TITLE I PROGRAM MODELS OF DELIVERY: THE IMPACT OF PARAEDUCATOR INSTRUCTION ON IDAHO FOURTH GRADE READING PROFICIENCY

by

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ABSTRACT

Under federal law *No Child Left Behind* (NCLB, 2002), each state must annually increase the percentage of students proficient on their achievement tests. They must also have a plan to ensure school districts adequately train and evaluate paraeducators or possibly face losing them as instructional assistants. The study was a descriptive design using quantitative analysis from information gleaned from Idaho's school district Title I Directors and principals statewide who responded to *Qualtrics* web-based survey with data about their elementary schools' models of Title I program service delivery, instructional staff and their training. It examined the relationship between the five most common school models of delivery in and improvement in fourth grade reading proficiency as measured by the spring Idaho Standards Achievement Test (ISAT) published by the State Board of Education (ISBE, 2007c). The results were analyzed to identify the relationship between school models of delivery and relative gain (or loss) in student reading proficiency from grade three to four. Statistical significance was found in the pullout model of paraeducator instructed groups under the supervision of a teacher controlling for school size and the percent of Free or Reduced Lunch (FRL). There was a high statistical significance found in the percent of FRL. Other factors gleaned from the survey were discussed as they influenced the program delivery model. The literature review discusses changing roles of teachers and paraeducators, teaming strategies,

effective intervention strategies, effective tools for reading instruction, program models, as well as the five most common models reviewed in the study.

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CHAPTER ONE: INTRODUCTION

Purpose and Rationale of Study

The research question in this study is:

Which of the five most common instructional delivery models in Idaho's elementary Title I programs most positively affects growth in grade four student reading proficiency?

The focus of this study was to determine relationship between the five most common school models of Title I remedial reading service delivery in elementary schools and relative gain (or loss) in statewide fourth grade reading proficiency as measured by the Idaho Standards Achievement Test (ISAT) (ISBE, 2007c). School demographics, instructional staff, and their preparation and training were also considered as related factors. The Title I program delivery models analyzed in this study described in detail Table 7 in *Program Delivery Models in the Study* Chapter 2, *Literature Review*.

Program Model 1: Inclusion with classroom teacher instructing and paraeducator assisting.

Program Model 2: Inclusion with team teaching by classroom teacher and paraeducator.

Program Model 3: Pullout with paraeducator instructing under teacher supervision.

Program Model 4: Pullout with Title I or Reading Endorsed teacher instructing and paraeducator assisting.

Program Model 5: Inclusion with Title I or Reading Endorsed teacher instructing and paraeducator assisting.

Assumptions

1. Title I Directors and principals responded to the survey questions accurately.
2. Schools designed their program of services in compliance with No Child Left Behind (NCLB, 2002) requirements.
3. Paraeducators worked with students in Title I programs under the direct supervision of certificated teachers.
4. Students received Title I services because school-based assessments showed they were not reading at their grade level.
5. The school proficiency levels determined and published by the State Board of Education Idaho State Board of Education (ISBE, 2007b, c) were accurate.

Limitations

1. The study was limited to school districts in Idaho, and the Title I Directors, principals, paraeducators, and teachers who worked with and supervised paraeducators in Title I reading programs in elementary schools.
2. The criteria for determining student eligibility to receive Title I services varies greatly from school to school and district to district.
3. The Idaho Standards Achievement Test (ISBE, 2007a) is limited in the ability to accurately determine student or school reading proficiency.

4. There are other factors influencing effective instructional practices and student achievement, such as the physical and emotional health and cognitive abilities of individual students, the individual skills of the instructor, and the school resources.
5. The ISAT proficiency scores were based on schools and grade levels, therefore Title I students, as a group cannot be separated in the study.

The researcher sought to identify factors in the Title I program model of services including paraeducator training, which would have an effect on student reading proficiency. Schools must ensure their students achieve certain levels on the ISAT (ISBE, 2007d), in order to make Adequate Yearly Progress (AYP) as determined by the Idaho State Department of Education (ISDE, 2007a) under NCLB (2002). Educators must provide research-based curriculum and instructional practices, which are aligned to state standards and assessments. The purpose of Title I programs is to provide accelerated instructional interventions for students who lag behind their peers in reading ability. With paraeducators being an integral part of this process, it is necessary to consider the factors in the program design and delivery, which includes appropriate training and supervision of paraeducators to improve student performance and achievement.However, as this study shows, there are many factors that influence student achievement, and the strongest predictor is socio-economic status, which is based on the percent of students qualifying for Free or Reduced Lunch (FRL). The Title I program was created to provide a commensurate education for the disadvantaged and is federally funded based on school district poverty by the Elementary and Secondary Education Act (ESEA, 1994; NCLB, 2002).

According to the National Assessment of Educational Progress (NAEP), nearly 4 in 10 fourth graders read below the basic level (U.S. Department of Education [USDE], 2003a). Unfortunately, according the USDE, such literacy problems get worse as students advance through school and are exposed to progressively more complex concepts and courses. Historically, nearly three-quarters of these students never achieve average levels of reading skill, and the consequences are life altering. Young people entering high school in the bottom quartile of achievement are substantially more likely than students in the top quartile to drop out of school, setting in motion a multitude of negative social and economic outcomes for students and their families. To address this problem, many school districts have created remedial programs that are designed to produce, on average, about one year's gain in reading skills for each year of instruction. However, if children begin such programs two years below grade level, they will never "close the gap" between themselves and average readers (USDE, 2006b).

Background

Paraprofessionals or paraeducators constitute an important and significant portion of instructional delivery to all students, particularly those in Special Education, Title I and English as a Second Language (ESL) programs. The National Education Association ((NEA, 2008, Who is Paraeducator section, ¶ 2) states "*para* is a prefix derived from ancient Greek meaning alongside of or akin to, and it has been used for many years to designate those who work with and assist licensed professionals in fields such as medicine and law. Like paralegals and paramedics, paraeducators are respected members

of the professional team, and the professionals who supervise them direct and delegate their work, but are not administrators."

Anna Lou Pickett, the founder of the National Research Center for Paraprofessionals (NRCP) and a nationally known expert in paraeducator issues, stated in 1999 that paraeducators are school agency employees whose positions are either instructional in nature or who provide other direct services to children, youth, and/or their families. Paraeducators work under the supervision of teachers or other professional practitioners who are responsible for the design, implementation, and assessment of learner progress and the evaluation of effectiveness of learning programs and related services for children, youth, and/or their families. Other titles may include: paraprofessional, teacher aide/assistant, education technician, transition trainer, job coach, therapy assistant, home visitor, and others.

Today's paraprofessionals, who number upwards of 250,000 nationwide, play an increasingly prominent role in the instruction of students with learning deficiencies (USDE, 2003b). To support paraprofessionals in fulfilling the responsibilities of their expanded roles, education agencies must understand the contexts in which paraprofessionals work and use that information to provide them with appropriate training and supervision. The proliferation of instructional assistants in public schools often has outpaced conceptualization of team roles and responsibilities, as well as training and supervision needs of instructional assistants (Giangreco, Edelman, Luiselli, & MacFarland, 1997).

Many paraeducators are women with, at most a high school education, and mothers who have chosen this work because they love children, enjoy the school

environment, and find that the position is compatible with family life. They are often willing to perform tasks that others cannot or will not do, even though they admit they are underpaid for the work they do (French, 1999). Although some paraeducators may aspire to become teachers, often they are unable to pursue this goal because of time, personal, family, and financial barriers (Wadsworth, 1996).

Over the past two decades, one of the biggest obstacles to successful school reform has been the failure of policymakers to detail and clarify the role of paraprofessionals in the mission to improve schools. That failure has cost paraprofessionals access to strong professional development opportunities, to competitive professional salaries, and even to the opportunity to perform their jobs in schools that have consistently miscast paraprofessionals as surrogate teachers (Campbell, 2003).

Pickett said paraeducators were the fastest growing, yet most under recognized, under prepared, and under utilized category of personnel in the service delivery system in the 1980's (1999). This idea has continued to be true, as we have moved into the 21st century. With limited resources to hire more teachers and increased requirements for student achievement under the law, it appears that school districts are relying more heavily on paraeducators to meet the needs of students at-risk for failing in reading. This is based on the increase in the number of paraeducators employed in the United States.

In 1999, the staff at the National Resource Center for Paraprofessionals (NRCP) estimated the number of paraprofessionals working in education in the U.S. to be over 300,000, an increase of over 100,000 since 1990 (Pickett, 1999). The results of the NRCP survey of all 50 states in 1999-2000 with regard to paraeducator employment (Pickett, Likins & Wallace, 2003) contained the information shown in Table 1.

Table 1

National Resource Center for Paraprofessionals Survey

Paraeducators	Description
525, 000	Number of paraeducators employed in full time equivalent (FTE) positions nationwide
290,000	Number employed in inclusive general and Special Education programs, self-contained resource rooms, transition services and early childhood settings for children with disabilities
130,000	Number employed in multi-lingual, Title I or other compensatory programs for children
105,000	Number employed in pre-school and elementary classrooms, libraries, media centers, and computer laboratories

One critical piece of information that was not possible or very difficult to obtain in this survey was the number of paraeducators who are assigned to work one-to-one with individual learners. It is important to stress that all of these numbers were only approximate, because most states do not maintain central databases, some gather only data required by federal programs, and some states report that the data are not available by program areas (Pickett et al., 2003). Determining the number of paraeducators employed by Local Education Agencies (LEA's) and the programs to which they are

assigned was not found to be an exact science. Federal and state agencies concerned with the delivery of education services in different program areas use different approaches to data collection. A majority of paraeducators are part time; therefore a state reported full time equivalent (FTE) may represent 1 to 3 paraeducators depending on how the district allotted hours.

Two recent U.S. Department of Education's (USDE) reports for the school year 2003-04 (the most recent year for which they have data), gave two different estimates for the number of instructional aides working in the public schools. The *Public Elementary and Secondary Students, Staff, Schools, and School Districts* Common Core of Data (CCD) report (National Center for Educational Statistics [NCES], Feb. 2006) stated that 685,242 instructional aides were working in the public schools. The *Characteristics of Schools, Districts, Teachers, Principals, and School Libraries in the United States* Schools and Staffing Survey (SASS) report (NCES, April 2006) stated that 633,700 instructional aides worked in the public schools for the same year. It is unclear why there is a discrepancy in the number of paraeducators reported in the two reports. The NCES reported having coordinators in all 50 states to do the CCD collection, while only mentioning a variety of individuals who assisted in collection of SASS data, so perhaps not all public schools were surveyed.

Despite the proliferation of paraprofessionals to support education, it remains one of the least studied and potentially most significant areas of impact in education over the past decade (Giangreco, Edelman, Broer, & Doyle, 2001). Originally, schools employed nonprofessional personnel to perform clerical and routine tasks in classrooms or school offices or outside 'duties.' Paraeducator roles shifted dramatically by the mid-1990's.

Now they spend most of their working hours with small groups of students or individuals (French, 1998; Pickett et al., 2003; USDE, 2006a). They assist students with health care, personal needs, assignments, projects, small group work, and they assist entire classes in which many students are academically functioning below their peers. They also observe and document data on learner skills and behavior, implement behavior-management programs and assist teachers with modifying programs to meet the needs of individual students. The language found in NCLB (2002), which provides Title I programs for school districts, clearly shows the intent of using paraeducators is to assist the work of the teacher/service provider with direct supervision (Sec. 1119, g). This study considered the role of paraeducators as one factor in the schools' models of Title I reading service delivery.

Importance of the Study

There has been minimal research done in the area of student achievement as it relates to paraeducator instruction, perhaps due in part to overly generalized findings based on factors such as small sample size, geographical differences, homogeneity of study interventions, and brevity of interventions. Due to the requirements under NCLB, (2002) this is also a politically "hot" topic and perhaps contributed to the researcher's inability to find an individual district willing to use their program as a model for study. Politically, the emphasis has been on Special Education, which is a legally required program while Title I is supplemental and optional for school districts. The researcher looked for studies on this topic using the search terms "paraprofessional school personnel," "academic achievement," "paraeducators and reading achievement," as well

as “Title I reading programs,” “Title I program models and paraprofessionals” a limited number were found that actually addressed program delivery models (Allington, 2001; Allor, Gansle, & Denny, 2006; Hock, Pulvers, Deshler, & Schumaker, 2001; International Reading Association (IRA), 2000; Lane, Fletcher, Carter, Dejud, & Delorenzo, 2007; Marr & Dugan, 2007; Miles, Stegle, Hubbs, Henk, & Mallette, 2005; Morris, 2005; Morris, Bloodgood, & Perney, 2003; National Center on Educational Restructuring and Inclusion (NCERI), 1995; Peyton, Sanders, & Vadasy, 2005; Therrien, 2004; Vadasy, Sanders, & Peyton, 2006; Wasik & Slavin, 1993). These studies generally emphasized the importance of the type of intervention and the teacher or paraeducator’s training who provided it for students.

However, the increased focus on student achievement gains as mandated by NCLB (2002) has created a new interest in this area for researchers. Paraeducator instructed classes are not generally superior to and not as effective compared to classes without paraeducators or smaller classes with regard to student achievement (Gerber, Finn, Achilles & Boyd-Zaharias, 2001). There are other ways in which paraeducators could be beneficial in the classroom, such as by increasing teacher’s sense of teaching efficacy. It is also possible that paraeducators may provide important attention and support to specific students, which may be reflected in those students' test scores, but not affect the class as a whole. Although schools undoubtedly provide paraprofessional support with the best of intentions and in the belief that it will help students, little evidence suggests that students do as well or better in school, academically or socially, when they are taught by paraeducators (Gerber et al., 2001; Giangreco et al., 2001; Jones & Bender, 1993). “Sometimes relying on paraeducators may feel effective because it

relieves, distributes, or shifts responsibility for educating a student with specialized needs, but educators should not confuse this outcome with effectiveness for students," (Giangreco, 2003, p. 51). As student needs differ in Title I, their program of instruction delivered by paraeducators needs to be designed carefully to include effective instructional interventions to help ensure the greatest achievement.

There are substantial research studies available on research-based instructional interventions, appropriate teacher preparation, paraeducator training, certification, supervision and evaluation with recommendations for further study as shown in the literature review. With federal program funding for schools based on standardized test results, there is a greater focus on substantial scrutiny of paraeducators' preparation and role in the instructional process as it leads to student achievement. This should lead to new relevant research studies in this area.

The development and strengthening of standards for credentialing and administration can serve to define roles and responsibilities for paraeducators as well as help to ensure a higher level of quality of service according to the American Federation of Teachers (AFT, 2000). Administrative guidelines and credentialing systems regulate the education or experience that is required for paraeducators. Professions outside of education have recognized the importance of establishing standards and certification requirements. The National Education Association (NEA, 2008, Professional development section, ¶ 1) developed the *Paraeducator Handbook*, which states,

> Student achievement depends on rigorous standards and a knowledgeable education team. To have high standards for students, there must be high standards for the staff that works with them. It is particularly important that paraeducators

receive the training necessary not only to assist in ongoing programs, but also to become knowledgeable about their responsibilities and rights.

The National Skill Standards Board is developing a voluntary national system of skills standards for 15 industry sectors, including school paraprofessionals. The AFT is working with the Board and leading a coalition of groups developing revised standards for the paraprofessionals, classroom assistants and other segments of the education workforce (Campbell, 2003; AFT, 2006). Once completed, these standards will be available to help schools develop strong training and certificate programs and to detail paraprofessional job descriptions. "Strong certification and licensure programs must be in place," American Federation of Teachers Vice-President Loretta Johnson stated, "We want these to be based on standards that show classroom paraprofessionals are a respected part of the faculty, standards that take into account the skills and experience of people in the classroom already" (Campbell, 2003, p. 18). A strong certification and licensure process would help school districts across the nation ensure that paraprofessionals are full partners in efforts to raise student achievement, Johnson believes. An occupational comparison for paraprofessionals indicates that certification requirements for occupations other than paraeducators include minimum standards for a wide range of professions (Beale, 2001). Standards for paraeducators should be no less important than these other career fields.

AFT (2006) affiliates around the country are also working hard to negotiate agreements that give paraprofessionals full access to the crucial training and professional development necessary if schools are to succeed in helping students reach higher standards. And for paraprofessionals who are interested in careers in teaching, AFT

affiliates from New York to California have negotiated strong career-ladder programs to help them realize their ambitions (Campbell, 2003). "When the nation commemorates the 30th anniversary of *A Nation at Risk* in 2013, I hope that many of these pieces are in place," said AFT Vice-President Johnson (AFT, 2006, Paraprofessional Certification section, ¶ 2). "For school improvement to happen, paraprofessionals need strong certification and licensure. They need to be part of the faculty. They need a defined role and salaries that reflect the major duties they perform."

Many states have already implemented paraeducator standards, training or certification programs, but they vary widely across the states and districts. All states must now address this issue due to the reauthorization of the Elementary and Secondary Education Act (ESEA, 1994) as *No Child Left Behind* (NCLB, 2002), which requires by definition that all staff in the public schools be "highly qualified" by the end of year 2005-06 and also states specific qualifications for paraeducators. Consequently, this law appears to have created some concerns among public school personnel and administrators as they realize the programmatic, accountability, and financial implications on using paraeducators in Title I programs.

CHAPTER TWO: LITERATURE REVIEW

The review of literature summarizes the changes in the law and provides evidence of studies supporting paraeducator training, roles, and appropriate interventions for working in Title I within school settings. The teacher-paraeducator team approach is reviewed with respect to working with students to provide effective, research-based reading instruction and interventions to improve student achievement.

Changing Roles under the Law

The employment of paraeducators in educational settings is rooted in the social, political, and institutional changes of the 20th century, and the paraeducator's role has evolved in relation to the changing role of teachers and other professional professionals (Pickett, 1997). The changing roles in schools require that teachers be the frontline managers of human and material resources, diagnosis, and prescription of student needs. Paraeducators must be the instructional aides and technicians: they follow through on the instructional plan designed by the teachers. The single most important reason for paraeducators in schools is to improve the quality of educational student services. The greatest contribution paraeducators make toward improving the quality of instructional services is to enable teachers to focus on diagnosing and prescribing programs to meet the individual needs of their students (Pickett, 1999). As in any good relationship, effective teacher-aide teams make use of both individuals' talents. Paraeducators are technicians and specialists, somewhat like paralegals and paramedics. However, mostly

due to their low wages and lack of resources in many school districts, the paraeducators' roles have exceeded their qualifications. Nancy French and Ritu Chopra, co-creators of the Colorado Training of Paraprofessionals (CO-TOP) in Denver and authors of paraprofessional research, found that teachers, families and paraeducators all report that paraeducators are really "teachers" because what they do is, in fact, instruction (1999). Paraeducators are often providing direct instruction to students who lag behind their peers in reading and math skills while lacking the necessary training to do so appropriately. Teachers also have little preparation for the supervision and responsibilities associated with the assistance of paraeducators.

In one study (Harris, Tillery, Werts, & Roark, 2004), parents reported a number of reasons for the paraeducator's presence in the classroom. Thirty-three paraeducator/student dyads working in inclusive classrooms were observed and interviewed, and 28 parents of the 33 students observed agreed to be interviewed about their child's paraeducator. Students ranged in age from 4 to 12 years, and each one had special needs ranging from high to low incidences. The interview protocol consisted of 20 short-answer and open-ended questions. Questions ranged from demographic information about the student to perceptions of the paraeducator's relationship with the student and the parent's knowledge of the paraeducator's role. Open-ended questions allowed for a wide range of responses with no preconceived response possible. The same protocol was used with each parent. If a response indicated the parent misunderstood part of an item, the interviewer explained the question. Parents were encouraged to make additional comments throughout presentation of the data as well as during the interview. A majority of parents (68%) reported the paraeducator was present to provide academic

help. However, 25% of the parents reported paraeducators were there to keep the child focused, and 21% of the parents reported paraeducators were there because of behavioral issues. Most parents described their child's paraeducator positively (75%). Parents in this study (Harris et al., 2004) also made three recommendations:

1. Paraeducators need more training to work with special needs children
2. School personnel need to improve communication with parents
3. More paraeducators are needed in schools

NCLB (2002) requires that all paraprofessionals working in federally funded programs must first have a high school diploma or its equivalent. Additionally, they must either have two years of post-secondary education or pass a state or local assessment of knowledge, skills and the ability to assist students in providing those skills. The assessment needs to be equivalent to two years of post secondary education. Each state was given the autonomy under the law to create their own program of assessment for their paraprofessionals, and the USDE periodically surveys the states for information about how the law is being implemented (NCLB, 2002).

In June 2005, the USDE released a statement that effectively amended this deadline. Although not explicitly extending it, the statement stipulated that the deadlines for paraprofessionals and for teachers should be "consistent" with one another. Because the deadline for teachers was the end of the 2005-06 school year, this constituted a de facto extension of five months for paraprofessionals. This extension did not affect the requirement that all paraprofessionals must hold a high school degree or its equivalent, which took effect immediately upon enactment of the law, regardless of the date of hire. The most frequently cited barrier to NCLB (2002) compliance is resistance on the part of

paraprofessionals. Districts report that many paraprofessionals resist having to take an exam or complete additional course work to perform a job that pays little and that, in many cases, they have been performing for years. Officials also mentioned cost, time, and the lack of sufficient staff members to enforce the requirements (de Cohen, 2006).

Despite the fact that Title I teachers have good credentials, half of the instructional staff employed in Title I are paraprofessionals, a staffing pattern unchanged from prior reauthorization of the law (USDE, 1999) and still apparently true as of 2006 (USDE, 2006a). Paraprofessionals are used in many Title I schools for teaching and assisting in teaching, even though their educational backgrounds do not qualify them for such responsibilities. Paraprofessionals tend to be used more heavily in the highest-poverty schools, where only 10 percent of paraprofessionals have bachelor's degrees. Eighty-four percent of principals in high-poverty schools report using paraprofessionals, as compared with 54 percent in low-poverty schools. Three-fourths (76 percent) of paraprofessionals spent at least some of their time teaching students without the teacher present, and 41 percent reported that half or more of the time they spent teaching or helping to teach was on their own, without the teacher present (USDE, 1999). High poverty schools are the ones provided additional funding through Title I programs under NCLB (2002), and often have the most at-risk students. The trained educator, not the paraprofessional, has the legal and moral responsibility for the success of his or her students and the expertise to ensure it happens. Paraprofessionals certainly provide valuable assistance to students but must, by law, be appropriately supervised.

According to the USDE *Final Report on the National Assessment of Title I* prior to NCLB (2002), most paraprofessionals (88%) taught or helped to teach reading,

language arts, or English, and three-fourths (73%) taught or helped to teach mathematics. About one-fifth (21%) taught or helped to teach English as Second Language or bilingual education (USDE, 1999). These areas are some of the subgroups used to identify whether a school is making Adequate Yearly Progress, which is based on student proficiency on state achievement tests under the law. This federal and state mandated "accountability" system (answerability, liability, responsibility for meeting predetermined standards) and its accompanying sanctions for schools would appear to indicate a cogent argument for more appropriate training of paraeducators and supervision of their work by a certified teacher. Yet districts continue to rely on paraprofessional instruction in these critical areas in part because they can hire three or four part-time paraprofessionals without benefits for the one full-time certified teacher (USDE, 1999).

In the USDE's *National Assessment of Title I Interim Report* on implementation (USDE, 2006a), it states paraprofessionals account for more than one-third of Title I-funded instructional staff members, and they spend over half of their time tutoring students one-on-one or working with students in groups. Due to concerns about the quality of the instructional support provided by these staff members, NCLB (2002) strengthened requirements for their qualifications as described above.

According to principal reports, 63 percent of Title I paraprofessionals had been identified as "qualified" under NCLB (2002) as of the 2004-05 school year, and 11 percent were not qualified (USDE, 2006a). For the remaining 26 percent of Title I aides, principals either indicated that they did not know the paraprofessionals' status or skipped the question entirely. By the end of the 2005-06 school year, all Title I paraprofessionals

had to be "qualified" as defined in NCLB. A survey of the paraprofessionals themselves suggested that a higher percentage may meet the NCLB requirement when final determinations are made; 87 percent of Title I paraprofessionals indicated that they either had passed a state or district paraprofessional assessment (55 percent) or had two years of college or an associate's degree (56 percent).

Among Title I paraprofessionals who said they were not qualified under NCLB, 30 percent reported "not enough money or funding to become qualified" as a major challenge and 21 percent reported "not enough time to get qualified." Other major challenges reported by paraprofessionals were insufficient encouragement from school and district (17 percent), level of difficulty of the test (13 percent), and insufficient information about what they needed to do (8 percent) (USDE, 2006a).

Paraeducators' roles have definitely evolved under this law, which requires a much more scrutiny on the part of school districts to ensure paraeducators are appropriately trained to assist students and teachers.

Training Opportunities for Paraeducators

Some paraeducators may welcome the latest legislative challenges and opportunities to learn new skills. The new levels of professionalism and expertise required for teachers would seem to also necessitate more qualified paraprofessionals to better serve students. Although paraeducator personnel represent high percentages of the diverse ethnic, cultural, and language-minority populations in their communities, they are frequently overlooked as resources for recruitment into teacher education preparation programs (Pickett, 2000).

Paraprofessionals bring a range of pre-service educational experiences: high school diploma or less (29%), some college (38%), and associate's degree or higher (32%). Approximately 13% have a paraprofessional certificate or credential. Another 6% have a teaching certificate or license (USDE, 2003b). The importance of higher education is noteworthy. Paraprofessionals with college experience rated themselves significantly higher than those without college experience in their performance in several job responsibilities, including sharing information about students with teachers for planning, problem solving, and decision making and participating in meetings. It is difficult for the regular teacher to provide for individual differences in reading, especially when the number of students is large and for that reason, paraprofessionals become very valuable in the classroom.

For schools that continue to provide pullout models for student services in separate classrooms, paraeducators will usually work under the close supervision of a trained educator. But as students are increasingly mainstreamed into regular education classrooms, the paraeducators' roles are expanding, which calls into question the legal appropriateness of those roles under the law. In some situations, it is not always clear who is the paraeducator's direct supervisor (Giangreco et al., 2001).

Nationally, paraprofessionals spent an average of 37 hours in professional development in 1999-2000 (USDE, 2003b). Thirty-three percent of those hours were required by their district or state. During 2000-2003, 76 percent of paraprofessionals received training in teaching academic concepts and skills, and 83 percent received training in implementing behavior management programs developed by teachers (USDE, 2003b). Paraprofessionals who receive more professional development in a specific

work-related task feel consistently more skillful in that area. As an example, 59 percent of paraprofessionals who received eight or more hours of professional development in teaching academic concepts and skills felt highly competent in providing instruction compared to 38 percent of those who received little or no such professional development. As a group, the more educated paraprofessionals spend far more time in professional development, which most likely results in differences in skill levels across the two groups (USDE, 2003b).

Downing (2000) found a major void exists between training and being expected to perform job duties. Most of the 16 paraeducators she surveyed, who were nominated by teachers she had trained and who served elementary through high school students with learning disabilities in schools in suburban settings, reported they received no training at the onset of their job, and felt the need for considerably more training after being in the position for a while. Schools and districts must determine the scope of paraeducators' training needs and how best to provide on-the-job and in-service training opportunities. In order to allow paraeducators to provide quality services, districts must determine what skills teachers need to provide ongoing supervision and support.

Giangreco and Doyle (2002) suggest a three-pronged approach to improving paraprofessional supports for students with special needs. Schools need to: 1) do a better job with paraprofessional supports that are already in place at the local level by pursuing role clarification, role alignment with paraprofessional skills, orientation, training, and supervision; 2) do a better job in determining when paraprofessional supports are warranted and appropriate; 3) explore alternatives to the heavy reliance on paraprofessional supports, especially for special needs children. According to Giangreco

and Doyle, the conundrum is that if we train paraeducators sufficiently to engage in teacher-level activities, align their roles with those teacher skills, and pay them accordingly; why hire them instead of teachers? Even though there may be some overlap between what teachers, special educators like Title I teachers, and paraprofessionals do, effective models have to clarify the distinctions that allow schools to use resources most effectively to meet students' needs.

As paraprofessionals participate in more instructional roles in the classroom, the need for professional development to assist them in performing their very important duties has increased (Keller, Bucholz, & Brady, 2007). The role of the paraprofessional in classroom instruction has become so important that researchers and professional organizations have distinguished the role of the paraprofessional from that of the teacher by identifying numerous areas in which paraprofessionals should receive specialized training.

Paraprofessionals need to have the opportunity to develop effective instructional and behavior improvement strategies. Professional development should be "an ongoing process, where paraeducators can return to discuss their experiences in implementing these strategies, explore the pros and cons of various strategies, and problem solve with partner teachers and other paraeducators" (Lasater, Johnson & Fitzgerald, 2000, p. 48). Lasater's research emphasized knowledge and skills about instructional and learning strategies as an important area for paraprofessional training and development. A learning strategy is any approach to completing a task that an individual uses independently.

Although the majority of paraprofessionals are spending their time teaching, they have limited opportunities to advance their skills (USDE, 1999). Principals reported that

less than half of school districts are supporting paraprofessionals by providing career ladders (38%), funding for higher education classes (33%), and release time for class work or studying for higher education courses (22%), even though it is required by federal law. Paraprofessionals have typically received limited in-service training, but this is changing due to the requirements of professional development training under NCLB (2002). Requiring more training for paraprofessionals is good in theory, but presents major challenges, especially in rural areas. Most paraprofessionals are community members who have volunteered to help out at school, or may be teachers in training at a local college. Additional education and training in areas of geographic isolation may be difficult. In addition, rural districts may be unable to afford paying for increased training of paraprofessionals and resulting higher salaries (Tyler, 2003).

Typically, when paraeducators receive training or preparation to perform the tasks they are assigned, they receive on-the-job training from teachers or another paraeducator. It is often limited to a brief introduction to the duties assigned, a few handouts, and shadowing a teacher or another paraeducator. Instead, preparation and training should be specific to the job assignment, include regular team meetings and feedback from the teachers (Carroll, 2001).

The majority of states, districts, and schools reported that they had adopted at least one strategy to help Title I paraprofessionals comply with the NCLB (2002) "highly qualified" requirements by Fall 2006 (USDE, 2006a). At the state level, the most common strategies were working with local colleges and universities to design needed courses or offering evening and weekend courses to Title I paraprofessionals (21 states) and offering test preparation courses for paraprofessionals wishing to take the state

competency exam (13 states). Other common strategies included offering funding for course tuition (10 states) and paying the state test fee for interested paraprofessionals.

The USDE report (2006a) states that nearly three-quarters (74 percent) of principals reported that their district or school was providing non-qualified paraprofessionals with training related to their classroom duties. Other strategies included the creation of school-level liaisons to work with paraprofessionals on their qualifications (56 percent) and providing incentives for paraprofessionals to increase their qualifications and become "qualified" under NCLB (2002) (36 percent).

Christie (2005), citing the Education Commission on the States Teaching Quality and Leadership Institute, stated 11 states had professional development programs to assist existing paraprofessionals in their efforts to attain highly qualified status under NCLB (2002), while many others are in the process of developing such programs. Those 11 states are Delaware, Georgia, Hawaii, Idaho, Michigan, Mississippi, New Hampshire, New Mexico, New York, Ohio, and Rhode Island.

Three states had established programs through partnerships and collaborations. The College of Southern Idaho has created the Paraeducator Training Center (PTC) to help paraprofessionals and those seeking to become paraprofessionals in the Pacific Northwest to reach the level of education required by NCLB (2002). The curriculum is aligned with Idaho's standards for paraprofessionals and trains students through a three-step process. The first is the general curriculum, developed by the PTC and offered by all participating schools. The second involves credits in general education as well as in the area of specialization in which the individual is seeking the degree. The third step is the completion of the associate of applied science degree, with the opportunity to finish the

educational core credits to obtain an associate of arts or science degree (Christie, 2005). The state in this study participates in this training.

Northwest Regional Educational Lab (NWREL, 2005), funded by the U.S. Dept. of Education, developed several in-service training modules for paraeducators and provided free of charge to school districts in the Northwest area. Module I provides paraeducators an opportunity to increase what they know about professional ethics and the appropriate roles and responsibilities of paraeducators. This module has been designed to address two goals: to develop an understanding of paraeducator professional and ethical standards and to develop a basic understanding of paraeducator roles and responsibilities as a member of an effective instructional team. Additional modules include building instructional teams, supporting the teacher through classroom management, effective instructional strategies, and instruction of reading, writing and mathematics.

There are many opportunities offered to paraeducators and the school districts that employ them to provide specific training to increase their skills in providing appropriate research-based interventions for students.

The Role of the Paraeducator

NCLB (2002) requires that paraprofessionals be trained and supervised by teachers. Deciding what constitutes appropriate training and supervision requires clarity about the scope of a paraprofessional's duties. Recent literature has raised questions about whether educators are asking too much of paraprofessionals in the classroom, given their skills and typically low levels of compensation (Giangreco, 2003).

More than three-quarters of Title I paraprofessionals reported that they spent at least some of their work day tutoring students one-on-one (79 percent) or working with students in groups (87 percent) (USDE, 2006a). On average these paraprofessionals reported spending about 57 percent of their time on these two activities. Nearly one-quarter (23 percent) reported that, of the time that they spent tutoring or working with students in a classroom, a teacher was present for half or less of this time.

In a feature article in *Educational Leadership*, Giangreco (2003) expressed that over-dependence on paraprofessionals can adversely affect the social and academic growth of at-risk students, resulting in their inadequate instruction and peer interactions. In some cases, students feel stigmatized because they receive focused paraprofessional support. For students with behavior problems, the paraprofessional support put in place to assist them may actually exacerbate behavioral outbursts.

Safarik (1997) found that by delivering small group instruction, pre-teaching in support of the regular classroom activities, and assisting with the coordination of instruction with the regular classroom program, the paraeducator can provide much needed individualized instruction. The potential for strengthening student skills when the paraeducator is part of the team is greatly enhanced. Safarik identified the common core competencies that transcend specialty areas, which were developed by the NRCP. Other competency models analyzed by this author were examined to determine their consistency with the NRCP model, which are shown in Table 2.

Table 2

NRCP Model of Paraeducator Competencies

Paraeducator Competencies
Strengthening the instructional team
Legal and human rights for children, youth, and their parents
Human growth and development
Components of the instructional process
Appreciating diversity
Working with families
Emergency/health/safety procedures

After analysis of other competency models, Safarik (1997) derived 11 competency areas common to all disciplinary models. These competencies do not preclude the need for more specialized competencies needed within specific disciplines as shown in Table 3.

Table 3

Paraeducator Competencies for All Disciplinary Models

Paraeducator Competencies
Work effectively with students, clients, coworkers, and employers
Use effective professional skills
Demonstrate instructional skills
Develop instructional skills.
Provide instructional support
Maintain a safe, and healthy environment
Demonstrate behavior management skills
Demonstrate effective communication
Demonstrate assessment and planning skills
Demonstrate knowledge of legal, ethical, and professional standards.
Demonstrate the ability to develop and maintain relationships with families.

Paraeducators should have input regarding student progress, especially when developing behavior plans, and teachers should be willing to accept the paraeducator's experience and expertise regarding the students with whom she or he works. Paraprofessionals, especially those working one-on-one, see the child on an on-going basis and can be extremely helpful in assisting the educator to determine which academic and behavioral strategies are working and which are not (Hauge, Babkie, & Lock, 2006).

Paraeducators have many responsibilities in schools. It is implicitly the responsibility of the school district to determine that those roles are legal, appropriate, and for the purpose of increasing student achievement.

Teacher and Paraeducators Working as a Team

Teachers are key agents in the improvement of education, which requires a change in their roles and responsibilities, from just teachers to instructional leaders and decision makers in the schools. An additional role that has been added, or rather mandated by federal legislation through NCLB (2002) and Individualized Disabilities Education Improvement Act of 2004 (IDEA, 2004) is that of supervision. A teacher's role in providing training for and supervising the work of paraprofessionals in education has changed since paraprofessionals first became involved in the educational setting. Teachers have little preparation for the supervision and responsibilities associated with the assistance of paraeducators. Few training programs for teachers working with paraprofessionals have been developed (Wallace, Shin, Bartholomay, & Stahl, 2001).

As teachers have come to rely more heavily on paraeducators, many regard the work of paraeducators as necessary to their success and to the success of their students (French, 1998). Effective paraeducators take the initiative to watch others work with students and learn by imitating them, thus effectively supporting the work of professional teachers (French, 1999).

There is greater availability of qualified paraprofessionals in the absence of professional teachers, and because paraprofessionals are less costly than teachers, more staff can be hired to support students with particular learning needs (Walsh & Jones,

2004). However, schools and districts with a collaborative scheduling model using teacher/paraprofessional teams face significant challenges. They must provide ongoing staff development and supervision for paraprofessionals. There is the danger that teachers will feel that their role has been diminished with this model, and parents may question the ability of a paraprofessional to provide direct support to students in the absence of direct supervision by the teacher. The teacher must retain responsibility for student achievement and outcomes.

Classroom teachers collaborate and participate in instructional decision making with special educators and paraprofessionals. They direct the work of paraprofessionals in their classroom, for example, planning lessons that match the skill level of the paraprofessional. They mentor paraprofessionals and maintain an instructional dialogue with them, and they phase out paraprofessional support when their students no longer need it (Giangreco, 2003).

Unfortunately, teachers often become less engaged with students requiring supplemental instruction when those students receive paraprofessional support. Given the importance of teacher engagement to the success of all students, educators must take care not to inadvertently compromise that engagement. Educators hope to direct paraprofessional support that facilitates, rather than compromises, both the success of special needs students and teacher engagement with these students (Giangreco & Doyle, 2002; Giangreco et al., 2001; Pickett & Gerlach, 1997; Riggs & Mueller, 2001).

Giangreco states teachers often fall into the "training trap" (2003, p. 51). First, teachers often relinquish instruction of students who have learning deficiencies because they assume that paraprofessionals are specially trained to work with such students. But

the literature suggests that many paraprofessionals continue to be under trained or untrained. In other words, usually the students with the greatest learning challenges in the classroom often receive their supplemental instruction and support from the least qualified staff members. Although some paraprofessionals are highly educated, and recent federal legislation requires those working in Title I programs to be more educated, most have far less education, skill, or experience than certified classroom teachers, especially when it comes to curriculum and instruction (Giangreco, 2003).

The second part of the "training trap" involves teacher engagement. Unfortunately, once paraprofessionals receive virtually any amount of training, the best case is usually equivalent to a single college-level course, many teachers feel even more justified in relinquishing instructional responsibilities to them. These teachers, many of whom have graduate degrees and years of experience, are uncomfortable instructing students with particular learning difficulties because they are "not trained" (Giangreco, 2003, p. 51). However, they feel confident handing over the major part of instruction to a paraprofessional. Although paraprofessional training certainly is an important start, it is typically insufficient to prepare paraprofessionals to perform the instructional duties that classroom teachers increasingly ask them to do. Most teachers are much better trained to educate any student than are most paraprofessionals.

When paraeducators are assigned to classrooms, they should be members of a teaching team in the students' perception rather than as people "velcroed" to individual students. Teaching models in which general and specialized personnel work together as a team are effective and efficient ways of arranging adult support to meet diverse student needs (NCERI, 1995, p. 42). Such models are shown in Table 4.

Table 4

Teaching Models

Title I Model	Description
Consultation	Support personnel provide assistance to the general educator, enabling him or her to teach all the students in the inclusive class
Parallel teaching	Support personnel--for example, a special educator, a Title I teacher, a psychologist, or a speech language therapist--and the classroom teacher rotate among heterogeneous groups of students in different sections of the general education classroom
Supportive teaching	The classroom teacher takes the lead role, and support personnel rotate among the students

Table 4 (continues)

Table 4 (continued)

Complementary teaching	The support person does something to complement the instruction provided by the classroom teacher (for example, takes notes on a transparency or paraphrases the teacher's statements)
Co-teaching	Support personnel co-teach alongside the general education teacher.

The supervision plan developed by the supervising teacher/service provider and the paraeducator must ensure that the supervisor will have direct contact time with the paraeducator as well as with the individuals served by the paraeducator. Language provided in guidance for NCLB (2002) is less stringent and states that the paraeducator must work "in close and frequent proximity" with the supervising teacher. This phrase has not been clearly defined or explained; therefore it is open to interpretation by State Education Agency's (SEA) and LEA's. It could mean the teacher walks past a classroom where a paraeducator is working with students or it could mean working together all day in the same classroom. In Idaho, it is defined to mean the supervising teacher must work in the same building as the paraeducator and communicate with him or her at least once daily. This can directly impact the effectiveness of paraeducators working with students.

Giangreco (2003) found that many paraprofessionals feel pressured to try to instruct students with special learning needs in the regular classroom, even when they are

unsure of the intended learning outcomes. They re-teach, they complete assignments, and they do homework for these students for fear that they will be perceived as not doing their job; a flood of activity may take place without quality instruction or genuine learning taking place.

Instead, the classroom teacher, special educator, and paraprofessional should meet to plan how to engage the student in group lessons and to identify individually appropriate learning outcomes that are clearly understood by all team members. Next, the teacher can determine the student's need for differentiated expectations, instruction, materials, and assignments, as well as ways in which the paraprofessional can help implement such differentiation. Educators may also consider modifying their school's service delivery model so that paraprofessionals are assigned to a limited number of subjects in which they can gain content proficiency (Giangreco, 2003).

Giangreco suggested teachers can use paraprofessionals for whole-class support, or assign them in ways that free up the teacher to spend time with students who need extra assistance. Teachers and paraprofessionals can establish a classroom culture that encourages peer-to-peer support through such strategies as cooperative learning groups and peer tutoring (Giangreco, 2003).

Contact with professionals in the school has a positive effect on paraprofessionals. Those who spend more time meeting with teachers on lesson planning, curriculum development, guidance and counseling, evaluation of programs, or other collaborative work related to instruction feel more confident in their ability to implement programs. In addition, paraprofessionals who participate in school, district, or agency committee

meetings report higher ratings in their ability to implement education programs and in their overall performance (USDE, 2003b).

Paraeducators and teachers working together have many benefits if the team approach is planned and implemented correctly using the skills of both effectively. This will have a positive impact on the students they assist and should improve their achievement.

Teachers and Reading Specialists

Many competent, caring educators have difficulty delivering all that is expected of them (Giangreco, 2003). Improving the working conditions of educators is vital to ensuring that students with special needs receive appropriate education services and that teachers and paraprofessionals have necessary supports. Inadequate working conditions for capable yet overwhelmed educators can lead to inappropriate autonomy for paraprofessionals. Paraprofessionals may be left to make curricular and instructional decisions on their own, often without adequate training, professionally prepared lessons, sufficient knowledge of the student's individualized plan, or supervision (Giangreco, 2003).

But even if teachers are fortunate enough to have adequate working conditions and work effectively with paraprofessionals, they should not relinquish instructional responsibilities to the paraprofessionals assigned to their classrooms (Giangreco, 2003). Effectively educating students with special needs who are striving to meet individual learning outcomes, while participating in the general education curriculum requires the

integral involvement of the classroom teacher, who is likely to be the only certified educator in the classroom throughout the day, in the teaching team (Giangreco, 2003).

When the question of capacity to provide effective instructional services to students at-risk, a review of literature reveals two key points. First, paraeducators perform their duties most effectively when they are appropriately supervised, their roles are clearly defined, they are trained for assigned tasks, receive on-going feedback, and they participate in regularly scheduled planning meetings. Second, teachers must be responsible for assigning specific tasks, delivering on-the-job training, holding planning meetings, designing instructional plans, and directing and monitoring day-to-day activities of the paraeducator (French, 1998 & 2003; Pickett et al., 2003). Failure to instruct the paraeducator about intended goals and outcomes raises some concern about how teachers are able to remain accountable for student educational outcomes (French, 2001). In addition, inappropriate duties performed by paraeducators may compromise the integrity of the program and is inconsistent with the intent of federal law (Heller, 1997). Interestingly, regardless of the position of their supervisor, the majority of paraprofessionals (89%) feel they have the support they need (USDE, 2003b).

Some authors have made recommendations to teachers about supervisory practices. French (1999, 2001, 2003), Pickett (1997), as well as Pickett, Vasa and Steckelberg (1993) all recommended that teachers maintain responsibility for things such as student assessment, planning for instruction that involves individualized needs and goals, providing on-the-job training, holding meetings, prescribing characteristics of the learning environment, and directing the work of paraeducators. Heller (1997) discussed the ethics of hiring practices, evaluation of school personnel, and the delineation of roles.

But what about the qualifications of reading teachers for special needs students? Idaho does not require any credentials for teaching in Title I, and no reading specialist credential, only a 20-hour endorsement, which includes at least 15 of those hours in prescribed coursework areas. In addition, the Praxis II, Reading Specialist with a qualifying score of 480, is required (ISDE, 2008). Allington (2006) stated in a commentary that in most schools today, you would find substantial numbers of reading specialists, reading teachers, and reading coaches who have never earned a reading specialist credential, even though most states have established such credentials. There seem to be no advanced expertise requirements at the federal level or in most states for any of these job titles. Under the mandates of NCLB (2002), all teachers must demonstrate that they are highly qualified, even if the criteria seem minimal. But reading specialists, reading teachers, and reading coaches must only demonstrate the same reading qualifications as elementary classroom teachers in most states. Elementary classroom teachers should be highly qualified in the teaching of reading, but the qualifications we want for reading specialists and reading coaches should substantially exceed those we hope all classroom teachers might meet, according to Allington (2006).

It isn't that high-quality standards for reading personnel do not exist, because International Reading Association (2003) has developed and disseminated high-quality standards for the preparation of reading specialists/coaches. They revised a resolution in 2006 stating these professionals should have on-going development in literacy and maintain a current knowledge base of research and practice (IRA, 2006). But many state education agencies and the U.S. Department of Education seem to have ignored the IRA

standards in considering how best to ensure that all students have access to high-quality reading instruction (Allington, 2006).

In any attempt to improve the quality of reading instruction, policymakers should focus on ensuring that all schools employ credentialed reading specialists/coaches (Allington, 2006). IRA Board member Rita Bean and her colleagues (Bean, Swan, & Knaub, 2003) reported that reading specialists in schools with exemplary reading programs were appropriately credentialed, and they noted that it was the advanced expertise of these individuals that supported the high-quality reading instruction in these schools.

A primary goal of federal and state educational reform policies is improving student reading achievement, particularly narrowing the reading achievement gaps that exist between poor and non-poor students, between minority and majority students, and between students with disabilities and those without. Explicitly tied to this goal is the obligation of raising the quality of reading instruction offered to all children but particularly those groups of children whose reading development has traditionally lagged behind their peers (Allington, 2006). A key aspect of the IRA standards (2003) for reading specialists/coaches is their emphasis on developing specific expertise that addresses reading difficulties that can be put to use in adapting, modifying, and delivering more expert reading instruction to struggling readers either directly or indirectly through effective coaching of classroom teachers.

The IRA standards (2003) for reading specialists/coaches require 24 hours of course work in reading with at least 6 hours earned in a supervised clinical practicum. This is the standard that institutions of higher education must meet to have their graduate

reading programs earn accreditation from the National Council for Accreditation of Teacher Education (Allington, 2006). It is the standard that many states have adopted for those wanting to earn a reading specialist/coach credential. Many states seem to have adopted the IRA standards for their reading specialist credential but then fail to require that schools employ only persons who have earned that credential as reading specialists/coaches. These same states do require special education teachers to have earned a special education credential, require school principals to have earned their school administrator credential, and require their school psychologists to have earned their license. It is only in hiring specialized reading personnel that credentials seem unnecessary.

Allington (2006, p. 17) stated, "School districts also bear some responsibility because they could hire only specialized reading personnel who are appropriately credentialed (or those working toward that credential)." But while few school districts would hire an art major to teach special education or hire a physical education teacher as a school psychologist, these same school districts seem comfortable in hiring people who lack credentials to serve as reading specialists/coaches.

This situation points to a significant failure of IRA and of its affiliated state, provincial, and local councils (Allington, 2006). The failure to instigate legislation or regulations that would require high-quality credentials for every reading specialist/coach must be addressed. The troubling incongruity that we must face is that both states and the U.S. Department of Education have established goals to raise the quality of reading instruction, but neither has yet created any substantial plan to ensure that every school has even one faculty member with specific expertise in reading (as indicated by having

earned a reading specialist credential). How can improving the quality of a school's reading instruction, especially for struggling readers, be accomplished if no one on the staff has acquired advanced expertise in the teaching of reading? Allington asks. It was those credentialed reading specialists who provided the literacy leadership in schools with exemplary reading programs. The IRA should be working to ensure that the supply of reading specialists/coaches who meet the IRA standards (2003) is dramatically expanded and that the reading specialist credential be required for every reading specialist, reading teacher, and reading coach. Administrators and policymakers need to support their efforts.

In summary, elementary reading teachers should have advanced coursework and certification in reading instruction to be most effective in improving reading skills for at-risk students. Classroom teachers working with paraeducators in their classrooms should have training on supervision and coaching them on how to work most effectively with special needs students.

Effective Principles and Practices of Instruction

Teachers and paraeducators need an understanding of what constitutes effective principles and practices of instruction for at-risk learners. Ruff (1993) found students are referred to as at-risk when certain factors are present, for example, low socioeconomic status, language and cultural differences, dysfunctional family situations, and residence in disadvantaged communities. Those factors increase the probability that students will experience a variety of adverse outcomes. If the broad range of negative outcomes is considered, one-third to one-half of students could be considered at-risk. Consequently,

considerable educational attention is currently directed toward increasing the school success of at-risk students, and Title I and Special Education programs are designed to meet the academic needs of one part of the at-risk population.

Most learners will forget more than they remember about most topics. It is crucial, therefore, for teachers to articulate what's essential for learners to recall, understand, and be able to do in a given domain (Tomlinson, 1999). In a differentiated classroom, the teacher carefully revolves instruction around the essential, concepts, principles, and skills of each subject. Students should leave the class with a firm grasp of those principles and skills, but not with a sense that they know everything there is to know. The teacher's clarity ensures that struggling learners focus on essential understandings and skills; they don't become immersed in a pool of disjointed facts. Attending to human differences in abilities and learning styles allows teachers to best help individual students meet their common needs.

Tomlinson (1999) further defines a differentiated classroom as one where assessment is ongoing and diagnostic, which provides day-to-day data on students' readiness for learning and their learning styles. The teacher can then modify the content (what to learn), process (how to learn it), or product (demonstrate what was learned), and they work collaboratively with their students in flexible groupings to accomplish this. When a teacher lacks clarity about what a student should know, understand, and be able to do as a result of a lesson, the learning tasks created probably won't be engaging or help students understand essential ideas or principles. Engagement and understanding are critical components of a great lesson.

Scales (1992) found the pedagogical attitudes and instructional competencies of teachers are critically related to the educational success of disadvantaged and at-risk students. If paraeducators are indeed stepping into the instructional role for these students, the increase in requirements for paraeducator knowledge and skill training and supervision makes perfect sense; the least trained personnel are working more closely with some of the most needy students.

Marzano, Pickering, and Pollock (2001) identified nine research-based strategies for increasing overall student achievement, which could be utilized effectively by teachers and paraeducators in working with their students, which are shown in Table 5.

Table 5

Researched-Based Strategies for Student Achievement

Strategies
Identifying similarities and differences
Summarizing and note taking
Reinforcing effort and providing recognition
Homework and practice
Nonlinguistic representations
Cooperative learning
Setting objectives and providing feedback
Generating and testing hypotheses
Cues, questions, and advance organizers

Continuous school improvement is based on these practices: effective teamwork, measurable goals, performance data, rapid results, and research and development (Schmoker, 1999). Paraeducators must be trained in these practices along with the certified teachers if they are going to have an impact on student achievement.

Based on his review of literature on effective classroom practices for at-risk learners, Johnson (1998) advocated 20 principles of instruction, as shown in Table 6, to summarize what is currently known to be educationally effective and necessary in promoting success for at-risk students. These principles are really a concise summary of sound educational practice in our complex contemporary society, such as balancing direct instruction with challenging activities and focusing on meaningful skills and concepts and correlate well with studies cited previously.

Table 6

Principles of Instruction

Principles	Principals
Maintain high expectations	Actively involve the student.
Make use of praise and minimize criticism	Encourage cooperative learning
Capitalize on learning technologies	Ask and encourage questions
Balance direct instruction with challenging activities	Teacher self-monitoring and self-management
Teach learning strategies	Provide creative opportunities for practice and review
Accommodate student-learning style	Integrate skills and concepts throughout the curriculum
Establish an experiential base for learning	Build student interest and enthusiasm
Teach vocabulary directly	Manage the instructional process efficiently
Focus on meaningful skills, concepts, and activities	Celebrate cultural diversity in the classroom
Use examples and demonstrations	Facilitate parental involvement in the school

Response to Intervention (RTI), a provision set forth in the U.S. federal *Individuals With Disabilities Education Improvement Act* (IDEA, 2004), has rapidly emerged as an important policy and programmatic approach to effective instruction, according to the Executive Director of the International Reading Association (Farstrup,

2007). Its purpose is to reduce the number of learners referred to learning disabilities or special education programs by providing intensive and effective instruction before children begin to fail.

It has been estimated that as many as 40% of students in special education programs are there because they have difficulty with reading (Farstrup, 2007). The International Reading Association (IRA) believes this issue by itself makes a cogent argument for the direct and active involvement of expert reading professionals. A better term for RTI might be "Response to Instruction" because it appropriately places emphasis on the importance of early and effective teaching and learning. The IRA believes that RTI should not be viewed exclusively as an extension of learning disabilities or special education programs, but as an integral part of all instruction. The IRA strongly supports the direct and active involvement of reading teachers and specialists in providing RTI services at all levels. This is consistent with the idea that excellent teachers using a proven and varied array of instructional approaches and quality reading materials can help all students to become good readers. RTI is achievement and success oriented and relies on the expertise of excellent teachers who know how to select and use instructional materials appropriate to the needs and interests of their students. A team approach to supporting students is used in which classroom and specialist teachers work together to provide instructional support for all students.

There is increasing evidence, according to Farstrup (2007), that an early, intensive instructional approach has the effect of dramatically reducing the numbers of children, especially minority children, being inappropriately referred for learning disabilities or special education services. Not only are financial costs to districts and communities

reduced, but additional resources also can be made available to provide stronger programs for students in regular classrooms and Title I programs as well as for students really needing special education and learning disabilities services.

For many students, learning is so natural that mastery of the curriculum, with little teaching, is guaranteed. For students at-risk, school learning is frequently not a natural and spontaneous event. According to Johnson (1998), intellectual endorsement of these practices by educators is insufficient; implementation in daily classroom practice is imperative. But are these recommendations practical or achievable for paraeducators? How involved are they in implementation of these practices at the level required, especially in tutoring at-risk students? Further, whose responsibility is it to provide this specific skill training for paraeducators? These are questions the literature will need to continue to address in the future.

Effective Reading Instruction and Delivery Models

By employing a variety of instructional practices with students every day, teachers can be the key to improving the literacy of their students (Bukowiecki, 2007). The continuing difficulties students have with reading have caused the education community to reevaluate how to teach basic and higher order reading skills. In 2000, a report from the *National Reading Panel* (National Institute of Child Health and Human Development [NICHHD], 2000) based on a meta-analysis of research literature delineated five important reading skill areas: phonemic awareness, phonics, reading fluency, vocabulary, and text comprehension. The report came under scrutiny for not conducting an in-depth review of critical reading skill areas. At least one in every five

children experiences difficulty with phonemic awareness and basic decoding, but the majority of these children can successfully learn to read provided that early in their school careers they are given the explicit and intensive instruction they need. The guide, which followed the *National Reading Panel* report, *Put Reading First* (Armbruster & Osborn, 2001) was designed by teachers for teachers. It summarizes the findings of the report by defining the skill, reviewing the evidence from the research, suggesting implications for classroom instruction, describing proven strategies for teaching reading skills, and addresses frequently raised questions. It was funded and widely distributed to school districts across the nation by the National Institute for Literacy. To provide effective and relevant literacy instruction, a teacher should be aware of the National Reading Panel's report, the controversy surrounding it, state standards, high-stakes testing, and the influence that state standards and national directives have on a school district's literacy curriculum (Bukowiecki, 2007).

For more than 40 years, schools in the United States have used Title I funding to support the growth of at-risk learners, and Title I has a strong emphasis in many exemplary reading programs. According to the International Reading Association (IRA, 2001), many schools have implemented "Schoolwide" Title I programs, based on high poverty levels, that benefit all students. Several schools honored by the IRA in 2001 through the *Exemplary Reading Awards Program* were either Title I schools or had a strong Title I emphasis. Among the objectives of the IRA in developing the *Exemplary Reading Program* are to improve literacy in our society and encourage the development and refinement of exemplary reading/language arts programs. The winning schools implemented Title I in a variety of ways, but many programs shared common elements:

effective early intervention for struggling readers, an emphasis on parental involvement and support, and a balanced approach to reading instruction.

In a meta-analysis of research, Therrien (2004) found that although teaching students to read remains a major goal of education, many students have extreme difficulty learning even basic reading skills. At least one in five students has significant difficulties with reading acquisition (Lyon & Moats, 1997). In addition, approximately 37% of fourth-grade students did not achieve at the most basic reading level on a recent national test (USDE, 2000). Reading difficulties are even more pronounced for students with special needs, who often struggle with reading throughout their school careers and into their adult lives (Lyon & Moats, 1997).

In the Boys Town Reading Center, developers Curtis and Longo (1999) describe some adolescents they worked with as functionally illiterate. They were unable to use reading with facility in their everyday lives and it often frustrated them, which can trigger disruptive behavior. Improvement for this type of students will result only from direct instruction in the processes, knowledge, and skills they have not yet acquired. Regardless of age, learning to read involves a core set of knowledge and skills, and students' reading skills are often at several different levels of development. By using a development approach to understanding reading difficulties at Boys Town, they were able to accelerate their students' reading growth by focusing instruction on knowledge and skills needed to move to the next stage of reading development. It also involved building on students' strengths to meet their individual needs. This program was replicated successfully in affiliated public schools.

Allington (2001) stated that one of the challenges of American education is that while we have been largely successful in teaching children to read and write at basic levels of proficiency, the "information age" places higher-order literacy demands on all of us. We have entered an age of unrestricted information flow, which places far greater demands on the reader. This includes synthesizing and evaluating information from multiple sources with fewer controls and filters for accuracy, reliability, and civility. Schools must enhance students' abilities to search and sort through information, to synthesize, analyze, summarize and evaluate the information they encounter. For children to become discerning readers, they must read a lot. Schools should develop standards for expected volume of reading and writing.

Broemmel (2006) surveyed 275 teachers who were both knowledgeable in the area of reading and had a solid basis for evaluating the current status of pre-service education. A selection process was established as a means of identifying a qualified pool of potential participants to increase data validity. Participants for this study were required to meet three criteria; (a) they must have taught in grades K-6; (b) they must have been a member of the primary professional reading organization in the state; and, (c) they must have hosted a student teacher in their classroom for at least one semester out of the previous three years. Assumptions were made that as a member of the state reading association, a teacher would most likely be up to date on trends in reading instruction and research, and that serving as a mentor teacher would provide insight into the status of pre-service education. Broemmel found that there was consensus among experienced teachers supervising student teachers in the field that an effective pre-service reading education would include balanced, practical methodologies across a number of

reading related courses, supplemented by multiple field experience opportunities. Despite the fact that these teachers that teachers are prepared well to teach reading, it is not enough. Graduates are entering the teaching profession at a time when others hold high expectations for them. They face learners with diverse needs and high levels of accountability for helping those students achieve, and our graduates need to be more than adequately prepared. Broemmel further suggested that reading educators must make a better effort to rigorously evaluate the outcomes of their pre-service reading preparation. As a part of this process, she advocated we reach out to classroom teachers, especially to those who mentor our pre-service students, and use their insights to make the transition from pre-service to in-service teaching more effective for students.

Allor, Gansle, and Denny (2006) found an intervention such as the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) may allow for quality individual instruction for children that can be implemented with fidelity for children and with minimal training time for the paraprofessional that will lead to future reading success. They conducted a study of kindergarten students who were identified using DIBELS screening measures. These measures were administered by school personnel to all students in the beginning, middle, and end of the school year. Students scoring below benchmarks are considered to be at-risk for reading failure. Students performing at or above the benchmarks have an 8 out of 10 chance of meeting the next benchmark and ultimately meeting at least minimal requirements on high-stakes tests of reading achievement in third grade. Students who were selected to participate were performing below established benchmarks in the middle of their kindergarten year. Once selected for participation in the study, student progress was monitored on DIBELS phoneme

segmentation fluency and nonsense word fluency. Students' progress was monitored progress on a daily basis, but in typical practice, students who are experiencing difficulty are monitored once per week or once every other week. Allor and colleagues found that intervention, above and beyond instruction in the traditional curricula in schools, is challenging for teachers who find themselves responsible for classrooms with increasing numbers of children and increasing proportions of children with special needs. Teachers may find the demands of additional individual instruction for children with pre-reading skill deficits impossible to meet. The use of paraprofessionals in the classroom may provide a valuable resource for teaching students these skills.

Primary-level classroom teachers and reading specialists, with the support of the administration in the Anna School District in Illinois, changed the nature and delivery of their Title I and Reading Recovery support services to significantly increase the reading achievement of their students (Miles et al., 2005).

The Anna Plan, as it came to be known, had several essential principles of program success including small-group instruction, an emphasis on first grade, the use of developmentally appropriate texts and repeated readings in them, a focus on word solving and phonemic awareness, consistency between supplementary and classroom reading instruction, a writing component, and on-going assessment of students' progress. However, the teachers used many of the interventions with all of their students in whole group instruction. Their students improved from 50% meeting or exceeding the state standards for reading to nearly 90% consistently meeting the standards on statewide assessments over a several year period. Although their students came from low socioeconomic status (SES) homes and tended to begin school at very low literacy levels,

about 75% of them could be classified as fluent readers by the end of the program in first grade after eight years of using this model.

Therrien (2004) found in his meta-analysis that repeated reading can be used effectively to improve students' ability to fluently read and understand a particular passage and as an intervention to improve students' overall reading fluency and comprehension ability. In addition, essential instructional components can be included within a repeated reading program. Such components depend on the goal of the intervention, which could also be influenced by the skills of the teacher or paraeducator teaching them.

Peyton, Sanders, and Vadasy (2005) recruited participants for a study from 12 urban, demographically similar schools in a large northwestern school district. Of the schools participating, six were assigned as treatment sites, five as control sites and one included both treatment and control students. During the first month of first grade, 22 teachers referred students they judged to be at risk for reading difficulties for screening. Ninety-nine first graders met the screening criteria for study participation, which included (a) students whose parents gave consent for study participation, (b) students who were not repeating first grade, and (c) students who scored at or below a standard score of 90 (25th percentile) on a reading subtest. After training was completed, nine tutors were assigned to one treatment (Reading Practice) and 10 were assigned to the other (Word Study). Peyton and colleagues found that supplementary tutoring may offer the only noteworthy period of oral reading practice and intensive phonics instruction for many at-risk students. Opportunities for supplementary tutoring are difficult to implement in schools, requiring that tutoring activities be carefully selected for ease and reliable use by

tutors and evidence of effectiveness for students. It was suggested that in the context of supplementary tutoring, oral reading practice in grade level texts significantly improves grade-level passage reading fluency rate and produces equivalent reading and spelling accuracy outcomes compared to equivalent time spent on word reading and phonic analysis.

Vadasy, Sanders, and Peyton (2006) in another study, using the same schools as the previous study, evaluated the effectiveness of supplemental instruction in structural analysis and oral reading practice for second- and third-grade students with below-average word reading skills. Criteria for study participation included (a) parent consent for study participation, (b) no retention in first or second grade, (c) no prior tutoring experience, and (d) a pretest reading accuracy composite standard score at or below 95 (37th percentile) on a composite pretest score comprising the standard scores on reading subtests. Forty-six students met study eligibility criteria. Students at treatment sites were assigned to tutoring based on school schedules, and students at control sites received no tutoring. Individual instruction was provided by trained paraeducators. Vadasy and colleagues found that paraeducators can effectively supplement classroom reading instruction for second- and third-grade students who do not yet perform at grade level in word reading skills, with a low failure rate. The instruction delivered by trained paraeducators in this study represented a standard treatment protocol that is feasible for many schools to adopt and fidelity of implementation is replicable. These findings leave unanswered the question whether similar instruction by certified teachers would have been more effective. Other students with continued poor reading accuracy could be

referred for more individualized instruction in structural analysis skills by more skilled teachers and specialists.

One small study examined the efficacy of a paraprofessional-led supplemental early intervention for 24 first-grade students with poor early literacy skills and emotional and behavioral concerns (Lane, Fletcher, Carter, Dejud, & Delorenzo, 2007). The Phonological Awareness Training for Reading (PATR), a supplementary early reading curriculum designed to promote awareness of words' sound structure by helping students learn how spoken language is represented by letters, was used as the intervention tool. This program was conducted as a supplement to the literacy plan that included a balanced approach to literacy instruction (e.g., exposure to core literature and explicit instruction in literacy skills.) The goal was to determine if (a) the relatively brief, early literacy intervention by a paraprofessional was effective in improving phonological skills, and (b) improvements in academic skills would be accompanied by behavioral and social improvements. Despite some limitations noted in the study, the results indicated that the students in the treatment condition experienced significant, lasting increases in phonological awareness and moderate improvement in word attack skills. However, significant collateral effects on social and behavioral performance were not observed.

Using reading coaches in the classroom was a strategy suggested based on a review of literature by Marr and Dugan (2007). Peer partners should be selected to coach and support the struggling readers. Coaches assist with modeling fluent reading, providing feedback, timing, and charting fluency progress. Coaches should be given a list of explicit directions to guide them with each fluency session. Each reader has a folder containing a series of short passages, leveled or graded in difficulty. These leveled

passages allow the teacher to match what was being read to the child's independent reading level, individualizing the fluency practice for each student. Each passage gradually increases in difficulty to scaffold and support the students as they reach a fluency benchmark and then move up to slightly to more difficult material before eventually reaching grade-level material. The text should be meaningful and entertaining to read, engaging the students while they practice their fluency. Charting progress motivates the students to practice in meeting their goals. The fluency practice takes roughly 10-12 minutes once students learned the routine, and it should be done at least 3 times a week. Marr and Dugan found when they worked with cooperating teachers in controlled second grade classrooms, the children who participated in this program showed significant growth in reading fluency as compared with their peers.

The IRA (2000) published a position statement "Teaching All Children To Read." In order to ensure all children can succeed in school requires that every child receive excellent reading instruction, and that children who are struggling with reading receive additional instruction from professionals specifically trained to teach them. The position stated that we must move to different educational models from those in the past to accommodate the wide range of student achievement found in classrooms with the inclusion of students with various needs. These models present opportunities for staff to work collaboratively to provide the most effective instruction for all students.

Some schools are advocating after school tutoring programs, in which skilled teachers and paraeducators provide one-on-one support, as a way to reduce the gap between what students are expected to know and be able to do in the 21st century and what they actually know and are able to do (Hock et al., 2001). The researchers report

mixed results in the success of these types of programs, which may be due in part to the problem of defining the tutoring model. There is a vast difference in the expected and realized outcomes of models with differing emphases. An instructional tutoring model is one in which the activities are aligned with effective practices that target instruction of literacy skills. An assignment assistance tutoring model is one in which the major goal is to assist the student with completion of homework assignments.

Not only is the type of tutoring model adopted and the targeted outcomes key to the efficacy of tutoring, but also is the tutor training (Hock et al., 2001). Regardless of what outcomes drive the model, tutor expertise and development of tutor instructional skills are thought to be key to improving the nature of tutoring interactions and the positive effects on students at the elementary level by many researchers. These researchers found this assumption to be significant in two different studies of after school tutoring programs with learning disabled junior high students and their overall performance afterwards on quizzes and tests, as well as their semester grades. However, important factors for a student to have a successful outcome were regular attendance in class, as well as the tutoring sessions and maintaining a positive attitude toward receiving assistance from a tutor.

Allington (2001) stated that schools often design interventions where the important role of instructional expertise is largely ignored. The widespread practice of employing paraprofessionals to work with struggling readers is an example, when there is much evidence that paraprofessionals' lessons rarely exemplify even modestly effective instructional practices and therefore, students rarely make much progress. Students who struggle to acquire reading proficiency need more expert instruction than other students.

Traditionally, students in Title I programs received additional instruction from a reading specialist when they were pulled out of the regular classroom. The focus was essentially on remedial instruction. Federal guidelines now promote models that necessitate more attention to the students' classroom performance to enhance their abilities in high-level skills. Thus, we see more in-class programs supported by smaller class sizes, instructional aides, and diversity in how schools choose to use their Title I funds (Quatroche, Bean & Hamilton, 2001).

In a longitudinal study in rural North Carolina, reading achievement of 102 children was tracked from the beginning of kindergarten to the end of third grade (Morris, Bloodgood, & Perney, 2003; Morris, 2005). On testing 22 students at one of the four schools at the end of third grade, they were impressed by the progress the students had made, particularly by 12 children who were identified as at-risk readers in first grade and had received Title I reading services. Seven of the 12 students achieved grade-level reading status by the end of third grade, and 2 more were less than one year below grade level. The key element in the program was a knowledgeable reading teacher who worked directly with children and also supervised the tutoring efforts of teacher assistants and community volunteers.

It was found that one year of intervention in this longitudinal study was not enough (Morris et al., 2003; Morris, 2005). It took a continuing commitment across three grades to help at-risk children achieve grade level in reading, and still not all of them achieved it. This finding speaks to the tremendous effort elementary schools need to make in reading if they truly are to "leave no child behind" (Morris, 2005). Frequent reading assessment and use of "scientifically-based" reading programs are popular

notions in Title I circles. While appropriate assessments, reading materials, and teaching techniques were important in this reading program; success depended not just on reading program characteristics but also on large amounts of one-to-one tutoring carefully supervised by a knowledgeable reading teacher. The intervention model provided the reading teacher with assessment procedures for selecting children to be tutored and for monitoring their achievement across the grades. In addition, the model provided lesson plan that ordered the use of materials and teaching techniques. The lesson plan not only guided the tutors on a daily basis, but also it provided a structure that facilitated feedback and dialogue between the supervising reading teacher and individual tutors. An obvious requirement here is the need for additional staff to tutor low readers, such as volunteer tutors or paraprofessionals hired to tutor in the primary grades.

There is evidence that when there is a lack of instructional support, children with reading difficulties are inappropriately placed in special education programs, according to Allington and Walmsley (1995), and thus do not receive the interventions needed. Some students will need expert, intensive intervention for sustained periods of time, possibly throughout their entire school careers, if they are to attain and maintain on-level reading proficiencies. But we haven't yet developed interventions that ensure that *all* students will be reading on grade level, or that the personnel charged with providing the interventions have appropriate training to implement them effectively. Wasik and Slavin (1993) reviewed five specialized programs that prevent early reading failure by providing one-on-one tutoring. They found the programs using highly prepared teachers had more impact on student achievement than programs that used paraprofessionals.

Teaching children how to read involves a balance of pedagogy, theory, and practical classroom experiences. The process involves patience and a love of children. Becoming an exemplary teacher of reading evolves over time. New teachers need more than a broad knowledge base regarding optimal instructional practices, the diversity of student learners, relevant skills instruction, and appropriate and varied assessment practices. Both novice and experienced teachers must be willing to extend their present knowledge regarding literacy education by constantly researching and learning about innovative and commendable literacy practices, theories, and policies (Bukowiecki, 2007).

Assisting students who have deficiencies in reading skills and need remedial interventions is a daunting challenge. Effective, research-based interventions provided by trained staff can have phenomenal results if implemented appropriately. It is critical that teachers and paraeducators be provided training to understand and implement these instructional practices in the lessons they teach their students to achieve increasing student achievement.

Program Delivery Models in this Study

After students are identified to receive supplemental Title I reading services by their school method for selecting students, they are provided instruction in five basic models of delivery the researcher found to be the most common from reviewing Title I programs in Idaho schools for the State Dept. of Education. A limited number of studies were found that actually addressed program delivery models (Allington, 2001; Allor et al., 2006; Hock et al., 2001; IRA, 2000; Lane et al., 2007; Marr & Dugan, 2007;

Miles et al., 2005; Morris, 2005; Morris et al., 2003; NCERI, 1995; Peyton et al., 2005; Therrien, 2004; Vadasy et al., 2006; Wasik & Slavin, 1993). These studies generally emphasized the importance of the type of intervention and the teacher or paraeducator's training who provided it for students rather than strict adherence to any one of these particular program models. The Title I Program Delivery Models analyzed in this study are shown in Table 7.

Table 7

Title I Program Delivery Models in Study

Program Model	Description of Model
Program Model 1	Inclusion with classroom teacher instruction and paraeducator assistance: Title I students remain in the classroom during the reading instructional block. They receive the regular program of instruction from the classroom teacher plus supplemental instruction either one-on-one or in small groups by the classroom teacher. Paraeducators may assist the teacher by working with individual students or small groups.

Table 7 (continues)

Table 7 (continued)

Program Model 2	Inclusion with team teaching by classroom teachers and paraeducators: Title I students remain in the classroom during the reading instructional block. The classroom teacher and paraeducators divide up the students and team-teach groups of students.
Program Model 3	Pullout with paraeducator instruction under teacher supervison: Title I students remain in the classroom for part of the reading instructional block. They receive the regular program of instruction from the classroom teacher, and then they are pulled out of the classroom to receive supplemental instruction from the paraeducators either one-on-one or in small groups under the direction of the classroom or Title I teachers.
Program Model 4	Pullout with Title I or Reading Endorsed teacher instruction and paraeducator assistance: Title I students remain in the classroom for part of the reading instructional block. They receive the regular program of instruction from the classroom teacher, and then they are pulled out of the classroom to receive supplemental instruction either one-on-one or in small groups from a Title I or Reading Endorsed teacher with paraeducator assistance.

Table 7 (continues)

Table 7 (continued)

Program Model 5	Inclusion with a Title I or Reading Endorsed teacher instruction and paraeducator assistance: Title I students remain in the classroom during the reading instructional block. They receive the regular program of instruction from the classroom teacher plus supplemental instruction either one-on-one or in small groups from a Title I or Reading Endorsed teacher. Paraeducators may assist the Title I teacher by working with individual students or small groups.

In the researcher's 2006 Comprehensive Evaluation study (Byers-Kirsch, 2006) in one school district, which was a pilot study to this study, 18 teachers and 18 paraeducators were surveyed about their roles in Title I programs. The teachers' perceptions of paraeducators' added value and contributions were solicited. It was found that while paraeducators for the most part lacked appropriate training and were often not adequately supervised by a certified teacher, the teachers highly valued the paraeducators' assistance to the students in their classrooms.

Conclusion

Paraeducators tend to lack formal training to perform their jobs. Teachers must remember that the person to whom they are assigning instructional responsibilities may have little preparation to teach, manage behavior, or understand the developmental level

of the students. Ethically, teachers cannot assign instructional tasks to a person who does not have the requisite skills to perform them (French, 1999; Heller, 1997).

Causton-Theoharis, Giangreco, Doyle, and Vadasy (2007) found commonalities in the body of knowledge in which paraprofessionals have been used successfully to improve the reading skills of students with disabilities and those who are considered at risk. The commonalities include situations where (a) paraprofessionals were used for supplemental rather than primary instruction, (b) research-based reading approaches were used so that paraprofessionals were not inappropriately asked to make pedagogical decisions, (c) paraprofessionals were explicitly and extensively trained in the research-based reading approach, (d) paraprofessionals were explicitly trained in behavior management, and (e) teachers and special educators provided paraprofessionals with ongoing monitoring and feedback regarding their instruction.

Teachers must also consider the formal and informal training of the paraeducator. Teachers must ensure that paraeducators are trained to perform the tasks assigned them. Ideally, the district, building, and classroom, as well as conferences and college classes should provide training (Vasa & Steckelberg, 1997).

The presence of a paraeducator requires a clear delineation of roles, responsibilities, and knowledge of the legal, ethical, and liability issues associated with each of the roles. Unfortunately, in practice clear specification of these roles and responsibilities is sometimes lacking, and teachers use their own best judgment to manage as well as they can (French, 1998; Giangreco et al., 1997; Heller, 1997; Pickett, Vasa, & Steckelberg, 1993).

Reading mastery is the cornerstone of all learning. Students who struggle with learning deficiencies should have the best instruction possible to reach their greatest potential and academic achievement.

CHAPTER THREE: METHODOLOGY AND DESIGN

After reviewing the research, the researcher sought to identify the relationship between the five most common school models of Title I remedial reading service delivery in elementary schools and relative gain (or loss) in statewide fourth grade reading proficiency as measured by the ISAT (ISBE, 2007c). School demographics, instructional staff, and their preparation and training were also considered as related factors.

Research Question

The research question in this study is:

> Which of the five most common instructional delivery models in Idaho's elementary Title I programs most positively affects growth in grade four student reading proficiency?

Research Design

The researcher spent several months in late 2007 and early 2008 discussing possible research designs using data from a local school district. It was decided that a statewide study of all the districts would be a new approach and glean more beneficial information, which could be generalized to other populations and used by the respondents to improve their Title I program models. The researcher initially designed a survey independently to be attached to an email but after recommendations from the dissertation committee, a *Qualtrics* web-based survey offered by Boise State University was

developed instead to provide an easier instrument to complete and a better return. An Institutional Review Board-Exempt Status (IRB) form was submitted and approved by Boise State University (Appendix A).

The study was a descriptive design using a description of school program model of services compared quantitatively to the spring ISAT (ISBE, 2007b, c) reading proficiency results for 2005 in grade three and 2006 in grade four to show gain (or loss) in school proficiency for the same group. School demographics, staffing information and training were also considered as contributing factors to the program models. Fourth grade was chosen because most elementary schools have Title I programs in the primary grades, and the tests were given in grades 3-10. The scores were reported by grade level, not individual students, therefore there was no way to account for student attrition.

The ISAT (ISBE, 2007d) consists of three multiple-choice tests in the core subjects of reading, math and language usage (ISBE, 2007a). The ISAT is offered in the fall and spring of each academic year allowing teachers to track student achievement. Districts may choose to test students two additional times during the year. Students take the test on a computer and receive immediate feedback. The tests are not timed, but students usually take 90 minutes per test. Information about the current ISAT is shown in Appendix B. The spring test is the one used for Adequate Yearly Progress (AYP) measured under NCLB (2002). State Board Administrative Rules and federal law establish sanctions or consequences for local schools and Local Education Agencies (LEAs) that do not meet AYP (ISDE, 2007a). Spring test results are published for the public by the State Board of Education. Proficiency levels are reported by district, school, grade level, and subgroups only, not on individual students, although there is no

Title I subgroup. The proficiency reading targets were 72% for both 2005 and 2006 (ISDE, 2007b). The ISBE revised the standards in 2005 and aligned the ISAT to them in 2007. For consistency in comparison of tests, the researcher is using proficiency levels from 2005 and 2006.

Title I Directors and school principals statewide were sent an invitation (Appendix C) to complete the *Qualtrics* web-based survey (Appendix D) via e-mail and the Internet in early March 2008 for the purpose of soliciting information about their Title I program model of services for reading in their elementary schools.

Longitudinal scores were used from each school's grade three and four reading proficiency using the ISAT (ISBE, 2007b, c) for grade three in 2005 and grade four in 2006 to measure gain (or loss). The gain or loss was correlated with the five specific program models taken from the survey, as described in Table 7 in *Program Delivery Models in the Study* Chapter 2, *Literature Review*.

Participants

The participants were district Title I Directors and school principals in all of Idaho's participating elementary and public charter schools, which oversee a Title I program in their schools. Surveys were initially sent to 86 directors and 275 principals for a total of 361, representing 115 school districts and 286 schools. Two districts had to be dropped because the district firewall prevented access to the respondents, even after the researcher personally called the technology department in the districts asking for assistance. The school district Title I Directors' and principals' names and email addresses were obtained from the State Department of Education website (ISDE, 2007c,

d), about a quarter of which proved to be incorrect and had to be verified and resent after the first mailing. In small districts, the Title I Director and school principal are often the same person or a principal may have responsibility for more than one school. Of the 100 principals who responded, 22 identified themselves as also being the district director.

The researcher anticipated receiving a 75% response rate from respondents but received 153 responses, a 43% return overall, representing 82 school districts (71%) and 150 schools (52%). Responses were received from 53 directors (62%), and from 100 principals (36%). Possible reasons for this return rate are discussed under the sections, *Instruments and Data Collection and in Procedures.*

The participants provided the program model, staffing and training information on the *Qualtrics* web-based survey (Appendix D) via the Internet. School ISAT proficiency levels for the grades three and four, which is public information, were obtained from the State Board of Education (ISBE, 2007b, c) website. No individual student information or test scores were solicited or used. District, school, and participant names were coded in the analysis for confidentiality.

Instruments and Data Collection

The invitation and explanation (Appendix C) and the *Qualtrics* web-based survey (Appendix D), which consisted of 36 multiple-choice questions, asked for a response to the information shown in Table 8. Some questions were for all respondents, while others were labeled specifically for either grade three or grade four because some districts have separate primary schools, which feed into intermediate schools. Of the 36 questions on the survey, 22 gave the respondents the choice to "check all that apply," which proved

problematic during data analysis as explained under the section *Data Analysis*. The program model question and four related questions were repeated four times, once each year and each grade. It was later determined that program model information for grade three in 2005-06 and for grade four in 2004-05 was not necessary because the researcher was looking for patterns from one grade and year to the next for the same group of students. The survey provided additional information that will not be reported in the *Results* section, but will be used to discuss the findings that address the research question.

Table 8

Qualtrics Title I Program Models Survey Content

District or School Data	School Grade 3 or 4 Data
Title of the respondent	Title I program model of delivery
Name of elementary school by district #	How lessons are created
Number of students in grades K-4 in Title I	How instructional delivery is provided
Number of paraeducators working in school	Types of supplemental interventions
Paraeducators' years of experience	Grouping approach used
Title I teachers education level	How often interventions are provided
Paraeducator education level and professional development received	

The researcher accessed the survey results via the Internet; downloaded the survey data, and the identifiers were coded and entered into an Excel data file.

Additional information added to the data file included the school size and percent of students qualifying for Free or Reduced Lunch (FRL) in 2005-2006 obtained from the ISDE (2007d) website. These two variables were used as control variables because of their relative importance in predicting school achievement based on well-documented research (Baker, Smolkowski, Katz, Fien, Seeley, Kame'enui, & Beck, 2008; Berliner, 2006; Cawelti, 2000; Gilbert, 2000; Lewis, 2005; Miles et al., 2005; Parrett, 2005; Piché, 2007). School ISAT proficiency levels for grades three in 2005 and grade four in 2006, expressed in percentages, were also entered into the file as well as the calculated difference between the two scores to obtain the gain (or loss) score. In order to compare the gain or loss in proficiency more fairly for every school, the researcher entered the proficiency levels into the following formula to compute the *relative* gain or loss in percentages: Scores for 2006 – 2005 / 2006.

After many edits and consultations with statistics books and other researchers, the scrubbed data file was uploaded into SPSS, a statistical analysis software program.

Procedures

The directors and principals were asked to complete a separate survey for each school for which they had responsibility, which included most directors. The researcher believes this proved to be too time consuming for many directors in larger districts so they did not participate. Participants were given a deadline for completion both in the invitation and on the survey of approximately one month to complete the survey, which was the month of March 2008.

Almost half of the emailed surveys were not delivered due to errors in the email names or addresses. The researcher checked the names and addresses for typing errors and contacted districts to verify their validity. Surveys were mailed out to those respondents who didn't receive it the first time within the first week. At the end of the first week, another issue occurred when five directors emailed the researcher stating when they completed one school's survey and tried to start a new one for another school, their access was blocked. The researcher contacted *Qualtrics* support and found that it was a glitch in the system. A separate email was sent to respondents with the survey link included, rather than going through the *Qualtrics* mailer. The context of that email entitled *Second Invitation Email for Multiple Schools* is shown under the *Invitation Email to Participants* in Appendix C. It included the information contained in the original invitation email.

The *Reminder Email*, shown under the *Second Invitation* in Appendix C, was sent twice at the end of the second and third weeks to those participants who had not submitted the survey. The researcher followed up by attempting to call or personally email the participants who had not responded to ask if they received it and had any questions. Very few times was the researcher able to speak with the respondent directly as the receptionist fielded the calls and took a message. No calls were returned to the researcher.

The *Last Chance Email,* shown under the *Reminder Email* in Appendix C, was sent at the end of the fourth week to those participants who still had not submitted the survey. The survey remained open for additional 30 days during April to allow for more

respondents, and then it closed. An automatic *Qualtrics*-generated thank you was sent to respondents when they submitted their surveys.

The researcher received 20 personal emails from respondents who stated they did not have the information to answer the survey questions because they were either new to their position, or they did not have time to respond. One director respondent accidentally replied to the researcher instead of one of his principals who had forwarded the survey to the director. The director was very negative about responding to graduate students stating, "I got pestered by it a couple of times, finally decided to go ahead and do it, and then found it was asking for information from several years ago, so I just bagged it. I feel no obligation to complete it for a graduate student" (Anonymous Director, personal email communication, March 26, 2008). The researcher responded to this director explaining the value of the study and offered to provide a summary of the results. He apologized but still refused to complete the survey stating he saw no value for his district, however 3 out of the 4 principals did respond. The researcher replied to every personal email respondent and encouraged him or her to forward to the survey to a teacher or former principal who might have the information or time to respond.

An additional 15 respondents sent a personal email to the researcher seeking further clarification about how to respond accurately to the survey or who had technology issues with it. The researcher also replied to every respondent and offered suggestions to troubleshoot their issues.

Variables and Data Analysis

After not having success analyzing the data, the researcher consulted with a statistician and an education professor at Boise State University in July to review the data file and determine the most effective method to use in analyzing it. It was determined that since the model involved predictors, a linear regression would be best, however the multiple responses allowed on the program model questions required that each response be coded as a yes/no answer and the regression run separately for each model. The data file had to be revised several times. Frequencies were used on the factors related to the five program models in the research question for grade three in 2004-05 and for grade four in 2005-06, as well as an added variable for the total number of models chosen by the respondents to provide additional information supporting the regression results. The Title I program delivery models analyzed in this study as described in Table 7 in *Program Delivery Models in the Study* Chapter 2, *Literature Review,* are summarized:

Program Model 1: Inclusion with classroom teacher instructing and paraeducator assisting.

Program Model 2: Inclusion with team teaching by classroom teacher and paraeducator.

Program Model 3: Pullout with paraeducator instructing under teacher supervision.

Program Model 4: Pullout with Title I or Reading Endorsed teacher instructing and paraeducator assisting.

Program Model 5: Inclusion with Title I or Reading Endorsed teacher instructing and paraeducator assisting.

The dependent variable was the school ISAT (ISBE, 2007b, c) *relative* gain or loss in proficiency from third grade in 2005 to fourth grade in 2006, which was explained under the section *Instruments and Data Collection.* There was one independent variable with five levels or indicators, which were the five most common program models of Title I service delivery. The control variables were school size and the percent of FRL. A linear regression was used to determine significant predictors of the school ISAT *relative* gain or loss in proficiency from third grade in 2005 to fourth grade in 2006.

The researcher received 153 survey responses but 14 responses could not be considered due to their schools having fewer than 10 students taking the ISAT (ISBE, 2007b, c) in grade three or four, therefore, no proficiency level was reported and a comparison could not be made. The analysis was completed using 139 respondents, representing 70 school districts and 136 schools. If the respondents are separated by title, 46 directors' and 93 principals' responses were analyzed, representing 70 school districts and 136 schools. Only four respondents completed surveys on the same schools, so a comparison could not be made between directors' and principals' responses for the same school. Of the total number of ISAT proficiency levels reported for 2005-06, 45% showed a loss from 2004-05.

The outcome of the analysis is summarized under Chapter 4, *Results* and explained in Chapter 5, *Discussion, Conclusion and Recommendations.* Some descriptive statistics completed on the data from the *Qualtrics* survey are shown in Appendices E and F and discussed in Chapter 5 to further explain the results of the linear regression and the research question. The researcher anticipated finding that a program model in which a trained teacher using research-based interventions provides

supplemental instruction to students will increase student reading proficiency in elementary schools. This most closely correlates to Program Model 4 (Title I teacher instructed, paraeducator assisted pullout model) in the study.

The researcher is unaware of another statewide study on this topic. The results gleaned from this study provide valuable insight about the most effective Title I program model of delivery and those factors that influence the model for overall student reading achievement from one grade to the next. Paraeducators are widely used in schools to assist teachers with at-risk students in this state. This study indicates that the model in which they provide interventions for students can influence improvement in student reading proficiency. The results could be generalized to other populations.

Timeline for Study

The *Qualtrics* survey was developed with the assistance of the *Qualtrics* online tutoring program and their support staff, who responded to researcher's email questions, during January 2008. The dissertation proposal was successfully presented and defended to the researcher's committee on February 6, 2008. The survey was emailed to respondents the first week of March 2008 and data was collected until April 30, 2008. The results and findings were compiled and analyzed during May through July 2008 with the assistance of the statistician, a professor who served on the researcher's Program Committee and the Dissertation Committee chairperson. A draft of Chapter 3, *Methodology, Chapter 4, Results and Chapter 5, Discussion, Conclusion and Recommendations* was sent to the former committee professor and the committee Chairperson in August 2008 for editing. A final dissertation draft was sent to the

researcher's entire committee on August 15, 2008. The dissertation was successfully defended on August 29, 2008 with final required editing or formatting completed during September 2008.

A summary of the study's findings (Appendix G) was emailed to all of the respondents in the study in September 2008. Even though only half of them asked to receive the results, the researcher felt the information might be valuable to them in planning their Title I program during the upcoming school year.

CHAPTER FOUR: RESULTS

Overview of Regression Model

The study results were based on the research question predicting proficiency gain or loss from third grade in 2004-05 to fourth grade in 2005-06 from one of the five models of program delivery examined in the study for the fourth grade and in 2005-06 using a linear regression. The entry method was used with two blocks, the first block for the control variables of School Size and percent of Free or Reduced Lunch (FRL) together, and the second for each of the five program models for grade four during the school year 2005-06 for the respondents, as defined in Table 7 shown in the section *Program Delivery Models in this Study,* in Chapter 2, *Literature Review* and summarized again below:

Program Model 1: Inclusion with classroom teacher instructing and paraeducator assisting.

Program Model 2: Inclusion with team teaching by classroom teacher and paraeducator.

Program Model 3: Pullout with paraeducator instructing under teacher supervision.

Program Model 4: Pullout with Title I or Reading Endorsed teacher instructing and paraeducator assisting.

Program Model 5: Inclusion with Title I or Reading Endorsed teacher instructing and paraeducator assisting.

In addition, the same method and control variables were used for the directors and principals separately to see if there were any differences in the outcome. There was no significance found and any slight differences in outcome were attributed to the sample size being larger for principals than directors.

Table 9 shows the means and standard deviations of the ISAT proficiency scores in 2005 and 2006 as reported by the ISBE (2007b, c) the gain or loss from 2005 to 2006, and the *relative* gain or loss for the respondents in the survey. As explained in *Instruments and Data Collection* in Chapter 3, *Methodology,* in order to compare the gain or loss in proficiency more fairly for every school, the researcher entered the proficiency levels into the following formula to compute the *relative* gain or loss in percentages: Scores for 2006 – 2005 / 2006.

The standard deviations are relatively average compared to the means, which are also fairly consistent. This would indicate that the sample is a fairly accurate representation of the population and the mean is a good representation of the data in the study. The researcher also ran a Stem and Leaf Plot, Normal Regression Residual Plot, a Histogram and a Scatterplot on the relative gain compared to the Program Models, Free or Reduced Lunch and School Size to test assumptions for a linear model, which were met. The values of the outcome variable came from separate subjects (directors and principals), the residuals at each level of the predictor variables had about the same variance as described below, and difference between the linear model and the data was near zero.

Table 9

ISAT Means and Standard Deviations for School Years, Gain and Relative Gain

Respondents	2005	2006	Gain	Relative Gain
N =139	82.6 (9.9)*	83.5 (9.1)*	.81 (7.7)*	82.5 (9.2)*

* Standard deviations in ()

Looking at patterns between the gain scores, FRL and School Size, it was clearly shown that the higher the FRL, the lower the gain. There was no clear pattern between size of school and gain or loss in proficiency except that the top 20% of schools in terms of relative gain all had less than 400 students.

The only program model that was a significant predictor for the respondents controlling for FRL and School Size, was Program Model 3, $F(3, 135) = 13.82$, $p = .03$, as shown in Table 10. In Program Model 3, Title I students remain in the classroom for part of the reading instructional block. They receive the regular program of instruction from the classroom teacher, and then they are pulled out of the classroom to receive supplemental instruction from the paraeducators either one-on-one or in small groups under the direction of the classroom or Title I teachers.

The control variables of Size, $F(2, 136) = 17.76$, $p = .02$ and FRL, $F(2, 136) = 17.76$, $p = .00$ showed the same strong significance for all the program models in the study. However, size was not as significant as FRL. The control variables when entered first accounted for 21% of the variance while Program Model 3 accounted for just 3% of

the additional variance. Although Program Model 3 is significant, it represents only 3% of the explained variance, which is very small effect size or practical significance (Cohen, 1988).

Table 10

Linear Regression Analysis for Program Model 3 with Size and FRL

Variable	*B*	SE B	β	Sig.
Step 1				
Size	-.01	.01	-.18	.02*
FRL	-26.85	4.77	-.43	.00*
Step 2				
Size	-.01	.01	-.18	.02*
FRL	-26.21	4.71	-.42	.00*
Program Model 3	3.06	1.38	.17	.03*

Dependent Variable = Proficiency Relative Gain/Loss Grade 4

$R^2 = .21$ for Step 1; $\Delta R^2 = .03$ for Step 2

*Statistically significant *($p < .05$)*

Table 11 shows the other four program models as defined in Table 7 in section *Program Delivery Models in the Study* in Chapter 2, *Literature Review*, which were not significant predictors. The control variables Size, $F(2, 136) = 17.76$, $p = .03$ and FRL, $F(2, 136) = 17.76$, $p = .00$ were significant in every model. The results show the

following non-significant levels for the program models: Program Model 1 (inclusion with paraeducator assisting teacher), $F(3, 135) = 12.65$, $p = .15$; Program Model 2 (inclusion with team teaching by teacher and paraeducator), $F(3, 135) = 11.96$, $p = .49$; Program Model 4 (pullout with Title I teacher instructing and paraeducator assisting), $F(3, 135) = 11.81$, $p = .72$; and Program Model 5 (inclusion with Title I teacher instructing and paraeducator assisting), $F(3, 135) = 12.00$, $p = .45$.

The control variables when entered first accounted for 21% of the variance in every model, while the Program Models accounted for 0-1% of the additional variance, which is really no effect size.

Table 11

Linear Regression Analysis for Program Models 1, 2, 4, 5 with Size and FRL

Variable	*B*	SE B	β	Sig.
Step1				
Size	-.01	.01	-.18	.02*
FRL	-26.85	4.77	-.43	.00*
Step 2				
Size	-.01	.01	-.17	.03*
FRL	-28.81	4.94	-.46	.00*
Program Model 1	2.12	1.45	.12	.15

Table 11 (continues)

Table 11 (continued)

Variable	*B*	SE B	β	Sig.
Program Model 2	1.12	1.61	.06	.49
Program Model 4	-.52	1.41	-.03	.72
Program Model 5	-1.46	1.90	-.06	.45

Dependent Variable = Proficiency Relative Gain/Loss Grade 4

R^2 = .21 for Step 1; ΔR^2 = .00-.01 for Step 2

*Statistically significant *(p < .05)*

Table 12 shows the results of entering Size in Step 1, and Size and FRL in Step 2. Size $F(1, 137) = 3.12$, $p = .08$ was not significant when entered by itself. However, Size $F(2, 136) = 17.76$, $p = .02$ and FRL $F(2, 136) = 17.76$, $p = .00$ were significant when entered together. Size alone accounted for only 2% of the variance, a small effect size. When FRL was added, it accounted for 19% of the additional variance, which shows the impact of FRL on Size and a fairly large effect size.

Table 12

Linear Regression Analysis for School Size and Free or Reduced Lunch

Variable	*B*	SE B	β	Sig.
Step 1				
Size	-.009	.005	-.15	.08
Step 2				
Size	-.012	.005	-.18	.02*
FRL	-26.85	4.77	-.43	.00*

Dependent Variable: Proficiency Relative Gain/Loss Grade 4

$R^2 = .02$ for Step 1; $\Delta R^2 = .19$ for Step 2

*Statistically significant *($p < .05$)*

In Table 13, the response for Title I teachers who had a Reading Endorsement was entered in Step 1, then the responses for other education levels were added in Step 2. The Reading Endorsement $F(1. 137) = .083$, $p = .77$ was not significant. A Bachelors of Arts $F(4, 134) = .196$, $p = .88$, and a Masters of Arts $F(4, 134) = .196$, $p = .53$ were also not significant. There was no or very little explained variance in either model, so no effect size.

Table 13

Linear Regression Analysis for Title I Teacher Education Level

Variable	*B*	SE B	β	Sig.
Step 1				
Reading Endorse	-.538	1.87	-.03	.77
Step 2				
BA	-.393	2.51	-.02	.88
MA	-1.59	2.54	-.09	.53
Reading Endorse	-.003	2.00	.00	1.00

Dependent Variable: Proficiency Relative Gain/Loss Grade 4

$R^2 = .00$ for Step 1; $\Delta R^2 = .01$ for Step 2

*Statistically significant *($p < .05$)*

The other factors in the survey for grade three in 2004-05 and for grade four in 2005-06, which included lesson creation, lesson delivery, intervention strategies, grouping approach and time spent on intervention, were not significant predictors, however, they may influence Program Model 3. These factors will be discussed in terms of descriptive statistics in Chapter 5, *Discussion, Conclusion and Recommendations.*

CHAPTER FIVE: DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

Overview of Findings

The regression model shows that Program Model 3 (paraeducator instructed, pullout model) was a significant predictor for proficiency gain or loss in grade four on the ISAT (ISBE, 2007c). In this model, Title I students remain in the classroom for part of the reading instructional block. They receive the regular program of instruction from the classroom teacher, and then they are pulled out of the classroom to receive supplemental instruction from the paraeducators either one-on-one or in small groups under the direction of the classroom or Title I teachers. Based on the review of literature and the researcher's personal experience as a program reviewer for the Idaho State Dept. of Education, this finding is not surprising. It indicates that providing supplemental instruction to Title I students after their regular program of instruction has a significant influence on the students in grade four in showing a gain or loss in proficiency on the ISAT. However, the control variables of Size and FRL had a significant impact, which will be discussed later in this section as well as the influence of the other factors in the survey on the model.

The literature shows that program models that provide a focused intervention with trained personnel have a positive impact on student achievement (Allington, 2001; Allor et al., 2006; Hock et al., 2001; IRA, 2000; Lane et al., 2007; Marr & Dugan, 2007; Miles et al., 2005; Morris, 2005; Morris et al., 2003; NCERI, 1995; Peyton et al., 2005;

Therrien, 2004; Vadasy et al., 2006; Wasik & Slavin, 1993). The researcher anticipated that a supplemental program model led by a trained Title I or Reading Endorsed teacher, which was Program Model 4, would show more significance than one led by a paraeducator under the supervision of a teacher. However, the quality and quantity of the teacher supervision of paraeducators in a pullout model was not measured in this study, which could be an area for further research. The study does show the paraeducators are experienced and receiving training (shown in Appendix F, Tables F-3 through F-7 and F-11 through F-16 respectively).

What the finding of significant effect for Program Model 3 does not show is what makes the difference between a gain or loss in proficiency. This could be attributed to many other factors, some of which were included in the study and will be discussed here, and some of which were not, such as the individual differences with students, school staff providing instruction and their ability to implement one model with reliability. The state reports proficiency scores by school and grade level, and there is no report for a Title I subgroup like there is for Special Education. This study does not directly measure the proficiency of Title I students, although it could be assumed that these students would typically be performing at a lower level than the rest of their peers in each grade, therefore as their scores change, it is reflected in scores for each grade.

The regression model clearly shows the poverty level of the school as measured by the percent of students qualifying for FRL is a significant predictor of proficiency gain or loss across all program models in the study. This fact is well established and is the basis of the creation of Title I programs (ESEA, 1994; NCLB, 2002). The research also supports this finding (Baker et al., 2008; Berliner, 2006; Cawelti, 2000; Gilbert, 2000;

Lewis, 2005; Miles et al., 2005; Parrett, 2005; Piché, 2007). School Size was typically only a significant predictor when combined with FRL, which was surprising to the researcher based on personal experience that smaller schools and smaller classes often seem to be more successful. However, as stated in Chapter 4, *Results*, there was a slight trend in the schools with the top gains to have fewer than 400 students, but there were exceptions.

The regression model on School Size alone and Size with FRL showed that Size is not a significant predictor or proficiency gain or loss unless combined with FRL or school poverty, which has already been shown to be a significant predictor and has considerable practical significance in the model.

The regression model for the Title I Teacher Education Level did not show any level of education as a predictor of proficiency gain or loss, which was surprising and disappointing because the researcher expected to find that the greater the expertise of the instructor, the greater the gain in proficiency. There was also virtually no practical significance shown in the model.

The additional variables from the survey for grades three during 2004-2005 and grade four during 2005-2006 while not significant predictors, provided additional insight into the findings shown in the regression model for the program models and grade four proficiency gain or loss during 2005-2006. With the exception of the question on time spent on supplemental instruction, respondents could choose more than one response, therefore the percentage of responses discussed will not equal 100%. These tables are shown in Appendix E, Frequency Tables: Factors Influencing Program Model 3, and Appendix F, Frequency Tables: Paraeducators and Teachers and will be discussed here.

Factors Influencing Program Model 3 (Appendix E)

Table E-1: 2005 Grade 3 and Table E-2: 2006 Grade 4 Number of Title I Students

Respondents for grade 3 in 2004-05 indicated that 60% of their schools served 1-20 students in Title I, followed by 15% for 20-40 students. Respondents for grade four in 2005-06 indicated that 53% of their schools served 1-20 students in Title I, followed by 17% for 20-40 students. A full time equivalent Title I instructor is required by NCLB (2002) to work with no more than 20 students. It could not be ascertained how many Title I students are in each grade or how many work with each paraeducator at each grade level. However, considering that most schools employed 1-5 paraeducators (shown in Appendix F, Tables F-1 and 2), it appears that most schools served the appropriate number of students in each grade level with emphasis on the primary grades, which contributes to the significance of Program Model 3 in the study.

Table E-3: 2006 Grade 4 Number of Program Models Used

A variable was added to data file to determine the number of program models used by each school in Grade 4 for 2005-06. As stated previously, the respondents could "check all that apply," which did not give a clear picture of which model was used predominantly in the school. The results show that 33% chose one model, 22% chose two models, and 15% chose three models. It appears that schools seemed to vary their program delivery model within the same school year perhaps due to staffing, resources and student needs. However, 13% of the respondents did not choose any model, probably because not all the respondents had grade 4 in their school.

Tables E-4 through E-8: 2005 Grade 3 Program Models

In grade three for 2004-05, the most common program model was Program Model 4 (Title I teacher instructed, paraeducator assisted pullout model) followed closely by Program Model 3, with almost 50% of the respondents choosing each of these models. This indicates there is strong emphasis on first, using a trained Title I teacher and second, a trained paraeducator to provide interventions in a pullout model in the primary grades, which is supported by the research on models cited previously in this chapter. However, in the state in which this study was conducted, there is no requirement for an endorsement for Title I teachers, and only one level of endorsement is offered beyond the classroom teacher. The choice Program Model 4 and of course, Program Model 3 contributes to the significance of Program Model 3, which was found to be the significant predictor in the study.

Tables E-9 through E-13: 2006 Grade 4 Program Models

In grade four, the most common model in 2005-06 was Program Model 1 (classroom teacher instructed, paraeducator assisted inclusion model) followed closely by Program Model 4 (Title I teacher instructed, paraeducator assisted pullout model) with almost 50% of the respondents choosing each of these models. This indicates that students received supplemental assistance by a paraeducator first, in the classroom, or second, by a trained Title I teacher outside the class. Program Model 1 has been found in the researcher's experience to be more typical for an intermediate grade in which the curriculum is more difficult and textbook-based than in the primary grades. A trained teacher who provides interventions to supplement classroom instruction in the

intermediate grades is also supported by research on models cited previously in this chapter. The choice of Program Model 4 somewhat contributes to Program Model 3, which was a significant predictor in the study, but the choice of Program Model 1 does not.

Tables E-14 though E-19: 2005 Grade 3 Lesson Creation

The response to the question that explored the source of lessons during Title I instruction was interesting because in both grades, it somewhat contradicted the responses to the program model questions, or at least did not completely support them. In grade three, published programs and lessons created by the Title I teacher were tied for the most frequently used supplemental curriculum at 55%. Grade three respondents chose Program Model 4 and 3 first and second respectively, but the percentages were very close. Using a published program or teacher created lessons contribute to Program Model 4, but it is a little less clear how they contribute to Program Model 3 in which the paraeducators instructed. If the teacher provided the lessons, which should occur, then either of these types of lessons would fit in that model. However, 18% of the respondents indicated paraeducators created the lessons, which is not allowed under the law (NCLB, 2002). The researcher does not think this is an oversight but a true reflection of reality in school programs, i.e., rarely is any model completely unadulterated in its implementation.

Tables E-20 through E-24: 2006 Grade 4 Lesson Creation

In grade four, an error was discovered in the survey as the first choice response for a "published program" was inadvertently left out of the choices. Lessons created by a

Title I teacher garnered the most responses with 53%, followed by lessons created by a classroom teacher, 40%. Only six respondents wrote in "published program." Grade four respondents chose Program Model 1 (classroom teacher instructed, paraeducator assisted inclusion model) and Program Model 4 (Title I teacher instructed, paraeducator assisted pullout model) first and second respectively, but again the percentages were close. Teacher created lessons contribute to both of these program models, although the order of preference was reversed in terms of the teacher and corresponding program. However, 25% of the respondents indicated paraeducators created the lessons, which is a fairly high contradiction to their previous responses. As stated previously, this is not an oversight but a true reflection of reality in school programs. Paraeducators creating lessons has positive implications for the significance of Program Model 3, but does not clearly contribute to it.

Tables E-25 through E-29: 2005 Grade 3 Lesson Delivery

In grade three, paraeducator delivery of lessons was first choice with 63%, while Title I teacher delivery had 58%. Title I teacher delivery contributes to the choice of Program Model 4 (Title I teacher instructed, paraeducator assisted pullout model) and the paraeducator delivery contributes to the choice of Program Model 3, although the percentage of responses is almost 14% higher than the percentage of responses for Program Model 3 in a previous question. Paraeducator lesson delivery contributes to the significance of Program Model 3.

Tables E-30 through E-34: 2006 Grade 4 Lesson Delivery

In grade 4, the two most frequent responses were reversed from grade 3 with Title I teacher delivery at 55% and paraeducator delivery at 52%. This contradicts grade four respondents' first choice of Program Model 1 (classroom teacher instructed, paraeducator assisted inclusion model) and second choice of Program Model 4 (Title I teacher instructed, paraeducator assisted pullout model), but it does contribute to the significance of Program Model 3. Again the researcher thinks this is a reflection of reality in schools, not an unadulterated implementation of one model.

Tables E-35 through E-39: 2005 Grade 3 Intervention Strategies

This question was measured differently because the respondents were asked to rate the answers by how often they used an intervention strategy: always, frequently, occasionally or never. In grade three, there was no strong consensus for any one strategy used. The core basal program was used always or frequently by 45% of the respondents. Teacher-created skill activities were the second choice with 41%. A specific intervention program such as *Dibels or Language!* was used by 30% of the respondents, paraeducators assisting with assignments was 28% and paraeducator created skill activities was 27%. This is not surprising because primary teachers often use a variety of supplemental interventions due to the focus on reading skills in the primary grades and the attention span of the students. These responses also support the grade three first and second choices of Program Model 4 and 3 respectively, and some contribute to the significance of Program Model 3 if paraeducators used the most frequently cited interventions chosen here.

Tables E-40 through E-44: 2006 Grade 4 Intervention Strategies

In grade four, the results were somewhat different. The core basal program was used always or frequently by 54% of the respondents, a specific intervention program was second with 50%. Teacher created skill activities garnered 45% while paraeducators assisting in the classroom resulted in 46%. Only 12 respondents cited paraeducators created skills activities. One reason for these responses could be due to the greater emphasis on academic curriculum in grade four. Another reason stated previously is the researcher has observed more paraeducators assisting in the classroom in the intermediate grades due to the textbook-based curriculum. The priority order of these responses supports grade four first and second choices of Program Model 1 (classroom teacher instructed, paraeducator assisted inclusion model) and Program Model 4 (Title I teacher instructed, paraeducator assisted pullout model) respectively, as either model could use these strategies. They could also contribute to the significance of Program Model 3 if paraeducators used the most frequently cited interventions chosen here.

Tables E-45 through E-47: 2005 Grade 3 and Tables E-48 through E-50: 2006 Grade 4 Grouping Approach

Small groups were the overwhelming choice for both grades with 87% for grade three and 80% for grade 4. However, both grades showed a fair percentage of individual instruction, 41% for grade 3 and 39% for grade 4. The small group approach contributes to Program Models 2 (team teaching), 3 and 4 (Title I teacher instructed, paraeducator assisted pullout model), while the individual instruction contributes to Program Models 1 (classroom teacher instructed, paraeducator assisted inclusion model), 4 (Title I teacher

instructed, paraeducator assisted pullout model) and 5 (Title I teacher instructed, paraeducator assisted inclusion model. The small group approach contributes to the significance of Program Model 3 (paraeducator instructed, pullout model) and is probably the most common grouping approach the researcher has observed being used.

Table E-51: 2005 Grade 3 and Table E-52: 2006 Grade 4 Time for Instruction

Title I supplemental instruction was offered 30-90 minutes per day by 70-80% of the respondents in both grades. This is the recommended daily time allotment for reading programs typically found in schools based on the researcher's experience and previously cited research on models in this chapter.

Paraeducators and Title I Teachers (Appendix F)

Table F-1: 2005 Grade 3 Number of Paraeducators

Table F-2: 2006 Grade 4 Number of Paraeducators

Respondents for 2004-05 indicated that 86% of their schools employed 1-5 paraeducators. An additional 8% employed 6-10 paraeducators and 5% employed no paraeducators during the same period. Respondents for 2005-06 indicated that 84% of their schools employed 1-5 paraeducators. An additional 8% employed 6-10 paraeducators and 4% employed no paraeducators during the same period. This indicates that schools most frequently hired one paraeducator per grade level, most likely depending on the size of the school and available resources, and they appear to have relied heavily on paraeducators in providing assistance to teachers and Title I students.

Tables F-3 through F-7: 2004-06 Paraeducator Years of Experience

Respondents reported that 26-34% of paraeducators in their schools had 1-5 years of experience, and 40-48% had 5-10 years of experience. This indicates the majority of paraeducators had many years of experience on the job and the schools had little turnover, which would increase the paraeducators' skills and benefit their students, given the fairly high percentage of professional development discussed below.

Tables F-8 through F-10: 2004-06 Paraeducator Education

Paraeducators' level of formal education showed that 71% of paraeducators had taken the Praxis *ParaPro Assessment*, required by the state (NCLB, 2002) if they do not have a college degree, while 59% held an Associate's degree and 27% held a Bachelor's Degree. Although there may be some overlap because some districts require the exam in addition to the degree, this indicates the majority of paraeducators met or exceeded the requirements for their position, which would also better prepare them to benefit the at-risk students whom they assisted.

Tables F-11 through F-16: 2004-06 Paraeducator Professional Development

Paraeducators were provided with a variety of training opportunities to enhance their skills and benefit their students. Respondents could check all answers that applied in this question so there was some overlap. District or school in-service training was the most frequent response with 87%, followed by 84% for on-the-job training experience. The third choice was 54% for attending a statewide conference, such as IRA or Title I.

Tables F-17-F-20: 2004-06 Title I Teacher Education

Only 15% of the respondents indicated they do not have a Title I teacher in their school. Of the schools that employed a Title I teacher, 40% held a Master's degree and 22% held a Reading Endorsement or advanced degree. Once again, they could check all answers that applied, so there may be some overlap in responses. There was nothing shown in the data analysis of this study indicating schools perform better with a Title I teacher having a Reading Endorsement, which was disconcerting to the researcher who had anticipated the additional training would be a predictor of student achievement. This indicates that the teachers who supervised the paraeducators were well qualified, although this does not show how many of them are actually instructing students given the program model choices, or that they are providing appropriate supervision of the paraeducators who are instructing students.

Summary of Findings

The findings in this study based on the model design are not robust enough to recommend the paraeducator instructed, pullout model as a preferred model of Title I service delivery. While Program Model 3, the paraeducator instructed, pullout model was a significant predictor of gain or loss in school proficiency, it was not shown to be consistent throughout the analysis and did not explain how it contributes to gain or loss.

School poverty based on FRL was a very strong predictor in every analysis in the study, which has already been well documented. School size had a small effect, and was significant only when combined with FRL as control variables.

The Title I Teacher Education Level did not have significance in this model either, which was not the result the researcher expected. The literature review as previously described shows the positive impact Reading Specialists and Reading Coaches can have on student reading achievement. Idaho does not require a specialist degree for reading or Title I teachers as they should.

There was no significance found in any of the related instructional factors, they influence Program Model 3, the paraeducator instructed, pullout model, which was significant for predicting gain or loss in reading proficiency. Primary grade reading skills instruction builds the foundation for students as they move into the more academic intermediate grades. Much of the literature reviewed discussed studies conducted in the primary grades which included specific models of instruction and interventions to increase the proficiency of children at-risk for failing or who are behind their peers, which is the purpose of the Title I program.

A summary of the related instructional factors contributing to the significance of Program Model 3, the paraeducator instructed, pullout model, found in the regression model for grade four includes:

1. # of students served in Title I per grade - 1-20
2. # of program models used - 2-3 (37%)
3. Program Model choices:
    - Grade 3: 1^{st} - 4, 2^{nd} – 3
    - Grade 4: 1^{st} – 1, 2^{nd} – 4

4. Lesson Creation: 1st - published program, 2nd - teacher created
    - 18-25% stated paraeducators create lessons (not allowed by law)
5. Lesson Delivery: 1st - by paraeducators, 2nd - by teachers
6. Intervention Strategies: 1st - core basal, 2nd - teacher created, 3rd - specific intervention program
7. Grouping Approach: small group instruction (5-10)
8. Time for Supplemental Instruction: 30-90 mins. per day

The degree of influence of these related instructional factors cannot be measured in this study, or how much they may contribute to the gain or loss of proficiency. As stated in the limitations in Chapter 1, *Introduction,* the proficiency scores used in this study were reported by school and grade level. There is no Title I subgroup reported, and no individual student scores are available through the state.

The results shown in the frequencies from the questions on paraeducators and Title I teachers would contribute to the significance of Program Model 3 found in the regression model for grade four. A summary of these factors include:

1. Paraeducators who took the Praxis Parapro Assessment – 71%Paraeducators with degrees – AA 59%, BA 27%Paraeducators with 5-10 years of experience – 48%
4. Paraeducators received on-going professional development – 87%
5. Paraeducators worked with acceptable # of students – 56%Teachers were well prepared – 40% MA, 22% Reading Endorsement

Paraeducators and Title I teachers were well prepared and paraeducators were provided on-going professional development. Paraeducators had a wealth of experience

and were working with an acceptable number of students in the schools. These factors would contribute positively to a gain in grade four reading proficiency. However, other factors discussed in the study also influence proficiency gain or loss, as well as factors that couldn't be determined in the study such as the exact number of Title I students served by paraeducators, the skill level of the specific paraeducators serving the students, what type of interventions the students are personally receiving, and their particular proficiency levels or other academic limitations.

Recommendations

The literature review clearly delineates the factors that have been shown to be successful in school and student achievement. The researcher attempted to determine which factors have the strongest influence on that success in this study, but due to the limitations already discussed, they were not shown to be significant. If the study were designed differently, the outcome might show a more predictive model. For example, the participants could be a specific group of Title I students and their teachers and paraeducators. The researcher could observe and document their specific model of delivery, the interventions they use that could be directly correlated to student scores, and the training each paraeducator had been provided. These factors could be shown to more accurately predict school and student success, which could then be more accurately replicated in other schools.

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APPENDIX A

Notification of Approval

Notification of Approval

Principal Investigator: Janet Byers-Kirsch
Co Investigator: Dr. Lee Dubert
Title: Title I Program Models of Delivery: The Impact of Paraeducators on Fourth Grade Reading Proficiency
IRB Approval Number: EX 108-08-051
Federal Wide Assurance #: 0000097
Review: Exempt
Protocol Annual Expiration Date: February 28, 2009
Protocol Three-Year Expiration Date: February 28, 2011

Date: February 29, 2008

Dear Janet Byers-Kirsch:

This letter is to officially notify you of the approval of your protocol application by the Boise State University (BSU) Institutional Review Board (IRB). Your protocol is in compliance with this institution's Federal Wide Assurance 0000097 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46), and has been classified as exempt.

All forms regarding human subject research are available online. Please submit all forms and relative correspondence for the IRB electronically to the Office of Research Compliance e-mail, HumanSubjects@boisestate.edu.

Your approved protocol is effective for 12 months. If your research is not finished within the allotted year, the protocol must be renewed by the annual expiration date indicated above. Under BSU regulations, each protocol has a three-year life cycle and is allowed two annual renewals. If your research is not complete by the three-year expiration date indicated above, a new protocol application must be submitted.

Modifications/Amendments
All additions or changes to your protocol once the research has begun must be brought to the attention of the IRB. Complete and submit a "Modification/Amendment Form" indicating any change to your project. Modifications are reviewed by the IRB and must be approved before the changes may occur.

Annual Renewal
As the principal investigator, you have the primary responsibility to ensure the "Continuing/Annual Form" is submitted in a timely manner. Any problems or adverse events that occurred during the project must also be noted in the annual renewal, with a description of what was done to prevent recurrence.

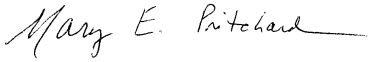
About 60 days prior to the expiration date of the approved protocol, the Office of Research Compliance will send you a renewal reminder notice. **If the annual renewal form is not received by the protocol's annual expiration date, the protocol will be considered "closed/non-active" and a final report will need to be submitted. To continue the research project after it has closed, a NEW protocol application will need to be submitted for IRB review and approval.**

Final Report

When your research is complete or discontinued, please submit a "Final Report Form." An executive summary or other documents with the results of the research may be included.

If you have any questions or concerns, please contact the Office of Research Compliance, 426-5401 or HumanSubjects@boisestate.edu.

Thank you and good luck with your research.



Dr. Mary E. Pritchard
Chair, BSU Institutional Review Board

APPENDIX B

What You Should Know About ISAT

What You Should Know About ISAT

The 2007 Spring ISAT is aligned to Idaho's content standards in reading, mathematics, language usage, and science.

Changes in the ISAT would have been made even had there not been a change in test vendor. Two independent reviews determined that the ISAT was not aligned to standards. This alignment is a requirement of *No Child Left Behind*.

Idaho's teachers have played a major role in the development of the tests. Teachers have been selected from applicants to assure

- Content expertise, including a range from five to 35+ years
- Rural and urban balance
- Geographic representation, and
- Gender balance

Idaho's teachers have developed descriptors of performance at each level of achievement (below basic, basic, proficient, and advanced) for each content area. They also have set cut scores for each content area based on the actual data from the spring test and the descriptors of expected performance at each level (PLDs).

A psychometric requirement is that all tests are comparable from year to year. This year's test has been linked to the 2006 test, and scores are comparable.

Teachers now have clear guidance about what is important and what needs to be taught: the standards.

Idaho's standards are rigorous and have a range of cognitive demand.

Results of spring ISAT reflect where our students are now relative to Idaho's standards at the end of the school year. The fall test will provide information to guide instruction for the coming year.

Preliminary AYP results were posted on June 28, 2007 for districts to review. Until close of business on July 27 is a window for districts to appeal significant data. Following the appeals window final AYP results will be made public. Schools and districts must then report to parents if they are in "needs improvement" status.

APPENDIX C

Invitation Email to Participants

March 2008

Greetings Title I Directors and Principals:

Your cooperation will be greatly appreciated in assisting me with my Doctoral Dissertation research study at Boise State University. I am inviting you to complete a brief, multiple choice, ***Qualtrics*** **web-based survey using the link shown below. The topic is about Title I programs in grades 3 and 4 in each of your elementary schools for the school years 2004-05 and 2005-06.**

District Title I Directors and Principals of all elementary schools (some of you wear dual hats), which have grades 3 or 4 and a Title I funded program, are being invited to participate in the study by completing a separate survey for each applicable school. If the school doesn't have BOTH grades 3 and 4, questions relative to each specific grade are optional. District and school information was obtained from the State Dept. of Education website.

The purpose of this research study is to *explore some of the factors that may or may not be related to gains in student reading achievement through participation in Title I programs.* The survey examines the relationship between the five most common Title I program models of delivery in Idaho elementary schools and improvement in statewide fourth grade reading proficiency as measured by the Idaho Standards Achievement Test (ISAT) between 2005 and 2006. Title I teacher and paraeducator preparation, training, and experience will also be considered as factors. The public ISAT proficiency data will be obtained from the State Board of Education website. The ISAT changed after 2006, which required using proficiency data from 2005-2006 for an accurate comparison of gain scores.

District, school, and participant identifies in this study will be kept confidential. All information obtained will only be used for the purpose of this dissertation, and will not be disseminated publicly.

I will be happy to email the results of this survey and my dissertation to you. There is a question at the end of the survey that will allow you to request this information if desired. My intention is to have this data available by the end of May so that you could use the results for program planning next year.

NOTE: Participation in taking the survey is completely voluntary. Participants must be over 18. This project has been reviewed by the Boise State University Institutional Review Board for the protection of human subjects in research. (208-426-1574). **IRB Protocol # EX**

If you have questions, please feel free to contact the researcher below, or my Dissertation Chairperson at BSU, Dr. Lee Dubert at 208-426-3271 or ldubert@boisestate.edu

Thank you in advance for your assistance with this study and your service to schoolchildren.

I WOULD LIKE THE SURVEY COMPLETED NO LATER THAN MARCH 30, 2008.

Follow this link to the Survey: ${l://SurveyLink} Title I Program Models

Researcher: Jan Byers-Kirsch
Email Address: JanetByers@mail.boisestate.edu
Home Address: 5305 Dakota Ave. Boise, ID 83709
Phone: 208-869-6496

Second Invitation Email for Multiple Schools
March 7, 2008

Hello Title I Directors and Principals:

It has been brought to my attention that some of you who have dual responsibilities either as a director or for multiple schools have not been able to take the survey more than once. I believe I have fixed this problem so please try again, or if you haven't taken the survey yet, please take this opportunity to do so now. A few of you may be receiving this message for the first time due to email errors. The original invitation with the link to the survey is shown below. Thank you again for your support in assisting me with my dissertation study.

Follow this link to the Survey: ${l://SurveyLink} Title I Program Models

Reminder Email
March 14 and 21, 2008

Hello Title I Directors and Principals:

This us a quick reminder that I have either not received your response to the survey, or I may have only received a response for one school. The survey was on Title I Program Models in grades 3 and 4, which I sent you in an email link a few weeks ago. This is a very important part of the data collection for my dissertation study, and I would greatly appreciate it if you could take a few moments of your time to complete and submit it. I believe the results will be valuable and interesting for all of us and may assist you in program planning for next year. If you have questions, please don't hesitate to contact me. Thank you again for your support.

Follow this link to the Survey: ${l://SurveyLink} Title I Program Models

Last Chance Email
March 28, 2008

Hello Again Title I, Consolidated Plan or Curriculum Directors and Principals:

This is the last chance to respond to my dissertation survey. I have either NOT received a response to my survey from you, or I may have only received a response for ONE school under your purview. I would like to hear from directors AND principals if possible, but Title I teachers or paraeducators familiar with the programs in the their schools may respond instead. Research in the field does drive practice, and I have been on both sides. I believe the results will be valuable and interesting for all of us and may assist you in program planning for next year. If you have questions, please don't hesitate to contact me. Thank you again for your support.

Copy and paste this link into your browser:
http://boisestate.qualtrics.com/SE?SID=SV_5j5fcKs2P4MI5iA&SVID=Prod
Drop me a quick email if you have trouble logging in for more than one school, and I will send you the link outside of *Qualtrics*.

APPENDIX D

Qualtrics Survey: Title I Program Models

TITLE I PROGRAM MODELS: A survey for Title I Directors and Principals. Please complete all questions as accurately as possible by March 30, 2008.

NOTE: Participants are free to skip any question, may stop taking the survey at any time without penalty, and taking the survey is completely voluntary. Participants must be over 18. This project has been reviewed by the Boise State University Institutional Review Board for the protection of human subjects in research.

What is your role or title?

- ☐ District Title I Director
- ☐ Principal
- ☐ Both the Director and a Principal
- ☐ Other (specify) _____

*What is the name of your Title I funded **SCHOOL**, which had **GRADES 3 OR 4** during school years **2004-05 AND 2005-06?** Schools are listed in order by district number. **(DELETED FOR CONFIDENTIALITY)*

NOTE: A SEPARATE SURVEY SHOULD BE COMPLETED FOR EACH SCHOOL LISTED.

What was the approximate number of **STUDENTS SERVED in the TITLE I PROGRAM** per grade level at your school during **school year 2004-05?**

	0 students	1-20 students	20-40 students	40-60 students	60+ students
K	☐	☐	☐	☐	☐
1	☐	☐	☐	☐	☐
2	☐	☐	☐	☐	☐
3	☐	☐	☐	☐	☐
4	☐	☐	☐	☐	☐

What was the approximate number of **STUDENTS SERVED in the TITLE I PROGRAM** per grade level at your school during **school year 2005-06?**

	0 students	1-20 students	20-40 students	40-60 students	60+ students
K	☐	☐	☐	☐	☐
1	☐	☐	☐	☐	☐
2	☐	☐	☐	☐	☐
3	☐	☐	☐	☐	☐
4	☐	☐	☐	☐	☐

GRADE LEVEL QUESTIONS FOR GRADE 3:

Please answer the following questions, which have been GROUPED BY GRADE THREE AND YEAR.

The questions are REPEATED in order for 2004-05 and again for 2005-06 to collect information for EACH YEAR separately.

IF YOUR SCHOOL HAD GRADE 3, CHECK THE BOX FOR GRADE 3, AND CONTINUE WITH BLUE QUESTIONS.

IF YOUR SCHOOL HAD ONLY GRADE 4, SKIP TO FIRST RED SECTION: GRADE LEVEL QUESTIONS FOR GRADE 4.

☐ Grade 3

NEXT 6 QUESTIONS ARE FOR GRADE 3 DURING 2004-05.

What was the Title I **PROGRAM DELIVERY MODEL** for GRADE 3 at your school during school year 2004-05? Check all that apply.

- ☐ Students receive services in their class with classroom teacher instructing and paraeducator assisting individual students
- ☐ Students receive services in class with classroom teacher and paraeducator team-teaching students in separate groups
- ☐ Students are pulled out of class to receive services with paraeducator instructing groups under supervision of a teacher
- ☐ Students are pulled out of class with Title I teacher or Reading Specialist instructing and paraeducator assisting
- ☐ Students stay in class with a Title I teacher or Reading Specialist instructing and paraeducator assisting
- ☐ Other (specify) _____

How were Title I supplemental **LESSONS CREATED** for students in GRADE 3 at your school during 2004-05? Check all that apply.

- ☐ Published program
- ☐ By the classroom teacher
- ☐ By the Title I teacher or Reading Specialist
- ☐ By Title I paraeducator
- ☐ By classroom teacher and paraeducator together
- ☐ By Title I teacher or Reading Specialist and paraeducator together
- ☐ Other (specify) _____

How were the Title I supplemental **LESSONS DELIVERED** for students in GRADE 3 at your school during 2004-05? Check all that apply.

- ☐ By the classroom teacher
- ☐ By the Title I teacher or Reading Specialist
- ☐ By Title I paraeducator
- ☐ By classroom teacher and paraeducator together
- ☐ By Title I teacher or Reading Specialist and paraeducator together
- ☐ Other (specify) _____

What types of and how often were **INTERVENTION STRATEGIES** provided for Title I students in GRADE 3 at your school during 2004-05? Check all that apply.

	Always	Frequently	Occasionally	Rarely or Never
Core basal reading program (Open Court, Treasures, etc.)	☐	☐	☐	☐
Intervention program (Lips, Stars, Language, Dibels, etc.)	☐	☐	☐	☐
Teacher created reading skills	☐	☐	☐	☐
Paraeducator created reading skills	☐	☐	☐	☐
Paraeducator assists with assignments after teacher instruction	☐	☐	☐	☐
Other (specify) _____	☐	☐	☐	☐

What sort of **GROUPING APPROACH** was used for intervention delivery for Title I students in GRADE 3 at your school during 2004-05? Check all that apply.

- ☐ Individual instruction (1)
- ☐ Small group instruction (5-10)
- ☐ Large group instruction (10+)
- ☐ Other (specify) _____

How much **TIME PER DAY OR WEEK** did Title I students receive intervention strategies in GRADE 3 at your school during 2004-05?

- ☐ 20-30 mins daily
- ☐ 60-90 mins daily
- ☐ 60-90 mins weekly
- ☐ 100+ mins weekly
- ☐ Other (specify) _____

NEXT 6 QUESTIONS ARE FOR GRADE 3 DURING 2005-06.

What was the Title I **PROGRAM DELIVERY MODEL** for GRADE 3 at your school during school year 2005-06? Check all that apply.

- ☐ Students receive services in their class with classroom teacher instructing and paraeducator assisting individual students
- ☐ Students receive services in class with classroom teacher and paraeducator team-teaching students in separate groups
- ☐ Students are pulled out of class to receive services with paraeducator instructing groups under supervision of a teacher
- ☐ Students are pulled out of class with Title I teacher or Reading Specialist instructing and paraeducator assisting
- ☐ Students stay in class with a Title I teacher or Reading Specialist instructing and paraeducator assisting
- ☐ Other (specify) _____

How were Title I supplemental **LESSONS CREATED** for students in GRADE 3 at your school during 2005-06? Check all that apply.

- ☐ Published program
- ☐ By the classroom teacher
- ☐ By the Title I teacher or Reading Specialist
- ☐ By Title I paraeducator
- ☐ By classroom teacher and paraeducator together
- ☐ By Title I teacher or Reading Specialist and paraeducator together
- ☐ Other (specify) _____

How were the Title I supplemental **LESSONS DELIVERED** for students in GRADE 3 at your school during 2005-06? Check all that apply.

- ☐ By the classroom teacher
- ☐ By the Title I teacher or Reading Specialist
- ☐ By Title I paraeducator
- ☐ By classroom teacher and paraeducator together
- ☐ By Title I teacher or Reading Specialist and paraeducator together
- ☐ Other (specify) _____

What types of and how often were **INTERVENTION STRATEGIES** provided for Title I students in GRADE 3 at your school during 2005-06? Check all that apply.

	Always	Frequently	Occasionally	Rarely or Never
Core basal reading program (Open Court, Treasures, etc.)	☐	☐	☐	☐
Intervention program (Lips, Stars, Language, Dibels, etc.)	☐	☐	☐	☐
Teacher created reading skills	☐	☐	☐	☐
Paraeducator created reading skills	☐	☐	☐	☐

Paraeducator assists with assignments after teacher instruction

Other (specify)

What sort of **GROUPING APPROACH** was used for intervention delivery for Title I students in GRADE 3 at your school during 2005-06? Check all that apply.

- Individual instruction (1)
- Small group instruction (5-10)
- Large group instruction (10+)
- Other (specify)

How much **TIME PER DAY OR WEEK** did Title I students receive intervention strategies in GRADE 3 at your school during 2005-06?

- 20-30 mins daily
- 60-90 mins daily
- 60-90 mins weekly
- 100+ mins weekly
- Other (specify)

GRADE LEVEL QUESTIONS FOR GRADE 4:

Please answer the following questions, which have been GROUPED BY GRADE FOUR AND YEAR.

The questions are REPEATED in order for 2004-05 and again for 2005-06 to collect information for EACH YEAR separately.

IF YOUR SCHOOL HAD ONLY GRADE 3, ANSWER THE BLUE QUESTIONS ABOVE AND SKIP TO NEXT BLACK QUESTION BELOW: HOW MANY PARAEDUCATORS WORKED IN TITLE I PROGRAMS?

IF YOUR SCHOOL HAD GRADE 4, CHECK THE BOX FOR GRADE 4, AND CONTINUE WITH THE RED QUESTIONS.

☐ Grade 4

NEXT 6 QUESTIONS ARE FOR GRADE 4 DURING 2004-05.

What was the Title I **PROGRAM DELIVERY MODEL** for GRADE 4 at your school during school year 2004-05? Check all that apply.

☐ Students receive services in their class with classroom teacher instructing and paraeducator assisting individual students

☐ Students receive services in class with classroom teacher and paraeducator team-teaching students in separate groups

☐ Students are pulled out of class to receive services with paraeducator instructing groups under supervision of a teacher

☐ Students are pulled out of class with Title I teacher or Reading Specialist instructing and paraeducator assisting

☐ Students stay in class with a Title I teacher or Reading Specialist instructing and paraeducator assisting

☐ Other (specify) _____

How were Title I supplemental **LESSONS CREATED** for students in GRADE 4 at your school during 2004-05? Check all that apply.

☐ By the classroom teacher

☐ By the Title I teacher or Reading Specialist

☐ By Title I paraeducator

☐ By classroom teacher and paraeducator together

☐ By Title I teacher or Reading Specialist and paraeducator together

☐ Other (specify) _____

How were the Title I supplemental **LESSONS DELIVERED** for students in GRADE 4 at your school during 2004-05? Check all that apply.

- ☐ By the classroom teacher
- ☐ By the TItle I teacher or Reading Specialist
- ☐ By Title I paraeducator
- ☐ By classroom teacher and paraeducator together
- ☐ By Title I teacher or Reading Specialist and paraeducator together
- ☐ Other (specify) _____

What types of and how often were **INTERVENTION STRATEGIES** provided for Title I students in GRADE 4 at your school during 2004-05? Check all that apply.

	Always	Frequently	Occasionally	Rarely or Never
Core basal reading program (Open Court, Treasures, etc.)	☐	☐	☐	☐
Intervention program (Lips, Stars, Language, Dibels, etc.)	☐	☐	☐	☐
Teacher created reading skills	☐	☐	☐	☐
Paraeducator created reading skills	☐	☐	☐	☐
Paraeducator assists with assignments after teacher instruction	☐	☐	☐	☐
Other (specify) _____	☐	☐	☐	☐

What sort of **GROUPING APPROACH** was used for intervention delivery for Title I students in GRADE 4 at your school during 2004-05? Check all that apply.

- ☐ Individual instruction (1)
- ☐ Small group instruction (5-10)
- ☐ Large group instruction (10+)
- ☐ Other (specify) _____

How much **TIME PER DAY OR WEEK** did Title I students receive intervention strategies in GRADE 4 at your school during 2004-05?

- ☐ 20-30 mins daily
- ☐ 60-90 mins daily
- ☐ 60-90 mins weekly
- ☐ 100+ mins weekly
- ☐ Other (specify) _____

NEXT 6 QUESTIONS ARE FOR GRADE 4 DURING 2005-06.

What was the Title I **PROGRAM DELIVERY MODEL** for GRADE 4 at your school during school year 2005-06? Check all that apply.

- ☐ Students receive services in their class with classroom teacher instructing and paraeducator assisting individual students
- ☐ Students receive services in class with classroom teacher and paraeducator team-teaching students in separate groups
- ☐ Students are pulled out of class to receive services with paraeducator instructing groups under supervision of a teacher
- ☐ Students are pulled out of class with Title I teacher or Reading Specialist instructing and paraeducator assisting
- ☐ Students stay in class with a Title I teacher or Reading Specialist instructing and paraeducator assisting
- ☐ Other (specify) _____

How were Title I supplemental **LESSONS CREATED** for students in GRADE 4 at your school during 2005-06? Check all that apply.

- ☐ By the classroom teacher
- ☐ By the Title I teacher or Reading Specialist
- ☐ By Title I paraeducator
- ☐ By classroom teacher and paraeducator together
- ☐ By Title I teacher or Reading Specialist and paraeducator together
- ☐ Other (specify) _____

How were the Title I supplemental **LESSONS DELIVERED** for students in GRADE 4 at your school during 2005-06? Check all that apply.

- ☐ By the classroom teacher
- ☐ By the TItle I teacher or Reading Specialist
- ☐ By Title I paraeducator
- ☐ By classroom teacher and paraeducator together
- ☐ By Title I teacher or Reading Specialist and paraeducator together
- ☐ Other (specify) _____

What types of and how often were **INTERVENTION STRATEGIES** provided for Title I students in GRADE 4 at your school during 2005-06? Check all that apply.

	Always	Frequently	Occasionally	Rarely or Never
Core basal reading program (Open Court, Treasures, etc.)	☐	☐	☐	☐
Intervention program (Lips, Stars, Language, Dibels, etc.)	☐	☐	☐	☐
Teacher created reading skills	☐	☐	☐	☐
Paraeducator created reading skills	☐	☐	☐	☐
Paraeducator assists with assignments after teacher instruction	☐	☐	☐	☐
Other (specify) _____	☐	☐	☐	☐

What sort of **GROUPING APPROACH** was used for intervention delivery for Title I students in GRADE 4 at your school during 2005-06? Check all that apply.

- ☐ Individual instruction (1)
- ☐ Small group instruction (5-10)
- ☐ Large group instruction (10+)
- ☐ Other (specify) _____

How much **TIME PER DAY OR WEEK** did Title I students receive intervention strategies in GRADE 4 at your school during 2005-06?

- ☐ 20-30 mins daily
- ☐ 60-90 mins daily
- ☐ 60-90 mins weekly
- ☐ 100+ mins weekly
- ☐ Other (specify) _____

HOW MANY PARAEDUCATORS in your school worked in Title I reading programs during school years 2004-05 and 2005-06? Please indicate the number for each year.

	0 Paras	1-5 Paras	6-10 Paras	11-15 Paras	15+ Paras
2004-05	☐	☐	☐	☐	☐
2005-06	☐	☐	☐	☐	☐

The years of experience paraeducators have working in schools with students and teachers may have an effect on student learning. Please indicate the number of Title I paraeducators in your school during school years 2004-05 and 2005-06 who had the following general **YEARS OF EXPERIENCE**:

	0 Paras	1-5 Paras	6-10 Paras	11-15 Paras	15+ Paras
0-1 year	☐	☐	☐	☐	☐
2-3 years	☐	☐	☐	☐	☐
4-5 years	☐	☐	☐	☐	☐
5-10 years	☐	☐	☐	☐	☐
10+ years	☐	☐	☐	☐	☐

Under NCLB, Title I Paraeducators must already have met a certain level of education or pass a test to be employed. What level of **FORMAL EDUCATION** did the Title I paraeducators in your school have during school years 2004-05 and 2005-06 to prepare them to work with students in reading programs? Please indicate the number of paraeducators who met each level.

	0 Paras	1-5 Paras	6-10 Paras	11-15 Paras	15+ Paras
BA or BS	☐	☐	☐	☐	☐
AA or 2 years of college	☐	☐	☐	☐	☐
Praxis Parapro Assessment	☐	☐	☐	☐	☐

What kind of **PROFESSIONAL DEVELOPMENT** did the Title I paraeducators receive that worked in your school during school years 2004-05 and 2005-06 to prepare them to work with students in reading programs? Check all that apply.

- ☐ In-service workshop on district or school related topics
- ☐ In-service workshop on reading program by publisher
- ☐ State Reading or Title I Conference
- ☐ Lesson planning strategies
- ☐ ISAT intervention
- ☐ On-the-job training or classroom experience
- ☐ Other (specify)

What level of education did the **TITLE I TEACHER** at your school have during school years 2004-06? Check all that apply.

- ☐ BA or BS
- ☐ MA or MEd
- ☐ Reading endorsement
- ☐ Other (specify) _____
- ☐ Did not have Title I teacher

Please indicate if you would like to have a copy of the final **RESULTS** of the study emailed to you.

 Yes, please send me the results

 No, thanks

APPENDIX E

Frequency Tables – Factors Influencing Program Models

Table E-1

2005 Grade 3 Number of Title I Students Served

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0 students	2	1.4	1.5	1.5
	1-20 students	83	59.7	63.8	65.4
	20-40 students	22	15.8	16.9	82.3
	40-60 students	15	10.8	11.5	93.8
	60+ students	8	5.8	6.2	100.0
	Total	130	93.5	100.0	
Missing	System	9	6.5		
Total		139	100.0		

Table E-2

2006 Grade 4 Number of Title I Students Served

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0 students	8	5.8	6.3	6.3
	1-20 students	74	53.2	58.3	64.6
	20-40 students	24	17.3	18.9	83.5
	40-60 students	10	7.2	7.9	91.3
	60+ students	11	7.9	8.7	100.0
	Total	127	91.4	100.0	
Missing	System	12	8.6		
Total		139	139	100.0	

Table E-3

2006 Grade 4 Number of Program Models Used

		Frequency	Percent	Valid Percent	Cum Percent
Valid	.00	18	12.9	12.9	12.9
	1.00	46	33.1	33.1	46.0
	2.00	31	22.3	22.3	68.3
	3.00	22	15.8	15.8	84.2
	4.00	17	12.2	12.2	96.4
	5.00	5	3.6	3.6	100.0
	Total	139	100.0	100.0	

Table E-4

2005 Grade 3 Program Model 1

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	73	52.5	52.5	52.5
	1	66	47.5	47.5	100.0
	Total	139	100.0	100.0	

Table E-5

2005 Grade 3 Program Model 2

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	97	69.8	69.8	69.8
	1	42	30.2	30.2	100.0
	Total	139	100.0	100.0	

Table E-6

2005 Grade 3 Program Model 3

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	71	51.1	51.1	51.1
	1	68	48.9	48.9	100.0
	Total	139	100.0	100.0	

Table E-7

2005 Grade 3 Program Model 4

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	70	50.4	50.4	50.4
	1	69	49.6	49.6	100.0
	Total	139	100.0	100.0	

Table E-8

2005 Grade 3 Program Model 5

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	113	81.3	81.3	81.3
	1	26	18.7	18.7	100.0
	Total	139	100.0	100.0	

Table E-9

2006 Grade 4 Program Model 1

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	72	51.8	51.8	51.8
	1	67	48.2	48.2	100.0
	Total	139	100.0	100.0	

Table E-10

2006 Grade 4 Program Model 2

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	99	71.2	71.2	71.2
	1	40	28.8	28.8	100.0
	Total	139	100.0	100.0	

Table E-11

2006 Grade 4 Program Model 3

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	75	54.0	54.0	54.0
	1	64	46.0	46.0	100.0
	Total	139	100.0	100.0	

Table E-12

2006 Grade 4 Program Model 4

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	74	53.2	53.2	53.2
	1	65	46.8	46.8	100.0
	Total	139	100.0	100.0	

Table E-13

2006 Grade 4 Program Model 5

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	116	83.5	83.5	83.5
	1	23	16.5	16.5	100.0
	Total	139	100.0	100.0	

Table E-14

2005 Grade 3 Lesson Created Published Program

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	62	44.6	44.6	44.6
	1	77	55.4	55.4	100.0
	Total	139	100.0	100.0	

Table E-15

2005 Grade 3 Lesson Created Classroom Teacher

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	88	63.3	63.3	63.3
	1	51	36.7	36.7	100.0
	Total	139	100.0	100.0	

Table E-16

2005 Grade 3 Lesson Created Title I Teacher

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	63	45.6	44.9	44.9
	1	76	54.7	55.1	100.0
	Total	139	100.0	100.0	

Table E-17

2005 Grade 3 Lesson Created Paraeducator

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	114	82.0	82.0	82.0
	1	25	18.0	18.0	100.0
	Total	139	100.0	100.0	

Table E-18

2005 Grade 3 Lesson Created Classroom Teacher and Paraeducator

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	99	71.2	71.2	71.2
	1	40	28.8	28.8	100.0
	Total	139	100.0	100.0	

Table E-19

2005 Grade 3 Lesson Created Title I Teacher and Paraeducator

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	107	77.0	77.0	77.0
	1	32	23.0	23.0	100.0
	Total	139	100.0	100.0	

Table E-20

2006 Grade 4 Lesson Created Classroom Teacher

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	84	60.4	60.4	60.4
	1	55	39.6	39.6	100.0
	Total	139	100.0	100.0	

Table E-21

2006 Grade 4 Lesson Created Title I Teacher

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	66	47.5	47.5	47.5
	1	73	52.5	52.5	100.0
	Total	139	100.0	100.0	

Table E-22

2006 Grade 4 Lesson Created Paraeducator

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	104	74.8	74.8	74.8
	1	35	25.2	25.2	100.0
	Total	139	100.0	100.0	

Table E-23

2006 Grade 4 Lesson Created Classroom Teacher and Paraeducator

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	110	79.1	79.1	79.1
	1	29	20.9	20.9	100.0
	Total	139	100.0	100.0	

Table E-24

2006 Grade 4 Lesson Created Title I Teacher and Paraeducator

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	106	76.3	76.3	76.3
	1	33	23.7	23.7	100.0
	Total	139	100.0	100.0	

Table E-25

2005 Grade 3 Lesson Delivered Classroom Teacher

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	105	75.5	75.5	75.5
	1	34	24.5	24.5	100.0
	Total	139	100.0	100.0	

Table E-26

2005 Grade 3 Lesson Delivered Title I Teacher

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	58	41.7	41.7	41.7
	1	81	58.3	58.3	100.0
	Total	139	100.0	100.0	

Table E-27

2005 Grade 3 Lesson Delivered Paraeducator

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	51	37.0	36.2	36.2
	1	89	63.3	63.8	100.0
	Total	139	100.0	100.0	

Table E-28

2005 Grade 3 Lesson Delivered Classroom Teacher and Paraeducator

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	106	76.3	76.3	76.3
	1	33	23.7	23.7	100.0
	Total	139	100.0	100.0	

Table E-29

2005 Grade 3 Lesson Delivered Title I Teacher and Paraeducator

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	101	72.7	72.7	72.7
	1	38	27.3	27.3	100.0
	Total	139	100.0	100.0	

Table E-30

2006 Grade 4 Lesson Delivered Classroom Teacher

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	96	69.1	69.1	69.1
	1	43	30.9	30.9	100.0
	Total	139	100.0	100.0	

Table E-31

2006 Grade 4 Lesson Delivered Classroom Teacher

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	63	45.3	45.3	45.3
	1	76	54.7	54.7	100.0
	Total	139	100.0	100.0	

Table E-32

2006 Grade 4 Lesson Delivered Paraeducator

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	67	48.2	48.2	48.2
	1	72	51.8	51.8	100.0
	Total	139	100.0	100.0	

Table E-33

2006 Grade 4 Lesson Delivered Classroom Teacher and Paraeducator

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	107	77.0	77.0	77.0
	1	32	23.0	23.0	100.0
	Total	139	100.0	100.0	

Table E-34

2006 Grade 4 Lesson Delivered Title I Teacher and Paraeducator

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	101	72.7	72.7	72.7
	1	38	27.3	27.3	100.0
	Total	139	100.0	100.0	

Table E-35

2005 Grade 3 Interventions Core Basal Reading Program

		Frequency	Percent	Valid Percent	Cum Percent
Valid	Always or Frequently	62	44.6	52.5	52.5
	Occasionally or Never	56	40.3	47.5	100.0
	Total	118	84.9	100.0	
Missing	System	21	15.1		
Total		139	100.0	100.0	

Table E-36

2005 Grade 3 Interventions Published Supplemental Program

		Frequency	Percent	Valid Percent	Cum Percent
Valid	Always or Frequently	42	30.2	36.8	36.8
	Occasionally or Never	72	51.8	63.2	100.0
	Total	114	82.0	100.0	
Missing	System	25	18.0		
Total		139	139	100.0	

Table E-37

2005 Grade 3 Interventions Teacher Created Skills

		Frequency	Percent	Valid Percent	Cum Percent
Valid	Always or Frequently	57	41.0	50.9	50.9
	Occasionally or Never	55	39.6	49.1	100.0
	Total	112	80.6	100.0	
Missing	System	27	19.4		
Total		139	139	100.0	

Table E-38

2005 Grade 3 Interventions Paraeducator Created Skills

		Frequency	Percent	Valid Percent	Cum Percent
Valid	Always or Frequently	37	26.6	40.7	40.7
	Occasionally or Never	54	38.8	59.3	100.0
	Total	91	65.5	100.0	
Missing	System	48	34.5		
Total		139	139	100.0	

Table E-39

2005 Grade 3 Interventions Paraeducator Assists Assignments

		Frequency	Percent	Valid Percent	Cum Percent
Valid	Always or Frequently	39	28.1	34.5	34.5
	Occasionally or Never	74	53.2	65.5	100.0
	Total	113	81.3	100.0	
Missing	System	26	18.7		
Total		139	139	100.0	

Table E-40

2006 Grade 4 Interventions Core Basal Reading Program

		Frequency	Percent	Valid Percent	Cum Percent
Valid	Always or Frequently	75	54.0	67.0	67.0
	Occasionally or Never	37	26.6	33.0	100.0
	Total	112	80.6	100.0	
Missing	System	27	19.4		
Total		139	139	100.0	

Table E-41

2006 Grade 4 Interventions Published Supplemental Program

		Frequency	Percent	Valid Percent	Cum Percent
Valid	Always or Frequently	70	50.4	66.7	66.7
	Occasionally or Never	35	25.2	33.3	100.0
	Total	105	75.5	100.0	
Missing	System	34	24.5		
Total		139	139	100.0	

Table E-42

2006 Grade 4 Interventions Teacher Created Skills

		Frequency	Percent	Valid Percent	Cum Percent
Valid	Always or Frequently	63	45.3	60.6	60.6
	Occasionally or Never	41	29.5	39.4	100.0
	Total	104	74.8	100.0	
Missing	System	35	25.2		
Total		139	139	100.0	

Table E-43

2006 Grade 4 Interventions Paraeducator Created Skills

		Frequency	Percent	Valid Percent	Cum Percent
Valid	Always or Frequently	18	12.9	21.4	21.4
	Occasionally or Never	66	47.5	78.6	100.0
	Total	84	60.4	100.0	
Missing	System	55	39.6		
Total		139	139	100.0	

Table E-44

2006 Grade 4 Interventions Paraeducator Assists Assignments

		Frequency	Percent	Valid Percent	Cum Percent
Valid	Always or Frequently	64	46.0	67.4	67.4
	Occasionally or Never	31	22.3	32.6	100.0
	Total	95	68.3	100.0	
Missing	System	44	31.7		
Total		139	139	100.0	

Table E-45

2005 Grade 3 Grouping Individual Instruction

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	82	59.0	59.0	59.0
	1	57	41.0	41.0	100.0
	Total	139	100.0	100.0	

Table E-46

2005 Grade 3 Grouping Individual Instruction Small Group (5-10)

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	18	12.9	12.3	12.3
	1	121	87.1	87.7	100.0
	Total	139	100.0	100.0	

Table E-47

2005 Grade 3 Grouping Approach Large Group (10+)

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	120	86.3	86.3	86.3
	1	19	13.7	13.7	100.0
	Total	139	100.0	100.0	

Table E-48

2006 Grade 4 Grouping Individual Instruction

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	85	61.2	61.2	61.2
	1	54	38.8	38.8	100.0
	Total	139	100.0	100.0	

Table E-49

2006 Grade 4 Grouping Individual Instruction Small Group (5-10)

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	28	20.1	20.1	20.1
	1	111	79.9	79.9	100.0
	Total	139	100.0	100.0	

Table E-50

2006 Grade 4 Grouping Approach Large Group (10+)

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	120	86.3	86.3	86.3
	1	19	13.7	13.7	100.0
	Total	139	100.0	100.0	

Table E-51

2005 Grade 3 Time for Supplemental Instruction

		Frequency	Percent	Valid Percent	Cum Percent
Valid	None	7	5.0	5.0	5.0
	20-30 mins daily	91	65.5	65.5	70.5
	60-90 mins daily	22	15.8	15.8	86.3
	60-90 mins weekly	3	2.2	2.2	88.5
	100+ mins weekly	10	7.2	7.2	95.7
	Other (specify)	6	4.3	4.3	100.0
Total		139	100.0	100.0	

Table E-52

2006 Grade 4 Time for Supplemental Instruction

		Frequency	Percent	Valid Percent	Cum Percent
Valid	None	20	14.4	14.4	14.4
	20-30 mins daily	79	56.8	56.8	71.2
	60-90 mins daily	18	12.9	12.9	84.2
	60-90 mins weekly	6	4.3	4.3	88.5
	100+ mins weekly	9	6.5	6.5	95.0
	Other (specify)	7	5.0	5.0	100.0
Total		139	139	100.0	100.0

APPENDIX F

Frequency Tables – Paraeducators and Title I Teachers

Table F-1

2005 Number of Paraeducators

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0 paras	7	5.0	5.1	5.1
	1-5 paras	119	85.6	86.9	92.0
	6-10 paras	11	7.9	8.0	100.0
	Total	137	98.6	100.0	
Missing	System	2	1.4		
Total		139	100.0		

Table F-2

2006 Number of Paraeducators

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0 paras	6	4.3	4.5	4.5
	1-5 paras	116	83.5	87.2	91.7
	6-10 paras	11	7.9	8.3	100.0
	Total	133	95.7	100.0	
Missing	System	6	4.3		
Total		139	139	100.0	

Table F-3

2004-06 Number of Paraeducators with 1 Year of Experience

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0 paras	1	.7	1.9	1.9
	1-5 paras	15	10.8	28.8	30.8
	6-10 paras	36	25.9	69.2	100.0
	Total	52	37.4	100.0	
Missing	System	87	62.6		
Total		139	139	100.0	

Table F-4

2004-06 Number of Paraeducators with 2-3 Years of Experience

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0 paras	9	6.5	15.8	15.8
	1-5 paras	46	33.1	80.7	96.5
	6-10 paras	1	.7	1.8	98.2
	Total	1	.7	1.8	100.0
Missing	System	57	41.0	100.0	
Total		139	82	59.0	

Table F-5

2004-06 Number of Paraeducators with 4-5 Years of Experience

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0 paras	10	7.2	19.6	19.6
	1-5 paras	40	28.8	78.4	98.0
	6-10 paras	1	.7	2.0	100.0
	Total	51	36.7	100.0	
Missing	System	88	63.3		
Total		139	139	100.0	

Table F-6

2004-06 Number of Paraeducators with 5-10 Years of Experience

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0 paras	10	7.2	15.2	15.2
	1-5 paras	56	40.3	84.8	100.0
	6-10 paras	66	47.5	100.0	
	Total	73	52.5		
Missing	System	139	100.0		
Total		139	10	7.2	15.2

Table F-7

2004-06 Number of Paraeducators with 10+ Years of Experience

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0 paras	10	7.2	13.0	13.0
	1-5 paras	66	47.5	85.7	98.7
	6-10 paras	1	.7	1.3	100.0
	Total	77	55.4	100.0	
Missing	System	62	44.6		
Total		139	139	100.0	

Table F-8

2004-06 Number of Paraeducators with a BA degree

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0 paras	20	14.4	34.5	34.5
	1-5 paras	37	26.6	63.8	98.3
	6-10 paras	1	.7	1.7	100.0
	Total	58	41.7	100.0	
Missing	System	81	58.3		
Total		139	139	100.0	

Table F-9

2004-06 Number of Paraeducators with an AA degree

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0 paras	7	5.0	7.8	7.8
	1-5 paras	80	57.6	88.9	96.7
	6-10 paras	2	1.4	2.2	98.9
	Total	1	.7	1.1	100.0
Missing	System	90	64.7	100.0	
Total		139	49	35.3	

Table F-10

2004-06 Number of Paraeducators Who Took Praxis Exam

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0 paras	9	6.5	8.3	8.3
	1-5 paras	93	66.9	85.3	93.6
	6-10 paras	6	4.3	5.5	99.1
	Total	1	.7	.9	100.0
Missing	System	109	78.4	100.0	
Total		139	30	21.6	

Table F-11

2004-06 Number of Paraeducators in Workshops-School Topics

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	17	12.2	12.2	12.2
	1	122	87.8	87.8	100.0
	Total	139	100.0	100.0	

Table F-12

2004-06 Number of Paraeducators in Workshops-Reading Publisher

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	83	59.7	59.7	59.7
	1	56	40.3	40.3	100.0
	Total	139	100.0	100.0	

Table F-13

2004-06 Number of Paraeducators-State Conference

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	64	46.0	46.0	46.0
	1	75	54.0	54.0	100.0
	Total	139	100.0	100.0	

Table F-14

2004-06 Number of Paraeducators-Workshops Lesson Planning

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	104	74.8	74.8	74.8
	1	35	25.2	25.2	100.0
	Total	139	100.0	100.0	

Table F-15

2004-06 Number of Paraeducators-ISAT Intervention

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	103	74.1	74.1	74.1
	1	36	25.9	25.9	100.0
	Total	139	100.0	100.0	

Table F-16

2004-06 Number of Paraeducators-On Job Training Experience

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	22	15.8	15.8	15.8
	1	117	84.2	84.2	100.0
	Total	139	100.0	100.0	

Table F-17

2004-06 Number of Title I Teachers with BA or BS

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	72	51.8	51.8	51.8
	1	67	48.2	48.2	100.0
	Total	139	100.0	100.0	

Table F-18

2004-06 Number of Title I Teachers with MA

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	84	60.4	60.4	60.4
	1	55	39.6	39.6	100.0
	Total	139	100.0	100.0	

Table F-19

2004-06 Number of Title I Teachers with Reading Endorsement

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	108	77.7	77.7	77.7
	1	31	22.3	22.3	100.0
	Total	139	100.0	100.0	

Table F-20

2004-06 No Title I Teacher in School

		Frequency	Percent	Valid Percent	Cum Percent
Valid	0	118	84.9	84.9	84.9
	1	21	15.1	15.1	100.0
	Total	139	100.0	100.0	

APPENDIX G

Title I Program Models Dissertation Study Results

Title I Program Models Dissertation Study Results
By Dr. Jan Byers-Kirsch
August 2008

The Research Question

Which of the five most common instructional delivery models in Idaho's elementary Title I programs most positively affects growth in grade four student reading proficiency?

Focus of Study

- Determine relationship between five most common school models of Title I remedial reading service delivery in elementary schools and relative gain or loss in statewide fourth grade reading proficiency as measured by the Idaho Standards Achievement Test (ISAT)
- School design factors, instructional staff, and their preparation & training were considered related factors
- 361 total surveys sent; 153 responses received = 42%
- 71% of districts and 52% of schools surveyed

Title I Program Models in Study

- Program Model 1: Inclusion with classroom teacher instructing & paraeducator assisting
- Program Model 2: Inclusion with teacher & paraeducator team teaching
- Program Model 3: Pullout with paraeducator instructing under teacher supervision
- Program Model 4: Pullout with Title I teacher or Reading Specialist instructing & paraeducator assisting
- Program Model 5: Inclusion with Title I teacher or Reading Specialist instructing & paraeducator assisting

Results and Discussion of Findings

- Program Model 3 was only significant predictor found but had a very small effect size (little practical significance)
- Percent Free or Reduced Lunch (FRL) & School Size were significant for all program models in study; FRL was stronger than size and the higher it was, the lower the gain
- No significance found in factors related to program models or staff
- Top 20% of schools in gain had >400 students
- Research supports providing specific, focused interventions having positive influence and the negative influence of Free and Reduced Lunch on student achievement

- Degree of influence of program model or how <u>much</u> factors relate to gain or loss not measured; could be attributed to other factors outside of study

- Summary of related instructional factors influencing student achievement:
  - # of students served in Title I per grade - 1-20
  - # of program models used - 2-3 (37%)
  - Program Model choices Grade 3: 1st - 4, 2nd - 3; Grade 4: 1st – 1, 2nd – 4
  - Lesson Creation: 1st - published program, 2nd - teacher created
    - 18-25% stated paraeducators create lessons (not allowed by law)
  - Lesson Delivery: 1st - by paraeducators, 2nd - by teachers
  - Intervention Strategies: 1st - core basal, 2nd - teacher created, 3rd - specific intervention program
  - Grouping Approach: small group instruction (5-10)
  - Time for Supplemental Instruction: 30-90 mins. per day

- Summary of Paraeducator and Title I Teacher Factors:
  - Paraeducators who took the Praxis Parapro Assessment – 71%
  - Paraeducators with degrees – AA 59%, BA 27%
  - Paraeducators with 5-10 years of experience – 48%
  - Paraeducators received on-going professional development – 87%
  - Paraeducators worked with acceptable # of students – 56%
  - Teachers were well prepared – 40% MA, 22% Reading Endorsement

- Factors not measured in study:
  - Title I students as a subgroup for ISAT scores
  - Exact number of students receiving interventions
  - Skill level of paraeducator working with specific students
  - Skill level of specific students
  - Type of intervention provided to individuals
  - Quality/quantity of teacher supervision of paraeducator instruction

Summary of Findings

The findings in this study based on the model design are not robust enough to recommend the paraeducator instructed pullout model as a preferred model of Title I service delivery. While this model was a significant predictor of gain or loss in school proficiency, it was not shown to be consistent throughout the analysis and did not explain how it contributes to gain or loss.

School poverty based on FRL was a very strong predictor in every analysis in the study, which has already been well documented in the literature. School size had a small effect, and was usually significant only when combined with FRL as control variables.

The Title I Teacher Education Level did not have significance in this model either, which was not the result the researcher expected. The literature review shows the positive impact Reading Specialists can have on student reading achievement. Idaho does not require a specialist degree for reading or Title I teachers as it should.