towards a retention decision outcome, they may be more likely to expend greater efforts to see that outcome carried out, regardless of interference by outside members.

Past research also suggests that collaboration can impact the factors and potential solutions that are taken into account when making a decision. In his book, *The Wisdom of Crowds: Why the Many Are Smarter Than the Few and How Collective Wisdom Shapes Business, Economies, Societies and Nations* (2004), Surowiecki suggests (through citations of mostly anecdotal references) that a diverse group of individuals with varying perspectives is more likely to better represent the totality of possible outcomes than one individual, thereby increasing the probability of making more appropriate decisions. In addition, the Nobel Prize winning economist Kenneth Arrow suggests that it is becoming “increasingly recognized that the average opinions of groups is frequently more accurate than most individuals in the group” (Arrow, 2005, p.12).

Although the idea of group wisdom has an intuitive and persuasive nature, research has challenged, and all but disproved, its validity (Bouchard & Hare, 1970; Michener, DeLamater, & Myers, 2004). Not only do groups *not* generate a greater quantity and diversity of solutions and ideas than individuals, but rather, they generate significantly less (Bouchard & Hare, 1970; Bouchard, Barsaloux & Drauden, 1974; Paulus, Larey, & Ortega, 1995). Yet it is important to note that, despite the tendency for groups to generate fewer total numbers of factors and fewer numbers of unique factors, individuals still rate their idea generating abilities higher when they collaborate with others in a group setting, as opposed to when they generate ideas individually (Paulus, Larey, & Ortega, 1995). In the case of grade retention decisions, while individuals may

feel more confident in their abilities to consider the totality of student factors in order to make the most appropriate decision, collaboration may likely serve to limit the factors that are considered in making decisions.

To restate, the purpose of this study will be to explore the effects of collaborative decision making in grade retention decisions. Utilizing a methodological framework guided by past research in the fields of social psychology and educational research, the study sought to provide explanations regarding how collaborative grade retention decision making processes differ from individual decision making processes in both procedures and outcomes. More specifically, the study will address the following research questions.

- 1) Do collaborative grade retention decisions cause individuals with similar initial preferences towards decisions to congregate towards a polarized viewpoint following collaborative discourse (group polarization phenomenon)? It is hypothesized that following collaborative discourse, the average post-group collaboration response will tend to be more extreme in the same direction as the average of the pre-group collaboration responses in the grade retention decisions. Group dynamics literature from a variety of research disciplines, including law, business, and sociology, have documented in both hypothetical and real world experiences that individuals, following collaboration discourse, tend to display group polarization phenomenon (Myers & Lamm, 1976).
- 2) Do collaborative grade retention decisions influence individuals to consider a different total number of decision factors than those made without collaboration? It is hypothesized that that the average amount of factors generated by individuals working alone in making grade retention decisions will be greater than the average amount of factors generated by individuals working in groups. Research suggests that groups generate fewer total quantity of ideas than do individuals who work alone (Bouchard, Barsaloux & Drauden, 1974; Bouchard & Hare, 1970; Paulus, Larey, & Ortega, 1995).
- 3) Do collaborative grade retention decisions influence individuals to consider a different number of unique decision factors than those made without collaboration? It is hypothesized that individuals who collaborate in grade retention decisions will consider fewer numbers of unique factors than those who do not participate in collaboration.

Research suggests that groups generate fewer unique ideas than do individuals who work alone (Bouchard, Barsaloux & Drauden, 1974; Paulus, Larey, & Ortega, 1995).

Chapter 2 will provide insight into what is known about the process of grade retention decision making, particularly in regards to collaborative decision making. It will begin with an overview of literature regarding grade retention policies and related student effects of retention practices. Next, an examination of literature on the processes of grade retention decision making will be presented, focusing on who makes the decision and what main factors are considered in making the decisions. Chapter 2 will conclude with a section suggesting how these decision making processes may differ when decisions are made in a group setting using a collaborative decision making structure, as opposed to an individual setting; in addition, how these different processes may lead to different outcomes, and how such differences can be attributed to grade retention decisions will be addressed. This final section will include an overview of literature on group polarization, especially literature with highest relevance to grade retention decisions. In addition, this section will review the literature regarding the effects of group collaboration impacting what factors are considered during decision making processes. In Chapter 3, the methodology of the study will be presented, detailing the participants, instruments, and procedure to be utilized in assessing collaborative decision making effects. Next, in Chapter 4, a full description of the analyses frameworks and results will be presented. Finally, in Chapter 5, a discussion of the results and implications towards both future research and policy will be presented.

CHAPTER 2

LITERATURE REVIEW

Grade Retention Policies

Despite research indicating negative impacts from grade retention, in more recent times retention has served as a widespread practice in ensuring accountability for students. In many states, if students are not able to perform up to predefined standards of acceptable performance, they are automatically retained. The practice of retaining a student is seen as both a necessary and beneficial practice by many teachers, principals, and the general public, as well as the optimal alternative to social promotion practices (Northwest Regional Educational Laboratory, 2001; Thomas et al., 1992; Tomchin & Impara, 1992; UDaily, 2004; Witmer, Hoffman, & Nottis, 2004). Social promotion is the practice of advancing students to the next grade despite their lack of mastering skills at the current grade level, and has been found to produce similar negative effects akin to grade retention (Bulla & Gooden, 2003; Pierson & Connell, 1992; Riley, Smith, & Peterson, 1999).

Because of pressures for accountability, the federal government has pushed for an end to social promotion; this push was first made clear with the end-of-term policies driven by President Clinton in 1998 and 1999, and has moved to the forefront with the No Child Left Behind (NCLB) Act signed into law in 2002 by President Bush (Bulla & Gooden; United States Department of Education, 2006). NCLB has produced a greater demand for student accountability, which has paralleled a striking increase in student grade retention rates. In addition, NCLB also has lead some practitioners, researchers, and citizens to question whether such standards are attainable for all students (International Reading Association, 1999; Miller, 2005). Florida has been on the forefront of strengthening accountability policies, requiring students to pass the Florida Comprehensive Assessment Test (FCAT) in third grade in order to be promoted; state representatives also suggest that similar state requirements for all grades may be soon coming to prevent social promotion practices (Froman, 2003; Miller, 2005).

So why has retention, despite the research suggesting its lack of positive impact, not only survived, but come to be advocated by policy as the preferred method for dealing with struggling students' progression? For one, research findings are often combated with more practical-sounding political arguments. To use one recent example, the director of Just Read Florida, Florida's state reading initiative, suggested that retention of 3rd grade students stemming

from their low performance on a statewide high stakes test was beneficial for the students because improved reading scores were seen the next year (Miller, 2005). This perspective, however, does not include any comparisons of performance to students with similar academic difficulties, who were promoted to the next grade. Likewise, the perspective only indicates that low performance on a single test had improved over the short term and fails to take into account long term academic performance, performances on different testing criteria, or social and emotional effects stemming from the retention practices.

In addition, the large body of research that does exist on effects of grade retention practices often is not itself perceived as useful by practitioners (Amrein & Berliner, 2003; Witmer, Hoffman, & Nottis, 2004), as some practitioners may find research in general to be misleading or misrepresentative of true facts, causing them to rely more heavily on their own tangible experiences (Tanner & Galis, 1997). For example, past correlational research examining effects of retention policies have shown that students retained in kindergarten score lower on standardized tests later on in their educational careers (Holmes, 1989; Balitewicz, 1998). However this methodology is unable to determine causal direction; whether the anticipated lower grades led to student retention or whether retention practices led to lower grades remains unclear (Balitewicz, 1998). The following section will review some of this research regarding student effects of grade retention.

The Relationship between Grade Retention and Student Outcomes

An overview of research regarding student outcomes related to retention practices indicates very little support for retention, regardless of grade level (Balitewicz, 1998; Dennebaum & Kulberg, 1994; Holmes & Matthews, 1984; Jimerson, 1999; Jimerson, Anderson & Whipple, 1992; McCollum, Cortez, Maroney & Montes, 1999; Reynolds, 1992; Roderick, 1994; Shepard & Smith, 1990). Some studies have demonstrated no academic benefit associated with the extra year to mature (Beebe-Frankenberger, Bocian, MacMillan & Gresham, 2004; Jimerson, Carlson, Rotert, Egeland, & Stroufe, 1997; Johnson, Merrell & Stover, 1990; Mantzicopoulos, 1997; Mantzicopoulos & Morrison, 1992; Niklason, 1987; Shepard & Smith, 1987, 1989; Thomas et al., 1992) or from transition programs like junior first grade or developmental kindergarten (Allington & McGill-Franzen, 1995; Niklason, 1987). While these studies generally show no short term diminished effects on performance with students retained very early on in their academic careers, generally kindergarten and first grades (McCollum et al.,

1999; Niklason, 1987; Reynolds, 1992; Shepard & Smith, 1987), longitudinal studies conducted on students retained in kindergarten have shown significantly lower scores on standardized tests in reading, language, and math in the sixth grade when compared with students who normally progressed to the first grade (Balitewicz, 1998).

The majority of research suggests that retention practices provide no benefit, and often some detriment, to students. Relationships associated with retention practices have been identified with lower academic achievement, socio-emotional development, and even long-term goals. Since there has been a lack of true experimental research in the field of grade retention, however, the research findings should be interpreted with caution. That is, correlational findings do not provide evidence that retention practices *cause* associated student effects. It is possible that extraneous variables are the causal factors behind both the retention decisions and student outcomes. For example, one cannot imply from the past research that retention causes students to dropout. Rather, low ability may serve as the causal factor behind both the decisions to retain a student and the decision to drop out.

That being said, some past studies have demonstrated a relationship between short and long-term negative academic achievement and social emotional adjustment and retention (Balitewicz, 1998; Holmes, 1989; Holmes & Matthews, 1984; Jimerson, 1999, 2001; Jimerson, Anderson & Whipple, 2002; Jimerson & Kaufman, 2003; Reynolds, 1992; Roderick, 1994; Shepard & Smith, 1990). Research suggests a relationship between short term negative outcomes and retention, including lower academic achievement scores in mathematics, social studies, language arts, work study skills, and grade point average in the years following retention than normally promoted peers (Holmes & Matthews, 1984), as well as low reading performance for students retained in grades two through four (Reynolds, 1992). The relationship between retention practices and an increased risk of students dropping out of school has been explored extensively through research (Jimerson, Anderson & Whipple, 2002; Roderick, 1994; Shepard & Smith, 1990), suggesting that those who have been retained are five times more likely to dropout. Indeed, retention serves as the strongest predictor of student decisions to dropout (Shepard & Smith, 1990; Rumberger, 1995). In addition, studies have shown long term relationships between retention and lower pay wage earnings and employee competency ratings up to age 20 (Jimerson, 1999).

Despite this research, retention is still frequently practiced in public school settings, perhaps because the latency of the detrimental outcomes presumed to be associated with the decision are less likely to be experienced personally by the practitioners making the decisions. As mentioned earlier, research regarding how grade retention decisions are made, specifically the process by which the decisions are made and outcomes enacted, has been largely limited. This may be due to the preponderance of negative outcomes associated with retention practices in past research, and the accompanying ideological movement of researchers towards demanding educational alternatives to retention practices. However, in order to fully understand both the impact of grade retention, and the factors influencing its decisions, research must not focus solely on the end product (the final decision), but also on the process of achieving that end product.

The Grade Retention Decision Making Process

Both available research and practical guidelines synthesizing the grade retention decision making process and the role that collaborative decision making plays in it is scarce and often inconclusive. As Gutkin and Nemith (1997) suggest, “clear cut criteria for group decision making are often lacking in many real-world situations...particularly for those...who work in the social science and human service arenas” (p. 198). In order to better understand the decision making process, multiple sources of literature surrounding the process were explored. The following sections will describe literature from a variety of sources, including educational research literature, literature regarding business and politics, personal accounts obtained from online resources, and through documented interviews from teachers, school professionals, researchers, and the general public. The purpose of this synthesis is to determine an underlying pattern of the grade retention decision making process, in order to apply it to educational research in general. In no way is it intended to explain every grade retention decision made in every circumstance for every student.

The Decision Maker/s. As mentioned earlier, policies outlining minimum academic achievement and high stakes testing have begun serving as gatekeepers in retention-decisions for many elementary school students. To ensure adequate achievement of state standards and to limit the occurrences of social promotion practices, standardized tests are intended in many situations to set more objective standards for making retention decisions. According to Florida law, for example, these standards must be published in a document available to both school faculty,

district representatives, and the general public, in the form of the Pupil (or Student) Progression Plan (Florida Department of Education, 2005b).

Walsh, Smith, and Baturka (1992) investigated the extent to which student placement decisions often depend on what individuals, groups, or policies influence the decision. In an evaluation of a two-year kindergarten program established by a school district, Walsh et al. (1992) found that, among group decisions regarding student placement, outcomes were only actually determined by a small, but powerful few. In addition, they noted that although policy meetings featured a large amount of administrative members, teachers felt that decisions were already established, regardless of their input. Again, this suggests that strong leaders may influence decision outcomes, despite a group comprising a number of different members (Hesselbart, 1975).

Systemic decisions are decisions in which no individual or group can claim sole responsibility (Allen, 2002). Systemic decisions are generally guided through previously established policies or procedures; in these instances, the overall decision maker is intangible. The Sunshine State Standards, along with its accompanying high stakes measure, are an example of such a source of decision making. In the state of Florida, students must attain state standards in order to be promoted. These standards outline criteria for students' academic achievement. Students in Florida are assessed on the guidelines of the Sunshine State Standards via the FCAT (Florida Department of Education, 2004). Past research suggests, overwhelmingly, that retention policies guided by systemic decisions can result in inappropriate and often hazardous decisions (Allen, 2002; Cawelti, 1978; Eide & Showalter, 1999; Harry & Anderson, 1995; Parker-Martin, 2000; Schwager, Mitchell, Mitchell, & Hecht, 1992). These include retaining borderline students, who might have otherwise been promoted, in order to receive district benefits or increased funding for programs (Ferris, 1992) or boost school or district performance rates (McGill-Frazen & Allington, 1993).

In addition to decisions based upon test scores and academic standards, some retention decisions are being standardized through criterion lists. These lists are intended to objectively identify, through student characteristics, for which students retention is most appropriate. One device intended to make objective retention decisions based on student characteristics is Light's Retention Scale. The scale is meant to identify which students are best suited for retention based on 19 criteria: "sex, age, knowledge of the English language, physical size, present grade

placement, previous grade retentions, number of siblings, parents' school participation, experiential background, transiency, school attendance, estimates of intelligence, history of learning disabilities, present level of academic achievement, attitude towards possible retention, motivation to complete school tasks, immature behavior, emotional problems, and history of delinquency” (Westbury, 1999, p.462; see also Light & Morrison, 1990).

It is important to note, however, that Light’s assessment tool still serves as a form of systemic decision making; the determination of the retention decision is not made through an individual decision, like that of a teacher or a school administrator, but rather derived through a measure based on previous research and experiences (Light & Morrison, 1990).

A similar tool for objectifying factors to consider in making retention decisions is Grant’s “Retention/Promotion Checklist” (Grant & Richardson, 1998). Similar to Light’s Retention Scale, the checklist is intended to present a list of important factors to consider before making a final decision to promote or retain a student; these factors include not only measures of academic performance and ability, but also factors related to the student’s history of health, attitude towards schools, and attendance records (Grant & Richardson, 1998). Grant, however, suggests that this tool be used in conjunction with a child study team, in order to create a more informative situation in which to determine student placement. In addition, Grant’s tool is aimed more towards the mainstream public (i.e., parents, teachers, administrators), instead of being intended as a specialized practitioners’ tool designed for school psychologists, like Light’s Retention Scale (Grant & Richardson, 1998).

Some researchers have sought to explore what effects have been brought about through standardizing the retention decision making process. Through a case study methodology, Allen (2002) looked at the consequences of decisions to retain or place students in specialized programs instead of promoting them. Allen suggests a model of decision consequences based on the source of the decision (see Figure 1). According to the model, the closer the individual that makes the determination is to the student whom the decision will affect, the more appropriate the placement decision will be. Those decisions which are most appropriate for students are those that serve in their best interest regarding academic and social development. Allen acknowledges the public desire for uniformity in retention decisions, but argues that objective policies provide the farthest determination from the student, and may lead to “devastating human consequences” (Allen, 2002, p. 1).

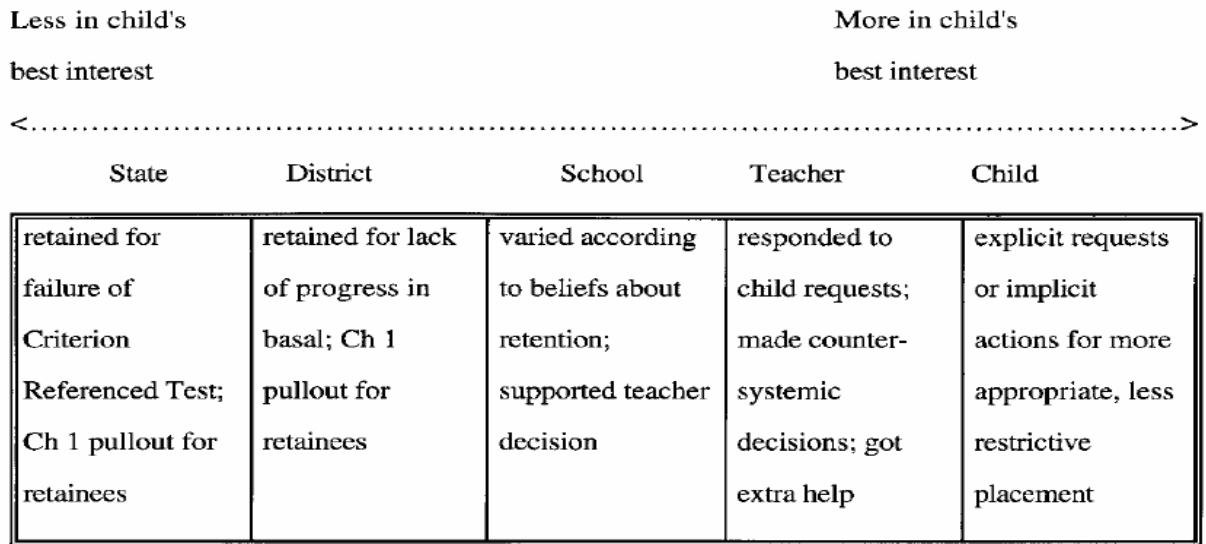


Figure 1
Proximity of Child to Decision Maker (From Allen, 2002 - *With the best intentions: Agents, impetus, and consequences of placement decisions*, p. 44)

In addition to Allen’s argument regarding the relative proximity of the decision maker to the students, Ferris (1992) suggests that decentralized decisions, decisions made outside of the school environment that they will directly impact, may lead to decisions made in favor of enhancing district benefits and at the cost of individual schools. Similarly, McGill-Franzen and Allington (1993) suggest that schools may feel pressured by districts to retain students in order to enhance school and district accountability data. For example, a school in Florida may choose to retain students in second grade, despite those students achieving at or near academic standards, if those at the school feel that the student may not be able to pass the FCAT in third grade.

Despite the presence of systemic decisions enhanced by state standards and high stakes testing, research suggests that retention decisions still often rely on informal procedures for decision making (Eide & Showalter, 1999; Mehan, Hartwick & Meihls, 1986). In other words, decisions to retain often rely heavily upon subjective suggestions. In fact, many school district policies in Florida mandate that decisions be determined through staff member interpretations of overall student data (Freedman, 2006). Both research and policies suggest that retention

decisions, especially in elementary school grades, are left up to either individuals within the school (teachers or principals) or school-based teams (Freedman, 2006; Gutkin & Nemeth, 1997; Grant & Richardson, 1999). Much of the research suggests that the decision to retain or promote a student most often stems from teacher beliefs and opinions derived through interactions with a student (Tomchin & Impara, 1992). Therefore both individual and collective decision making processes, and specifically what factors are taken into account, are integral factors in understanding grade retention decision making.

In order to assess how grade retention decision making processes were conducted in Florida, it was important to assess what parties were responsible for the decision. To assess this, a random sample of school district mandates ($N=30$, 44.77% of 67 total districts) for grade retention decisions in the state of Florida were examined (Freedman, 2006). In Florida, districts are required to publish mandate guidelines that outline district wide, student-focused practices, in a Student Progression Plan (Florida Department of Education, 2005b). These practices include placement decisions, enrollment guidelines, grading policies and retention or promotion mandated guidelines. Each randomly selected Student Progression Plan was coded for mandated sources of grade retention decisions for students in Kindergarten through third grade. A grounded theory qualitative method of coding was utilized to guide the coding structure. Each district was coded as follows:

Individual Judgment Mandate (0). No specific mandate is listed on the pupil progression plan for group retention making decisions. Since no mandate is cited on the district plan, presumably, the decision is left up to the judgment of an *individual*. For example,

Grade placement of all students who appear to be having difficulty meeting promotion requirements shall be carefully evaluated by the professional staff regarding eligibility for exceptional, alternative, or other student education services. Each school principal must consider student proficiency in reading, writing, science, and mathematics when making promotion decisions. The principal will determine the appropriate alternative placement for a student who has been retained for two or more years. (Martin County School Board, 2005, p. 13)

Weak Group Collaboration Mandate (1). The progression plan mentions group decisions within the context of pupil progression, but states that the decision is still ultimately left up to an

individual. For example, “School personnel should utilize all resources to achieve parent understanding and cooperation regarding a student’s grade placement. However, the final decision as to grade placement is the responsibility of the principal” (Citrus County School Board, 2005, p. 9).

Strong Group Collaboration Mandate (2). The district progression plan explicitly states that the ultimate retention decision will come as a result of a group discussion. For example,

A student who does not satisfactorily achieve District promotional requirements by the end of the summer program may be retained. After review of all available information a school team, composed of the principal, assistant principal and classroom teacher, will determine if the student may be administratively placed in the next higher grade (See Administrative Placement, Section II.3.). (Hardee County School Board, 2005, p. 18)

The analysis suggested that retention decisions can typically be derived from one of two main categories of decision making: individual decision making or collaborative decision making. Individual grade retention decision making processes rely on only a single individual in order to make the final outcome decision. Forty percent (40%) of the sampled schools mandated only individual retention decisions. In these instances, although information may be acquired from multiple sources to acquire informed judgment, one individual, usually either the classroom teacher or the principal is given sole autonomy to make the decision and issue the final outcome. Collaborative decision making, on the other hand, requires that grade retention decisions be achieved through collaboration from multiple parties. These parties most often include multiple members of the school staff, including teachers, guidance counselors, principals, or other involved staff. According to the analysis, more than half of the sampled districts suggested some sort of group collaboration in making grade retention decisions for students (60%), with nearly half the total sampled schools requiring collaboration (47%). This implies that collaborative decision making is a prevalent method in making grade retention decisions.

The Factors Considered. The majority of research regarding retention decision factors is focused on reasons teachers cite for retaining students. As indicated earlier, policies aimed at ending social promotion have led to more standardized promotional decision making, seemingly leaving little room for interpretation. This is especially true in grades with high stakes tests serving as gatekeepers, but also true in policies mandating that promotion decisions be guided by

academic criteria. Past research suggests that teachers often felt deprived in their ability to make decisions that would impact the school as a whole (such as policy decisions), and this feeling may be exacerbated by recent, state driven policies (Benson & Malone, 1987). Despite this, research suggests that many retention decisions still rely heavily upon teachers' suggestions and interpretations of what will best benefit students. In fact, in most schools the ultimate decision to retain or promote is left up to the principal, but principals seldom overrule recommendations for placement by teachers (Bulla & Gooden, 2003).

Pajares (1992) suggests that beliefs serve as the strongest indicator of the decisions that individuals will make throughout their lives. Teacher beliefs regarding retention practices play a large role in the decisions to retain or promote students (Smith & Shepard, 1988; Tomchin & Impara, 1992). Teachers who support retention practices will enact decisions based upon such beliefs. As mentioned earlier, research suggests that the majority of teachers, principals, and the general public believe retention practices to be both necessary and beneficial to students (Anderson, 1998; Northwest Regional Educational Laboratory, 2001; Shepard & Smith, 1989; Tanner & Galis, 1997; Thomas et al., 1992; Tomchin & Impara, 1992). The dichotomy between research evidence versus practitioner and public opinion suggests why retention practices have been fiercely debated (Bulla & Gooden, 2003; Byrnes, 1989). It is also important to note that teacher beliefs may be heavily influenced by the overall belief structure of the school, as established through the school leadership. Both districts and principals play a critical role in establishing the school culture, including overall philosophy and future goals, and policy enactment (Owings & Kaplan, 2001). Teacher beliefs tend to coincide directly with this established school culture (Witmer, Hoffman, & Nottis, 2004).

Teachers also tend to believe that some students need extra time to learn and that grade retention provides that opportunity (Tomchin & Impara, 1992). In addition, research suggests that teachers believe that retention practices allow students to increase in self esteem by being given a second chance to succeed and that the threat of retention serves as a motivator for students to work harder in their schooling. These beliefs, again, create a dichotomy between many researchers and practitioners, with the majority of longitudinal research looking at student academic achievement and socio-emotional effects indicating that no added benefit, and most often negative consequences, are derived from retention (Jimerson, Anderson & Whipple, 2002; Jimerson, Carlson, Rotert, Egeland & Sroufe, 1997; McCoy & Reynolds, 1999; Meisels & Liaw,

1993; Roderick, 1994; Thomas et al., 1992). Similarly, the addition of the successful completion of the third-grade FCAT to the promotion mandates in Florida in the 2002-2003 school year did not serve to decrease retention rates by providing the threat of grade retention. Instead, there was an increase in third-grade retention rates by 331% from the previous year (Florida Department of Education, 2005a).

Teacher beliefs tend to be stratified by which grade levels they teach. Witmer, Hoffman and Nottis (2004) suggest that teachers of kindergarten through second grade classrooms differ in beliefs from those who teach grades three and four. While K-2 teachers tended to disagree more strongly that retention was useful and agree that overage students present a disruption in the classroom, teachers of grades 3 and 4 tended to equate poor performance with lack of effort rather than ability. These findings suggest that beliefs not only may be grouped based upon school culture and principal ideology, but may have a tendency to be grouped based upon their grade level assignment (Witmer, Hoffman, & Nottis, 2004).

Research also suggests that specific groups of students tend to be prone to grade retention practices, based on demographics and personal and academic characteristics. Gender and ethnicity tend to be strong predictors of grade retention, with male and minority students being substantially at greater risk for retention (Byrd & Weitzman, 1994; Education Commission of the States, 2004; Education Information and Accountability Services, 2002). High instances of disciplinary problems and chronic absenteeism, likewise, serve as strong predictors for grade retention (Caplan, 1973; Safer, 1986). Students in transition grades also seem to be prone to grade retention, as indicated by rate peaks in grades beginning elementary, middle, and high school. Research suggests that teachers may seek to solve problems early through retention practices at the beginning of new levels; in addition, for some students these transition periods might serve as a difficult time of adjustment, as academic demands increase (Morris, 1993, 2001). Although these characteristics can be used to describe a prototype for retention decisions and may be used as criterion to predict retention decisions in the future, they do not explain how the retention decision is made.

As mentioned earlier, most of the literature regarding retention decision factors is focused on reasons teachers' cite for retaining students. Accountability mandates brought about through policy enactment, especially through the No Child Left Behind Act, and the ban towards social promotion, have moved teacher mindsets towards quantifiable levels of academic achievement.

Likewise, literature suggests that teachers tend to utilize academic reasoning most prevalently in making promotion or retention decisions (Cadigan, Entwisle, Alexander, & Pallas, 1988; Peel, 1997). Cadigan et al. (1988) suggested that initial decisions to retain or promote a student occur very early on the school year, even within the first 10 weeks. The reasons cited by teachers behind retention decisions have been explored to some extent (e.g., Bali, Anagnostopoulos & Roberts, 2005; Byrnes, 1989; Cadigan et al., 1988; Witmer, Hoffman & Nottis, 2004). A synthesis of this research suggests that teachers tend to consider the following factors in making a retention decision:

- student maturity and readiness,
- student academic achievement,
- expectations in following grades,
- psychosocial considerations,
- potential student exceptionalities,
-
- external influences/pressure,
- policies and availability of services,
- home/family issues/support
- scores on high stakes testing, and
- student age.

In a longitudinal study of students retained in kindergarten, Ferguson, Jimerson, and Dalton (2001) suggested that certain variables predict academic achievement and behavioral adjustment outcomes associated with retention practices. Through this analysis, Ferguson et al. identified student's "initial school readiness, socioeconomic status, mother's level of education, age, parental value of education, and kindergarten personal-social functioning" as predictors of social and academic success for students who had been retained (p. 337). Specifically, students who displayed low personal social functioning, were older, or had low levels of maternal education, socioeconomic status, or parental value of education were most disadvantaged through retention practices. In addition, parent perception of student abilities were associated with retention rates; parents who considered their child to have high intellectual abilities were associated with lower rates of retention for their children, possibly because of increased abilities of parents to sway the school decision to retain (Cadigan et al., 1988).

Overall, teachers are not accustomed to the suggestions of grade retention research. Witmer, Hoffman, and Nottis (2004), in an examination of K-4 teachers' grade retention beliefs, indicated that teachers describe their knowledge of retention research as limited. This may be due to a variety of constraints, including a failure of research to present understandable, accessible, pertinent, and persuasive research geared at practitioners (Witmer, Hoffman & Nottis; Tanner & Galis, 1997). Instead of relying on research findings, teachers tend to utilize personal experiences as a knowledge basis for making grade retention decisions (Tomchin & Impara, 1992). Kagan (1992) suggests that teachers tend to base their personal beliefs, and subsequent actions, more on what they perceive as personally relevant, their own experiences combined with those obtained from colleagues. Therefore, some researchers have called for extensive training in how to make retention decisions, both as part of pre-service teacher training programs and professional development programs for active teachers (Anderson, Whipple, & Jimerson, 2002). It is important to note that the preference of teachers to use personal experiences as a basis for retention decisions, rather than practices guided through research, may also be due to the lack of consistent and comprehensive evidence to indicate what the best practices are to make the most appropriate grade retention decisions. As Tanner and Galis (1997) suggested, "there is no clear and consistent message from research for practitioners to use in guiding decisions regarding retention" (p. 111).

It is important to recognize that decisions, even if made by teachers alone, are likely not sovereign of outside influence. When making decisions, factors that teachers consider may be influenced by a number of sources. For one, overriding legal constraints will likely play a role in teachers' grade retention decision making. Although litigation has prevalently defended school decisions, the mere threat of legal action may guide teachers towards making decisions in strict accordance with policy initiatives directed by the state, district, or school (Murray & Murray, 2001).

Group Collaboration Effects

Research examining the educational decision making process has been done so, primarily, from an individual standpoint (one person or entity in charge of the decision). Despite this research, retention decisions rarely involve one individual. More often they include input from parents, students, teachers, staff, administration, and established policies (Shepard & Smith, 1988; Gurewitz & Kramer, 1995). Therefore, it is important to examine what research is

available regarding group decision making processes in making retention decisions and how these may differ from individual retention decision making processes. A search of the research literature, however, revealed few studies that specifically addressed group decision making processes in educational settings. Most group decision research in educational settings has come from the area of school counseling and school psychology; however, even in these areas research on group decision making processes is lacking (Gutkin & Nemith, 1997). Of the research that was found, most relates to group factors in placement decisions for students with disabilities or in relation to curriculum development (Granstrom, 1995; Pellegrin, 1969).

Few studies have addressed teacher decision processes when placed in group situations. Koop and O'Reilly (1975), in their study of school personnel decision making processes in relation to curriculum initiatives, suggest that, as a group, teachers seek more to have their ideas considered in the decision making process, rather than to have full control to make the final decision themselves. This lack of desired autonomy may lead teachers to rely heavily on other group members (possibly parents, school staff, or administration) or on already established policies to determine final outcomes of group student-based decisions. With so few empirical studies found focusing on group collaboration in educational decision making, it impossible to yield any credible conclusions that might extrapolate to grade retention decision making processes.

Nonetheless, group decision making processes have been extensively studied in various other disciplines outside of education (Enayati, 2002). In fact, large bodies of research specific to group decision making processes were found in disciplines of sociology, social psychology, business, communications and law. Although some of the research is specified on distinct attributes of group collaboration that do not yield much relevance to grade retention research (like dialogue differences or acquisition of knowledge related to collaboration), other bodies of research seem to directly coincide with attributes shared in grade retention collaboration. This includes a large body of research across several disciplines related to judgment decision making and consensus building. In the following sections, this literature will be examined in respect to both the possible effects of collaboration on factors considered in grade retention decisions and the potential effects of collaboration on the outcomes of grade retention decisions.

Effects of Collaboration on Decision Outcomes: Group Polarization. A large body of research exists examining how group collaboration affects the outcomes of decisions. A major

portion of this research, stemming from Stoner's Thesis research findings in 1961, suggests that it may not be an immediate assumption that collaboration always leads to more diverse and complete decision outcomes. In fact, an abundance of research can be found to suggest that collaboration may do just the opposite; that group collaboration may also serve to polarize decision makers towards a single viewpoint, through a phenomenon known as group polarization.

Group polarization is a phenomenon that occurs when members within a group shift decisions or opinions towards a more extreme position than was held before the group experience (Michener, DeLamater, & Myers, 2004), as determined through individual's mean differences in judgment before and after group interactions or discussions (Chen, Gustafson, & Lee, 2002). Since student-based decisions are affected by state policies, school administration, teachers, parents, and students, it is important to address the potential for group polarization to arise in group decision making processes made for elementary school students.

The phenomenon of group polarization does not hypothesize that collaboration changes outcomes of decisions, but rather that decisions are strengthened and become more confident and extreme with collaborative discourse. In a classic group polarization study conducted by Myers and Lamm (1976), the group polarization hypothesis is described as such: "The average postgroup response will tend to be more extreme in the same direction as the average of the pregroup responses" (p. 603). To explain further, an example of an attitude study utilizing a six point likert scale is described next.

For instance, individuals are asked to indicate their attitude towards a specific event or figure, say the effectiveness of the current President of the United States, on a likert scale appearing as follows:

(very ineffective) -3 -2 -1 0 1 2 3 (very effective)

Say the mean of the individuals' responses, prior to discourse, is 1.5 (moderately effective). Now those same individuals collaborate and discuss the effectiveness of the current President, in an effort to come up with a consensus decision on the effectiveness. Following the collaborative discourse, if group members are then, again, asked to individually mark the effectiveness utilizing the same likert scale, post-discourse responses will tend to be stronger and in the same

direction as pre-discourse responses; in this example, the mean of individual post-discourse responses might be 2, a stronger determination than the mean of 1.5 of pre-discourse responses. Similarly, if pre-discourse mean individual responses were -1.5, discourse would like strengthen that decision in the same direction, with post-discourse mean individual responses likely being around -2.

In Stoner's (1961) study, participants were presented with an ambiguous scenario (such as choosing a job) and were asked to choose between two alternatives, generally one less attractive but safe (a job with a moderate salary but job stability) and one more attractive but with some risk (a job with a high salary but high rates of termination), using a continuum scale of probabilities (Clark, 1974). Participants were asked to indicate the risk level at which to accept an option by indicating the lowest acceptable probability of success that they would consider in choosing that option. For example, participants were asked on one of the items to consider a person who is considering marriage with a partner. Participants are asked what the lowest probability of the marriage being a success they would accept in recommending the marriage. Options that were given were:

- a. I would not consider it regardless of the probability of success
- b. 9 in 10 probability of success
- c. 7 in 10 probability of success
- d. 5 in 10 probability of success
- e. 3 in 10 probability of success
- f. 1 in 10 probability of success

Stoner found that individuals who participated in a collaborative discussion regarding the scenario were more risky in their decisions (indicated a lower acceptable probability of success) than did individuals who participated in the exercise without collaboration. From these findings, he suggested that group collaboration leads to more risky decisions than does individual decision making.

Further research suggested a slightly different interpretation of Stoner's (1961) results. Rather than group discussion leading to more risky decision making, research suggests that group discussion tends to polarize risk levels among the individual members (El-Shinnawy & Vinze, 1998; Kaplan & Miller, 1977; Kogan & Wallach, 1967; Myers & Lamm, 1976). In other words, using Stoner's study as an example, if individuals within a group tend to be risky in their

decision making prior to group discussion, they will be even more risky following group discussion. This is likely the case in Stoner's initial findings, and has come to be known as the risky shift phenomenon (Michener, DeLamater, & Myers, 2004). The opposite, however, is just as likely; if individuals within a group tend to be cautious in their decision making prior to group discussion, they will be even more cautious (less risky) following group discussion. This phenomenon has come to be known as the cautious shift (Myers & Lamm, 1976). This overall phenomenon, of individuals polarizing towards a more extreme position on the same side of their initial preference is known as group polarization (Aronson, Wilson, & Akert, 2002).

Group polarization has been shown in a multitude of academic settings, including law, speech communications, psychology, sociology, and business (Myers & Lamm, 1976). In general, these studies can be divided into one of two decision outcome formats: judgment decisions vs. knowledge decisions. Knowledge decision group polarization studies seek for participants to attempt to arrive at a correct solution (El-Shinnawy & Vinze, 1998). Inherent in these tasks, is the assumption that a particular task contains a universally accepted correct solution. Because these tasks relate very little to grade retention decisions, they will not be explained in depth, except to state that they have yielded group polarization effects (El-Shinnawy & Vinze, 1998).

In contrast, judgment decision group polarization studies seek for participants to decide upon the best solution to an ambiguous problem. Among the studies that have looked at judgment decisions, group polarization has been evaluated in participants' attitudes towards a particular topic or individual, participant views towards ethical dilemmas, and jury decisions (Myers & Lamm, 1976; Sunstein, 2000). Of particular interest to the topic of grade retention decisions, due to its strong task similarities, are those studies looking at group polarization in jury decisions.

The procedures of these experimental studies generally involve having participants listen to narratives of mock situations. Participants are asked to individually indicate perceived levels of guilt or innocence, generally among a Likert scale type spectrum (ranging from definitely innocent to definitely guilty), or they may be asked to determine sentences for mock individuals, with the assumption that they have been found guilty. Following these individual determinations, participants are asked to deliberate among their peers to discuss the innocence of guilt of the individual (or sentences) in the mock trial (Myers & Kaplan, 1976; Myers & Lamm, 1976). The

research on the potential for group polarization effects influencing decision making outcomes in judgment decisions may be particularly relevant for grade retention decisions. In both situations, the correct answer is ambiguous, and decisions often require subjective interpretations of observable facts and characteristics by decision makers.

Some research does suggest that decisions involving subjective interpretations may be influenced by group composition. Rogers (2002), in an ethnography of placement decision committee meetings regarding a student with disabilities, suggested that different groups may arrive at different outcomes based on identical information. In addition, study results suggested that while one group may utilize a piece of information as student strength, another group may utilize the same information suggesting it as a student deficiency. In other words, the decision making process in determining student based placement decisions may be very subjective and result in a variety of conclusions. In the hypothetical case of Student A, outcome decisions determined by the group may have been changed if the group was comprised of different members, especially from different social stratum (possibly having no administration members, or being comprised of a more experienced teacher), despite being presented identical student information.

Several theories have sought to explain the phenomenon of group polarization, many of which have been refuted through later research (Isenberg, 1986). In general, research suggests that in group decision situations, members make comparisons to either social norms or other group members' opinions, and commit to a more intense attitude towards a particular topic based on those comparisons (Fitzpatrick, 1989). That is, group polarization can be explained either as a result of individuals making social comparisons during collaboration (social comparison theory), or of individuals making comparisons of their own opinions, ideas or judgments to that of other group members (persuasive argumentation theory).

The social comparison theory suggests that individuals are “constantly motivated to perceive and to present themselves in a socially desirable light” (Isenberg, 1986, p.1142). This theory stems from the belief that individuals learn about their own abilities and attitudes by comparing themselves to other people (Aronson, Wilson, & Akert, 2002). Each individual wants to be as good, if not better “than the average group member on a dimension rated as positive” (Zuber, Crott, & Werner, 1992, p. 30). The perceived positive social dimension is determined to be the dimension that is held by the majority of group members. According to the theory, once

an individual becomes aware of the majority opinions, they will attempt to present themselves in an even more favorable light than the majority. For example, let us assume that a group of five individuals are participating in a research study. In the study, they are asked to individually indicate their preference towards a particular painting on a 5 point likert scale (1 being greatly dislike and 5 being greatly like). The following are the pre-discussion responses.

Participant 1: Preference Score 5

Participant 2: Preference Score 2

Participant 3: Preference Score 3

Participant 4: Preference Score 4

Participant 5: Preference Score 1

Participant 6: Preference Score 4

The social comparison theory suggests that if an individual is able to estimate the others' preferences, as determined through group discussion, that individual will then attempt to present himself/herself in a more favorable light by indicating a stronger preference towards the same direction that he/she held previously. Using the above example, participant 2, who had a moderate disliking of the painting prior to discussion (preference score 2), is likely to show a strong disliking (preference score 1) after seeing that participant 5 had a stronger preference previously. Likewise, participants 4 and 6, who had a moderate liking towards the picture prior to discussion, will likely show a strong liking after comparing their initial preferences to that of participant 5 during discussion. The end result will be an average shift in the direction of the perceived positive social dimension. In this example, group polarization would shift the overall average in towards a stronger preference of liking the painting, since the average of individuals' preference prior to discussion was in the dimension of liking the painting.

One of the assumptions behind the social comparison theory is the belief that individuals assume that their responses prior to group discussion are higher, or at least as high as the group average on the positive social dimension (Zuber, Crott, & Werner, 1992). If individuals find out, through discussion with other individuals, that their responses were not on par with that of other individuals, they will shift their response accordingly to ensure that they will be as high as or higher than the other individuals.

Support for the social comparison theory comes from research demonstrating that simply knowing other group members positions towards a particular subject or task can induce

polarization effects. This has come to be known as mere-exposure effects (Isenberg, 1986). Mere-exposure effects have been shown in a variety of tasks and areas, including assessments of attitudes, knowledge estimates, and judgment decisions (Isenberg, 1986; Myers & Lamm, 1976; Zuber, Crott, & Werner, 1992).

The persuasive argumentation theory is an information approach towards explaining group polarization. Rather than suggesting that individuals compare themselves to other group members in order to be seen in a greater light, the persuasion argumentation theory suggests that individuals share relevant and factual information during group discussions (El- Shinnawy & Vinze, 1998). Discussion is likely to generate “arguments predominantly favoring the initially preferred alternative, and for any given subject, some of these are likely to be persuasive new arguments” (Myers & Lamm, 1976, p. 616). In other words, the initial mean of the pre-discussion responses for a group will determine for what stance a greater amount of persuasive arguments will be brought about in group discussion. In addition, some research suggests that not only will the majority opinion generate more arguments, but also a greater quality of persuasive arguments to support their opinion than will the minority opinion (Zuber, Crott, & Werner, 1992). Since a greater amount of persuasive arguments will be brought forth in favor of the initial mean preference of individuals in group discussion, the majority of individuals will likely strengthen their commitment towards that preference following discussion, therefore strengthening the average individual post-discussion mean response.

There is much empirical support for the persuasive argumentation theory in explaining group polarization. In a discussion of such research as evidence for the persuasive argumentation theory, Isenberg (1986) suggests that there is a significant correlation between the extent of polarization and the amount of persuasive arguments brought about in discussion, that the extent of group polarization can be manipulated by varying levels of persuasive arguments, and that is both a necessary and sufficient cause of group polarization. However, it is important to note that although the research supporting the persuasive argumentation theory is compelling and more widely accepted than the social comparison theory, it still may not be able to fully explain all of the factors behind group polarization (El- Shinnawy & Vinze, 1998; Myers & Lamm, 1976).

In addition, other theories from outside of group discussion research have been utilized in order to explain the group polarization phenomenon; of particular note are the social decision scheme theory and the information integration theory (Zuber, Crott, & Werner, 1992). The social

decision scheme theory may be considered an offshoot of the social comparison theory; however, its focus is on an applied rule to predict how individuals within a group aggregate towards diverging positions. This theory has been shown to predict group polarization effects, yet is unable to fully explain the reasoning behind such occurrences (Zuber, Crott, & Werner, 1992). Likewise, the information integration theory is considered an extension of the persuasive argumentation theory; this theory suggests that even repetitive arguments in support of a position, in addition to novel arguments, can serve to polarize individual positions. Research is still needed, however, to fully assess the credibility of this theory (El- Shinnawy & Vinze, 1998; Zuber, Crott, & Werner, 1992).

As mentioned earlier, results of past research show strong support for the existence of group polarization in a variety of experimental research areas. It is also important to note that some research has even attempted to support this phenomenon by looking at historical events. A large body of literature was compiled in the early 1970's looking at actual court decisions. These studies yielded evidence suggesting effects similar to those seen in experimental studies (Myers & Lamm, 1976). Although these studies fail to have the level of control associated with experimental studies, they do suggest that group polarization has a practical existence outside of controlled settings. Since the phenomenon of group polarization has been shown in a variety of situations, it is likely that it may occur in educational decisions as well.

It is important to reemphasize the fact that group polarization research has been neglected in the field of educational research. In fact, no literature could be found that addressed group polarization within grade retention decisions. Furthermore, the only research that could be located that looked at group polarization relating to school practices was focused on beliefs towards school reform efforts (Tanner, 2006). Yet research does yield strong evidence that group polarization may play a potential role in affecting grade retention decision outcomes (Gutkin & Nemith, 1997). Grade retention decisions are increasingly being conducted utilizing a committee decision making structure. This has been suggested to decrease potential litigation stemming from inappropriate placement decisions (Murray & Murray, 2001). These retention decisions will likely contain many of the same elements as the judgment decisions shown in the literature, including jury deliberation studies. It is likely that committee members will share their own viewpoints in hopes that a consensus decision will be made, and, similar to jury deliberations, outcomes may come with very high stake consequences.

Effect of Collaboration on Factors Considered. Factors considered in making grade retention decisions may be influenced by the diversity of inputs into the decision making process. That is, the amount of people, and the variety of perspectives that are involved in the decision making process, may influence the amount and variety of factors accounted for in the decision (Woodrow, 2000). As mentioned earlier, the popular belief, as cited in a compilation of studies essay by Sunstein (2000), is that group discussion leads to better decision making outcomes simply because it yields competing views and idea exchanges. Sunstein (2000) gives credence to this well established thought through a quote by Aristotle:

all come together...they may surpass-collectively and as a body, although not individually-the quality of the few best...When there are many [who contribute to the process of deliberation], each has his share of goodness and practical wisdom...[S]ome appreciate one part, some another, and all together appreciate all. (Sunstein, 2000, pp. 73-74)

Similarly, in his book *The Wisdom of Crowds*, Surowiecki (2004) suggests that groups are able to generate better decisions by varying the perspectives that are brought to the decision making process. By representing more of the population than do individuals, there is a better probability that groups will be able to generate more ideas containing the best (or most accurate) solution. This idea has generated acclaim from many prestigious members of society, including the Nobel winning economist Kenneth Arrow, who in a review of *The Wisdom of Crowds*, suggested that more group problem solving and idea generation techniques should be used because of the beneficial nature of group collaboration (Arrow, 2005).

This viewpoint has struck deep in research as well. In an experimental study of diversity viewpoints relating to decision making processes by Phillips and Lloyd (2006), they reported that diversity of viewpoints can serve to enhance the quality of decision outcomes, because “different task perspectives [are brought] to the table” (p. 156). Although, it is important to note their study looked only at group decision making, with both homogeneous and surface level diverse (immediately apparent distinctions) group members, and failed to include any comparisons with individual decision making conditions. In more practical utilization, facilitation teams, used to facilitate consensus building, employ such strategies to include collaboration with diverse stakeholders to ensure that appropriate options can be generated, as well as consensus be met with the most complete concerns addressed (Woodrow, 2000).

This ideology has a historical basis stemming from Osborn's (1963) work in group abilities. Osborn (1963), through a meta-analysis of prior studies looking at decision making processes, suggested that groups are able to generate ideas better than individuals working alone. He suggested that groups were able to generate a higher total quantity and a greater number of unique ideas through a process he termed brainstorming, which required that group members employ a specific sequence of techniques in order to generate maximum ideas. He suggested that if groups were to encourage each member to express all ideas that come to mind, withhold criticisms for proposed ideas, generate as many ideas as possible, and build upon generated ideas by other group members, then the group would be able to generate a greater total amount and a greater number of unique ideas than would each individual member if they worked alone (Osborn, 1963).

Although the belief in the ability of groups to generate more ideas than would individual members is still prevalent, in schools and society in general as suggested by Surowiecki's (2004) book, Osborn's hypothesis has been all but refuted through more modern research (Michener, DeLamater, & Myers, 2004). Bouchard and Hare (1970) studied participants in both a group and individual condition who were advised to generate ideas based on a hypothetical situation; results from the study suggest not only that groups did not come up with greater amounts of ideas generated than did the individuals who worked alone, but rather individuals were able to generate more ideas than did those who were in the group collaboration condition. Participants in both the group and individual condition were advised to generate ideas of what benefits or difficulties would occur to people with an extra thumb. Novel ideas (repetitive ideas were eliminated from calculations) that were generated by groups and individuals were summed, and the results indicated individuals were able to generate more total ideas, and a greater number of unique ideas, than did those who were in the group collaboration condition. They concluded that group collaboration inhibited the generation of ideas, rather than promoting it.

Follow up studies also have linked group collaboration to the inhibition of the amount of unique ideas expressed in idea generation (Bouchard, Barsaloux & Drauden, 1974). Past research has suggested that social loafing may serve as the basis for explaining why such inhibitions occur (Shepherd, Briggs, Reinig & Yen, 1995). Social loafing "is a tendency to exert less effort when working in a group than when working individually" (Loughry, Ohland & Moore, 2007). The greater the number of individuals who work on a certain task, the smaller each individual's

effort becomes. More recent studies have attempted to explain this phenomenon through the idea of production blocking; that groups inhibit ideas because members of the group must wait in turn-taking routine to express ideas, and many of those ideas are, thus, lost because of the inability to be expressed (Michener, DeLamater, & Myers, 2004). Individuals can therefore produce more ideas, and consider more factors in generating decision making outcomes because they do not have to wait in turn to vocalize those ideas.

Research suggests that production blocking has a small, but noticeable effect in dyads, but effects increase rapidly with increased group size (Nijstad, Stroebe, & Lodewijkx, 2003). This has led many to many corporations in the business sector who employ group collaboration techniques for decision making to employ small group structures for decision making, and to even reduce production blocking interferences by utilizing electronic interfaces to allow for simultaneous idea recall among group members (Stenmark, 2001). More recent research suggests that production blocking may impede cognitive processes, like semantic clustering used for increasing memory and recall ability, although this research is very recent and more research is needed to validate such claims (Nijstad, Stroebe, & Lodewijkx, 2003).

It is important to note that although research suggests that groups are able to generate a fewer total quantity and number of unique ideas than do individuals who work alone, the common assumption among participants is that group collaboration allows them to make better decisions. One research study conducted by Paulus, Larey, and Ortega (1995) reported that, despite producing only half as many ideas in group conditions as opposed to individual conditions, participants rated their idea generating abilities higher when they collaborated with groups as opposed to when they generated ideas individually. It seems that despite the research, practitioners and policy makers in education, and society in general, have all but concluded that collaborative discussion leads only to better decision outcomes, if only because such interaction yields competing views and shared discourse (Sunstein, 2000).

In sum, the practice of mandating that grade retention decisions be made via group collaboration because of its unanimous ability to generate a greater total quantity and number of unique decision factors has little scientific research basis (Bouchard, 1969; Bouchard & Hare, 1970; Bouchard, Barsaloux, & Drauden, 1974; Michener, DeLamater, & Myers, 2004; Paulus, Larey, & Ortega, 1995). However, individuals tend to feel more comfortable in their ability to make decisions and generate ideas in groups, as opposed to as individuals (Paulus, Larey, &

Ortega); this finding, in turn, may help to explain why collaborative grade retention has been embraced not only by the public and policy makers, but also by the practitioners that employ it.

Based on the literature surrounding the effects of collaboration on decision making processes, it is clear that grade retention decisions that employ collaboration among school professionals may be impacted by the group effect phenomena. Therefore, it is essential for research to target the impacts of grade retention decision processes in order to better explain placement outcomes. The purpose of this study is to begin to evaluate the impact of collaboration on grade retention decision factors and outcomes. The current study will utilize a methodology supported by past group dynamics research, in utilizing a pre-discussion and post-discussion measure to determine the effects of collaboration on the factors that are considered and the outcomes of grade retention decision making (Kaplan & Miller, 1977; Moscovici & Zavalloni, 1969; Myers, 1975). In addition, in order to provide a level of control to better evaluate the effects of group polarization, a control group will be utilized; this methodology has been largely neglected in group polarization research, with only a few studies employing a control group and treatment group research method (Myers, 1975).

Since group polarization has yet to be researched in the grade retention literature, no formal instruments have been developed and validated for such purposes. Instead, this study utilizes an instrument created by Tomchin and Impara (1992). The Retention Decision Simulation Exercise (RDSE) is a set of vignettes describing hypothetical students, including student characteristics on a variety of variables; these variables include ability ranking, academic performance ranking, social maturity ranking, relative age to classroom peers, relative size to classroom peers, and gender of the student (Tomchin & Impara). On the original instrument, participants were asked to review the student characteristics and make a determination of whether to promote or to retain the student. For the purpose of the current study, the RDSE was adapted in order to provide a scale by which to assess group polarization effects. Further details regarding the instrument can be found in Chapter 3.

The RDSE is suggested by its authors to realistically depict student grade retention decision making experiences in kindergarten through eighth grade (K-8) classrooms (Tomchin & Impara, 1992). It requires participants to make the decisions as if they were the primary classroom teacher of the student and to make such determinations based on the characteristics provided in the vignette. By utilizing this instrument to assess group polarization effects, a level

of face validity can be provided to the task, making it relevant to actual grade retention decisions in classrooms. In addition, the instrument can be provided to participants both prior to collaboration, and following collaboration, in order to assess changes that result from collaborative discourse. Further details regarding both the instrument and the procedure of the research methodology utilized in the study can be found in Chapter 3.

CHAPTER 3

RESEARCH METHODS

Research Questions

- 1) Do collaborative grade retention decisions cause individuals, with similar initial preferences towards decisions, to congregate towards a polarized viewpoint following collaborative discourse (group polarization phenomenon)?
- 2) Do collaborative grade retention decisions influence individuals to consider a different total number of decision factors than those made without collaboration?
- 3) Do collaborative grade retention decisions influence individuals to consider a different number of unique decision factors than those made without collaboration?

Design

A true experimental design, with both pre-test and post-test, was used for the study. Participants were randomly assigned to either a control or a treatment condition. Permission was obtained from the Human Subjects Committee at Florida State University prior to data collection (see Appendix A).

Participants

A power analysis was conducted prior to data collection to ensure adequate sample size. Estimates for the power analysis were determined through effect estimates compiled from similar past research (Kaplan & Miller, 1977; Moscovici & Zavalloni, 1969; Myers, 1975) using a weighted metanalysis technique (Cooper & Hedges, 1994). Based on the power analysis, an adequate sample size for power=.8 and $\alpha=.05$ was a total of eight (8) participants, four (4) in each of the two (2) conditions. With a total sample size of eight, the actual power was determined to be .879 for the study. In order to have a large enough sample to generalize to the greater population of grade school teachers, a sample size of 50 participants was selected.

A convenience sample of 50 participants was selected with the following eligibility criterion for participation: at least 1 full year experience as a classroom teacher in a K-5 setting. The majority of participants ($n=36$) were recruited from graduate school courses at a College of Education at a state research university. Instructors with courses that were likely to contain practicing elementary school teachers were contacted, and the researcher was granted permission to visit five separate classes to recruit participants. A second set of participants ($n=14$) were recruited from an elementary school teacher committee in a suburban community in Florida.

Permission was granted by the Committee Board to recruit participants (see Appendix A). The Committee Board was a group of teachers from across various elementary grade levels that held monthly meetings around topics targeting achievement problems in struggling students, especially minority and low socio-economic status students. Participants varied in age ($\bar{x} = 30.04$, $SD = 10.75$) and teaching experience ($\bar{x} = 5.04$, $SD = 6.40$). The majority of participants were White or Caucasian (76%), female (76%), held a Bachelors as their highest degree obtained (74%), and last taught in a suburban school setting (44%). Participant demographics were comparable to overall demographics for teachers throughout the United States (National Center for Education Statistics, 2006).

Those who chose to participate were asked to sign an informed consent (see Appendix B) form prior to participation. The informed consent form was located on the front cover of the packet distributed for purposes of recruitment. This packet also contained the data collection instruments described below for Session 1 of the study. All forms, other than the consent form, in each packet were coded with a unique participant id number to ensure anonymity. Participant names were only used as proof of consent, to schedule participants for Session 2, and to match Session 1 and Session 2 data. Following Session 2, consent forms were disassociated with Session data packets, and no data were associated with any identifiable participant information.

Instruments

Demographic Questionnaire. After agreeing to the informed consent, participants were asked to complete a demographic questionnaire, referred to as the Demographic Survey. The Demographic Survey asked participants to indicate personal demographics, including age, gender, highest degree held, race and ethnicity; and demographics relating to their experiences as teachers, including total years experience in teaching, the environment of the school in which they teach, and what grades they have taught (see Appendix C). Demographic items relating to teaching experiences, specifically what grades the participant had taught, were used in matching participants before randomly assigning them to either the treatment or control group. Details regarding the stratification and random assignment are presented in the Procedure section, which follows.

Modified Retention Decision Simulation Exercise. During both Sessions 1 and 2 of the study, participants received an adapted version of the Retention Decision Simulation Exercise (RDSE) devised by Tomchin and Impara (1992; see Appendix D). Permission was granted by

the author of the instrument for use in this study (see Appendix E). The original version includes forty vignettes that describe a hypothetical student as high or low, on a visual continuum scale, in reference to academic performance, ability, maturity, physical size, and age in comparison with other classmates. An example of the visual continuum scale is provide below.

Social Maturity



Figure 2.

Visual Continuum Scale Example (From Tomchin & Impara, 1992, p. 220)

Vignettes were based on actual student characteristics, obtained from interviews conducted with teachers and school principals (Tomchin & Impara, 1992). In addition, it specifies the student's gender, and describes some social and/or behavioral characteristics associated with the student's performance. On the original exercise, participants are directed to pretend that this is a student within their own classroom, and to make a yes / no decision whether to retain or promote the student based on the information provided. No reliability or validity calculations could be located for the RDSE in past literature. Since the nature of the instrument makes it impossible to compute internal consistency reliability, test-retest reliability was computed for the instrument using the sample of the current study. Control group participant responses were compared for both Session 1 and Session 2, yielding a correlation coefficient of $r=.711$ for Vignette 1, $r=.726$ for Vignette 2, and $r=.886$ for Vignette 3.

The modified RDSE questionnaire used in the study had three vignettes, each describing a hypothetical student along with the student's characteristics. Each vignette was chosen purposefully, to represent a variety of student characteristics that most influence retention decision outcomes as determined through follow up analyses by Tomchin and Impara (1992). Vignette 1 describes a high ability, high academic performing/low social maturity female student. Vignette 2 describes a low ability, low academic performing/low social maturity male student. Vignette 3 describes a high ability, low academic performing/ high social maturity male student (see Appendix D for full vignettes). Each vignette was drawn directly from the original

RDSE instrument, including the identical student characteristic information provided with each vignette. The original directions of the RDSE instrument, including descriptions of the student characteristic scales, were used in the adapted RDSE.

A section of the original RDSE instrument, asking participants to indicate whether they would retain or promote the student based on characteristics provided was removed from each vignette in the modified RDSE and substituted with an additional component adapted from past group polarization research, for each vignette. While the original RDSE asked participants to indicate a retention/promotion decision using a yes/no response format (see Tomchin & Impara, 1992), the modified RDSE used a continuum scale of acceptable probabilities adapted from the Stoner's choice dilemmas (Stoner, 1961). The original Stoner dilemmas asked participants to choose between two alternatives, generally one less attractive but safe and one more attractive but with some risk, using a continuum scale of probabilities (Clark, 1974). The original continuum scale was adapted on the modified RDSE, so that participants were asked to indicate the "lowest probability of the student succeeding from grade promotion that they would consider acceptable" in order to make the decision to promote the student described in each vignette (Stoner, 1961, p. 84). Participants were given 5 probability levels to choose between; a 1 in 10 probability, a 3 in 10 probability, a 5 in 10 probability, a 7 in 10 probability, and a 9 in 10 probability. The greater the probability selected by the participant, the less likely they would be to promote the student (i.e., if a participant selected a 9 in 10 probability, they would only consider it acceptable to promote a student if the student had a 9 in 10 probability of benefiting from being promoted). Likewise, the lower the probability selected by the participant, the more likely they would be to promote the student (i.e., if a participant selected a 1 in 10 probability, they would consider it acceptable to promote a student if the student had at least a 1 in 10 probability of benefiting from being promoted). Further directions, including an example were located on the directions provided along with the modified RDSE for both sessions (see Appendix D). For Session 2, an additional component was added to the modified RDSE asking participants to indicate what factors they considered in making their decision (see Appendix D).

The modified RDSE was piloted to ensure both face validity and clarity of directions. Pilot studies were conducted with a total of 6 participants: 3 graduate research assistants in educational psychology (two of whom had previous teaching experience) and 3 undergraduate research assistants. Several modifications were made based on the pilot study and before

experimental trials were conducted, including rewording for clarity and the addition of an example to the directions created by the researcher for the modified RDSE. (The original RDSE directions for the student characteristics were not modified.)

Follow Up Questionnaire. In addition, participants were given a follow up questionnaire following completion of the modified RDSE instrument. Participants in the treatment condition were asked to complete the following 7 point Likert scale item: “How much do you feel the group discussion played a role in your individual grade retention decision?” (1 being “very little effect”, 7 being “very large effect”). This item assessed treatment group participants’ perception of group influence for the Session 2 task as a means of appraising the ecological validity of the group discussion manipulation.

Procedure

The study was divided into two sessions for all participants.

Session 1

During the first session, which occurred upon recruitment, all participants in both the treatment and control conditions were given a packet with an informed consent form, the Demographic Survey, and a modified version of Tomchin and Impara’s (1992) Retention Decision Simulation Exercise. The modified RDSE asked participants to consider three mock student grade retention decisions based on listed characteristics (academic, behavioral, social, and demographic), and the minimal risk level they would accept making a retention decision. Vignettes were counterbalanced to control for possible order of presentation effects. The packets took approximately 15 minutes for participants to complete. Participants were asked to complete the packet on their own and to return the packet (via a sealed envelope) to either their professor or to the researcher.

Session 2

Session 2 meetings for participants in both control and treatment conditions were scheduled 1 to 2 weeks following Session 1 participation, as suggested through past research (Myers, 1975; Myers & Kaplan, 1976). All participants, for both the treatment and control conditions, were asked to meet in a library or small classroom setting for Session 2. Participants took approximately 45 minutes to complete Session 2.

Assignment to Conditions. Before the second session, the researcher stratified participants by grade level taught, before randomly assigning participants into either the control ($n=25$) or

treatment ($n=25$) condition. Those randomly assigned to the treatment condition were subsequently stratified by grade level, and then randomly assigned to 6 groups, ranging from three to five participants per group (2 groups of three participants, 1 group of four participants, and 3 groups of five participants were created). Stratification was done to ensure that participant groups in the treatment condition were comprised of a variety of grade levels taught, in order to avoid a participant grade level experience confound.

Control Condition. During Session 2, participants in the control condition were given the same modified version of the RDSE as received in Session 1. Participants in the control condition were given the same directions as during Session 1, to complete the exercise individually. In addition, they were asked to write down all of the factors that influenced their decision on an attached sheet (see Appendix D). Participants in the control condition were directed to consider each vignette for up to 10 minutes and to decide upon their responses within that time period.

Treatment Condition. During Session 2, participants in the treatment condition also again were given the same modified version of the RDSE as received in Session 1. Participants in the treatment condition, however, received different directions than they had received during Session 1. They were directed to discuss with assigned group members each mock grade retention decision example and to attempt to reach a consensus decision as to the minimal risk level they would consider in making the grade retention decision. Groups were given a maximum of 10 minutes to discuss each retention example before moving on the next one (for a maximum total of 30 minutes). Group discussions were observed by the researcher to establish fidelity of treatment, to ensure that directions were followed properly, and as a manipulation check, to ensure that group members were interacting with each other. Following the group discussions, individual group members were asked to individually complete the same modified version of RDSE as was given to them in Session 1. They were given the same instructions as the control group, to complete the survey and write down all of the factors that influenced each decision on an attached sheet.

Upon returning the completed packet for Session 2, participants in both the control and treatment conditions were asked to complete a very short post-participation questionnaire (see Appendix D). After each participant completed this instrument, they were given a debriefing letter explaining the purpose of the study and their participation (see Appendix F).

CHAPTER 4

RESULTS

Preliminary Analysis

Analysis of variance (ANOVA) was used to determine if participants differed in initial decisions between the two conditions. Participants in the control (n=25) and treatment (n=25) conditions did not differ significantly in their initial decisions to retain or promote students for Vignette 1 [$F(1, 49) = 1.474, p=.231$], Vignette 2 [$F(1, 49) = .410, p=.525$], nor Vignette 3 [$F(1, 49) = .139, p=.711$], suggesting no bias in the randomization of assignment. In addition, initial decisions were not significantly different between participants recruited through the university (n=36) versus the teacher committee (n=14) for Vignette 1 [$F(1, 49) = 2.631, p=.111$], Vignette 2 [$F(1, 49) = .933, p=.339$], or Vignette 3 [$F(1, 49) = 1.897, p=.175$].

Initial ratings of decisions during Session 1 suggested that participants across conditions selected the lowest probability (indicating a greater likelihood of promoting the student) for Vignette 1, ($M= 2.76, SD=1.17$). As indicated on a 5-point scale, participants across conditions selected the highest probability (indicating a greater likelihood of retaining the student) for Vignette 2, ($M= 3.62, SD=1.54$), while initial probability selected for Vignette 3 tended more towards the middle (indicating nearly a 50/50 likelihood of retaining/promoting the student) ($M= 3.10, SD=1.13$).

As a manipulation check, the mean and standard deviation was calculated for the 7-point Likert scale item (1 being very little effect, 7 being very large effect) asking participants how much they felt the group discussion played a role in their decision during Session 2. Results suggested that participants in the treatment condition did feel that the group discussion had some impact on their decisions ($M= 3.62, SD=1.54$).

In addition, bivariate correlations were analyzed for Session 1 responses, collapsing across treatment and control conditions, for responses to the three vignettes. A summary of the results are presented in Table 4.1.

TABLE 4.1

CORRELATIONS FOR SESSION 1 RESPONSES ACROSS CONDITIONS

		Rating on Session 1	Rating on Session 1	Rating on Session 1
Vignette 1	Pearson	1	-.426*	.049
	Correlation			
	Sig. (2-tailed)		.002	.733
	N	50	50	50
Vignette 2	Pearson	-.426*	1	-.001
	Correlation			
	Sig. (2-tailed)	.002		.994
	N	50	50	50
Vignette 3	Pearson	.049	-.001	1
	Correlation			
	Sig. (2-tailed)	.733	.994	
	N	50	50	50

* Significant at $p < .01$

Polarization by Condition

In Research Question 1, it was hypothesized that participants in the treatment condition would polarize decisions greater following group collaboration, than would participants in the control condition that made decisions individually without group collaboration. A trial by pre-post interaction contrast using repeated measures analysis of variance (ANOVA) was conducted to determine differences in polarization by condition for each of the 3 vignettes. The independent variable was the assigned condition: collective (treatment) versus individual (control) decision making. The dependent variables measured were pretest (collected during Session 1) and posttest (collected during Session 2) measurements from the modified RDSE instrument. See Table 4.2 for a summary of the results.

TABLE 4.2

GROUP POLARIZATION BY CONDITION

	# of Participants	Session 1 Control	Session 1 Treatment	Session 2 Control	Session 2 Treatment	F Value
Vignette 1	<i>N</i> = 50	<i>M</i> = 2.56 <i>SD</i> =1.30	<i>M</i> = 2.96 <i>SD</i> =1.31	<i>M</i> = 2.64 <i>SD</i> =0.99	<i>M</i> = 2.12 <i>SD</i> =0.88	4.434 *
Vignette 2	<i>N</i> = 50	<i>M</i> = 3.48 <i>SD</i> =1.66	<i>M</i> = 3.76 <i>SD</i> =1.42	<i>M</i> = 3.28 <i>SD</i> =1.74	<i>M</i> = 4.08 <i>SD</i> =1.32	.174
Vignette 3	<i>N</i> = 50	<i>M</i> = 3.16 <i>SD</i> =1.07	<i>M</i> = 3.04 <i>SD</i> =1.21	<i>M</i> = 3.20 <i>SD</i> =0.76	<i>M</i> = 2.20 <i>SD</i> =0.76	8.522**

* Significant at $p < .05$

** Significant at $p < .01$

As hypothesized for Vignette 1 (high ability, high academic performing/low social maturity female), participants in the treatment condition polarized in their pre vs. post collaboration decisions to a significantly greater extent than did participants in the control condition that made decisions without collaboration [$F(1, 49) = 4.434, p = .040$]. Similarly for Vignette 3 (high ability, low academic performing/ high social maturity male), participants in the treatment condition polarized in their pre versus post collaboration decisions to a significantly greater extent than did participants in the control condition [$F(1, 49) = 8.522, p = .005$]. For Vignette 2 (low ability, low academic performing/low social maturity male student), where initial decisions tended most highly towards a likelihood to retain the student, there was no significant difference between participants in the treatment vs. control conditions in regards to polarization of decisions [$F(1, 49) = .174, p = .679$].

Factors Considered in Decisions by Condition

It also was hypothesized, in Research Question 2, that participants in the treatment condition (with collaboration) would consider fewer total number of factors and fewer unique factors in making their decision, than would participants in the control condition that made decisions individually without group collaboration. Both the researcher and an undergraduate research assistant independently counted the quantity of unique factors listed by each participant.

The total number of factors was calculated by summing the total number of factors cited by each participant. This sum included factors that were listed twice, but represented the same factor domain. The number of unique factors was calculated by subtracting any factors that were repeated within the same factor domain from the previously calculated total number of factors. For example, if a participant cited considering both a student's physical size and her height as factors, these both were individually included in calculating the total number of factors; however since physical size and height represent the idea but using different wording, these were counted only as one unique factor. Initial agreement in counts between researchers was 91% (136 out of the 150 factor counts). Final agreement was obtained through discussion by both researchers. After discussion, the researchers achieved 100% agreement. Frequencies of factors were counted for participants in both conditions for each vignette (see Table 4.3).

TABLE 4.3
FREQUENCY OF UNIQUE FACTORS CITED ACROSS VIGNETTES

Factor	Treatment Frequency	Control Frequency
Ability Score (Standardized Test Score)	37	51
Classroom Performance	36	51
Age	27	33
Size	27	29
Social Maturity	22	55
Potential Disability	8	12
Work Ethic	1	7
Family Support	1	3
Parent Desires		3
Student Efficacy		2
Administration Desires		2
Student Desires		2
School Extra Help Availability		2
Classmate Rapport		1
Classmate Maturity		1
Overall School Philosophy towards retention		1
Next Year's Teacher		1
Next Year's School Plan		1

Once the factors were counted, three separate analyses (one for each vignette) were conducted through an analysis of variance (ANOVA) design to determine if participants in the different conditions considered fewer total quantities of factors in their decisions. The independent variable was the assigned condition: collective (treatment) versus individual (control) decision making. The dependent variable was the quantity of factors considered in making the retention/promotion decision. As hypothesized, participants in the control condition considered significantly more factors than did participants in the treatment condition for Vignette 1 ($F(1, 49) = 7.096, p=.01$), Vignette 2 [$F(1, 49) = 10.583, p=.002$], and Vignette 3 [$F(1, 49) = 5.989, p=.018$]. See Table 4.4 for a summary of the results.

TABLE 4.4
TOTAL QUANTITY OF FACTORS CONSIDERED BY CONDITION

	# of Participants	Control	Treatment	F Value
Vignette 1	$N = 50$	$M = 3.57$ $SD = 2.81$	$M = 2.02$ $SD = .76$	7.096 *
Vignette 2	$N = 50$	$M = 3.52$ $SD = 1.78$	$M = 2.12$ $SD = 1.12$	10.583 **
Vignette 3	$N = 50$	$M = 3.54$ $SD = 2.06$	$M = 2.34$ $SD = 1.54$	5.989 *

* Significant at $p < .05$

** Significant at $p < .01$

In addition for Research Question 3, three separate analyses (one for each vignette) were conducted through an analysis of variance (ANOVA) design to determine if participants in treatment condition considered fewer unique factors in making the retention/promotion decision. The number of unique factors was defined as the total quantity of factors indicated by participants less any factors repeated within participant responses. The independent variable was the assigned condition: collective (treatment) versus individual (control) decision making. The dependent variable was the quantity of unique factors considered in making the retention/promotion decision. As hypothesized, participants in the control condition considered

significantly more factors than did participants in the treatment condition for Vignette 1 [$F(1, 49) = 6.693, p=.013$], Vignette 2 [$F(1, 49) = 9.959, p=.003$], and Vignette 3 [$F(1, 49) = 5.455, p=.024$]. See Table 4.5 for a summary of the results.

TABLE 4.5
QUANTITY OF UNIQUE FACTORS CONSIDERED BY CONDITION

	# of Participants	Control	Treatment	F Value
Vignette 1	$N = 25$	$M = 3.56$ $SD = 2.83$	$M = 2.04$ $SD = .79$	6.693*
Vignette 2	$N = 25$	$M = 3.48$ $SD = 1.90$	$M = 2.08$ $SD = 1.15$	9.959**
Vignette 3	$N = 25$	$M = 3.50$ $SD = 2.09$	$M = 2.28$ $SD = 1.54$	5.455*

* Significant at $p < .05$

** Significant at $p < .01$

CHAPTER 5

DISCUSSION

The purpose of this study was to extend past previous research focusing on the effects of grade retention practices and to further examine how the decision to retain or promote a student is made by teachers. More specifically, this study focuses on examining the differences that exist between grade retention decisions made by a single teacher versus those decisions made along with collaborative discussion with other teachers. Based on previous research in the areas of group processes and social psychology (Kogan & Wallach, 1967; Myers & Lamm, 1976), it was hypothesized that retention decisions made by individuals who collaborated within groups would lead to polarized decisions--what Kaplan and Miller (1977) described as the “polarizing influence of discussion” (p. 342). Thus, the aim was to see if the group polarization phenomenon is an influential force in grade retention decision making processes.

For two of the three vignettes, the results of the study supported the hypothesis that teachers who collaborate in making grade retention decisions polarize significantly more than teachers who make the decisions independently without collaboration. The significant results were found in the vignettes where initial participant decisions tended more towards a tendency to promote the student or an ambiguity in their decisions (Vignette 1 & Vignette 3). Vignette 1 described a female student with characteristics of above average ability, above average academic performing and below average social maturity female student when compared with other students in the class. Vignette 3 described a male student with characteristics of above average ability, below average academic performance, and above average social maturity in comparison with other students in the class. In both vignettes, teachers who collaborated in groups before making the decision polarized significantly more than did those teachers who made the decisions without collaboration. However, for Vignette 2, describing a male student with below average ability, below average academic performing and below average social maturity, there was no significant difference in polarization between those teachers who collaborated and those who made the decision without collaboration. Initial decisions for Vignette 2 indicated that teachers were most likely to retain the student.

These results suggest that teachers who encounter students whose characteristics (i.e., class performance, ability measures on standardized tests, maturity) make the decision to retain or promote the student somewhat ambiguous and subjective (e.g., Vignette 1 & Vignette 3), may

be more subject to group polarization than those decisions made for students whose characteristics more clearly call for a decision to retain (e.g., Vignette 2). This could have policy implications, suggesting that the mandates for group decision making (Freedman, 2006) may not be beneficial for all students.

Another interesting facet to group processes that may be present in student retention/promotion decisions, the issue of convergence, also emerged from follow up analyses of the data. Some prior research suggests that group collaboration may cause group members to not only polarize in their decisions, but also converge towards each other (Mayor, 1995). This was supported by Sherif's (1935) classic light study, in which group members converged in their estimates of the distance that a light had traveled. The hypothesis of convergence suggests that individuals who collaborate will have a lower standard deviation in their measurements (whether it be ratings, decisions, etc.) when compared with individuals who did not collaborate. Levine's tests (F tests) were conducted for comparisons of standard deviations for each of the research questions. For Research Question 1 (comparison of means in retention/promotion decisions) results suggested that although there were no differences between standard deviations of control and treatment group participants during Session 1 (before any treatment manipulation occurred), there was a significant difference between standard deviations for control and treatment participants during Session 2 for Vignette 2 [$F(1,49) = 3.03, p=.006$]. In addition, standard deviations were significantly lower for participants in the treatment condition in the total number of decisions they cited for Vignette 1 [$F(1,49) = 7.43, p=.009$] and Vignette 2 [$F(1,49) = 8.41, p=.007$], as well as the number of unique decisions cited for Vignette 1 [$F(1,49) = 7.40, p=.009$] and Vignette 2 [$F(1,49) = 8.61, p=.005$]. To summarize, participants in the treatment condition had significantly lower standard deviations in their retention/promotion decision for Vignette 2, and for the factors they cited for Vignette 1 and Vignette 2. This suggests that collaboration led to convergence among group members. These results certainly call for further research to determine if and when decisions and the factors cited in making decisions converge during collaborative discourse.

In addition, past research from social psychology and group brainstorming literature suggests that individuals are able to generate more ideas in making decisions than those who make decisions in groups (Bouchard & Hare, 1970; Michener, DeLamater, & Myers, 2004). Thus, the current study examined whether the total quantity of factors or the total number of

unique factors, which teachers take into account when making decisions, differ based upon whether the decisions were made in isolation or in collaboration with other teachers before making decisions. Teachers who collaborated in their decisions were expected to cite significantly fewer total quantities of factors and fewer numbers of unique factors influencing their decisions than teachers who made their decisions without collaboration. Concurrent with the findings of previous research, results supported this hypothesis for all 3 vignettes.

These results suggest that teachers, who make grade retention/promotion decisions while collaborating with others, may actually be more limited in the factors they consider than do those teachers who make the decisions individually without collaboration. Whether the limited factors suggests that collaboration increases focus only on the most pertinent characteristics, or whether it suggests that collaboration causes teachers to not consider the full range of important student characteristics, is unclear through this study. It may be that teachers, who make retention decisions in groups, stay closer to the data (i.e., what is being presented within the vignettes). For example, those in the treatment condition seemed to most frequently cite factors such as classroom performance and student ability (see Table 4.2), both of which were clearly presented on the vignettes. Some teachers in the control condition went beyond the information presented on the vignette and considered things like the students' efficacy, the next year's teacher, and the availability of extra help for the student (see Table 4.2). Future research studies should include the taping of group discussions in order to investigate if and how group members may be holding each other accountable. In addition, further studies should try to link the factors that teachers cite in making decisions, with both the short term and long term student outcomes of such decisions, in order to determine how factors relate to the quality of a decision.

In sum, the results suggest that different outcomes and decision making processes may occur dependent upon whether decisions to retain or promote a student are made by a single classroom teacher versus collaboratively with other teachers. In addition, the effect of group collaboration on the final decision making process and outcome may depend heavily upon the characteristics of the student.

Since this is the first and only study looking at group processes in a grade retention context, both strengths and limitations exist. One of the main strengths of the study is the controlled nature of the experimental approach used. But it is important to note that although the controlled experimental approach better enables the researcher to establish causality, it may limit

the generalizability of the study. In addition, a strength of the study lies in the utilization of diverse vignettes taken from past research (Tomchin & Impara, 1992) simulating actual student characteristics. However, one limitation of the instrument may be that characteristics presented on the original RDSE vignettes conflate a student's ability with their score on standardized tests. Presenting these two characteristics as one presumes that standardized tests have been shown to be good predictors of student ability; however, research has shown that one test score cannot be a perfect predictor of ability levels (Muir, 2005). Future research studies using these vignettes should present both ability and standardized test scores as two separate characteristics with separate visual continuum scales.

Another limitation of the current study is that group decisions involved equal status group members. In actual retention decisions, however, this is rarely the case. More than likely, group members will consist of different group members, including principals, teachers, school psychologists and parents, all with varying degrees of influence towards the final decision outcomes (Grant & Richardson, 1998; Light & Morrison, 1990). Past research has shown that levels of status influence how the group's members interact with each other, a phenomenon known as the status effect (Davis, Zaner, Farnham, Marcjan, & McCarthy, 2002). Whether and to what extent status has an impact could be studied by systematically introducing hierarchies of status to groups. For example, during one trial a principal would be added, while the next trial both a principal and a parent would be added. This would be done until finally a group was composed with multiple levels. This would enhance the ecological validity of the study.

These results carry implications for future research. Since limited research has been conducted in the area of group polarization research in school settings (Gutkin & Nemith, 1997; Tanner, 2006), research should further explore how group polarization affects both how retention decisions are made, as well as the final outcome of decisions. This could be done by linking how retention decisions are made (i.e., the factors considered, whether discussion is present) with the outcomes of such decisions. Replication studies should be conducted using different student characteristics to determine if group polarization remains a strong force across all grade retention/promotion decisions. In addition, research should attempt to pursue more naturalistic studies looking at how grade retention decisions are impacted by collaboration. Ideally, the controlled experimental research should be complimented with research examining decision making process during actual student placement decisions.

The results of this study also may have policy implications. Since many policies already mandate that grade retention decisions be made with collaboration among multiple parties (Freedman, 2006), it is important to determine if such practices are leading to decisions considering more limited student characteristics. Even more significantly, it is important to investigate if collaboration is leading to more lenient or harsh determinations, depending on the makeup of the decision making group. Even in a context with a heavy emphasis on accountability and standardization, the impacts of group dynamics on student placement decisions could mean the difference between the right versus wrong decision for a child.

APPENDIX A



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

APPROVAL MEMORANDUM

Date: 11/17/2006

To:
Kyle Freedman
3909 Reserve Dr. Apt# 823
Tallahassee, FL 32311

Dept.: **EDUCATIONAL PSYCHOLOGY AND LEARNING SYSTEMS**

From: **Thomas L. Jacobson, Chair**

A handwritten signature in black ink, appearing to read "Thomas Jacobson", written over the printed name.

Re: **Use of Human Subjects in Research**
Effects of Collaboration on Grad Retention Decision Making

The forms that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be Exempt per 45 CFR § 46.101(b) 2 and has been approved by an accelerated review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If the project has not been completed by **11/15/2007** you must request renewed approval for continuation of the project.

You are advised that any change in protocol in this project must be approved by resubmission of the project to the Committee for approval. Also, the principal investigator must promptly report, in writing, any unexpected problems causing risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols of such investigations as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Protection from Research Risks. The Assurance Number is IRB00000446.

Cc: Dr. Alysia Roehrig
HSC# 2006.0986

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ID # _____

Phone: (850) 645-2753
Fax: (850) 644-9085

INFORMED CONSENT

I freely, voluntarily, and without element of force or coercion, consent to be a participant in the research project entitled "Effects of Collaboration on Grade Retention Decision Making."

This research is being conducted by Kyle Freedman, a graduate student in the Department of Educational Psychology and Learning Systems at Florida State University and supervised by Dr. Alysia Roehrig. I understand the purpose of the research project is to better understand the processes of grade retention decision making. I understand that I will be expected to participate on two separate occasions. The total anticipated time commitment would be approximately 1 hour divided over two non-continuous days (15 minutes for the first session, and approximately 30-45 minutes for the second session). I understand that if I participate in the project I will be asked to complete a demographic questionnaire and a simulation exercise of 3 mock grade retention decisions during the first session. At the second session, I understand that I may be asked to participate in a group discussion exercise, in which I will be asked to discuss my opinions and suggestions regarding these mock grade retention decisions.

I understand my participation is completely voluntary, and that I may stop my participation at anytime. All of my answers to the questionnaires will be kept confidential, to the extent allowed by law, and identified by a subject code number. My name will not appear on any of the surveys or the results.

I understand that there is little known risk associated with my participation. If I have any questions about my rights as a participant in this study, or if I feel that I have been placed at risk because of my participation, I can contact the chair of Human Subjects Committee, Institutional Review Board, through the FSU Office of the Vice President for Research at (850) 644-8633 or by email: phaire@fsu.edu.

I understand there are benefits for participating in this research project. First, I will have the ability to reflect on my own grade retention decision making processes. I may also, at the discretion of my professor, gain extra credit points for participating in this research opportunity.

I understand that this consent may be withdrawn at any time without prejudice, penalty, or loss of benefits to which I am otherwise entitled. I have been given the right to ask and have answered any inquiry concerning this study. Questions, if any, have been answered to my satisfaction.

I understand that I may contact Kyle Freedman, graduate student in the Department of Educational Psychology and Learning Systems, at (850) 645-2753 or kef05d@garnet.acns.fsu.edu, or his supervising professor, Dr. Alysia Roehrig at (850) 644-9080 or aroehrig@fcrr.org, for answers to questions about this research or my rights. Results from the study will be sent to me upon my request.

I have read and understand this consent form.

Participant

Date

My contact information for setting up the second session:

E-mail address

Phone number



-----Original Message-----

From: kef05d@garnet.acns.fsu.edu [mailto:kef05d@garnet.acns.fsu.edu]
Sent: Monday, June 08, 2006 11:28 AM
To: Tracee Rankin
Subject: Permission to visit AVID PREP MEETING

Ms. Rankin,

I was wondering if it would be possible to visit one of your PREP meetings to try to recruit participants for my study. Just let me know. Thanks ☺

Dear Kyle Freedman,

That's no problem at all. We appreciate helping you with your research. You are more than welcome to use some of our elementary school teachers from the AVID preparation committee. We have team meetings throughout the year, so there will be ample opportunity to visit. Just give me a call and we can set something up for you. Thanks and I look forward to hearing from you.

**Tracee A. Rankin
AVID Coordinator**

"They can because they think they can."

-Virgil

**Orange County Public Schools
Cyprus Creek Campus
1101 Bear Crossing Drive
Orlando, Florida 32824
407-852-3400 ext 4251
Fax: 407-852-
3468**

APPENDIX B

Florida State UNIVERSITY

Tallahassee, Florida 32306-4450

Educational Psychology & Learning Systems
College of Education
307 Stone Building

Phone: (850) 645-2753
Fax: (850) 644-9085

INFORMED CONSENT

I freely, voluntarily, and without element of force or coercion, consent to be a participant in the research project entitled “Effects of Collaboration on Grade Retention Decision Making.”

This research is being conducted by Kyle Freedman, a graduate student in the Department of Educational Psychology and Learning Systems at Florida State University and supervised by Dr. Alysia Roehrig. I understand the purpose of the research project is to better understand the processes of grade retention decision making. I understand that I will be expected to participate on two separate occasions. The total anticipated time commitment would be approximately 1 hour divided over two non-continuous days (15 minutes for the first session, and approximately 30-45 minutes for the second session). I understand that if I participate in the project I will be asked to complete a demographic questionnaire and a simulation exercise of 3 mock grade retention decisions during the first session. At the second session, I understand that I may be asked to participate in a group discussion exercise, in which I will be asked to discuss my opinions and suggestions regarding these mock grade retention decisions.

I understand my participation is completely voluntary, and that I may stop my participation at anytime. All of my answers to the questionnaires will be kept confidential, to the extent allowed by law, and identified by a subject code number. My name will not appear on any of the surveys or the results.

I understand that there is little known risk associated with my participation. If I have any questions about my rights as a participant in this study, or if I feel that I have been placed at risk because of my participation, I can contact the chair of Human Subjects Committee, Institutional Review Board, through the FSU Office of the Vice President for Research at (850) 644-8633 or by email: phaire@fsu.edu.

I understand there are benefits for participating in this research project. First, I will have the ability to reflect on my own grade retention decision making processes. I may also, at the discretion of my professor, gain extra credit points for participating in this research opportunity.

I understand that this consent may be withdrawn at any time without prejudice, penalty, or loss of benefits to which I am otherwise entitled. I have been given the right to ask and have answered any inquiry concerning this study. Questions, if any, have been answered to my satisfaction.

I understand that I may contact Kyle Freedman, graduate student in the Department of Educational Psychology and Learning Systems, at (850) 645-2753 or kef05d@garnet.acns.fsu.edu, or his supervising professor, Dr. Alysia Roehrig at (850) 644-9080 or aroehrig@fcrr.org, for answers to questions about this research or my rights. Results from the study will be sent to me upon my request.

I have read and understand this consent form.

Participant

Date

My contact information for setting up the second session:

E-mail address

Phone number

APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE

1. **How many full years of K-8 teaching experience have you had?**
(i.e., if this is your first year of teaching then indicate 0)

_____ (years)

2. **What grades do you teach, or have you taught at your school?**

3. **Which of the following would best describe the school environment in which you currently teach?**
Please place an "X" in the box that applies

Rural	
Suburban	
Urban	

4. **What is your highest degree earned?**
Please place an "X" in the box that applies

Bachelor's	
Master's	
Specialist's	
Other (please specify)	

5. **What is your age?**

_____ (years)

6. **What is your gender?**
Please place an "X" in the box that applies

Male	
Female	

7. **Which of the following best describes your race and ethnicity?**
Please place an "X" in each appropriate box that applies

American Indian or Alaskan Native	
--------------------------------------	--

Asian	
Black or African American	
Hispanic or Latino	
Native Hawaiian or Pacific Islander	
White	
Other (please specify)	

APPENDIX D

Directions for Session 1 (all participants)

Instructions for the Retention Decision Simulation Exercise

In the following exercise, you will be given a description of a student, including a list of characteristics that describe the student. Please assume that this is a student in your own classroom. Following each description you will be asked to indicate the lowest probability of success that you would accept in making the decision to promote the student. That is, what is the lowest chance of the student benefiting from being promoted that you would consider acceptable in order to make the decision to promote him or her. Here is an example:

- a. The chances are 1 in 10 that the student will benefit from grade promotion. _____
- b. The chances are 3 in 10 that the student will benefit from grade promotion. _____
- c. The chances are 5 in 10 that the student will benefit from grade promotion. X
- d. The chances are 7 in 10 that the student will benefit from grade promotion. _____
- e. The chances are 9 in 10 that the student will benefit from grade promotion. _____

Selecting a 5 in 10 chance would indicate that you would be willing to promote a student if he or she has at least a 50% chance of benefiting from being promoted.

The characteristics in the following descriptions can be interpreted as follows:

Social Maturity Scale- This is a measure of how well the child gets along with others, follows directions, and works independently. A child at the high end of this scale follows directions, works independently and acts appropriate for his or her grade. A child at the low end of the scale does not follow directions or work independently. A primary aged child at the low end of the scale may act inappropriately by hitting, crying or playing when other children are involved in specific tasks. An older child who acts inappropriately may shout out, or cause disturbances while others are working.

Ability (estimate) - This measure is based on scores from a standardized test in which an estimate of general ability or aptitude is given. These are indicated in percentile scores, which as you know indicate the percentage of students in that grade who score below the child.

Academic Performance – This is a composite rating of the child’s school performance. Assume the child was ranked in comparison to classmates to determine whether the child was high or low on the list. This includes all subjects. In some cases reading level and math performance are specifically mentioned. Teachers of kindergarteners should interpret these as reading readiness and number concepts assessments.

Age – This states whether the child is older or younger than classmates.

Size – This is a composite of height and weight which compares the child to his or her classmates.

Please respond to each question based on your interpretation of the information. Remember, there are no right or wrong answers.

You may be assured of complete confidentiality. No one associated with the school division will know what you say as an individual. You have been assigned a code number so we can be certain that all forms are returned. Your code number is located on the top of each form in the packet. Please complete this form on your own, without outside assistance from others.

Is there anything you would like to say about promoting and retaining students? Please use this space below to write your comments and observations (you may use the back of this sheet as well):

Directions for Session 2 (Control Group)

Instructions for the Retention Decision Simulation Exercise

In the following exercise, you will be given a description of a student, including a list of characteristics that describe the student. Please assume that this is a student in your own classroom. Following each description you will be asked to indicate the lowest probability of success that you would accept in making the decision to promote the student. That is, what is the lowest chance of the student benefiting from being promoted that you would consider acceptable in order to make the decision to promote him or her.

Here is an example:

- a. The chances are 1 in 10 that the student will benefit from grade promotion. _____
- b. The chances are 3 in 10 that the student will benefit from grade promotion. _____
- c. The chances are 5 in 10 that the student will benefit from grade promotion. X
- d. The chances are 7 in 10 that the student will benefit from grade promotion. _____
- e. The chances are 9 in 10 that the student will benefit from grade promotion. _____

Selecting a 5 in 10 chance would indicate that you would be willing to promote a student if he or she has at least a 50% chance of benefiting from being promoted.

In addition, you will be asked to write down the factors that you would consider for each child in making the retention decision. You are encouraged to utilize your experiences as a teacher, as well as the characteristics described for each student, in generating these factors.

Please spend no more than 10 minutes considering each student scenario.

The characteristics in the following descriptions can be interpreted as follows:

Social Maturity Scale- This is a measure of how well the child gets along with others, follows directions, and works independently. A child at the high end of this scale follows directions, works independently and acts appropriate for his or her grade. A child at the low end of the scale does not follow directions or work independently. A primary aged child at the low end of the scale may act inappropriately by hitting, crying or playing when other children are involved in specific tasks. An older child who acts inappropriately may shout out, or cause disturbances while others are working.

Ability (estimate) - This measure is based on scores from a standardized test in which an estimate of general ability or aptitude is given. These are indicated in percentile scores, which as you know indicate the percentage of students in that grade who score below the child.

Academic Performance – This is a composite rating of the child’s school performance. Assume the child was ranked in comparison to classmates to determine whether the child was high or low on the list. This includes all subjects. In some cases reading level and math performance are specifically mentioned. Teachers of kindergarteners should interpret these as reading readiness and number concepts assessments.

Age – This states whether the child is older or younger than classmates.

Size – This is a composite of height and weight which compares the child to his or her classmates.

Please respond to each question based on your interpretation of the information. Remember, there are no right or wrong answers.

You may be assured of complete confidentiality. No one associate with the school division will know what you say as an individual. You have been assigned a code number so we can be certain that all forms are returned. Your code number is located on the top of each form in the packet. Please complete this form on your own,

Directions for Session 2 (Treatment Group)

Instructions for the Retention Decision Simulation Exercise

In the following exercise, you will be given a description of a student, including a list of characteristics that describe the student. Please assume that this is a student in your own classroom. Following each description you will be asked to indicate the lowest probability of success that you would accept in making the decision to promote the student. That is, what is the lowest chance of the student benefiting from being promoted that you would consider acceptable in order to make the decision to promote him or her. Here is an example:

- a. The chances are 1 in 10 that the student will benefit from grade promotion. _____
- b. The chances are 3 in 10 that the student will benefit from grade promotion. _____
- c. The chances are 5 in 10 that the student will benefit from grade promotion. X
- d. The chances are 7 in 10 that the student will benefit from grade promotion. _____
- e. The chances are 9 in 10 that the student will benefit from grade promotion. _____

Selecting a 5 in 10 chance would indicate that you would be willing to promote a student if he or she has at least a 50% chance of benefiting from being promoted.

You will be asked to discuss this decision in a collaborative setting, with 4 other group members. Your goal, as a group, is to reach a consensus decision as to the lowest probability of success that you, as a group, are willing to accept in order to promote the student. You will be given 10 minutes to discuss each student scenario, after which you will be asked to state aloud the group decision. If no consensus can be reached following the decision; you will be asked to move on to the next scenario. Each group member is encouraged to contribute to the discussion. Following the group discussion, you will be asked to indicate the lowest probability of success that you would accept in making the decision to promote the student. In addition, you will be asked to write down the factors that you would consider for each child in making the retention decision. You are encouraged to utilize your experiences as a teacher, as well as the characteristics described for each student, in generating these factors.

The characteristics in the following descriptions can be interpreted as follows:

Social Maturity Scale- This is a measure of how well the child gets along with others, follows directions, and works independently. A child at the high end of this scale follows directions, works independently and acts appropriate for his or her grade. A child at the low end of the scale does not follow directions or work independently. A primary aged child at the low end of the scale may act inappropriately by hitting, crying or playing when other children are involved in specific tasks. An older child who acts inappropriately may shout out, or cause disturbances while others are working.

Ability (estimate) - This measure is based on scores from a standardized test in which an estimate of general ability or aptitude is given. These are indicated in percentile scores, which as you know indicate the percentage of students in that grade who score below the child.

Academic Performance – This is a composite rating of the child’s school performance. Assume the child was ranked in comparison to classmates to determine whether the child was high or low on the list. This includes all subjects. In some cases reading level and math performance are specifically mentioned. Teachers of kindergarteners should interpret these as reading readiness and number concepts assessments.

Age – This states whether the child is older or younger than classmates.

Size – This is a composite of height and weight which compares the child to his or her classmates.

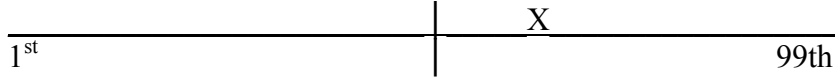
Please respond to each question based on your interpretation of the information. Remember, there are no right or wrong answers.

You may be assured of complete confidentiality. No one associate with the school division will know what you say as an individual. You have been assigned a code number so we can be certain that all forms are returned. Your code number is located on the top of each form in the packet.

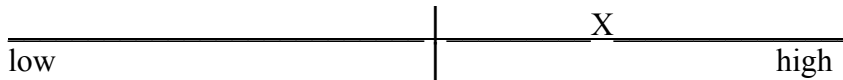
(for both sessions 1 & 2)

Pam is one of your students. She is bigger in size than most of your other students. She is approximately 6 months younger than average. She is performing above average in her classroom work; however Pam is at the low end of the scale of maturity. She frequently displays inappropriate behavior, does not work well independently, does not follow direction, and often does not do the assigned work. Scores on a recent standardized test indicated that Pam's estimated ability is at the 61st percentile.

Ability



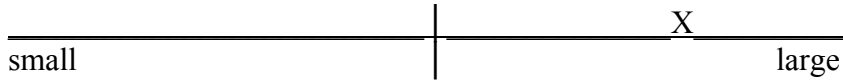
Academic Performance



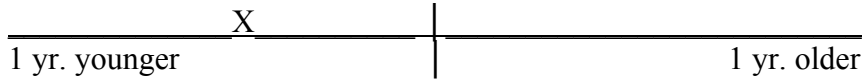
Social Maturity



Size



Age

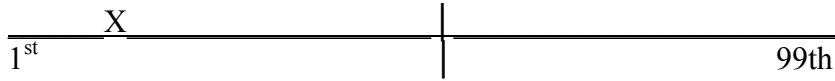


Below are probabilities (a-e) that Pam might benefit from grade promotion. What is the lowest probability of Pam benefiting from grade promotion that you would find acceptable in order to make a decision to promote her? Please check one.

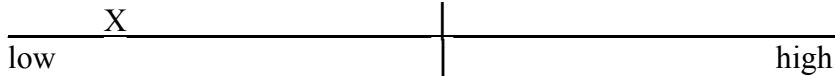
- a. The chances are 1 in 10 that the student will benefit from grade promotion. ____
- b. The chances are 3 in 10 that the student will benefit from grade promotion. ____
- c. The chances are 5 in 10 that the student will benefit from grade promotion. ____
- d. The chances are 7 in 10 that the student will benefit from grade promotion. ____
- e. The chances are 9 in 10 that the student will benefit from grade promotion. ____

Jeff is one of your students. He is a big child and about 7 months younger than the average child in your class. He is on the low end of the social maturity scale. He does not follow directions or work well independently. He forgets assignments and exhibits inappropriate behavior. Jeff is below average in academic performance, is failing math, and is reading below grade level. Results of a recently administered standardized test estimate Jeff's ability is at the 15th percentile.

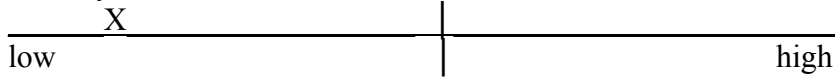
Ability



Academic Performance



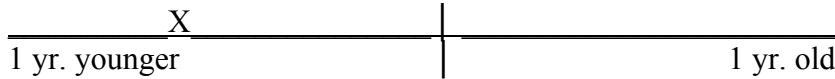
Social Maturity



Size



Age

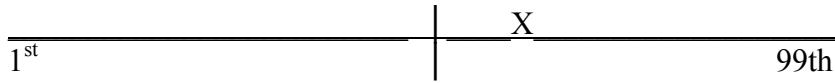


Below are probabilities (a-e) that Jeff might benefit from grade promotion. What is the lowest probability of Jeff benefiting from grade promotion that you would find acceptable in order to make a decision to promote him? Please check one.

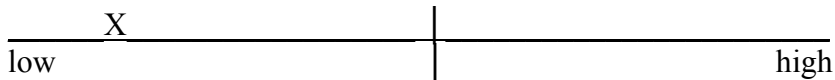
- a. The chances are 1 in 10 that the student will benefit from grade promotion. ____
- b. The chances are 3 in 10 that the student will benefit from grade promotion. ____
- c. The chances are 5 in 10 that the student will benefit from grade promotion. ____
- d. The chances are 7 in 10 that the student will benefit from grade promotion. ____
- e. The chances are 9 in 10 that the student will benefit from grade promotion. ____

Fred is one of your students. He is performing below average in classwork, is failing math, and is reading below grade level. Fred is at the high end of the social maturity scale. He follows directions and works independently. Fred turns in assignments and overall exhibits appropriate behavior. He is a big child and is about 10 months older than his classmates. According to a standardized test taken recently Fred's estimated ability is at the 60th percentile.

Ability



Academic Performance



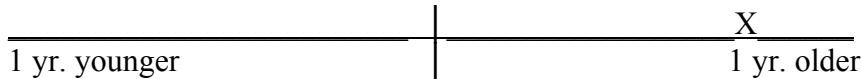
Social Maturity



Size



Age



Below are probabilities (a-e) that Fred might benefit from grade promotion. What is the lowest probability of Fred benefiting from grade promotion that you would find acceptable in order to make a decision to promote him? Please check one.

- a. The chances are 1 in 10 that the student will benefit from grade promotion. ____
- b. The chances are 3 in 10 that the student will benefit from grade promotion. ____
- c. The chances are 5 in 10 that the student will benefit from grade promotion. ____
- d. The chances are 7 in 10 that the student will benefit from grade promotion. ____
- e. The chances are 9 in 10 that the student will benefit from grade promotion. ____

In general, how strongly do you feel that students should be retained?

-3 -2 -1 0 +1 +2 +3
(very strongly opposed) (very strongly in favor)

Was there any additional comments you had regarding the study or grade retention, in general?

APPENDIX E

-----Original Message-----

From: kef05d@garnet.acns.fsu.edu [mailto:kef05d@garnet.acns.fsu.edu]
Sent: Monday, June 05, 2006 9:48 AM
To: Ellen Menaker
Subject: RE: Instruments used in Tomchin & Impara (1992)

Dr. Menaker,

Thank you so much for your response and your generosity in allowing me to use your instruments. I have ordered your dissertation from UMI, and am expecting to receive it in a couple of weeks. I will certainly keep you updated on how I plan on using your instruments, and maybe even ask for a little expert feedback and advice from you in the future. Again, thank you very much for your help. Kyle Quoting Ellen Menaker <Menaker.Ellen@idsi.com>:

>
>
> Hi Kyle
>
> I would be delighted to have you use the instruments; however, I do not
> have an electronic copy. If you are able to get my dissertation through
> Dissertation Abstracts the instruments are in an appendix. I thought I
> had a hardcopy of them but have been unable to locate it (too many moves
> ago, I fear).
>
> Please let me know if you are unable to find my dissertation and I will

[\[Hide Quoted Text\]](#)

- try to have someone copy the instrument for you. Unfortunately the
 - > Decision Exercise is about 40 pages long.
 - >
 - > Wishing you success--
 - >
 - > Ellen Menaker (formerly Tomchin)
 - >
 - >
 - > Ellen S. Menaker, PhD, CPT
 - > Chief of Research and Evaluation
 - > Intelligent Decision Systems, Inc
 - > 5870 Trinity Parkway
 - > Suite 200
 - > Centreville, VA 20120
 - > 703 766-9631 x124 phone

Florida State UNIVERSITY

Tallahassee, Florida 32306-4450

Educational Psychology & Learning Systems
College of Education
307 Stone Building

Phone: (850) 645-2753
Fax: (850) 644-9085

Debriefing Letter

Thank you for participating in the research project entitled “Effects of Collaboration on Grade Retention Decision Making.” The purpose of the study is to see if and how group collaboration affects grade retention decision making processes, including what factors are considered in making grade retention decisions, and the maximum acceptable risk level required to make such decisions. We hope that you, at minimum, were able to reflect on your grade retention decision making processes through participation in this project. I expect that your data will greatly help in determining key variables relating to most effective practices in grade retention decision making for students in elementary schools.

The results of the study will be reported as part of a thesis project for the Learning and Cognition program in the Department of Educational Psychology and Learning Systems; the thesis is expected to be completed in the summer of 2007. If you would like to view the results, please contact Kyle Freedman at kef05d@fsu.edu.

Thank you,

Kyle Freedman

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BIOGRAPHICAL SKETCH

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