

The Impact of Supplemental Educational Services on Elementary School
Students as Perceived by Elementary Teachers and Principals

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ABSTRACT

In 2002, Congress reauthorized the Elementary and Secondary Education Act (1965), more commonly known today as the No Child Left Behind Act (2002). Many of the initiatives within the act have come under significant scrutiny, not least of which is providing supplemental educational services to students in “failing” schools. The purpose of this multi-site, cross-case study was to examine how supplemental educational services impact students as viewed through the perspectives of elementary school teachers and principals. Elementary school teachers and their principals who currently have, or have had in the recent past, students enrolled in these supplemental services were the targeted populations for this study. Teachers and principals were selected because they have unique and enduring interactions with students and are in a position to assess how programs such as those delivered by supplemental educational service providers affect students.

Four schools were selected based on geographic location (reasonable proximity to the researcher), number of participants in supplemental educational services, NCLB designation (the school was designated as in the second year or beyond of improvement), and willingness to participate in the study. When data from the four schools were considered in a cross-case analysis, the following themes emerged: (1) students realized varying outcomes as a result of participating in supplemental educational services, (2) supplemental educational services varied in their perceived quality depending on whether the providers were internal or external, (3) teachers and principals considered communication with supplemental educational service

providers as an indicator of their quality, (4) teachers and principals viewed tailoring of supplemental educational services to meet particular student's needs as a hallmark of their quality, (5) teachers and principals recommended using existing school assessments, observation, and attendance as measures of the impact of supplemental educational services, and (6) teachers and principals recommended increased communication, increased individualization of tutoring, certification of tutors, and changes in tutoring schedules as ways to improve supplemental educational services. These results provide policy makers with information that may be helpful in better understanding the impact of supplementary educational services on elementary students and how they might adjust the program to make it more effective.

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CHAPTER 1

THE STUDY IN CONTEXT

President George W. Bush signed the reauthorization of the Elementary and Secondary Education Act (ESEA, known as the No Child Left Behind Act (NCLB), in early 2002 (No Child Left Behind Act [NCLB], 2002). This legislation requires that all students reach proficiency by the 2013-2014 school year (Ysseldyke, Lehr, & Bulygo, 2008). To that end, states are expected to make Adequate Yearly Progress (AYP). That is, states are required to establish benchmarks and measure progress annually through standardized testing. Should states and school divisions fail to meet these minimum standards, the legislation provides for the imposition of sanctions until failing schools have reversed the pattern and meet AYP for two consecutive years.

To help failing schools in low-income areas, NCLB requires that Title 1 funds be reserved to pay for transportation involved in school choice or for supplemental educational services. School Choice is available to students in a Title 1 school after the school has not make AYP for two or more consecutive years. Supplemental educational services are an option when the school has failed to meet AYP for three years and is in the second year of improvement. Supplemental educational services are only available to low-income students, who are generally defined by participation in the free-or-reduced-cost lunch program (Vergari, 2007). The law requires that at least 5% of the funds be reserved for School Choice, 5% for supplemental educational services, and the remaining 10% can be directed toward either, as deemed appropriate by the state or school district (NCLB, 2002).

In one mid-Atlantic state, the site of three of the four case studies, neither option has proven to be popular with families, as few students elect to transfer schools, and only 184 out of 4,241 eligible students participated in supplemental educational services in the 2008-2009 school

year (Title 1 Coordinator, Mid-Atlantic State 1, personal communication). It is unclear why so few students take advantage of these opportunities, but suspicion lies in the particular logistical challenges presented in rural settings, such as staffing, transportation, and technological limitations (Assistant Director, Office of School Improvement, Mid-Atlantic State 1, personal communication). Even when supplemental services are delivered through a free computer given to the student, thus bypassing one of the most commonly cited challenges, access to reliable Internet service has reportedly been a wide-spread source of frustration (Assistant Director, Office of School Improvement, Mid-Atlantic State 1, personal communication).

I came to this issue as one who has spent most of the last 18 years in K-12 education, though only one year was in a public school classroom. Most of my experience is drawn from independent and Catholic schools – both arenas that are exempt from the requirements of NCLB. I have taught elementary, middle, and high school students from a broad range of socio-economically diverse communities. I have served as the lead – and sometimes only – administrator in preK-8, preK-12, and 9-12 schools, assistant superintendent for a Catholic school system of more than 10,000 students, and a board member for an independent school.

Recently, I held the position of Center Director for a well-established national retail tutoring chain. My duties were primarily center-based and focused on students seeking additional help in everything from basic reading to GRE and Praxis test preparation. Occasionally, however, I was asked to fill in for the local representative of the company's supplemental educational services division to administer a test or supervise a tutoring session. This experience, though rare, led me to question the impact of supplemental educational services programs. I trust that my previous employer's efforts were as well researched and executed as any provider in the field, yet I was unclear about the academic or other impacts these interventions had on students.

Fully aware of my limited perspective, I decided to consider these impacts more objectively through this study.

Purpose of the Study

The purpose of this multi-site, cross-case study was to examine how supplemental educational services impact students as viewed through the perspectives of elementary school teachers and principals. Teachers and principals have unique and enduring interactions with students and are in a position to assess how programs such as those delivered by supplemental educational service providers affect students. This study sought to affect policy on supplemental educational services by investigating the impact of these services on elementary students, by soliciting recommendations from teachers and principals for improvement to the current system and its implementation, and by soliciting recommendations from teachers and principals for measures of the effectiveness of supplemental educational services other than direct effects on student achievement.

Initially, the design for this study included an examination of pre-test scores, followed by supplemental educational service intervention and a post-test. However, this approach is not recognized by the U.S. Department of Education as evidence of effectiveness (U.S. Department of Education, 2002), so other means of evaluation had to be considered. It became clear, as is the case with many social science investigations, that to gain a better understanding of the dynamic nature and impact of supplemental educational service interventions, they must be studied in context (Yin, 2003). The effect of these interventions cannot be replicated in an artificial environment. This study considered the impact of supplemental educational services on students and relied primarily on interviews with two groups—teachers and principals—most closely associated and familiar with the students and the supplemental educational service providers.

Research Questions

The following questions guided the research:

1. What are the perceptions of elementary principals and teachers of the impact of supplemental services on their students?
 - a. What are the effects of participating in supplemental educational services on academic performance of elementary students as perceived by elementary principals and teachers?
 - b. What are the effects of participating in supplemental educational services on learning behaviors of elementary students as perceived by elementary principals and teachers?
 - c. What are the effects of participating in supplemental educational services on self-efficacy of elementary students as perceived by elementary principals and teachers?
2. What effective measures (other than academic achievement) do elementary principals and teachers recommend to evaluate the impact of supplemental educational services?
3. What changes do elementary principals and teachers recommend to improve the impact of supplemental educational services on students?

Delimitations

This study did not consider student achievement directly, as this has been studied and results indicate consistently that there is little if any improvement in student classroom achievement (Barnhart, 2009; Bathon & Spradlin, 2007; Burch, 2007; Chappell, 2009; Miller, 2009; Rickles, Barnhart, & Gualpa, 2008). Instead, other impacts on elementary students that may affect future academic achievement, as observed by the students' teachers and principals,

were investigated. Further, because academic achievement is such a complex variable and to date has not been verified as an outcome of supplemental educational services interventions, I asked teachers and principals if there were other indicators of success, or promise of success, that previous studies might have overlooked. Perhaps this study could reveal common themes of other effects and alternative measures, as well as recommendations for improvement of the supplemental educational services programs that, if further developed, could lead to greater academic achievement.

The inquiry was limited to teachers and principals, as these groups are most knowledgeable of both the students and the supplemental educational services programs. Parents were considered as potential sources of input, but given that their perspectives are limited and they may not be as well informed as the other groups, it was decided to move forward without their input. Some evaluators consider parents' input as an important part of program evaluation (Ross, 2005), but personal experience suggests that parents are in favor of expanding services and may well be biased in their perceptions of the program.

Student academic records were not part of this study. It was believed that these records only presented a snapshot of student performance and would not offer any useful information regarding potential changes that might be underway with the student. Additionally, those records would presumably serve as reinforcement of the position that academic achievement is unaffected by participation in supplemental educational services. As noted earlier, that has already been considered by other researchers and was therefore not the focus of this study.

Table 1

Definitions of Concepts in the Research Questions

Concept	Conceptual definition	Operational definition
Supplemental educational services	Additional academic help provided to eligible students as required by NCLB (2002).	Question 7 on the interview protocol (see Appendix B): What supplemental educational services have your students received in the past or are they receiving now?
Academic performance	Measurable or observable change in academic measures as perceived by teachers and principals resulting from interventions	Question 8 on the interview protocol (see Appendix B): Tell me about any changes in the academic performance in subjects that have been the target of supplemental educational services since those services began. Probe 8a: Have you been able to reduce other services provided to the

		students (e.g., in-class remediation)?
Learning behaviors	<p>Actions on the part of students observed by teachers and principals that are key to academic achievement, specifically attentiveness, persistence, motivation, flexibility, strategic problem solving, goal setting, employment of metacognitive strategies, and response to feedback</p>	<p>Question 10 on the interview protocol (see Appendix B): Tell me about any changes in learning behavior you have seen in students since they began supplemental educational services.</p> <p>Probe 10a: Have you noticed any effect on attentiveness?</p> <p>Probe 10b: Persistence?</p> <p>Probe 10c: Motivation?</p> <p>Probe 10d: Flexibility?</p> <p>Probe 10e: Strategic problem solving?</p> <p>Probe 10f: Goal setting?</p> <p>Probe 10g: Use of metacognitive strategies?</p> <p>Probe 10h: Response to</p>

		feedback associated with academic improvement?
Self-efficacy	Academic confidence, as perceived by teachers and principals, that is exhibited by the student and borne out of, and strengthened by, academic success	Question 11 on the interview protocol (See Appendix B): Tell me about any changes in the students' self-confidence in handling academic tasks.
Effectiveness measures	Benchmarks identified by teachers and principals that may help evaluate the impact of supplemental educational services on participants	Question 12 on the interview protocol (see Appendix B): Other than academic performance, are there other ways to measure the impact of supplemental educational services on elementary students? Probe 12a: What other strategies should be considered? Probe 12b: (For each

		measure) Why do you think that measure would be appropriate? Probe 12c: What are some other possibilities?
Recommendations for improvement in supplemental educational services	Recommendations for improvement solicited from participating teachers and principals	Question 13 on the interview protocol (see Appendix B): How can supplementary educational services be improved? Probe 13a: How do you think that would result in greater impact on the students?

Organization of the Dissertation

This paper is organized into five chapters. The first chapter has a description of the study in context, the purpose of the study, the research questions, and notes on what has not been included in the study, as well as the justifications for those decisions. Chapter 2 is a review of the research and literature on supplemental educational services and student achievement. The research and literature on potential predictors and indicators of future academic success are examined. The research methods, design of the study, identification and selection of the case sites, and how the data were collected, managed, and analyzed are described in Chapter 3.

Chapter 4 contains the findings of the study, and Chapter 5 includes descriptive summaries of the case sites, a summary of results from the cross-case analysis, conclusions related to the research questions, recommendations for further research, and recommendations for practice.

CHAPTER 2

REVIEW OF THE LITERATURE

This chapter is primarily a review of literature on supplemental educational services and student achievement. To allow for the possibility that the immediate impact of supplemental educational services may not be easily quantified in terms of student achievement, research on such intervening variables as student self-efficacy and learning behaviors were included in this review.

Several databases were used to locate the available research and literature. During the search, pertinent articles were identified and moved electronically to a pending folder. As time allowed, that folder was further culled, leaving only the most relevant sources for thorough review. The databases searched included Academic Search Complete, ERIC, Google Scholar, Informaworld, Psychology and Behavioral Sciences Collection, Teacher Reference Center, Women's Studies International, and dissertation abstracts. A wide variety of key words were used in this search. The most fruitful searches included Supplemental Educational Services and Student Achievement, Supplemental Educational Services and Student Performance, Student Learning, and Supplemental Educational Services and Learning Behavior. (For a complete list of search terms, see Appendix A.) Readings from books, conference papers, and peer-reviewed journals deepened the foundation for this literature review.

A Brief History of Federal Government Involvement in K-12 Education

Politicians have long recognized the value of being seen as supportive of education. Some might say this is simply to garner votes, but the thinking that has guided most of this support suggests that an educated public is good for the country economically, socially, and defensively (Elementary and Secondary Education Act, 1965; National Commission on

Excellence in Education, 1983; National Defense Education Act, 1958; Rector and Visitors of the University of Virginia, 2010; U.S. Department of Education, 2010; UShistory.org, 2010).

Further, federal involvement in the education of our youth can be traced back at least to the 1860s with the founding of what would later become the U.S. Department of Education (U.S. Department of Education, 2010).

In the early 1900s agricultural and vocational needs spurred federal interest in K-12 public education (Smith-Hughes Act, 1917). That interest again surged in the 1950s as the Soviet Union launched Sputnik into space and serious concerns were raised regarding our academic competitiveness. This led to the passage of the National Defense Education Act (1958) and marked a significant change in the role of the federal government. Citing national security concerns, the act called for a renewal of our collective commitment to math and science education (U.S. Department of Education, 2010).

In the mid-1960s, President Johnson signed the Elementary and Secondary Education Act (ESEA) (1965). In the 1970s, President Carter raised the status of the Office of Education by changing the name to the U.S. Department of Education and elevated it to a cabinet-level position (Stephens, 1983-1984).

President Ronald Reagan made small government a priority and believed that local problems were best solved locally (Edwards, 2004). To that end, and to diminish the role of the federal government in public K-12 education, Reagan endorsed the idea of block grants to states and communities. This reinforced the message that Washington valued education, but left it up to the states to determine how those resources were to be committed.

Appointed by President Reagan, the National Commission on Excellence in Education published *A Nation at Risk* in 1983. The Commission painted a picture of crisis in American

schools that, if not addressed, would leave the United States vulnerable and weak and compromise national security. (It should be noted that this publication was not universally accepted, as is expressed in “The Manufactured Crisis” [Berliner & Biddle, 1995].)

President Reagan was succeeded by his Vice President, George H. W. Bush. President Bush referred to himself as the “education president” and tasked the National Governors Association (1988) to make recommendations to improve our academic standing. This group, chaired by Lamar Alexander of Tennessee and vice-chaired by Governor Bill Clinton of Arkansas, created the Goals 2000: Educate America Act (1994). Ironically, though the document was the work of state governors, it sought to create a national platform to reform education, encouraged states to voluntarily adopt national standards, and put in place mechanisms to review and reauthorize all federal education programs (U.S. Department of Education, 2010).

Though it was President Bush’s initiative, he was unable to make any political gains, as presidential candidate Bill Clinton had embraced the document and its goals as his own (Goals 2000, 1994). When President Clinton came to office in 1992, he quickly enacted the recommendations of Goals 2000. President George W. Bush, the son of President George H. W. Bush, collaborated with Senator Edward Kennedy to reauthorize the ESEA in a bill commonly known as the No Child Left Behind Act (2002).

No Child Left Behind Act of 2002

At the time the ESEA was reauthorized as NCLB, the U.S. Department of Education (2002) reported,

Nearly 70% of inner city fourth graders are unable to read at a basic level on national reading tests. Our high school seniors trail students in Cyprus and South Africa on international math tests. And nearly a third of our

college freshmen find they must take a remedial course before they are able to even begin college level courses. (p. 3)

In the broadest sense, the renewal of the ESEA sought to more than ever hold states accountable for the achievement of *all* students. Particular attention was given to closing the achievement gaps that are evident between students of means and those that are economically disadvantaged and between white and minority groups (NCLB, 2002). Often, but not always, these students attend schools that qualify for Title 1 funding; that is, schools where 40% or more of the student population receives a free or reduced-cost lunch (U.S. Department of Education, 2010).

Proponents of the more stringent law argued that a rigid system of incentives and consequences would create a structure that would demand academic improvement of our public schools (Darling-Hammond, 2007). Most fundamentally, to receive federal money, students would have to demonstrate achievement (NCLB, 2002). This achievement would be measured through the state's annual assessment of academic progress in accordance with the state's established learning benchmarks. This renewed commitment to accountability was firmly anchored in the results of the state's annual assessment. Though these annual assessments have come under fire from all sides (Goslin, 1967; Kreiser, 2006; Peterson & Neill, n.d.), they continue to be the most conspicuous measure of a school's quality. As a result, failure to make an annual achievement goal or Adequate Yearly Progress (AYP) can result in severe corrective action for the school (NCLB, 2002). For example, if a Title 1 school fails to meet AYP for two consecutive years, parents must be informed of their right to either send their child to a school that is meeting its annual goals or stay in the current facility and receive extra academic help at no cost to them. The law requires that the extra help, which generally comes in the form of

supplemental educational services, be of “high quality, research-based, and specifically designed to increase student achievement” (Wisconsin Center for Educational Research, 2007, p. 1). These services are paid through Title 1 funds and are collectively known as supplemental educational services.

Supplemental Educational Services

NCLB (2002) requires supplemental educational service providers to apply to each state’s department of education, and if they satisfy the criteria established by the state, they are included on an Approved Provider List. Inclusion – and remaining in good standing – on this list is the state’s ultimate quality control of supplemental educational service providers. NCLB requires that states monitor and remove any company that fails to improve student achievement for two consecutive years.

Despite the significant commitment of financial resources in the form of direct monetary support and personnel by the federal government, many schools continue to struggle in making Adequate Yearly Progress (AYP) (Zehr, 2008). For example, on November 29, 2010, Virginia released its annual reports of schools that made AYP (Virginia Department of Education, 2010). That report revealed that about 40% of schools did not reach their achievement goals – a figure up from approximately 30% just a year earlier. States have responded to this disappointing reality in different ways. According to the National Governors Association, some states have lowered the passing score on standardized tests to show the necessary improvement in passing rates (Linn, 2002). In an interview with Lisa Graham Keegan, Arizona’s former Superintendent of Public Instruction and senior advisor to Senator John McCain in both of his presidential campaigns, she acknowledged that “some states may need to adjust standards” to meet AYP (Linn, 2002, p. 1). Former Secretary of Education William Bennett reported that as many as 14

states have gone this route (Blitzer, Duncan, & Bennett, 2010). Other states have insisted that progress has been made – just not enough to satisfy the long-range forecasts established when the law was written (Allington, 2006). Allington suggested that scores for those already in school systems improved dramatically, but the tremendous influx of new students with limited English or inadequate content knowledge diluted the overall scores. This assessment is supported by the enrollment trends over the twenty-year period ending in the late 1990s that indicate while overall enrollment was up by just 6%, the population of English Language Learners increased by almost 140% (Harper & deJong, 2004).

Whatever the reason – and certainly a subject worthy of study in its own right – standardized test scores, the unit of commerce in today’s public education system, have remained stubbornly low (Gewertz, 2010). And though it is the state that sets the annual benchmark, it is the federal NCLB law that prescribes the remedy for the failure. According to the law, schools that do not meet AYP for two consecutive years must inform parents of their right to enroll their children in a school that has met the state’s annual goal (NCLB, 2002). Interestingly, this option, which is made available at no cost to the parent, is rarely exercised. A second option for the parents is to enroll their children in supplemental educational services. This, too, is provided at no cost to low-income parents. To help failing schools in low-income areas, NCLB requires that 20%, or about \$2.55 billion dollars (Burch, 2007), of Title 1 funds be reserved to pay for transportation involved in school choice or supplemental educational services. School choice is available to all students after the first year a school does not make AYP. Supplemental educational services are an option when the school has failed to meet AYP for three consecutive years and is in the second year of improvement. Supplemental educational services are only available to low-income students who are generally defined by participation in the free-or-

reduced-cost lunch program (Vergari, 2007). The law requires that at least 5% of the funds be reserved for school choice, 5% for supplemental educational services, and the remaining 10% can be directed toward either, as deemed appropriate by the state or school district (NCLB, 2002).

Oversight of Supplemental Educational Service Programs

Though NCLB (2002) is national in scope, implementation and oversight are the direct responsibility of the states. States must establish criteria for approval of supplemental educational services providers and ensure ongoing quality of their programs (Ross, 2005). These programs are to be research-based, of high quality, and designed to improve student academic achievement (U.S. Department of Education, 2002). Should a supplemental educational service provider not demonstrate student academic achievement for two consecutive years, the law requires that the organization be removed from the state-approved list of providers (Kasmin & Farmer, 2006).

By 2005, 15 states did not have a process or structure in place to evaluate the performance and efficacy of supplemental educational service providers (Stullich, Eisner, McCray, & Roney, 2006). Those states that had mechanisms in place had yet to establish standards by which supplemental educational service providers would be measured. By 2007, the number of states without any evaluative tools in place had been reduced to three (Center on Educational Policy, 2007).

Supplemental Educational Service accountability represents the weakest kind of policy design. It relies on self-reporting data from providers, is complaint driven, and provides no money for the evaluation of the program. Given the limits of their capacity, states

must rely on parents and educators to report provider infractions. (Burch, Stienberg, & Donovan, 2007, p. 14)

Commonly Cited Implementation Problems of Supplemental Educational Services

There are several common problems with the implementation of supplemental educational services (Ross, 2005). Among the most pressing problems are understanding the law, communication, administration, curriculum, tutor quality, participation, uneven distribution of supplemental educational service providers, transportation, and evaluation.

Understanding the Law

NCLB (2002) is a major, broadly sweeping, and, in many cases, ambiguous piece of legislation. To help parents, educators, supplemental educational service providers, and policy makers better understand the law, the U. S. Department of Education funded the establishment of the Supplemental Educational Services Quality Center (SESQ Center) in 2003 (Miller, 2009). This Center, operated from October 2003 to December 2005, proved to be a tremendous resource for the constituencies impacted by the law. The Center's web site has not been updated since the organization's closure, but it is still functional and continues to provide a wealth of general information regarding the law.

Communication

The most often used means of communication by supplemental educational service providers is e-mail, which may not be the best way to reach the low-income population that is the target of the programs (Burch et al., 2007). Communication between schools and supplemental educational service providers is also problematic (Bathon & Spradlin, 2007). Among the challenges that exist is the often reported sense that supplemental educational service providers perceive there to be a competitive tension on the part of public school teachers and

administrators directed at the supplemental educational providers (Belfield & d'Entremont, 2005).

Administration

The administration of supplemental educational services has proven difficult for state and local school administrators (Burch, 2007). Issues that might appear routine, like attendance, have been a challenge for schools. As providers get paid only if students attend, keeping track of attendance is not only fundamental for obvious safety concerns, but it is critical in determining what districts are to pay the supplemental educational service providers.

Curriculum

Even though supplemental educational services are most commonly delivered within the school, they usually occur after regular hours, and among the concerns is that little is known about the curriculum being used by supplemental educational service providers (Miller, 2009). NCLB (2002) requires that the curriculum be research based and of high quality but offers little additional guidance for supplemental educational service providers. Once a state approves a provider, the law specifically restricts the state or district from trying to modify the supplemental educational service program. So, for example, a principal may have a clear picture of a student's needs but is not allowed to try to shape the delivery of services to that student. In fact, administrators are only encouraged, but not required, to share testing data for any given student (Ross, 2005).

Tutor Quality

Complicating the issue of quality and consistency in tutor competence is the fact that there are no federal guidelines as to what constitutes a highly qualified tutor (Miller, 2009). In Kansas City, Kansas, for example, the Governmental Accountability Office found some tutors

had only a high school diploma. The report noted other programs that used high school students themselves as tutors (Government Accountability Office [GAO], 2006). Nationally, most tutors are certified teachers already working in the public school system or college graduates with no teaching experience, but about 7% are only high school students (Ascher, 2006).

Participation

The most conspicuous of these challenges is participation in the program. One study funded by the U.S. Department of Education revealed that of the 3.3 million students eligible for supplemental educational services, more than 85% did not participate (Stover & Hardy, 2008). There are several ideas as to why this is the case. Some school districts report that supplemental educational services have difficulty competing with extracurricular activities (Burch, 2007). Other districts suggest that low participation levels are a result of poor communication. For example, NCLB (2002) requires parents to be notified of their eligibility, and the options for their child must be explained to them before the school year begins (Burch, 2007). Yet, in 2005, over 58% of school districts did not meet that deadline (GAO, 2006). These delays in parent notification make it difficult for supplemental service providers to adequately prepare to meet the needs of participating districts. Others speculate that parents are not enrolling their children because they have carefully and reasonably evaluated the programs and decided they simply are not effective (Heinrich, Meyer, & Whitten, 2010).

Uneven Distribution of Providers

Another challenge – particularly relevant for rural districts – is that it is difficult to find supplemental educational service providers willing and able to serve rural communities (Assistant Director, Office of School Improvement, Mid-Atlantic State 1, personal communication). It has been noted that the list of approved providers may be long, but only

about half ever work with students (Center for Education Policy, 2006). In fact, only 2% of the districts nationally use about 56% of the total supplemental educational services provided (GAO, 2006).

Transportation

As noted earlier, NCLB requires failing schools to make students and families aware of their option to attend another school that has achieved Adequate Yearly Progress (NCLB, 2002). The law clearly assigns the costs associated with transporting students to their new schools to the district. Transportation for students who choose to participate in supplemental educational services is less clear.

Evaluation

The challenge of evaluation of supplemental educational service providers and their programs is ongoing (Ross, 2005). The Government Accountability Office reported that 75% of states were having trouble establishing effective tools for collecting and tracking relevant information and, therefore, were having difficulty in measuring the impact of supplemental educational services on student achievement (GAO, 2006). One reason for this is because more comprehensive reviews are labor intensive and states simply don't have the resources – or, some will argue, the expertise – to commit to the effort (Burch et al., 2007).

Not surprisingly, given the level of expertise required to reasonably evaluate the impact of supplemental educational services, many states have looked to external evaluators (Ross, 2005). The Center for Research in Educational Policy (CREP), a joint effort of the University of Memphis and the State of Tennessee Center for Excellence, and the American Institutes for Research (AIR), a non-profit research and evaluation organization based in Washington, DC, have recently co-authored a guidebook, *Evaluating Supplemental Educational Service Providers:*

Suggested Strategies for States, that attempts to offer insights to states still struggling to better manage their own evaluation programs.

The guidebook identifies several challenges and notes four of the most common problems in supplemental educational service provider evaluations. Suggestions are offered to remedy those problems: (a) It is essential that the evaluation process is clear to supplemental educational service providers before the contract for tutoring is signed. (b) All districts within a state should be using the same assessment tools and data to measure achievement. Currently, many states rely on the supplemental educational service providers' internal testing data to determine the academic progress made by students enrolled in their programs. Besides the obvious problems with objectivity and potential conflict of interests in the data, it is impossible to compare the effectiveness among providers. Additionally, the reports may be completely unrelated to the state's learning standards. (c) States should ensure there is a pre-test in place so that post-tutoring achievement can be assessed. (d) States should anticipate both technical and practical challenges in their efforts to evaluate programs (Ross, Potter, & Harmon, 2006).

Ross, Potter, and Harmon (2006) recommend that states narrow their evaluative focus to three areas: effectiveness, customer satisfaction, and service delivery. They caution states that these recommendations and processes are both expensive and time consuming. This is particularly true when measuring effectiveness. Most states have recognized the need to measure student achievement (Center for Education Policy, 2006), but there is no common vision as to how this information should be gathered. Ross and Harmon offer several strategies to measure student academic achievement, but limit their discussion to advantages and disadvantages of each approach. Similarly, Ross and Harmon identify the parents, families, and students as the supplemental educational service provider's most important customers. They encourage school

districts to gather information from each of these groups, with the obvious considerations given to gathering feedback from the youngest students, as a central part of the provider evaluation. Finally, Ross and Harmon encourage districts to compare what the supplemental educational service provider actually delivered in service and content to what it had committed to contractually as part of the application process. That is, did the provider deliver the service it said it would?

Effectiveness of Supplemental Educational Service Programs

Despite the billions of dollars spent on tutoring programs, little is known about the impact these after-school supplemental educational services are having on students (Miller, 2009). For example, NCLB requires that school districts inform parents of their options for supplemental educational services. One publication made available to parents in the Henrico County Public School system in Virginia offers company descriptions for the 24 supplemental educational service providers approved to work with students within the county (Henrico County Public Schools, 2009). One section in the document titled *Evidence of Effectiveness* notes that 24 of the 24 have either worked with too few students to analyze the company's impact on student achievement or there is no statistically significant difference between students who have participated in the company's program and those who have not (Henrico County Public Schools, 2009).

More than half of the states that responded to inquiries blamed fiscal challenges for difficulties in executing the law (Pinkerton, Kober, Scott, & Buell, 2003). Additionally, Title 1 administrators from 30 states reported in a recent survey that they do not have the resources available to adequately monitor supplemental educational service providers in a meaningful way – particularly as it relates to ensuring the needs of individual students are met as required by

NCLB (Burch et al., 2007). In another study, the Center for Education Policy reported that 80% of states said that monitoring effectiveness of providers is a moderate or serious problem (Center for Education Policy, 2006). Not surprisingly, very few states have any evidence that supplemental educational services advance student achievement at all (Miller, 2009). Further complicating the efforts to determine the efficacy of supplemental educational services, positive results may also come from other initiatives engaged in during the school day or elsewhere (Heinrich et al., 2010).

Curiously, this uncertainty has not stopped favorable evaluations regarding the effectiveness of supplemental educational service providers and programs. The Education Industry Association, an organization gaining significant political capital and led by the head of one of the largest supplemental educational service providers, has published a collection of glowing reviews of the impact after-school tutoring is having on academic achievement (Miners, 2007).

Interestingly, few formal studies of supplemental educational services have focused on student achievement (Miller, 2009). Fewer still have been published in peer-reviewed journals. Not surprisingly, most of the studies have involved large urban school districts. The Los Angeles Unified School District (LAUSD) has commissioned several internal studies. Between 2002 and 2007, LAUSD spent in excess of \$75 million dollars on supplemental educational services (Rickles et al., 2008). Since the 2007-2008 school year, the majority of students (54%) within LAUSD have been eligible for supplemental educational services (Barnhart, 2009). The most recent study in LAUSD (Barnhart) focused on two questions: (a) What is the impact on student achievement? (b) Does the impact vary between school levels (elementary, middle, high)?

In the LAUSD study, the researcher compared students who participated in supplemental educational services with those who applied for tutoring but did not enroll (Barnhart, 2009). In the study, there was a slightly positive impact for the group who participated in the extra tutoring as measured by the California Standards Tests (CST). This increase in test scores was evident at all school levels for the language portion of the test, but only in the elementary and middle schools for math. Barnhart reasonably questioned whether an improvement of three or four scaled points on a test is worth the incredible investment the district has made in supplemental educational services.

A second study conducted by LAUSD considered the broader impact of supplemental educational services and reviewed data over a five-year period (Rickles et al., 2008). The researchers found no cumulative effect on achievement. One explanation offered for this finding is that few students participate in supplemental educational service programs for multiple years. Regardless, Barnhart (2009) concluded that:

None of our findings suggest the federal policy to allocate Title 1 funds for SES [supplemental educational services] has had any meaningful impact on student achievement over its five-year history in LAUSD. In fact, given our limitations of the analysis, we likely over-stated the impact of supplemental educational services. Since we were not able to equate participant and non-participant groups on unobserved characteristics like motivation...our estimates are biased upwards. (p. 17)

The Minneapolis public schools conducted two studies in which students who participated in after-school tutoring were evaluated against students who did not participate in supplemental educational services (Burch). In the first study, nationally-normed standardized test scores of those who participated in the tutoring services were compared to demographically

similar students from the Minneapolis school system (Burch). Counter-intuitively, the group given the additional tutoring scored below those who did not have the benefit of extra help through supplemental educational services. The second study, the researcher looked beyond Minneapolis and compared the group receiving services to a national sample of students (Burch). This study focused on the rate of reading improvement over the course of a school year. Here, too, the group that participated in the supplemental educational services did not experience the same level of reading growth and tested at a rate of about 66% of the national sample.

A study often cited was conducted in the Chicago public schools and showed improvement in student achievement, but only for those students who participated in supplemental educational services for more than 40 hours (Zimmer, Hamilton, & Christina, 2010). Apparently, these results have been difficult to replicate elsewhere, as a recent study of Milwaukee students once again found no improvement in the outcomes between students who participated in supplemental services and those who did not (Heinrich et al., 2010).

The Rand Corporation conducted a large study (Zimmer, Gill, Razquin, Booker, & Lockwood, 2007) that examined the impact of supplemental educational services across eight major districts (Baltimore, Chicago, Long Beach, Los Angeles, Palm Beach, Philadelphia, San Diego, and Washington, DC). Rand concluded that there was a statistically significant difference in student achievement in five of these divisions. However, this study blended grade levels and had missing data because some divisions didn't report scores for all grades or hours of instruction or didn't include any attendance data (Heinrich et al, 2010).

Though the consensus appears to be clear that there is little or no impact of supplemental educational services on student achievement, one recent study (Chappell, 2010) found there to be statistically significant academic improvement. Chappell (2010) conducted a meta-analysis of

studies in math and reading. Chappell considered studies in 12 states or local school districts for math and 11 states or local school districts for reading. The effect size in those studies was .043 and .017 for math and reading, respectively. (To put these findings in context, Cohen, Manion, and Morrison (2000), identified an effect size of .2 to be small.)

Chappell (2010) considered studies involving a total of 140,846 students for math and 139,844 for reading. To be included in the meta-analysis, authors of studies had to report the number of participants, the effect size of the intervention, the number of hours of instruction, a demographically similar control group within the same school, a measure of achievement on an approved standardized test, and information on the service providers (Chappell, 2010).

Though Chappell's (2010) results are statistically significant, the effect sizes are too small to have any practical significance. Despite the absence of practical significance, Chappell sought to understand what qualities in the delivery of services had the greatest impact. Among the largest effect sizes were those for services delivered internally through the school district. These internal services performed better than those offered by commercial providers. However, among the commercial providers offering services for math, those that employed college graduates had a greater effect size (.075) than those that did not employ college graduates (.041). Those providers with a fixed curriculum had a higher effect size (.062) than those that did not have a fixed curriculum (.042). Commercial providers offering services in reading that employed college graduates had a greater effect size (.024) than those that did not employ college graduates (.017). Finally, those providers that offered one-to-one instruction had a greater effect size (.03) than those that did not offer one-to-one instruction (.016).

*Third-Party Recommendations for States to Better Evaluate Supplemental
Educational Service Providers and Comply with Current Law*

In the 2005 guidebook, *Evaluating Supplemental Educational Service Providers: Suggested Strategies for States*, put out jointly by the Center for Research in Educational Policy and the Supplemental Educational Services Quality Center, Steven Ross described six potential strategies to help states better evaluate the effectiveness of supplemental educational service providers, particularly as they impact student achievement. Ross described the methods in terms of rigor and equated the requisite thoroughness of the approach with the level of confidence the study would produce. It should be noted that all of the described strategies are flawed, as each lacks random assignment for participants in the study. With that noted caveat, Ross recommended as the most rigorous approach an inter-school pairing of students of similar academic performance and demographic make-up, with pre- and post-tests, where both students are eligible for supplemental educational services but only one elects to participate in the program (Ross, 2005).

The second most reliable approach, according to Ross (2005), is very similar to the first, but the control group is drawn from outside the school. It might come from within the district or state, but it also might be a national sample. Though this is considered rigorous by Ross, it is clearly less reliable than using a control group from within the same school. Once the decision is made to go beyond the immediate population, it becomes difficult to parse out specific differences in student experiences. For example, schools outside the same district might have different curricula, will certainly have different teachers, and will likely have varying class sizes, just to name a few confounding variables. Interestingly, this is the most common approach used in the studies reviewed for this paper.

Next, Ross (2005) described a regression-correlation research design in which students are given pre- and post-tests and academic achievement is predicted based on past performance

and a series of demographic characteristics. If the student performs above what is anticipated, the argument can be made that the improved outcome is the result of participation in the supplemental educational service programs.

Finally, Ross (2005) described three other approaches that might be used. These approaches are a regression-correlation without a pre-test and two methods that only consider the treatment group without the benefit of a control group. One includes a pre- and post-test, and the other only uses a post-test. These approaches would only be employed under unusual circumstances, where for some reason a more thorough review was not possible.

Should evaluation of supplemental educational services end here or should less conspicuous measures of efficacy be considered beyond immediate academic improvement? A review of literature on some possibilities follows.

*Supplemental Educational Services and Variables Other
Than Immediate Academic Achievement*

Given the limited research supporting the affect of supplemental educational services on academic achievement, what are indicators that may well lay a foundation for improved academic achievement later? For example, many educators have long held the belief that how students feel about themselves is central to their academic achievement (Bandura, 1986; Beane, 1994; Hattie, 1992; Schunk, 1984). Others counter that an emphasis on student feelings is misguided and, worse, is potentially part of the problem with our public education system (Elmer, 2001; Seligman, 1993). These perspectives differ fundamentally and, not surprisingly, affect how educators address student academic inadequacies. The first group suggests that any intervention should include efforts to build confidence and teach skills that help to shape academic outcomes (Bandura & Cervone, 1986; Locke, Carlstedt, & Knerr, 1970). The latter

group, perhaps more consistent with the philosophy that shaped NCLB (2002), is focused on increasing standards and accountability for students (Stevenson, 1992; Stout, 2000).

After conducting a meta-analysis of existing studies, Valentine, DuBois, and Cooper (2004) determined that self-belief (interpreted broadly as confidence) can play a role in students' academic achievement. Further, the studies reviewed in the meta-analysis support the position of self and images of self as causal agents of academic achievement (Bandura, 1997; Carver & Schreier, 1981; Deci & Ryan, 1985). Taking this one step further, as is done in this study, if such variables as student beliefs (confidence) are relevant to student learning and achievement, then a case can be made to use such variables as learning behaviors and academic self-efficacy to evaluate the efficacy of supplemental educational services. Figure 1 illustrates how the intervention of supplemental educational services may affect student achievement directly and indirectly through learning behaviors or self-efficacy or both.

Other Indicators of Academic Achievement—A Theory

Commonly cited indicators of academic achievement can be found in three major groups: home environment, school context, and student characteristics (Schiefele, Krapp, & Winteler, 1992).

Cognitive abilities and academic achievement. Among the most relevant predictive student characteristics are general cognitive abilities, interest, and motivation. Of these, cognitive ability is clearly the most accurate predictor (Bloom, 1976; Stinnett, Havey, & Oehler-Stinnett, 1994; Wilson & Reschly, 1996), but it is also the least responsive to intervention (Yen, Konold, & McDermott, 2004). Additionally, simply knowing a student's cognitive ability, by itself, does not sufficiently explain academic performance. More relevant to this paper, it does not provide adequate information from which one can reasonably prescribe potential interventions intended

to raise academic performance (Yen et al., 2004). A student's learning behavior, on the other hand, has direct relevance to intervention strategies (Birrell, Phillips, & Stott, 1985; Keogh & Becker, 1973; McDermott & Beitman, 1984; McDermott, Leigh, & Perry, 2002; Stott, Green, & Francis, 1983).

Zimmerman and Martinez-Pons (1992) evaluated several qualities of the learner that contribute to academic success. Though those qualities are represented as boxes in Figure 1, they are perhaps more accurately captured as a series of positive feedback loops that may cycle within a distinct category, such as self-efficacy or learning behaviors, or just as likely, the loop may cycle back and forth between self-efficacy and learning behaviors before ultimately realizing improved student achievement. The students' perceptions of their own self-efficacy greatly influence their level of motivation. That level of motivation directly affects how ambitious the students are in setting academic goals and gauges the amount of effort and persistence students are willing to apply to meet those goals (Bandura & Cervone, 1986; Locke et al., 1970). In turn, meeting those goals grows the students' self-confidence (self-efficacy), which has been shown to increase the intrinsic interest in the subject matter (Schunk, 1989). Increased interest has been linked to improved academic achievement, which can lead to more ambitious goal setting, greater use of self-regulated learning strategies (metacognition, motivation, proactive behavior modifications) (Bandura, 1986; Zimmerman, 1990) and the cycle continues. There is evidence that teaching students to set goals is an effective strategy in raising the academic performance of even the lowest achieving students (Bandura & Schunk, 1981).

Zimmerman, Bandura, and Martinez-Pons (1992) conducted a path analysis with 50 males and 52 females for a total of 102 lower-middle-class freshman and sophomore high school students in a large eastern city. Five social studies classes taught by five different teachers were

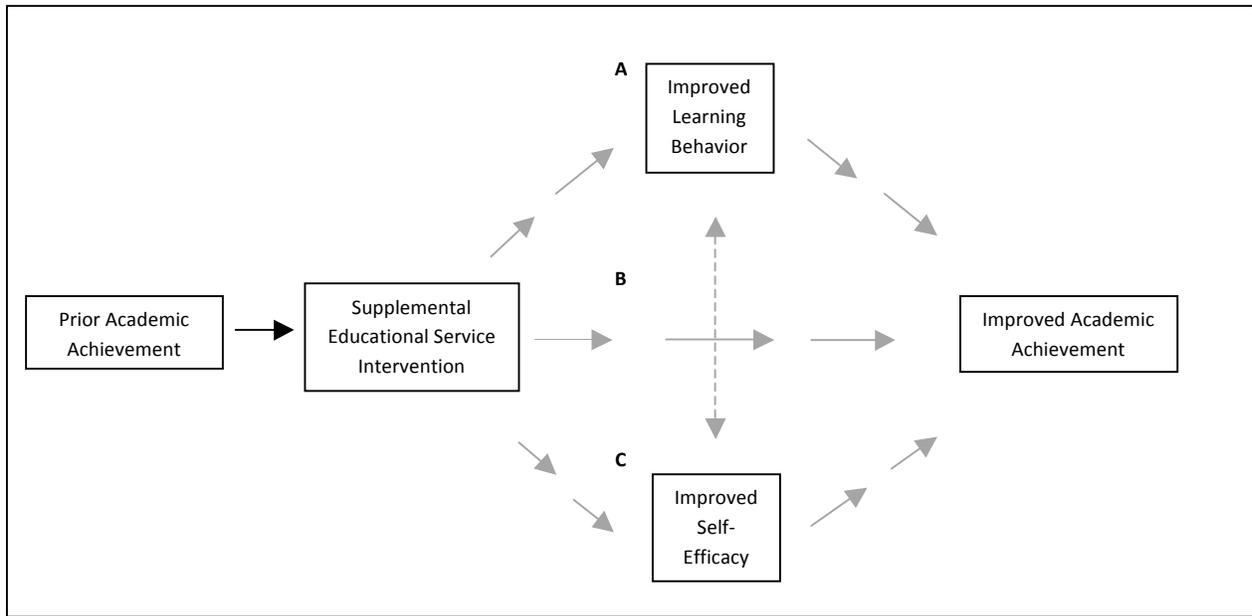


Figure 1. Predictors of academic achievement related to supplemental educational services.

A. The most accurate predictor of academic achievement is cognitive ability (Stinnett et al., 1994; Wilson & Reschly, 1996), but it has little relevance to intervention. Improving learning behavior has been linked to improving student achievement (Birrell et al., 1985; Harper, Guidubaldi, & Kehle, 1978; McDermott, 1984; McDermott & Beitman, 1984). Characteristics of learning behavior include attentiveness, persistence, flexibility in learning situations, reflectivity, strategic problem solving, motivation, and attitudes toward learning.

B. This would be indicative of a student who responds favorably (improves academic achievement) to the intervention provided through supplemental educational services without regard to other indicators.

C. The proposal here is that through improved self-efficacy, the student could realize greater academic success, which could lead to greater interest and further improvement in academic achievement (Zimmerman, 1986; Bandura & Schunk, 1981; Pressley, Borkowski, & Schneider, 1987; Weinstein, Goetz, & Alexander, 1988; Zimmerman & Martinez-Pons, 1986). Cognitive ability is clearly the most accurate predictor (Bloom, 1976; Stinnett et al., 1994; Wilson & Reschly, 1996), but it is also the least responsive to intervention (Yen et al., 2004). Additionally, simply knowing a student's cognitive ability, by itself, does not sufficiently explain academic performance. More relevant to this paper, it does not provide adequate information from which one can reasonably prescribe potential interventions intended to raise academic performance (Yen et al., 2004). A student's learning behavior, on the other hand, has direct relevance to intervention strategies (Birrell et al., 1985; Keogh & Becker, 1973; McDermott & Beitman, 1984; McDermott et al., 2002; Stott et al., 1983).

randomly selected for the study. Two subscales from the *Children's Multidimensional Self-Efficacy Scales* (Bandura, 1986) were used for the study. The first subscale was the *Self-Efficacy for Self-Regulated Learning Scale*. This scale considers 11 items to measure students' perceived abilities in a range of self-regulated learning strategies. The second subscale, the *Self-Efficacy for*

Academic Achievement Scale, had 9 items to measure students' perceived abilities in several academic domains. Students were asked to rate themselves on a scale of 1 (lowest) to 7 (highest) on each variable. The correlations between coefficients were calculated for the relationship among the variables. The two strongest relationships with academic achievement were the students' confidence in their ability to do well ($r = .39$) and their grade goals ($r = .52$) for the semester. Interestingly, their prior grades were not as strongly related to academic achievement as the other two ($r = .23$).

Observable learning behavior and academic achievement. To further understand the relationship between a student's learning behavior and academic achievement, Yen and colleagues (2004) tested three structural equation models with 1304 demographically diverse middle and high school students from 70 different cities and rural communities across the United States. Learning behavior was defined as those actions children demonstrate as they carry out learning tasks (McDermott, Mordell, & Stoltzfus, 2001). These behaviors include attentiveness, persistence, motivation, flexibility, strategic problem solving, goal setting, employment of metacognitive strategies, and response to feedback (McDermott et al., 2001).

Students' cognitive ability, academic achievement, and learning behaviors were each evaluated as part of the study (McDermott et al., 2001). Cognitive ability and academic achievement were measured with the *Differentiated Ability Scales* (DAS). The DAS consists of 20 subtests (17 cognitive and three achievement). Learning behavior was measured using the *Learning Behavior Scales* (LBS) (Stott, McDermott, Green, & Francis, 1988). The LBS was designed to be used early in a student's career to assess how that child will achieve academically. It consists of 29 questions: 18 are focused on the student's attitude toward learning and nine

address issues of strategy flexibility. Questionnaires were completed by teachers who, to be eligible for the study, had taught the students for at least 50 days (Yen et al., 2004).

Yen and colleagues (2004) concluded that, when controlling for cognitive ability, there was a standardized path coefficient of .13 ($p < .01$) between learning-related behaviors and academic achievement. That is, for every “one standard deviation increase in learning behaviors, there would be a .13 standard deviation increase in achievement” (p. 165), i.e., there was a distinct relationship between observable student learning behavior and academic achievement. Additionally, although the relationship was not as strong between learning behaviors and academic achievement as it was between cognitive ability and academic achievement (standardized path coefficient of .68, $p < .01$), it was considered important because learning behaviors are easier to identify and develop targeted strategies to improve.

A review of the available literature did not find any studies connecting participation in supplemental educational services and improved learning behaviors or supplemental educational services and improved student self-efficacy.

Summary of Findings

The federal government has had a long and growing presence in K-12 education. The most conspicuous current initiative is NCLB (2002). Within that law is the requirement that Title 1 schools that have not met Adequate Yearly Progress (AYP) for three consecutive years and are in their second year of improvement are required to provide supplemental educational services to eligible students in need of academic help at no cost to the student or family. Generally, students who receive free or reduced-price lunch are eligible for this program, which is funded by the school’s Title 1 budget. The law requires schools to set aside 20% of their Title 1 funds to pay

for supplemental educational services or other interventions designed to improve the students' academic performance.

There have been several challenges in oversight and implementation of supplemental educational services, including understanding NCLB (2002); communication with constituents; administering the program; aligning the curriculum to complement the efforts of the teacher in the classroom; tutor quality; level of participation; enrollment; uneven distribution of providers between rural, urban, and suburban settings; transportation of participants; and evaluation of providers and programs. Third-party evaluators are one way states have sought to manage the providers of supplemental educational services.

There has been little evidence of direct academic achievement as a result of participation in supplemental educational services. In two studies, however, when controlling for a minimal number of hours of participation (15 hours in one study and 40 hours in the other), there was evidence of some statistically significant, though practically insignificant, academic benefit to students.

Given the limited evidence that supplemental educational services contribute in practical or direct ways to academic achievement, other variables were explored that might suggest such intervention may contribute indirectly to student performance. These variables were a student's self-efficacy and learning behaviors. Therefore, another approach to the assessment of supplemental educational services was taken in this study. The input of teachers and principals was sought to see if there were any perceived direct or indirect benefits to student participation in supplemental educational services.

CHAPTER 3

METHODOLOGY

Descriptions of the procedures involved in this qualitative study, including the identification and selection of case sites, are in this section. Methods employed for data collection, management, and analysis are described.

The Design of the Study

This was a multi-site, cross-case analysis of the effects of supplemental educational services on elementary students as viewed through the perspectives of elementary school teachers and principals. Teachers and principals have unique and enduring interactions with students and are in a position to assess how programs such as those delivered by supplemental educational service providers affect students. Recommendations were sought from teachers and principals for improvement to the current system. Additionally, teachers and principals were asked to suggest measures that would enhance understanding of the effectiveness of supplemental educational services, other than immediate gains in student achievement.

Interviews were conducted with principals and teachers. Transcripts from the interviews were transcribed verbatim for analysis. The researcher carefully reviewed the interview data for emergent themes. The interview dataset from each school, as well as data from each school's profile, was utilized to generate a case for the school, highlighting the emergent themes from the pool of teacher and principal responses from that school. The four cases were then considered together to identify cross-case themes. Analysis revealed that themes were recurrent among the four cases, and thus no additional schools were added to the sample.

Identification and Selection of Case Sites and Populations of Principals and Teachers

The case sites were selected using the following criteria:

- Practical in terms of location to enable in-person interviews by the researcher (i.e., within 150 miles of Virginia Tech), regardless of state;
- Number of student participants in supplemental educational services to ensure that teachers' and administrators' feedback represents informed responses;
- Eligible for supplemental educational services, in that the schools were identified as being in at least their second year of improvement; and
- Willingness to participate in the study.

From schools that fit the selection criteria, four initial case sites were selected at random, as follows: All of the schools that met the selection criteria were assigned a number between one (1) and forty four (44), the total number of schools. The online True Random Number Service (Haahr, 2011) was used to select four schools at random, with the selected numbers indicating the selected schools. Teachers and administrators at selected schools were contacted to inform them of the study and seek their consent to participate. If a principal accepted the invitation to participate, that school was recorded and removed from the random selection process. Most (32) of the forty four schools identified as potential sites for the study were unwilling to participate in the study. Accordingly, if a principal or district administrator declined the invitation to participate, the school or schools affected by that decision were removed from the pool of potential case sites and the random selection process was repeated. Only data from schools in which principals and teachers agreed to participate were included in the study. The total number of schools identified as meeting the criteria for selection as well as the number of schools selected for participation, the number of schools that opted not to participate, and the number of principals and teachers interviewed for this study are in Table 2.

Table 2

Schools, Principals, and Teachers Participating in this Study

Number of schools in population	Number of schools selected to participate	Number of principals participating	Number of teachers participating	Number of schools declining to participate	Number of schools not contacted
44	4	5*	12	32	8

* The principal of Wainwright Elementary School requested the assistant principal also participate in the interviews.

The individuals participating in this study were the principals of the selected schools and teachers of students who had participated in supplemental educational services within those schools. Principals were asked to recommend teachers to be interviewed for this study. All recommended teachers were interviewed.

Data Collection

The participating principals and the teachers were interviewed using a researcher-developed protocol (see Appendix B). At three of the schools in this study, principals were interviewed one-to-one, and teachers were interviewed either individually or in small groups. At the fourth school, Wainwright Elementary School, the group preferred a single, small group format that included the principal, assistant principal, and two teachers. All interviews were conducted using a semi-structured approach to explore the teachers’ and principals’ views of the impacts of supplemental education services on participating students, their thoughts about ways to measure these impacts, and their suggestions for improving supplemental educational services. The semi-structured format meant that the interviews adopted a conversational tone, and all questions were asked at some point during the interviews. This approach was taken to maximize the comfort of the participants and ease the flow of the conversation.

Development of the Interview Protocol

A single interview protocol was developed for use with both teachers and principals. The items were designed to gather data related to the following domains, in alignment with the research questions as outlined in Table 3: impact of supplemental educational services on students, recommendations for measures of quality of supplemental educational services, and recommendations for improving the effectiveness of supplemental educational services. An initial draft of the protocol was reviewed by members of my dissertation committee and their feedback was used to revise the protocol prior to testing in the pilot study described below.

Testing the Protocol

With support from my committee and permission from the Internal Review Board (see Appendix E), I tested the instrument using both phone and in-person interviews as well as in individual and group settings.

Interviews were conducted with two principals over the phone, two principals in person, and six teachers. All teacher interviews were conducted in person. This proved to be a valuable exercise, as it revealed several ways in which I could strengthen the instrument to more accurately capture the data I needed for the study. For example, the phone interviews were easy to schedule, but difficult to actually carry out. Principals' daily activities are unpredictable, and no matter how much notice was given, it was difficult for them to be available when scheduled. Additionally, it was impossible to assess body language or gauge the level of understanding of a particular question. Questions were answered more quickly and required far more prompts than did the in-person interviews.

When the principal interviews were conducted in person, appointments were more consistently kept as scheduled. When there were delays in availability, the principal arranged for a teacher interview to fill the time until the principal was able to meet.

I conducted one teacher interview in a one-to-one setting and met with several teachers in a small group. I found the small group setting to be more dynamic, as one interviewee would feed off the answer of another in the group. The group consisted of all the teachers in a single grade, and there was a clear comfort level and respect among the interviewees. The conversation was balanced and more fruitful than the one-to-one format.

As a result of these interviews, I modified all of the questions. It was clear from the pilot that many of the questions were too formally worded or were too lengthy. Thus, I revised the questions to make them more succinct and conversational in nature. These changes improved comprehensibility of the questions and the richness of the participants' responses. The second and final version of the instrument is in Table 3. Finally, after reviewing the audio recordings, I realized I did not allow sufficient time for the interviewee to fully consider the question before answering. As a result, I slowed my cadence in asking the questions in subsequent interviews.

Table 3

Domains and Interview Questions in the Interview Protocol by Research Question

Domain	Source(s)	Research question	Protocol items
Impact of supplemental educational services on students	Principals and teachers (triangulation among teachers)	1. What are the perceptions of principals and teachers of the impact of the supplemental educational services on third-grade, fourth-grade, and fifth-grade students?	What is your overall perception of the impact of supplemental educational services on your students?

		<p>1c. What are the effects of participating in supplemental educational services on self-efficacy of third-grade, fourth-grade, and fifth-grade students as perceived by principals and teachers?</p>	<p>Probe: Goal setting?</p> <p>Probe: Use of metacognitive strategies?</p> <p>Probe: Response to feedback associated with academic improvement?</p> <p>Tell me about any changes in the student's self-confidence in handling academic tasks.</p>
<p>Recommendations for measures of quality of supplemental educational services</p>	<p>Principals and teachers</p>	<p>2. What effective measures (other than academic achievement) do principals and teachers recommend to better evaluate the impact of supplemental educational services?</p>	<p>Other than academic achievement, are there other ways to measure the impact of supplemental educational services on elementary students?</p> <p>Probe: What other strategies should be considered?</p> <p>Probe: (For each measure) Why do you think that measure would be appropriate?</p> <p>Probe: What are some other possibilities?</p>
<p>Recommendation to improve effectiveness</p>	<p>Principals and teachers</p>	<p>3. What changes do principals and teachers</p>	<p>How can supplemental educational services be</p>

of services		recommend to improve the impact of supplemental educational services on students?	improved? Probe: How do you think that would result in a greater impact on students?
Other	Principals and teachers		<p>How do you know if a supplemental educational service provider is doing a good job or having the desired impact with a student?</p> <p>What supplemental educational services have your students received in the past or are they receiving now?</p> <p>How many providers are active in the building?</p> <p>Probe: One? Two? Five? Ten?</p> <p>Have you ever worked for a Supplemental Educational Service provider?</p> <p>Probe: If so, what is your opinion of the quality of services provided to students?</p> <p>Probe: Has your experience working for a provider affected your opinion of</p>

			<p>supplemental educational services?</p> <p>Probe: If so, how?</p> <p>Within the past year, how many times have you been contacted about one of your students receiving supplemental educational services by providers of those services?</p> <p>Probe: Have you ever been contacted for any other reasons by supplemental educational service providers?</p> <p>What is your perception of the supplemental educational service provider's instructors?</p> <p>Probe: What are your perceptions of their qualifications to teach elementary students?</p> <p>What is your overall perception of supplemental educational services?</p> <p>Is there anything you would like to add?</p>
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Trustworthiness of the Data

Several measures were taken to ensure the trustworthiness of inferences made in the course of the study. First, a script was utilized to ensure that instructions were the same for each interview. The introduction, questions, follow-up prompts, and closing remarks were read to each respondent as articulated in the protocol (see Appendix B). The researcher made every attempt to ask interview questions consistently, while also following the course of conversation to prompt thoughtful and complete responses from participants.

Second, the content validity of the instrument was enhanced by conducting the pilot study with practitioners familiar with supplemental services and reviewing the content of the protocols with dissertation committee members. These procedures supported the content validity of the protocols. During each interview, each item was presented as it related to a larger domain through broad, open-ended questions. If the interviewee did not address a particular point of interest, that general item was followed up with the more specific prompts.

Accuracy of the data collection was ensured by audio recording each interview; this assured that all data were collected accurately and in their entirety and that researcher bias was minimized. The data were managed and analyzed using the same methods in both the pilot and actual study. These methods are those of Maykut and Morehouse (1994), Stake (1995), and Merriam (1998) and are explained in detail later in this chapter.

Administering the Interview Protocol

Each interview took 45 - 60 minutes and started with a definition and explanation of terms used in NCLB (2002). These terms included *No Child Left Behind Act (NCLB)*, *Supplemental Educational Services*, *Adequate Yearly Progress (AYP)*, and *Title I*. The interview

process incorporated suggestions from the pilot studies to ensure data were captured efficiently, effectively, and accurately.

Interviews were scheduled at times and locations convenient to respondents. Prior to each interview, respondents were sent a brief description of the purpose of the study (see Appendix C).

Data Management

Every interview was recorded and transcribed verbatim by a transcription service. The researcher carefully reviewed each transcript to ensure accuracy. Transcripts were copied and analyzed. All recordings and transcripts were kept on a password-protected computer. They will be stored there until the completion of the dissertation and then will be destroyed. Pseudonyms were used for the names of all respondents, schools, and communities to ensure participants' confidentiality.

Data Analysis

Data analysis was conducted in two phases: (1) analysis of the raw data to identify emergent themes and construct cases, and (2) cross-case analysis. For Phase 1, the interview data were analyzed using the constant comparative method described by Merriam (1998). This process minimizes the tendency toward investigator bias and more accurately captures the feelings, emotions, and opinions of the interviewees (Merriam, 1998). The constant comparative method is an inductive strategy that allows the researcher to consider the data before offering a hypothesis – quite unlike its deductive cousin, where a hypothesis is predetermined (Stake, 1995). The transcripts were read several times for common responses or recurring ideas (Stake, 1995). The data were then broken down into concise, commonly themed pieces of data through a process of “unitizing” (Maykut & Morehouse, 1994). Individual themes or units of meaning

were separated by drawing lines between them on the page. Each unit was assigned a code in the left margin to indicate its original location. Below each code in the left margin was a summary statement describing the meaning of that particular unit. Units were then separated, posted on 5" x 8" index cards, and taped to a wall, allowing each to be considered individually as well as how it fits into the larger scheme.

These ideas were then grouped and placed on large sheets of flipchart paper with space for posting units of meaning (Maykut & Morehouse, 1994). As the number of categories grew, I continually and simultaneously reviewed the units of meaning and compared them to other recurring patterns within and across categories (Maykut & Morehouse, 1994). Once preliminary categories were established, the largest category was then written on its own sheet of paper and placed on the wall. All units that related to that preliminary category were taped below it on the wall. This process was repeated until all index cards containing individual units were posted into a provisional category. The process of categorical assignment was fluid, as new data required the establishment of new categories and the elimination or combination of others. Additionally, a miscellaneous category was established to capture all of the data that did not appear to fit into an existing category or was seemingly unrelated to the research questions (Maykut & Morehouse, 1994). As these categories became more static, rules were established to justify the inclusion or exclusion of new data. Broader category names, known as propositional statements, were given to each grouping as the collective meaning of the units was considered.

Once all categories were established, the index cards containing the units of meaning within that category or propositional statement were coded to indicate their assignment. Finally, propositional statements were combined and supported by units of meaning, quotes, and examples offered by interviewees to facilitate the analysis of data collected from participants.

With each round of data review, categorical distinctions became clearer, relationships were better defined, and a more accurate picture of the answers to the research questions emerged.

When the individual case studies were completed (i.e., Phase 1), Phase 2 of analysis was initiated. I began the process anew, this time looking across cases for recurring themes.

Recurring themes were identified, placed together (on a common wall using large Post-It brand sheets of paper), shifted, and realigned as appropriate until each was as representative of the principals' and teachers' opinions as possible. Unique comments were noted and categorized.

Findings from Phases 1 and 2 comprise the results of this study.

CHAPTER 4

RESULTS

Findings for each case and across cases are in this section. The data collected from each case have been summarized and common themes identified with respect to each of the research questions. In addition, analysis has been conducted across case sites. The themes as well as the propositional statements associated with each theme are summarized in Table 4.

Case 1: Fenton Elementary School

Fenton Elementary School (ES) in Mid-Atlantic State 1 is the educational home to approximately 300 students in pre-Kindergarten through 5th grade, the vast majority of whom are Caucasian. Attendance rates are high (97% at both the school and district level) and drop-out rates in the district are low (2.2%), 76% of students come from low-income families, which far exceeds the state average of 52% (Mid-Atlantic State 1 Department of Education, 2011). The principal indicated that one third of the student population was characterized as needing special education, with “two autism classes, one behavioral disorder class, one multi-category class, and two speech classes.” Fenton ES failed to make adequate yearly progress for three years in a row, and most recent student performance data indicate that students at Fenton ES are performing well below the state average in reading, math, and science. Improvements in student performance on these three measures were observed in the most recent year for which data were available (2010), and the school was documented as making adequate yearly progress in this year. Two years prior to this study, Fenton ES was considered one of the “lowest ranking schools in the state” (Fenton ES Principal, p. 4¹) in terms of student achievement.

¹ Page numbers for direct quotations refer to the page numbers of interview transcripts for the respondent indicated.

Table 4

Themes and Propositional Statements for Each School Case

Themes	Propositional Statements	Schools			
		Fenton ES	Matthews ES	Wainwright ES	Padge ES
Source of SES*	Internal only on-site, although families may seek external SES at a distance			X	
	External provider only on-site				X
	Mix of internal and external on-site	X	X		
Student achievement gains as a result of SES or lack thereof	Little to no gains in student achievement	External only			X
	Noticeable gains in student achievement	Internal only	X	X	
Other gains students made as a result of SES or lack thereof	Little to no other gains as a result of SES		Varies by student		X
	Conflicting evidence of other gains students made		X		
	Noticeable gains in students' self-confidence	X	X	X	X
	Noticeable gains in students' flexibility		X		
	Noticeable gains in students' motivation	X	X	X	
	Noticeable gains in students' strategic problem solving	X		X	
	Noticeable gains in students' persistence				
	Noticeable gains in students' social behaviors	X	X		
Noticeable gains in students' metacognitive strategies					

	Noticeable gains in students' responses to feedback	X	X		
	Noticeable gains in students' organizational skills	X			
	Noticeable gains in student empowerment in learning				X
	Noticeable gains in student engagement				X
	Noticeable gains in student attentiveness				X
	Belief that SES are leading to student gains	X			X
Source of student gains (SES or Other)	Difficulty discerning source of gains because many interventions			X	X
	Difficulty discerning whether classroom experiences or SES are source of gains	X		X	
	Conflicting evidence regarding source of gains	X			
	Good quality	X			X
	Poor quality	X		X	X
	Conflicting evidence regarding quality	X			
	Concerns about whether SES providers are trained, certified, or otherwise professional			X	X
Quality of SES / Recommendations for Improvement	Good approach, but ineffective in practice				X
	Provider motivated by business interests rather than wellbeing of the child	X			X
	Providers are certified teachers, highly qualified to serve as tutors	X			
	Providers should be certified			X	X
	Providers should communicate more with classroom teachers			X	X
	Programming should be tailored to meet needs of the student	X		X	X
	Programming should be scheduled at other times (summer, weekends)	X			X

	Poor communication between school and external providers	X			X
Communication among teachers, administrators, and SES providers	Communication about discipline issues		X		X
	Communication in order to seek additional business			X	
	Good structure for communication in place		X		
	Good communication between teachers and internal providers	X			
	Culture of communication in the school		X	X	
	Communication varied by teacher or student	X			
Responsiveness of SES / Tailoring SES to meet students' needs	Program was tailored to grade level, not to an individual student's needs		External Only		
	Program was "canned" or not at all tailored		External Only		X
	Assessment data, teacher input were not used to inform design of SES	X	X		X
	Assessment data, teacher input were used to inform design of SES	X	Internal only		
	Conflicting evidence regarding use of assessment data or teacher input	X			
Ways to measure impacts of SES	Observation	X			
	Existing measures such as standardized / benchmark testing already being used by the school		X	X	X
	Attendance			X	
	More reporting by SES providers to teachers in ways that relate to data that schools value		X		X
Other	Shaping of the students' personalities		X		

* Supplemental Educational Services

Fenton ES had recently received a school improvement grant. The principal's goal was to improve the culture of the school, which she noted was plagued with poor morale. Two of the primary efforts to improve school morale were to train for assessments and to conduct their own in-school assessments. In the most recent year, one of the experienced Fenton ES teachers had become the assistant principal and another had become a specialist in the school. So even though these teachers had transitioned out of classroom teaching positions, they had remained part of the school and helped maintain the school's improving culture.

According to the Mid-Atlantic State 1 Department of Education (2011), more than 80% of the 35 teachers at Fenton ES are highly qualified, half having earned an advanced degree and more than a quarter having 15+ years of teaching experience. Families at Fenton ES also enjoy low student-teacher ratios (about 11 to 1). Fenton ES has nine teacher aides, including the library staff, and no social workers or security officers. Approximately a dozen volunteers mentor Fenton ES students through a local church program. Fenton ES is geographically rural, which made it difficult to attract the interest of external supplemental educational service providers. To remain compliant with the directives of the No Child Left Behind Act, Mid-Atlantic State 1 created an in-state mechanism that would allow the school to hire its own teachers to provide tutoring services. Most of the supplemental educational service programming was conducted on-site by teachers on staff at Fenton ES, although services were also offered by one external provider. Many of the children at Fenton ES were eligible for supplemental educational services, but the principal indicated that most did not take advantage of the services.

The teachers interviewed from Fenton ES included a Caucasian female who was the school improvement coach. It was her responsibility to conduct faculty development and track school data to document school improvement. The two other teachers interviewed were

Caucasian females, one of whom had worked for an external supplemental educational service provider. The principal was a certified administrator and nationally board certified teacher, with six years of administrative experience.

Gains in Student Achievement as a Result of Supplemental Educational Services

Three Fenton ES teachers were interviewed, one of whom was designated the school improvement coach, and all had served as tutors in the supplemental educational services provided by the school. All drew on personal experiences with individual students when commenting on the gains students made in their school performance and academic achievement as a result of participating in supplemental educational services. For example, the teacher who served as the school improvement coach stated:

Well, I know just from my own personal experience in talking with the, the student's teacher that I, the student I worked with, ... his math grade went from an F to a B within the time that I was tutoring him. (p. 1)

The school improvement coach recalled several examples of colleagues whose students demonstrated improvements following tutoring by their own teachers; for instance:

I know that my Title 1 cohort that works in the same room that I do had great success with her student, two students, also. Their grades went -- I'm afraid to tell you numbers -- but I know that the one student, when we looked at his Acuity test scores, ... he was like, ... 20% correct in the fall benchmark, 40% in the middle of the year, and by the time -- she, she was still tutoring him when he took the third benchmark -- and that score was 56% percent. So he went up considerably. (pp. 1-2)

Although the teachers at Fenton ES reported academic gains made by students as a result of supplemental educational services, the principal said, "I just don't see it. I don't see a positive

impact (p. 10). In other words, she did not see students making improvements in their performance or achievement on standardized tests. In fact, she reported negative impacts, such as students would “lose interest” (Fenton ES Principal, p. 11). She indicated that the way assessments were conducted would not reveal whether a student who was typically at the bottom of his/her class in terms of performance had moved to the middle, and that only students who had “improved dramatically” (Fenton ES Principal, p. 10) would be apparent to people other than the child’s teacher. Thus, the principal did not think that improvements in academic achievement would be noticeable to anyone other than the child’s teacher, unless the improvements were substantial, which she did not appear to think was likely.

Other Student Gains as a Result of Supplemental Educational Services

Teachers at Fenton ES diverged in their feedback about whether students realized other positive outcomes as a result of supplemental educational services. When asked about whether supplemental educational services improved students’ motivation, persistence, flexibility, metacognitive strategies, or behavior, they reported improvements for some students (see Table 4). They reported that other students already excelled in these arenas, while still others struggled. For example, the school improvement coach explained that one student was already very motivated, so his motivation did not improve as a result of participating in supplemental educational services:

Motivation.... I don’t know. It depends, depending upon what particular activity you’re doing, he’s, he’s always motivated to do certain types of activities and not so much others. So I don’t think lack of motivation was his problem to start with. So I don’t know that there was any major change there. (p. 5)

The Fenton ES teachers did not observe improvements in students' flexibility, but they reported on students' organizational skills, strategic problem solving, responses to feedback, and self-confidence. Teachers' perceptions of student improvements in these arenas varied widely, indicating that some students showed no or slight improvements while others showed notable improvements. For example, one teacher, when asked about students' abilities to solve problems strategically, stated that, "In math, especially, you'd show them little tricks ... and then later, you'd see that they were applying that (Fenton ES Teacher 1, p. 5). The school improvement coach noted that one student she tutored was already quite capable of solving problems and utilizing metacognitive strategies, so tutoring had little impact on his abilities in these arenas.

Two of the Fenton ES teachers explained that students who showed improvements tended to have special needs or required "a lot of one-on-one attention" (Fenton ES School Improvement Coach, p. 1). For instance, the school improvement coach noted that an autistic student seemed more capable of socializing in the classroom following his participation in supplemental educational services. She explained that, "We developed a really good friendship, I felt like. Of course, as far as you can be a friend with a student. But I mean, you know, and I think that he maybe was a little bit more socialized in the, in the classroom." (p. 3)

Another teacher explained that her students who participated in supplemental educational services had made notable improvements in their behavior, explaining (for one of her students) that "we had tantrums at the beginning, and we don't have tantrums now" (Fenton ES Teacher 2, p. 4). Yet, she indicated this improvement was likely due to "maturity" (Fenton ES Teacher 2, p. 3) the student developed by "being in a school setting" (Fenton ES Teacher 2, p. 3) over the normal course of the year.

The third Fenton ES teacher, who had previously worked for an external supplemental educational service provider (i.e., Fenton ES Teacher 1), noted that the gains she had seen students make as a result of participating in supplemental educational services prompted her to get involved in tutoring at Fenton ES. She explained, “I started doing tutoring, and I could see a big difference in the kids and their confidence and their, you know, they would answer more in the classroom” (p. 1).

Quality of Supplemental Educational Services and Recommendations for Improvement

At Fenton ES and the other schools in this study, discussions about recommendations for improving supplemental educational services were tightly aligned with views of the quality of these services. Thus, descriptions of teachers’ and principals’ views of the quality of supplemental educational services and their recommendations for improvement are integrated throughout.

At Fenton ES, the teachers’ and principal’s perceptions of the quality of supplemental educational services depended on the source of that service (i.e., internal versus external provider). When the school improvement coach discussed student improvements as a result of tutoring, she attributed these improvements to services provided internally by a cohort of Fenton teachers involved in tutoring, stating, “The teachers that participated [as tutors] in the program here this year were among the best teachers in the school, as far as I’m concerned. I think we had a really good quality group of tutors” (p. 6). Indeed, at least two of the Fenton ES teachers who tutored as part of the school’s on-site supplemental educational services had earned master’s degrees. When asked about suggestions she had for improvements to the supplemental educational program, she had no specific suggestions. The teachers interviewed at Fenton ES

similarly had no suggestions for improvements. One teacher explained, “I think it’s an overall good program that needs to continue” (Fenton ES Teacher 1, p. 7).

The principal had concerns about lack of quality in supplemental educational services from the external provider. For example, she was dissatisfied with the quality of services provided to students by the external provider, explaining:

I don’t feel it [the quality of externally provided SES] is where it should be.... Quite often as I would go by the room,... late in the day, they would be involved in a game type situation, and you know there are games that you can use to learn, but not if you’re targeting specific skill[s] you need to be working on and have four very different children in there. (p. 8)

This quote illustrates the principal’s perspective on the disconnect between the external supplemental educational services provider and the needs of students at her school. Accordingly, she did have ideas about how to improve supplemental educational services. For example, she wanted the external provider to assess students and respond accordingly, explaining:

I just wish we had communication and I wish there were a way – I would like to know, as the principal, that they [the external provider] have actually assessed the children or found out where this child is and what they are doing to improve it or just a generic. (p. 11)

The principal noted that Fenton ES teachers who tutored knew “where to start” (Fenton ES Principal, p. 8) with students, but it was not clear whether the external provider had the same insider knowledge or if they made efforts to develop this knowledge. She believed that “they [the external provider] don’t have the best interest of the children...because they’re competing for profit” (Fenton ES Principal, p. 10). She thought that many parents kept their children enrolled in

supplemental educational services from an external provider, even if they did not see their children making academic gains, because if the child “completes the year, you get to keep the laptop that they’ve used and, for low-income families, that’s a big deal” (Fenton ES Principal, p. 10). Clearly, she was concerned that families would persist in seeking supplemental educational services from external providers because of the attractive incentives, such as free laptops, even if their children were not benefitting from those services.

Communication Among Teachers, Families, and Supplemental Educational Service Providers

The fact that the teachers at Fenton ES were directly involved in tutoring presented a unique setting for considering the impact of supplemental educational services. The principal and the teachers agreed that supplemental educational services provided internally by Fenton ES teachers resulted in significant improvements in student performance. They offered different specific explanations for this outcome, all of which related to the fact that teachers were the tutors rather than tutoring being provided by an external supplemental educational service. The school improvement coach credited the positive impact of tutoring to the connections teachers were able to make between classroom performance and tutoring activities. For example, she explained about one student, “...whenever he was falling down on something in the class, then I would pick up on that during the tutoring. So we worked together really well. It really helped him.” (p. 1)

The school improvement coach indicated that teachers who were tutors were uniquely positioned to communicate with families and respond to their concerns. She offered as an example, “The little boy I tutored, math is his weakness and that’s what the mother’s concern was, was his math grade. And so I worked on math.” (p. 2)

In contrast, the teachers and principal expressed concerns about lack of communication from the external provider. The teachers explained that an external provider had originally provided reports on students' progress, but that these reports stopped arriving fairly early in the school year. When speaking about the external provider, one teacher thought that there was little if any communication, stating that "[she] got one report at the beginning and I haven't got any since then" (p. 1). She indicated that she was not sure if reports had not been sent because students were no longer participating in the supplemental educational services or if the service provider had not made the effort to send reports. One teacher pointed out that families received free laptops from the service provider if their child completed the supplemental educational program of the external provider.

Supplemental Educational Services as the Source of Student Gains

The school improvement coach was confident that participation in internal supplemental educational services was the cause of the academic gains students made, stating, "The tutoring program - and we feel that that had a great, you know, great deal of impact on those scores" (p. 2). One of the other teachers (Fenton ES Teacher 2) was less confident that external supplemental educational services led to the gains she saw her students make. She explained, "Mine [meaning her students who were enrolled in the external provider's program] probably would have come along regardless of [external supplemental educational services]" (Fenton ES Teacher 2, p. 3).

Ways to Measure Impacts of Supplemental Educational Services

The teachers and the principal at Fenton ES were at a loss when queried about other ways to assess the impact of supplemental educational services. The school improvement coach, one of the teachers (Fenton ES Teacher 1), and the principal indicated that observing students was

the most fruitful way to identify positive outcomes (Fenton ES School Improvement Coach, p. 6; Teacher 1, p. 6; Principal, p. 10). The school improvement coach suggested that getting feedback from a student's family and other teachers was important in developing a complete picture of the challenges that student faced and the ways supplemental educational services might help the student address those challenges (Fenton ES School Improvement Coach, p. 6).

Case 2: Matthews Elementary School

Matthews Elementary School (ES) enrolls approximately 550 students in pre-Kindergarten through 8th grade, the vast majority of whom are Caucasian. Attendance rates are high (97% at the school level and 95% at the district level), drop-out rates in the district are low (2.4%), and 67% of students in the school come from low-income families, which exceeds the state average of 52% (Mid-Atlantic State 1 Department of Education, 2011). The principal indicated that less than 10% of the student population fit the special education category.

According to the Mid-Atlantic State 1 Department of Education (2011), 95% of the 35 classroom teachers at Matthews ES are highly qualified, with about 40% having earned an advanced degree and more than 70% having 15+ years of teaching experience. The student-teacher ratio is low (about 12 to 1). Matthews ES has almost 40 other personnel, including special educators, teacher aides, library staff, social workers, and counselors. Approximately 10 volunteers are on campus daily, through Americorps, 21st Century Community Learning Centers, and other programs.

Matthews ES failed to make adequate yearly progress (AYP) for four years and thus was on the verge of being "restructured" (Matthews ES Principal, p. 3) if the situation remained the same for a fifth year. The school made AYP in 2010, with the most recent student performance

data indicating that students at Matthews ES are performing at about the state average in reading, math, and science.

Matthews ES is geographically rural, with an even more distributed population than the region from which Fenton ES draws students. The principal explained that the school's rural location was a major constraint on what could be offered to students. He had moved to Mid-Atlantic State 1 from an urban district in Mid-Atlantic State 3, where he had "a hundred resources around at [our] disposal" (Matthews ES Principal, p. 4). He explained that most families wanted their children to be tutored one-on-one after school rather than participating in other after-school activities or bussing. He viewed this as "the primary service we provide" (Matthews ES Principal, p. 4), although, like the principal at Fenton ES, he was "amazed" (Matthews ES Principal, p. 9) that "such a small percentage actually take advantage of these services" (Matthews ES Principal, p. 9). The principal was particularly proud of the one-on-one nature of tutoring services provided internally at his school. He believed that this was "unique to the area" (Matthews ES Principal, p. 15) and that this "interaction plays such a huge part in their [the students'] academic success" (Matthews ES Principal, p. 15).

Gains in Student Achievement as a Result of Supplemental Educational Services

The principal and two teachers were interviewed at Matthews ES. The principal of Matthews ES thought his students had experienced gains across the board as a result of participating in supplemental educational services. In his previous position in Mid-Atlantic State 3, the Matthews ES principal had more experience with external supplemental educational service providers. He believed that a service provider that "can prove through data that it is successful" (Matthews ES Principal, p. 16) could be a real benefit to students, but that this was

not a given because there were “others that you really don’t know where they came from” (Matthews ES Principal, p. 16).

When asked about the academic gains students at Matthews ES had realized as a result of supplemental educational services, the principal reported “What has the school so excited right now is we made an average of 17.8 % increases in reading and math last year...” (Matthews ES Principal, p. 8). The principal clearly saw that supplemental educational services were playing a role in the improvements seen in test scores for the entire school, even though only a small percentage of students actually participated in the program. He explains, “We try to individualize the education of those students, and it’s such a small percentage that actually take advantage of these services. And that’s what’s amazed me.” (Matthews ES Principal, p. 9)

When pressed to consider whether these gains were realized specifically by students who participated in supplemental educational services compared to students who did not, the principal softened his statement:

I have not correlated it. You know, when I said across the board, I probably meant average because we didn’t have that much of a gain in a couple grade levels. But when you average, we had a 28% increase in math for seventh grade and, you know, so it averaged out. But I don’t know if there’s a direct correlation. (p. 9)

The Matthews ES principal was not able to cite specific instances of students who participated in supplemental educational services making gains in academic achievement. He remained confident even if the tutoring didn’t result in immediate academic gains, “it will come” (Matthews ES Principal, p. 13), meaning that the one-on-one interaction between a struggling student and a tutor would eventually result in academic achievement. Notably, the two teachers interviewed from Matthews ES did not report any gains in the achievement of their students as a

result of supplemental educational services. One teacher explained, “In academic performance I didn’t see any growth that I didn’t think would already have occurred for her throughout the year...” (Matthews ES Teacher 1, p. 2). The other Matthews ES Teacher who was interviewed for this study also hesitated to credit gains in students’ academic achievement to participation in supplemental educational services:

I think that’s really hard to measure because as students are improving, you know we are under a school improvement school here so we have a lot of interventions, mediation and all this going on in school. Plus our after school program. So it is really difficult to measure which or I would say a combination of all of those are improving students.

(Matthews ES Teacher 2, p. 1)

Other Student Gains and Supplemental Educational Services as a Source of These Gains

When asked about the other types of gains students from Matthews ES made as a result of supplemental educational services, the principal said that he saw positive effects on students’ attentiveness, persistence, motivation, strategic problem solving, confidence, metacognitive strategies, responses to feedback, and flexibility in approaching academic challenges (Matthews ES Principal, pp. 10-11). When prompted to elaborate, he back-pedaled some, explaining that he was trying to “sum up and pick individual students out of a group...” (Matthews ES Principal, p. 11). He elaborated that “some kids probably responded well. Other kids not so much” (Matthews ES Principal, p. 12). When pressed for details about specific student outcomes, the principal was not able to provide them. His views were likely influenced by the fact that he himself had participated in Title I tutoring services as a student, reporting that these services “got me over the hump” (Matthews ES Principal, p. 14), academically speaking.

One of the teachers at Matthews ES (Teacher 1) reported that students participating in supplemental educational services made gains in areas other than academic achievement. She reported that she observed students improve in their confidence, flexibility, motivation, and response to feedback (Matthews ES Teacher 1, pp. 3-4). For example, she explained the gains in self-confidence that she observed in one student:

From my child that was in the service this year, at the beginning; she is a very bright child; she wasn't as confident, and I think that she kind of built her confidence from being in there.... I think I saw a confidence build throughout. (p. 1)

The other teacher interviewed at Matthews ES (i.e., Teacher 2) hesitated to report that her students made gains from participating in supplemental educational services. She explained:

I think that's really hard to measure because as students are improving, you know we are under a school improvement school here so we have a lot of interventions, mediation and all this going on in school. Plus our after school program. So it is really difficult to measure which, or I would say a combination of all of those, are improving students. (p. 1)

Teacher 1 taught students who were tutored by both internal and external supplemental educational service providers. When asked about whether this student made gains as a result of participating in external services, she stated that she "didn't see any growth that [she] didn't think would already have occurred for [this student] throughout the school year" (Matthews ES Teacher 1, p. 2). Thus, although neither teacher would attribute student gains directly to participation in supplemental educational services, the principal was confident that students were realizing or would realize gains as a result of participating in these services.

The two Matthews ES teachers interviewed for this study might have been hesitant to attribute student gains to their participation in external supplemental educational services because they both expressed concerns about the quality of the services. One teacher focused on the lack of tailoring of services to meet students' needs, explaining that she wanted to see supplemental educational programming "build off from what we're actually doing not just a general grade-level kind of idea" (Matthews ES Teacher 1, p. 4). Her comments were indicative of her belief that supplemental educational services may be tailored to the grade level of the student, but not to a particular student's needs. The other Matthews ES Teacher was bolder in her expectations, also expressing concerns about lack of tailoring in the programming and lack of professionalism of the supplemental educational service providers. She told of her experience dealing with one supplemental educational service provider:

Many are not [certified], and we've had, particularly in this school, one issue this year that a tutor had to be removed for various reasons.... The first day that we started tutoring [in] the school this year I was on the phone with one of the providers.... [He wanted to know if we could wait two weeks for his company to start.]... Do you know what that does? It wreaks havoc in a school and parents they all think – I said I have 19 students up here waiting for tutors. He said, "Oh, well, I'll get them there. I'll get them there." In 15 minutes two people showed up. Who are those people? Were they certified? Was there any prior training? He sent two people. (Matthews ES Teacher 2, p. 3)

Not surprisingly, she [i.e., Matthews ES Teacher 2] recommended improving supplemental educational services by requiring that tutors have some sort of certification. She also recommended more diagnosis and differentiation so that supplemental programming could address areas in which a student was particularly weak. She explained:

I do believe some of them [external supplemental educational service providers] come in with their set program. Geared maybe to that age group and maybe a specific reading need. Whereas, we delve into—we peel the onion; we know exactly if it's a phonetic problem or fluency problem ... that we start to address. Or comprehension or knowing their facts or something like that. Whereas, I think they come in with more of a – what I [have] seen is more of a canned program. I like to really see it coming in where they work with the teacher and it's very specific. (p. 2)

In discussing the quality of supplemental educational services, the Matthews ES Principal was more oblique in his discussion of the quality of supplemental educational services, choosing to focus on tutoring provided internally by the school's teachers. He explained that the school's rural location was prohibitive for hiring qualified tutors. He was clearly pleased that some of the teachers at the school were willing to provide supplemental educational services. He explained:

I've really been very fortunate that they [Matthews ES teachers] have agreed to do this [provide tutoring] because many times when you say we're going to provide this, you can't find the professionals to provide it. I think that supplemental educational services providers, the external group, have that same problem – to find qualified people to bring in. (pp. 16-17)

Communication Among Teachers, Families, and Supplemental Educational Service Providers

Matthews ES appeared to have a more developed infrastructure for communication between classroom teachers and the teachers who provided supplemental educational services. The principal explained this structure and how it facilitated communication:

We get feedback and monitoring through the Title I coaches ... who service ... [the students]. [The Title I coaches] always communicate through our professional learning communities with the teachers.... So you have a true team there. (p. 16-17)

The Matthews ES principal offered similar feedback, reporting that, “They [the internal SES providers] see the weakness and they’re going to work on it. And they’re going to work at that child’s pace” (p. 8). The principal emphasized the difficulty of finding trained professionals in such a remote area, and how pleased he was that teachers at Matthews ES, who were trained and experienced professionals, were willing to tutor (Matthews ES Principal, pp. 16-17). He believed that external supplemental educational service providers struggled to find qualified employees and that these providers were not “in the loop with the classroom” (Matthews ES Principal, p. 17) in the same way teachers at his school were.

The teachers at Matthews ES were concerned about lack of communication from external supplemental educational service providers. When speaking about services from the external provider, one teacher reported that external providers should “build off from what we’re actually doing not just a general grade- level kind of idea [response when asked how to improve SES]” (p. 4). The other teacher (Teacher 2) confirmed the lack of meaningful communication from external providers, stating that the only discussions she knew that external providers had with teachers were “about discipline issues” (Matthews ES Teacher 2, p. 1).

Desire to Measure Impact of Supplemental Educational Services Using Existing Assessments

One teacher at Matthews ES called upon external providers of supplemental educational services to report on a timely and regular basis on students’ progress. She wanted some “real data” (Matthews ES Teacher 2, p. 2) that could be integrated “with the data we already have” (Matthews ES Teacher 2, p. 2), to paint a complete picture of students’ achievement. The

principal also expressed an interest in using existing formative assessments (Matthews ES Principal, p. 7, p. 12), reporting that, “everything’s focused on the, ... formative assessments (p. 7). I would say just besides ... the teacher assessment, ... checking them on DIBELS with the formative ... [Mid-Atlantic State 1 standardized assessment]” (p. 12).

A Serendipitous Finding

The Matthews ES Principal emphasized the importance of one-on-one interaction and relationship building that was possible through supplemental educational services. Specifically, he was interested in assessing how participating in supplemental educational services influenced how children interacted with their teachers. He believed that improving a student’s relationship with his or her teacher would lead to future academic success. Consistent with that position, he thought that assessment could be conducted at the teacher level, with teachers reporting changes in their interaction with students, explaining:

You know... at the young age most of these children are getting these services, they’re, I guess, ...shaping ...the personality -- the way they interact with teachers and those kind of things -- is huge. And, ...when you can see increases in that, that is pretty successful, too. (p. 12)

Case 3: Wainwright Elementary School

Wainwright Elementary School (ES) is home to approximately 500 students in pre-Kindergarten through 5th grade, the vast majority of whom are Caucasian. Attendance rates are high (98% at the school level and 96% at the district level), drop-out rates in the district are low (1.6%), and 76% of students in the school come from low-income families, which exceeds the state average of 52% (Mid-Atlantic State 1 Department of Education, 2011). The principal indicated that less than 10% of the student population fits the special education category.

According to the Mid-Atlantic State 1 Department of Education (2011), 99% of the 25 classroom teachers at Wainwright ES are highly qualified, with about 60% having earned an advanced degree and more than 80% having 15+ years of teaching experience. The student-teacher ratio is low (about 13 to 1). Wainwright ES has about 30 other personnel, including special educators, teacher aides, and counselors. The assistant principal reported that “bunches of volunteers” (Wainwright ES Assistant Principal, p. 2) were on campus each day, and that the school benefitted from “a lot of parent involvement” (Wainwright ES Assistant Principal, p. 2).

Like Matthews EMS, Wainwright ES failed to make adequate yearly progress (AYP) for several years and thus was on the verge of being restructured. The school met AYP in 2010, with the most recent student performance data indicating that students at Wainwright ES were performing at about the state average in math, slightly below the state average in reading, and below the state average in science.

Gains in Students’ Academic Achievement as a Result of Supplemental Educational Services

Unlike the other sites where the principal was interviewed one-on-one and the teachers were either individual or in small groups, the principal, the assistant principal, and two teachers at Wainwright ES asked to be interviewed together. They described a “team” (Wainwright ES Principal, p. 4) approach to school improvement. The team at Wainwright ES believed that supplemental educational services offered a unique environment for improving student achievement, as one teacher explained:

We’re making supplemental services across the board, we’re making education enjoyable. When you go into a Title 1 room or a tutoring room, you’ll see students doing the teaching, doing collaborative pairs,...and the teacher’s not standing there throwing information at them.... It’s not drill and kill. It’s real world application, you know, it’s

learning as a group, and it's sharing, drawing off of each other's experiences, and supplemental services helps us provide that environment. (Wainwright ES Teacher 1, p. 10)

Unlike the other principals in this study, the Wainwright ES principal easily recalled examples of students realizing gains as a result of the supplemental educational services, for example:

...our curriculum team from the county comes and does walkthroughs. Well, they walked into a special ed classroom. Okay. And the kids were having a discussion and one little boy... looked up and said, "You're going to have to justify your answer to me. I need some clarification on your response." And it just so happened that the special education director was in the group at that time, and he walked into this office with me and he said, "I cannot believe that you have kids who are special ed using... that type of vocabulary and understanding... what justification and clarification is.... (p. 12)

Other Gains Students Realized as a Result of Supplemental Educational Services

The team believed that Wainwright ES students realized numerous positive outcomes from supplemental educational services, including improvements in their attentiveness, persistence, motivation, strategic problem solving, and self-confidence. For example, in response to questions about these learning behaviors, Wainwright ES Teacher 1 stated, "Engagement, attentiveness – it's increased" (p. 10). When asked about whether they had seen changes in students' persistence, the Wainwright ES Principal reported, "To some degree" (p. 10). When asked about other learning behaviors, the Wainwright ES Principal tended to dominate the conversation and spoke mostly in generalities about strategies the school was employing to enhance learning behaviors. For example, when asked about motivation, he reported:

My motto is work hard, play hard. So the kids know, if they work, we're going to have some kind of an activity. Now it may be a field trip, it may be inflatables, it may be Ronald McDonald. We always write about it afterwards. And, again, they know that we're going to have fun, but at the end I'm going to have to write something about it.... It's not forced engagement, but it keeps them engaged.... They know that if they work hard,... there's going to be something that happens. (p. 11)

Although the principal spoke in generalities, he offered specific examples of the roles of supplemental educational services providers. For example, he explained how supplemental educational service providers were influencing the practice of classroom teachers:

By having the Title I folks and the tutors [supplemental educational service providers] come in they're using so many different strategies and they're using the small groups, they're using the you and I work together, think, pair, share.... I can't even name all the strategies that these folks are using.... They go into the regular classroom when the supplemental service teacher has the time that he or she is co-teaching in the regular classroom, the full setting. So they're sharing those strategies with [classroom teachers]. (p. 11)

These comments suggest an additional dimension to how supplemental educational service providers can influence student achievement within a school. Specifically, in schools in which supplemental educational service providers are integrated into classroom activities, they can model instructional strategies for classroom teachers. This could influence outcomes for an entire class of students, rather than just those participating in supplemental educational services.

Quality of Supplemental Educational Services and Recommendations for Improvement

When the Wainwright ES group was asked about the quality of supplemental educational services, the principal again dominated the conversation, emphasizing the quality and importance of the program. For example, he stated, “Without the supplemental services, Title I, we wouldn’t make it.... We are fortunate to have the quality of Title I teachers that we do” (Wainwright ES Principal, p. 6). The group appeared to be in consensus that the quality of supplemental educational programming was good, and there were no specific recommendations they could make for improvement. It should be noted, however, that although two teachers participated in the conversation, their comments were limited. This could have been because the principal was so willing to dominate the conversation or, equally likely, their primary focus was elsewhere.

Communication Among Teachers, Families, and Supplemental Educational Service Providers

The principal at Wainwright ES believed that the team spirit being engendered through constant communication was made possible by the availability of supplemental educational services. He explained that Wainwright ES students were making significant improvements because supplemental educational services offered a context for school personnel to make it clear that they cared about students. In particular, the team believed that communication that occurred as a result of working in teams was critical for school improvement. The assistant principal explained:

It’s not just supplemental services doing that, that’s everybody doing that, and it’s really ... unique ... that in our teams we have Title 1 teachers, special ed teachers, supplemental [people].... So we have those conversations. It’s wonderful. (p. 8)

The team that was leading the school improvement effort was comprised of a special educator, three Title 1 teachers, a technology integration specialist, the assistant principal, and the Title 1 director. This team met almost daily, often over lunch and without a formal agenda, to

discuss assessment data and progress toward achieving school goals for improvement. Other teams were also in place to facilitate communication, including “horizontal teams” (Wainwright ES Principal, p. 4) made up of teachers from a single grade level, which were in place to discuss results of assessments and make changes to instruction accordingly.

Students at Wainwright ES had access to on-site tutoring by teachers and off-site tutoring by an external supplemental educational services provider. The principal was generally positive about the external provider because it provided one-on-one tutoring, whereas the on-site programs were one teacher with four to six students. However, the assistant principal was suspect of their motives because “it’s a business... they...make money doing it” (Wainwright ES Assistant Principal, p. 6). He believed that making money did not prevent the external provider from wanting to educate children, but that it did influence their primary motive for communication. Specifically, he explained that the external provider called to “ask us if we have any more students to send them” (Wainwright ES Assistant Principal, p. 6), rather than to communicate about students’ progress. The principal explained that in two years, he had had three meetings with the external provider, which he described as sales calls rather than conversations about students’ needs (Wainwright ES Principal, p. 7). He contrasted this with the internal program, which was “constantly in conversation – what does this kid need?” (Wainwright ES Principal, p. 7).

Notably, the culture of communication at Wainwright ES included the students. The principal initiated a program he called “data notebooks” (Wainwright ES Principal, p. 8), in which students examined their own achievement data. He explained that this was “empowering them” because students would come to recognize shortcomings in their skills and respond accordingly:

We are empowering our kids to look at their student data.... So they're pushing us to push them, [saying], "Now, I need to work on this. I'm weak in comprehension. My ability to do fractions isn't very good." ... [And] that's where the true growth is coming. (p. 8)

Members of the team being interviewed reported that this culture of communication had transformed the school from a place where "students walked through the hall and it was very difficult to make eye contact with them" (Wainwright ES Teacher 1, p. 1) to a place where students are "running up to me after a benchmark. 'I'm tier II,' 'I'm tier III,' 'I scored 58.' ... And we have those celebrations" (Wainwright ES Teacher 1, p. 9).

Recommended Ways to Measure Impact of Supplemental Educational Services

At Wainwright ES, the principal was the only member of the group being interviewed who offered ideas on how to measure the impact of supplemental educational services. Like the principal at Matthews ES, he advocated for the assessments already in use to document student progress (Wainwright ES Principal, p. 10). He also advocated for a more indirect measure: attendance. He explained:

The easiest thing to measure would be attendance because we care about kids; whether they're straight As or struggling C students, we care about them. They're going to show up for school. If we show them we care about them, our attendance is going to improve and that's an easy one to track. (p. 13)

However, a review of statistics on attendance at Wainwright ES indicates that attendance is quite high (98% at the school level; Mid-Atlantic State 1 Department of Education, 2011), raising questions about its discriminatory value.

Case 4: Padgett Elementary School

Padgett Elementary School (ES), located in Mid-Atlantic State 2, enrolls approximately 500 students in pre-Kindergarten through 5th grade, about 90% of whom are Caucasian and 10% of whom are African-American. Attendance rates are high (95% at the school level and 94% at the district level). Fifty-seven percent of students at Padgett ES are eligible for lunch at free or reduced rates, which is a proxy for low-income (National Center for Education Statistics, 2011).

According to the Mid-Atlantic State 2 Department of Education (2011), all of the 40 classroom teachers at Padgett ES are highly qualified, with four being provisionally licensed and 40% having earned an advanced degree. The student-teacher ratio at Padgett ES is low (about 13 to 1). Padgett ES has about 30 other personnel, including special educators, teacher aides, and counselors.

Data available for Padgett ES indicated that it failed to make adequate yearly progress (AYP) for at least two years, but made AYP in 2010. The most recent student performance data indicated that students at Padgett ES passed end-of-year tests in English, writing, history, and science at a lower rate than was observed at the state level (77-78% for Padgett ES versus 86-89% for the state). Padgett ES students passed the state mathematics assessment at the same rate as observed at the state level (i.e., 87%).

Gains in Students' Academic Achievement as a Result of Supplemental Educational Services

The principal (Caucasian male) was interviewed one-on-one, and five teachers (all Caucasian females) were interviewed as a small group. All from Padgett ES who participated in this study reported negative experiences with and perceptions of supplemental educational service providers. When asked about whether they had seen any impacts on students' academic achievement, one teacher reported, "I haven't seen very much" (Padgett ES Teacher 1, p. 2), and

another said she had seen “none really noticeable” (Padgett ES Teacher 2, p. 2). Another teacher made comments that suggested that the students’ families had not seen any positive academic outcomes either, reporting, “I’ve actually had three or four [students] out of seven that had dropped out from lack of liking it, not feeling like the parents are getting anything out of it” (Padgett ES Teacher 4, p. 3). The principal echoed the teachers’ responses that Padgett ES students had not made any gains in academic achievement, explaining:

...in some cases we’ve seen where they have lost ground. That is based on assessments that we are giving our students....Some show minor [gains], but most cases its either none [i.e., no gains] or they fall back. That’s not based on their assessments [i.e., those of the supplemental educational services providers]. That’s based on our assessments of them on the... [Mid-Atlantic State 2 standardized assessment]. (p. 2)

Other Student Gains as a Result of Supplemental Educational Services

When the Padgett ES teachers and principal were asked about whether they had observed students making any other gains, such as in their learning behaviors or self-efficacy, they were just as negative as in their reports regarding students’ academic achievement. One teacher reported, “I haven’t seen any change in confidence” (Padgett ES Teacher 2, p. 6), and another teacher explained, “I had a kid who would cry every morning because he had to go” (Padgett ES Teacher 4, p. 4). Yet another teacher reported negative attitudinal outcomes she had observed, “My kids show their disdain by not wanting to go, that’s for sure” (Padgett ES Teacher 5, p. 4). Again, the principal echoed the teachers in reporting that students did not realize any gains in learning behaviors, reporting, “I don’t see a lot of behavioral changes. Not much. Nothing” (Padgett ES Principal, p. 2).

When asked about gains in learning behaviors that students realized from participating in supplemental educational services, Padgett ES teachers explained that the school was undertaking many interventions, thus it would be difficult to discern the cause of student gains. One teacher explained, “That [gains in learning behaviors] would be another shady area where you don’t know if it’s because of something that you’ve done in the classroom...” (Padgett ES Teacher 2, p. 6). Another teacher concurred, explaining, “You can’t really tell whether the students’ progress is from their classroom or the service itself” (Padgett ES Teacher 3, p. 3).

Quality of Supplemental Educational Services

The principal reported that supplemental educational services available to Padgett ES students were offered by six different external providers. His perception was that the external providers had little expertise, explaining that “they didn’t have any classroom control even though they were working with small groups. I was disappointed with their ability to manage a classroom” (Padgett ES Principal, p. 1). He reported that the providers were “often late, and that was an issue because no one was watching these children” (Padgett ES Principal, p. 3). When providers were with children, he “saw a lot of snacks and games being played” without “specific student needs being met” (Padgett ES Principal, p. 3). He found this especially upsetting because the school had “spent a boatload of money” (Padgett ES Principal, p. 3) to make these services available to students. He summed up his perspective on the value of supplemental educational services as follows:

I would rather spend \$20 an hour on a teacher who is aware of the students’ needs, aware of where they are academically and where they need to be, and can carry them through....

We waste a lot of time in the afternoons with supplemental educational services...

they're not addressing students' needs, ... according to the data we are getting back. (p. 2)

The Padgett ES teachers reported high attrition from the supplemental educational services. Padgett ES teachers had clearly built strong relationships with their students and their students' families and were frustrated that supplemental educational service providers were not building relationships with the children and yet the children were being "asked to work harder and more by someone they don't really know" (Padgett ES Teacher 1, p. 4). They agreed that providing supplemental educational services to students was a good idea in principle, but that the "timing is horrible" (Padgett ES Teacher 1, p. 7), there was "poor planning" (Padgett ES Teacher 2, p. 7), and it was "just not followed through exactly the way it needs to be" (Padgett ES Teacher 4, p. 7). Padgett ES Teacher 5 recommended a strategy for changing the timing that she believed would work better for students:

I think that it would be wonderful if there was some sort of way to get this, to get the supplemental education in those three and a half months where the kids are... to give them that structure of having two hours during the summer each day where they're reinforced in those skills that they're already struggling with... rather than making them stay an extra two hours after school every day when they've already worked for eight and they're tired. (p. 7)

In addition to expressing concerns about the poor timing of the supplemental educational services, the teachers and principal at Padgett ES were frustrated by the lack of communication from external supplemental educational services providers. The principal noted that the only contact they had with the providers was about discipline issues with students (Padgett ES Principal, p. 1). All of the teachers reported that they had never been contacted by supplemental

educational services providers. For example, one teacher stated that “there’s no communication; none at the beginning or middle or end” (Padgett ES Teacher 2, p. 3). Another teacher reported that “we haven’t communicated with any of them; they haven’t tried to contact us at all” (Padgett ES Teacher 3, p. 5). Yet another teacher talked about how she would be open to communication, explaining, “I wish that we would’ve been contacted on maybe what the child struggles with, because we don’t know what they are receiving down there [in supplemental educational services], if it’s helping them...” (Padgett ES Teacher 1, p. 3).

Recommendations for Improvement

In their recommendations for improving supplemental educational services, the Padgett ES teachers expressed their concerns about the “canned” nature of the supplemental educational services (Padgett ES Teacher 1, p. 1). The uniformity of the program meant that students who “struggle with reading... go for an extra hour and a half to work on their reading with kids who don’t have a disability” (Padgett ES Teacher 3, p. 6). The teachers believed this undermined students’ confidence rather than bolstering it. The teachers expressed an interest in writing individualized plans for tutors to work on with students, but they reported never having that as an option. For example, one teacher explained, “I wouldn’t mind writing down, well, this child’s going to tutoring, they need to work on this skill this week, they’re struggling with that. But that’s never been an option for us to do” (Padgett ES Teacher 4, p. 7).

As was the case in the other schools, communication between teachers and supplemental educational service providers was seen as critical. At Padgett ES, the failure of supplemental educational service providers to communicate with teachers led to students participating in supplemental education activities that were not related to their needs. One teacher explained:

There are a lot of kids who have a special ed service who struggle with decoding, struggle with reading, and then they're told to go for an extra hour and a half and work on their reading with kids who don't have a disability. (Padgett ES Teacher 3, p. 6)

One of the Padgett ES teachers found filling the void created by the supplemental educational service providers. She explained, "In the program, there was really no follow up, no formal assessment that I was aware of that we used – an ongoing assessment. So I was doing those things myself" (Padgett ES Teacher 2, p. 2). The Padgett ES teachers believed that the communication problem extended beyond the individual student to the broader issue of how students were selected to participate in supplemental educational services. For example, one teacher stated that there were some children "who qualify for it that don't need it, you know? But they're still told that they have to go to it. And some need it but don't qualify for it" (Padgett ES Teacher 5, p. 5). In these instances, the teachers believed that parents "want them to go just to have that extra time before they come home" (Padgett ES Teacher 1, p. 5, with others indicating agreement non-verbally), as if a supplemental educational service was a childcare service.

Recommended Measures of the Impact of Supplemental Education Services

The teachers and the principal at Padgett ES wanted evidence from external providers that students were making progress. Padgett ES Teacher 1 generally emphasized the idea of using assessments as the basis for tailoring supplemental educational services to meet the specific needs of students. She expected pre- and post-assessments to be used for demonstrating students' progress, as she explained here:

I think there definitely needs to be assessments, pre and post assessments, too, and progress reports given to the teacher to show us how they're doing on what they're working on week after week... I think there needs to be individualized plans. (p. 7)

Padgett ES Teacher 2 added “and differentiated placement” (Padgett ES Teacher 2, p. 7) to the previous comment, recommending that not only should students’ tutoring plans be individualized, but that students should be placed in particular supplemental educational programming according to their needs and the particular strength or focus of the provider. The structure they recommended aligns with public elementary teaching practice, in which individualized education programs are developed for students who have disabilities according to the Individuals with Disabilities Education Act Amendments (1997) and where differentiation of instruction is emphasized (e.g., Tomlinson, Brighton, Hertzberg, Callahan, Moon, et al., 2003).

When asked about ways to measure impact of supplemental educational services, the Padgett ES Principal wanted to use measures that the school already used, reporting, “We have a pretty good system of assessing our students and where they are because we – we monitor that constantly, and I think we’ve got a pretty good handle on it...” (Padgett ES Principal, p. 3). His comments illustrate that he was confident about the assessments the school was using and about the informative nature of the resulting data. In fact, his comments about participating students not making academic gains and in some instances falling further behind indicate that he was already using existing measures to determine whether students were benefiting from participating in supplemental educational services:

In some cases we’ve seen where they have lost ground. That is based on assessments that we are giving our students.... Some show minor [gains] but most cases its either none [i.e., no gains] or they fall back. That’s not based on their assessments [i.e., those of the supplemental educational services providers]. That’s based on our assessments of them on the ... [Mid-Atlantic State 2 standardized assessment]. (p. 2)

Cross-case Analysis

The following themes emerged through cross-case analysis: (1) variations in the outcomes students realize as a result of participating in supplemental educational services, (2) variations in the quality of supplemental educational services, (3) communication between teachers and principals and supplemental education service providers, which is viewed by teachers and principals as an indicator of quality, differs based on whether the providers are internal or external, (4) tailoring of supplemental educational services to meet particular student's needs is considered by teachers and principals as a hallmark of quality, (5) teachers and principals recommend using existing school assessments, observation, and attendance as additional measures (to those currently in use) of the impact of supplemental educational services, and (6) teachers and principals recommend increased communication, increased individualization of tutoring, certification of tutors, and changes in tutoring schedules as ways to improve supplemental educational services. Each of these themes is discussed here.

Variation in Student Outcomes as a Result of Supplemental Educational Services

The teachers in this study were varied in their reports of whether students had realized positive outcomes as a result of participating in supplemental educational services. Teachers at Fenton ES reported that their students who had participated in internally provided supplemental educational services improved academically, while students who participated in programming of the one external provider did not make academic improvements. Matthews ES teachers were divided in their views. Both Matthews ES teachers explained that any academic gains they saw could just as easily result from other strategies the school was employing, but Matthews ES Teacher 1 reported that her students increased in their confidence as a result of participating in supplemental educational services. The teachers at Wainwright ES reported that their students

who participated in supplemental educational services improved academically. The teachers at Padgett ES, however, were unanimous and unequivocal in their view that their students had not made academic gains as a result of participating in supplemental education services. Teachers at Fenton ES reported different gains for different students. For example, the Fenton ES School Improvement Coach reported gains in one student's social behaviors, organizational skills, responses to feedback, and confidence. Fenton ES Teacher 1 reported gains in another student's social behavior, strategic problem solving, motivation, and confidence. Teachers at Wainwright ES reported improvements in students' engagement, attentiveness, and confidence.

The principals in this study were varied in their reports of student outcomes as a result of participating in supplemental educational services, but not necessarily in ways that aligned well with the reports of teachers at their schools. At Wainwright ES and Padgett ES, teachers and principals agreed about student outcomes. The Wainwright ES Principal reported improvements in students' academic achievement, engagement, and confidence, similar to the reports of Wainwright ES teachers. The Padgett ES Principal expressed views similar to those of Padgett ES teachers: Students who participated in supplemental educational services had made no gains and had even fallen further behind academically. At Fenton ES, the views of the teachers and principal were similar regarding the outcomes that students realized from participating in external supplemental educational services. The Fenton ES Principal was not convinced that students made academic or other gains from participating in external services, and the positive outcomes that Fenton ES teachers reported were from their observations of students participating in internal programming. In contrast, the Matthews ES Principal was quite positive, attributing gains in school test scores to students' participation in supplemental educational services, while

Matthews ES teachers attributed these gains to the myriad strategies the school was implementing to improve students' achievement.

Variations in the Quality of Supplemental Educational Services

There appeared to be several factors that contributed to variation in teachers' and principals' reports of student outcomes: (1) whether services were provided internally or externally, (2) whether the school was employing multiple strategies for improvement, and (3) individual differences among participating students. Each of these is discussed separately.

Internal versus external provision of services. The cases in this study indicated that teachers and principals varied in their views of supplemental educational services providers depending on whether the provider was internal (teachers served as tutors) or external (services were provided by an independent company). Fenton ES, Matthews ES, and Wainwright ES had supplemental educational services provided internally, meaning that the schools' teachers were hired to tutor students. Teachers at Fenton ES, the principal at Matthews ES, and both principals and teachers at Wainwright ES reported positive outcomes of supplemental educational services. When reporting observations about lack of gains, the Fenton ES Principal and Matthews ES teachers focused on lack of gains by students participating in supplemental educational services provided externally. At Padgett ES, where students only had access to externally provided supplemental educational services, the teachers and principal consistently reported no gains as a result of supplemental educational services. Thus, variations in the quality and impacts of services may be attributable to whether the services are provided internally or externally.

Multiple strategies for school improvement in place. A confounding variable in this study was the fact that the schools were all implementing multiple educational interventions to support struggling students, only one of which was supplemental education. As many of the teachers

noted, schools that received Title 1 funding were trying many interventions simultaneously. Thus, it became difficult to attribute particular outcomes to specific interventions. For example, Matthews ES Teacher 1 reported, “In academic performance I didn’t see any growth that I didn’t think would already have occurred for her throughout the year” (Matthews ES Teacher 1, p. 2). Matthews ES Teacher 2 echoed this sentiment, explaining:

I think that’s really hard to measure because as students are improving, you know we are under a school improvement school here so we have a lot of interventions, mediation and all this going on in school. Plus our after school program. So it is really difficult to measure which or I would say a combination of all of those are improving students. (p. 1)

Teachers at Padgett ES also indicated that it was difficult to attribute student outcomes to particular interventions. As Padgett ES Teacher 3 explained, “You can’t really tell whether the students’ progress is from their classroom or the service itself” (Padgett ES Teacher 3, p. 3). The teachers at Fenton ES and Wainwright ES were comfortable reporting gains to students’ participation in supplemental educational services. Yet, when discussing particular students further, Fenton ES Teacher 2 was unsure about whether supplemental educational services was the source of the gains. She explained:

I think mine was a lot maturity, just being in this kind of atmosphere, being in a school setting. I think mine probably would have come along regardless of [supplemental educational services].... I don’t know which affected which [referring to whether supplemental educational services or classroom instruction led to students’ behavioral improvements]. (p. 3)

The principals at Matthews ES and Wainwright ES were comfortable attributing student gains to supplemental educational services. Although it is possible that teachers within the school

serving as tutors may be more effective, it is also possible that the views of these principals were influenced by other factors. For example, the Matthews ES Principal had himself benefited from supplemental educational services. He was not concerned if students did not show immediate gains as a result of supplemental educational services. Based on his beliefs about how he benefited from services, he was confident that Matthews ES students would ultimately be some benefit:

There are gains. They might not be immediate through the assessment, but when you have that one-on-one time, it's going to come out.... It will come. Getting those services... to increase my reading skills... it got me over the hump. (pp. 13-14)

Different students realizing different outcomes from supplemental educational services.

Teachers and principals in this study also indicated that different students were realizing different outcomes. At Fenton ES and Matthews ES, teachers reported differing outcomes for different students. For example, the school improvement coach at Fenton ES spoke at length about one student realizing different outcomes based on his strengths and weaknesses and the activities emphasized in his supplemental educational services programming:

With the little student that I worked with, he is autistic and so I did notice a difference in how he related was able to relate to me.... He started out very reluctant to be... connected in a personal way.... I think that he maybe was a little bit more socialized in the classroom. Getting started and organizing himself.... We did work on that. That did improve as far as him, ... being more focused.... Motivation... I don't know.... He's always motivated to do certain types of activities and not so much others. So I don't think lack of motivation was his problem to start with.... He's a pretty good problem solver to start with. He's a very bright little boy.... Goal setting is still a big problem for him. He

was more responsive to positive feedback in that he started to feel more confident and more proud of himself (pp. 3-5)

Her comments indicated that individual students have particular strengths and weaknesses, and that a student may already be strong in a particular skill (e.g., no need to improve metacognition), display behaviors recalcitrant to improvement (e.g., be inflexible and remain inflexible), or demonstrate improvement (e.g., start less confident and become more confident).

Importance of Communication

The teachers and principals in this study viewed good communication as a hallmark of the quality of supplemental educational services. In schools where students had access to internally provided supplemental educational services (i.e., Fenton ES, Matthews ES, and Wainwright ES), communication structures were in place. In instances where supplemental educational services were provided externally (i.e., Fenton ES, Matthews ES, and Padgett ES), teachers and principals expressed concern about lack of communication with the external supplemental educational services providers.

Regular and meaningful communication between classroom teachers and supplemental educational service providers clearly served as a foundation for designing effective programming. Good communication is necessary not only for ensuring that supplemental educational services were tailored to meet students' needs, but also for making sure that teachers and principals are aware of what students were doing during the tutoring sessions. For example, teachers at Fenton ES were not aware if their students who participated in external supplemental educational services had continued or completed the program. Even if supplemental educational

service providers furnished reports early in the program, communication was lacking or nonexistent at the midpoint or at the end of the program.

Teachers at Fenton ES, Matthews ES, and Padgett ES saw communication as necessary for ensuring that assessment data informed the development of individualized tutoring plans. This was accomplished in internally provided supplemental educational services at Fenton ES by directly involving classroom teachers in tutoring students. Yet, communication was problematic between the school and the external supplemental educational service provider. The strategy used at Wainwright ES was to establish a good communication infrastructure through establishing teams that brought stakeholders together both formally and informally. At Padgett ES, teachers were interested in offering input about students' areas of weakness to supplemental educational service providers, but the lack of any communication from providers meant they had no avenues to do so.

These cases illustrate that communication can occur in several ways. In Fenton ES, classroom teachers who served as tutors were the primary conduits for communication. Fenton ES teachers didn't need to communicate with anyone else about what skills students needed to improve because they knew from direct interaction with the child in the classroom and tutoring settings. In Wainwright ES, specific teams were responsible for leading the school improvement effort and, as a community, recognized early the critical role of fluid communication. In this study, the most substantive lack of communication was observed when external providers of supplemental educational services were involved.

Tailoring of Supplemental Educational Services as a Hallmark of Quality

Teachers and principals in this study viewed tailoring of supplemental educational services to meet particular student's needs as a hallmark of quality. In all four cases, teachers and

principals emphasized the importance of knowing students' abilities and tailoring supplemental education to address deficits in their abilities. In the cases where good communication systems were in place or the classroom teachers were the tutors who themselves were providing supplemental educational services, identifying shortcomings in students' skills and designing supplemental education accordingly was a straightforward process. In instances where supplemental education was provided by an external entity, the teachers and principals agreed that supplemental education did little to help students. The teachers reported that external supplemental educational service providers rarely asked for information that would have helped provide a context for a specific intervention. The Matthews ES and Padgett ES teachers commented on the "canned" nature of the program or stated that the tutoring might have been grade-specific, but not student-specific.

Ways to Measure Impacts of Supplemental Educational Services

Teachers and principals in this study recommended several ways to measure the impact of participation in supplemental educational services: using existing school assessments, observing students, and tracking attendance. Teachers at Fenton ES and Matthews ES emphasized the value of observing students during class. They saw observations as a way to track student progress and identify weaknesses that could be the focus of future instruction. Teachers and principals at Matthews ES, Wainwright ES, and Padgett ES expressed an interest in using existing school assessments. They saw use of these assessments as a means for collecting data on student progress in a way that was meaningful to the school and their own work. They were comfortable with these assessments and knew how to interpret the data gathered using these assessments. In addition to using school assessments, the Wainwright ES Principal mentioned attendance as a measure of impact. He believed that attendance was an indicator of how much

students cared about school and that engendering students' value of learning, which he considered one of the biggest impacts a school could have. He explained:

The easiest thing to measure would be attendance because we care about kids whether they're straight As or struggling C students, we care about them. They're going to show up for school. If we show them we care about them, our attendance is going to improve and that's an easy one to track. (p. 13)

Recommendations for Improving Supplemental Educational Services

The teachers and principals in this study recommended four strategies for improving the quality and impact of supplemental educational services, all of which aligned with the concerns they expressed about the quality of services: increased communication between schools and external supplemental educational services providers, increased individualization of programming to meet particular students' needs, certification of the people providing supplemental educational services, and changes in tutoring schedules. Each of these recommendations is discussed here.

Increased communication between schools and supplemental educational service providers. The teachers at Matthews ES and Padgett ES expressed interest in improving their communication with external supplemental educational services providers. Teachers at both schools reported that there was no mechanism in place for communication, and this meant that they had no sense of what students were doing during the program or what progress students were making. They indicated that increased communication would afford more opportunities to tailor programming to meet individual student's needs, which is discussed below.

Increased individualization of programming to meet particular students' needs. At Matthews ES and Padgett ES, where concerns were expressed about the generic nature of

supplemental educational services, there was interest in finding ways to tailor services to meet students' needs. Matthews ES Teacher 1 noted that external providers tailored services to particular grade levels, but not to meet the needs of a particular student. She recommended that services "build off from what we're actually doing, not just a general grade level kind of idea" (Matthews ES Teacher 1, p. 4). Padgett ES Teacher 4 indicated she would be very willing to correspond with a supplemental educational service provider to better tailor programming to meet students' needs. She stated, "I wouldn't mind writing down, well, this child's going to tutoring, they need to work on this skill this week, they're struggling with that..." (Padgett ES Teacher 4, p. 7). Notably, at Fenton ES where services were tailored, more positive outcomes were reported. For example, the Fenton ES School Improvement Coach reported, "Whenever he [referring to one student in supplemental educational services] was falling down on something in the class, then I would pick up on that during the tutoring. So we worked together really well. It really helped him" (Fenton ES School Improvement Coach, p. 1).

Certification of the people providing supplemental educational services. Teachers at Matthews ES and Padgett ES both expressed an interest in supplemental educational service tutors having the same certification as classroom teachers. Matthews ES Teacher 2 wanted some reassurance that providers were qualified, especially given the lack of professionalism she had seen from one provider. Padgett ES Teacher 4 suggested that certification might expand the strategies providers have available regarding classroom management and differentiation, stating, "All of them are not certified... they might not have the arsenal of things... to try" (Padgett ES Teacher 3, p. 4). The Padgett ES Principal echoed this sentiment, stating, "We ought to spend the money with the teachers ... who are qualified to teach..." (Padgett ES Principal, p. 3).

Changes in tutoring schedules. Teacher 2 at Fenton ES and the teachers at Padgett ES expressed concerns that supplemental educational services were offered at the end of the school day. This meant that students, especially those who struggled to be successful in school, were too tired to get the most out of their tutoring experience. It also meant that students who had difficulty maintaining skills during the summer had no support in doing so. Padgett ES Teacher 5 explained this recommendation:

I think that it would be wonderful if there was some sort of way to get... supplemental education in those three and a half months [referring to summer].... They're SES for a reason and then they're at home for three months and it's a tough situation; to give them that structure of having two hours during the summer each day... where they're reinforced in those skills that they're already struggling with would be helpful rather than making them stay an extra two hours after school every day when they've already worked for eight and they're tired. (p. 7)

CHAPTER 5

DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

In 2002, Congress renewed the Elementary and Secondary Education Act (ESEA) under the name of the No Child left Behind Act (NCLB). Among the requirements of the law was that schools that failed to make Adequate Yearly Progress (AYP) standards for three consecutive years were designated as “under improvement” (No Child Left Behind Act [NCLB], 2002). While under that status, schools surrendered control of several aspects of student instruction and use of Title 1 funds. For example, schools under improvement are required to set aside Title 1 funds to pay the cost of students exercising their prerogative to transfer to a school that has met the state standards (NCLB, 2002). Another option provided by NCLB that is pursued more commonly and was the subject of this study is the requirement for schools to provide access to supplemental educational services at no expense to the student (i.e., free tutoring) (NCLB, 2002). This latter option has created a cottage industry of supplemental educational service providers (tutoring companies) vying for the Title 1 dollars.

This study was designed to capture the perspectives of elementary teachers and principals regarding the gains students make as a result of supplemental educational services, the recommendations they had for measuring these gains, and the recommendations they had for improving supplemental educational services. Study sites were randomly selected from a tri-state pool of 44 schools that met the established criteria. From schools that fit the selection criteria, four (4) initial case sites were selected at random, as follows: All of the schools that met the selection criteria were assigned a number between one (1) and forty four (44), the total number of schools. The online True Random Number Service (Haahr, 2011) was used to select four schools at random, with the selected numbers indicating the selected schools. Administrators at

selected schools were contacted to inform them of the study and seek their consent to participate. If a principal accepted the invitation to participate, that school was recorded and removed from the random selection process. Most (32) of the 44 schools identified as potential sites for the study were unwilling to participate. Accordingly, if a principal or district administrator declined the invitation to participate, the school or schools affected by that decision were removed from the pool of potential case sites and the random selection process was repeated. Only data from schools in which principals and teachers agreed to participate in the study were included in the study.

All of the schools studied were in Mid-Atlantic states. Individual or group interviews with teachers and administrators were conducted at the schools. Information gathered from state departments of education, the National Center for Education Statistics, and the researcher's observations from visiting each school were used to develop four independent cases. Content analysis of the interviews revealed sets of themes that were specific to each school regarding teachers' and principals' perspectives on the impact of supplemental educational services. When the four cases were considered together in a cross-case analysis, broader themes became apparent.

Descriptive Summaries of the Case Sites

Fenton Elementary School (ES), located in a rural area of Mid-Atlantic State 1, enrolled a large proportion of students from low-income families and failed to make Adequate Yearly Progress for three of the last four years. Given the location of Fenton ES, the majority of supplemental educational programming was offered by teachers at the school. Only one external provider offered services on campus. This situation positioned Fenton ES teachers and the principal to offer unique insights about supplemental educational services. First, the teachers

knew how students were doing in class, as well as during the tutoring sessions, and could make connections between the two activities to maximize student performance. Second, the teachers and principal could compare tutoring offered by the school's teachers and the external supplemental educational service provider. Not surprisingly, they reported that teachers who tutored had a better sense of where students were academically and could tailor the additional instruction accordingly. Third, even if a particular child's teacher was not his or her tutor, the teachers who provided the supplemental services worked alongside the classroom teachers (i.e., they were part of the same faculty), which improved communication about students' needs and progress made. Thus, teachers could draw on their own and their colleagues' experiences to report specific improvements in learning behaviors of students participating in supplemental educational services. Interestingly, the principal reported, "I don't see a positive impact" (Fenton ES Principal, p. 10). She went on to explain that the test scores were where she was looking for impact and that these wouldn't reveal when a student moved from the bottom to the middle of the class in terms of achievement. She indicated that she was dissatisfied with the external provider, whose services she believed were too generic to meet particular students' needs.

Matthews Elementary School (ES) is located in rural setting in Mid-Atlantic State 1, enrolls a large proportion of low-income families, and failed to make Adequate Yearly Progress for four consecutive years. That meant that Matthews ES was on the verge of being restructured when it made AYP in the most recent year. The Matthews ES teachers and principal emphasized the value of teachers serving as tutors because they knew the children's unique needs, could tailor additional instruction accordingly, and could make connections between what was happening in class and the after-school supplemental educational services. Matthews ES also had a more sophisticated structure for communication to monitor student progress as part of a larger

school effort the principal called “professional learning communities” (Matthews ES Principal, p. 5). These communities served to bring teachers together to discuss student data and make instructional decisions accordingly. In contrast to the Fenton ES principal, the Matthews ES principal thought his students made gains across the board, although interestingly, he softened his stance when asked to give examples. It became clear that the Matthews ES principal had himself participated in supplemental educational services as a student, and he seemed willing to give the supplemental services the benefit of the doubt and seemed reasonably convinced that students would eventually show progress as a result of the intervention. Matthews ES teachers of students who participated in external supplemental educational services were more skeptical than the teachers of students who participated in internal services. Again, the teachers reported that the external services were too generic and failed to build on what students were doing in class.

Wainwright Elementary School (ES) resembles Matthews ES in that it is located in rural Mid-Atlantic State 1, enrolls a large proportion of students from low-income families, failed to make adequate yearly progress for several years, and was on the verge of being restructured. Students at Wainwright ES had access to on-site tutoring by Wainwright ES teachers. Additionally, some families drove their children 20+ miles to an external supplemental educational service provider. It was clear that a greater proportion of students at Wainwright ES sought supplemental education services from an external provider than in the two schools described above, but that the primary communication between the school and the external provider was about generating additional business rather than gathering information to target or improve instruction. The team at Wainwright ES drew a contrast between the purposes of communication from the external provider and the teachers who tutored on-site. Specifically, the principal aimed to establish a culture of communication, in which teachers, students, and

administrators were all aware of student achievement data and were brought into the loop about how to make improvements. This culture of communication was evident in the conduct of this study, as the representatives from Wainwright ES asked to be interviewed as a group.

The final school in this study was Padgett Elementary School (ES), located in Mid-Atlantic State 2. Padgett ES enrolls a slightly more ethnically diverse population than the Mid-Atlantic State 1 schools, and fewer of its students are from low-income families. Padgett ES failed to make Adequate Yearly Progress for two years but made it in the most recent year (2010). Notably, though Padgett ES is located in a rural setting, it is within an hour of a mid-size city. This relative proximity to a more concentrated population means that the students of Padgett ES have access to multiple external supplemental educational service providers. There are no internal programs comparable to those that are offered in the first three case sites. The principal and all five teachers interviewed from Padgett ES reported negative experiences with, and negative views of, the supplemental educational service providers. All reported that communication with external providers was minimal or non-existent and, when it did occur, was about issues such as discipline. The principal and the teachers expressed concern about the qualifications and expertise of the external providers. The principal was especially concerned, given the amount of money spent on external supplemental educational services. The Padgett ES teachers noted that it was difficult to attribute student gains to specific interventions because the school was implementing so many interventions in an effort to improve student achievement.

Summary of Results from the Cross-case Analysis

When data from the four schools were considered in a cross-case analysis, the following themes emerged: (1) students realized varying outcomes as a result of participating in supplemental educational services, (2) supplemental educational services varied in their

perceived quality depending on whether the providers were internal or external, (3) teachers and principals viewed communication with supplemental educational service providers as an indicator of their quality, (4) teachers and principals viewed tailoring of supplemental educational services to meet particular student's needs as a hallmark of their quality, (5) teachers and principals recommended using existing school assessments, observation, and attendance as measures of the impact of supplemental educational services, and (6) teachers and principals recommended increased communication, increased individualization of tutoring, certification of tutors, and changes in tutoring schedules as ways to improve supplemental educational services.

Results from this study indicate that teachers and principals are seeing students make academic gains as a result of supplemental educational services, but that was not true of all students. The results show that teachers and principals are seeing students improve their learning behaviors and self-efficacy as a result of participating in supplemental educational services, but again, not all students are making these gains. Teachers and principals reported several factors that they perceived as influencing whether students realized gains from supplemental educational services: whether services were provided internally or externally and whether services were tailored to meet students' needs. Teachers and principals viewed communication between classroom teachers and supplemental educational service providers as critical to ensuring that programming was designed to address student weaknesses. Internal supplemental educational services providers were better positioned to ensure good communication that led to tailoring of services and ultimately to consistent reports of improvements in learning behaviors and academic achievement.

Figure 2 displays a revised version of the model proposed at the outset of this study. Specifically, students who are low achievers are eligible for supplemental educational services.

When the services are provided internally, improved learning behaviors are observed. If improved academic achievement is also observed, the student completes the program and is no

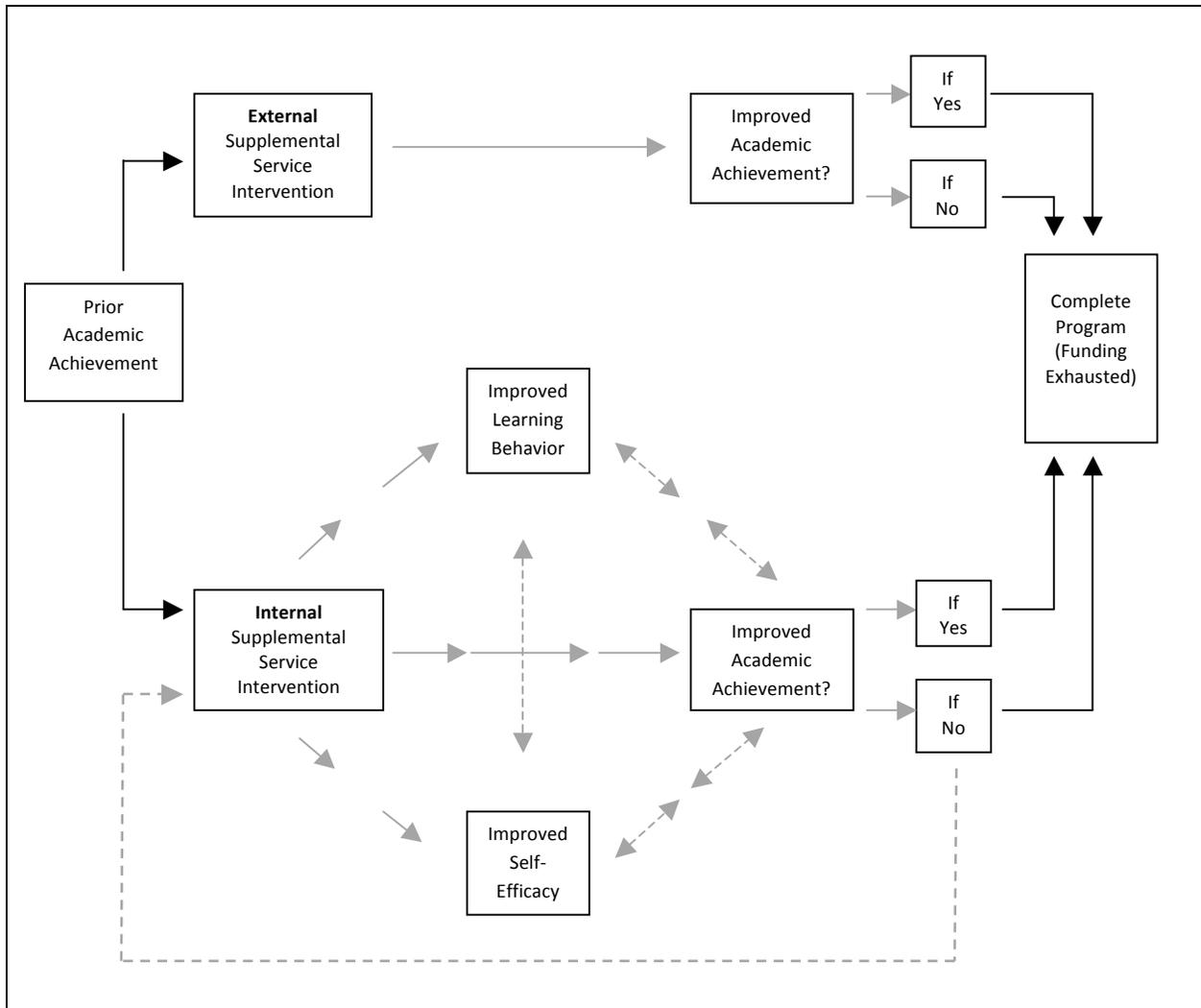


Figure 2. Revised predictors of academic achievement related to supplemental educational services. Results from this study are consistent with the interpretation that supplemental educational services can improve learning behavior and self-efficacy. However, this was not always the case. Internal programs allow for ongoing communication and greater awareness of the unique needs of each student. External providers of supplemental educational services did not appear to have the capacity to tailor interventions to meet specific student needs, resulting in no evidence of improved student self-efficacy or improved learning behavior. Eventually, in either case the funding ends, and no additional supplemental services are provided to the student, regardless of outcomes.

longer in need of services. If improved academic achievement is not observed, internal providers can (and did) revisit strategies with the student’s teacher and adjust the nature of the intervention

based on the emerging or evolving needs of a particular student. In instances where students participate in services offered by external providers, improvements in learning behaviors or academic achievement are generally not observed. The absence of communication between classroom teachers and external providers impedes tailoring of services to meet students' needs, and thus there are no opportunities for altering programming to increase the likelihood of success. Regardless, the student completes the program because the duration of the intervention is limited by available funding, although this was not the focus of this study (see Figure 2).

Conclusions Related to the Research Questions

This study was designed to explore how students may benefit from participating in supplemental educational services in ways other than academic achievement, but that could lead to eventual academic achievement. Specifically, data were collected to document the extent to which students improve in their learning behaviors and self-efficacy. Perceptions of teachers and principals were sought because of their unique and enduring interactions with students and their ability to assess how programs such as those delivered by supplemental educational services affect students.

Student Outcomes as a Result of Participating in Supplemental Educational Services

The major theme that emerged from this research was that there is variation in whether students realize gains other than academic achievement, but that these gains were observed by teachers and principals only in schools where supplemental educational services were provided internally rather than externally. These results are consistent with the interpretation that internal supplemental educational programming was of higher quality because the service providers communicated more with classroom teachers or were themselves classroom teachers. Good communication enhanced the tailoring of services to meet particular students' needs, which led

to gains in the areas that were the focus of services. In all four cases, teachers and principals expressed concern about the generic nature of services available from external providers. Generic services were seen as having less impact and being of lesser quality than tutoring based on individual student data or a teacher's extensive experience working with a particular student.

According to the teachers and principals in this study, another source of variation in the gains students made was the students' own individual strengths and weaknesses. For example, one teacher explained that her student was bright and already capable of strategic problem solving, but was not confident in his academic abilities. Perhaps because of this perspective, she saw the greatest improvement in his self-confidence. Another teacher described her student as inflexible in his approach to academics and stated that he did not change this aspect of his behavior as a result of supplemental educational services. Thus, seeking input from teachers and principals about outcomes of supplemental educational services was useful for identifying student gains that may not otherwise have been observable in school- or district-wide assessments.

Teachers and principals raised concerns about whether external supplemental educational service providers were trained, certified, or experienced. This is in contrast to the qualifications of the internal providers, who were classroom teachers. In one school, a teacher commented that the teachers who provided supplemental services in the most recent year were a particularly talented group, and that this was important to the gains realized by the students. Not surprisingly, in instances where teachers and principals believed the tutoring was of good quality, they reported improvements in students' learning behaviors and self-efficacy.

It was clear throughout this study that the ability to tailor supplemental services to meet students' needs and fluid communication go hand-in-hand. In other words, designing education

services to meet particular students' needs is not possible unless there are mechanisms in place for communication between teachers and providers about those needs. The cases in this study are particularly useful for illustrating this relationship because they fall along a spectrum of communication (or lack thereof). In cases where communication was open and frequent, tutoring was tailored to meet students' needs. Yet, there was no single approach that was uniquely effective for fostering communication. One school was home to teachers who themselves were tutors, and no additional communication was necessary. Two other schools had infrastructures in place to facilitate communication on-site, but these mechanisms did not extend to the external supplemental educational services. This meant that the on-site tutoring by teachers was seen as tailored and effective, but the off-site services were seen as generic and ineffective. In Padgett Elementary School, on-site services were only available through external providers. Even though these services were on-site, there was no productive communication between school personnel and the external providers. In this instance, the teachers and principal perceived supplemental educational services as ineffective and even counterproductive.

The teachers and principals in this study raised questions about whether it is possible to attribute student gains to supplemental educational services alone. In the four schools in this study, multiple interventions were being employed simultaneously for school improvement. Although some teachers and principals were willing to draw a direct connection between supplemental educational services and student outcomes, others were more hesitant, explaining that they were not sure which of the many programs they had in place were the most important influences on students' achievement.

Teacher and Principal Recommendations for Measures of Student Outcomes

One goal of this study was to gather input from principals and teachers about how to measure outcomes beyond immediate academic achievement that students may realize as a result of participating in supplemental educational services. Results indicate several ways that the impacts of supplemental educational services can be documented. Specifically, teachers and principals recommended using existing school assessments, observation, and attendance as measures of the impact of supplemental educational services. These assessments are well aligned with the everyday practice of teachers and schools.

A suggestion offered by multiple teachers was the idea of observing students doing their work, a performance measure. Teachers observe students on a daily basis to track their progress, identify areas for improvement, and, ideally, tailor instruction accordingly. Performance measures have been recommended for providing more authentic insight into students' abilities than multiple-choice tests, but have been criticized (Ross, 2005) for being time and resource consuming. In other words, performance-based testing is considered to be cost-prohibitive because it requires testing to be done in person by trained professionals. One approach that has been suggested is to subsample by carefully observing a selected subset of students that represent the broader population.

Schools already employ assessments with which they are familiar and which teachers and principals in this study believed met their needs. Most teachers in this study were satisfied with current assessments, especially the benchmark assessments in Mid-Atlantic State 1, and had difficulty conceptualizing or offering alternative measures that could indicate that a seed for greater academic success in the future had been planted. Because existing assessments were viewed as useful, there was interest in focusing on them to document both the short- and long-term impacts of supplemental educational services. Attendance as a measure of impact was only

suggested by the principal at Wainwright Elementary School. This recommendation was indicative of his belief that, if students thought school personnel cared about them, they would come to school, and if they came to school, they would learn.

The teachers in this study were confident that they knew what their students could do and what their deficiencies were. They believed that, if they used those data already available formatively, which the Mid-Atlantic State 1 schools did in the supplemental educational services they provided on-site, that would be sufficient to help students improve. Thus, the problem was not perceived to be the assessments, but rather, the failing of external supplemental educational service providers to adequately assess individual student needs and therefore not specifically address each student's shortcoming was the great issue.

Recommendations for Improvement of Supplemental Educational Services

The teachers and principals in this study made several recommendations for improving supplemental educational services that aligned with their concerns. Specifically, they suggested that supplemental educational service providers communicate regularly with classroom teachers, who could provide an accurate report of students' strengths and weaknesses. Service providers could then use this information to tailor programming to meet students' needs. A second recommendation was that supplemental educational services be tailored to meet the needs of individual students. Teachers and principals expected programming to be more specific than just aligned with a student's grade level. They expected service providers to use interventions that were designed to address particular areas of weakness and to address students according to their strengths and weaknesses, rather than by grade level. Teachers and principals also recommended restructuring the timing of supplemental educational services programming so that it was offered at times when students were less tired (i.e., Saturdays rather than after a full day of school) or

needed additional academic structure (i.e., summer). Teachers and principals also recommended that external supplemental educational service providers be properly trained and certified. They thought that certification would not only ensure the quality of services but would also equip service providers with a broader arsenal of instructional strategies to better serve students, such as better classroom management and more differentiation of instruction.

Recommendations for Further Research

One of the most compelling areas for future research that emerged from this study relates to the efficacy of internal versus external supplemental educational programs. Teachers and principals in this study argued that internal providers were better positioned to tailor tutoring to meet student needs. More than one teacher and administrator expressed distress over the generic nature or diffuse approach of the supplemental educational services offered by external providers. Internal providers were better positioned to communicate with teachers of participating students and, when appropriate, administrators. Communication with external providers, or lack thereof, was perhaps the most frequently cited frustration. Teachers' and administrators' perceptions of these issues were likely exacerbated by external providers only present for tutoring sessions and the lack of evidence of collaboration with teachers, administrators, or children. Further research is needed to address specifically the question of whether internal versus external providers offer higher quality programming and the extent to which participation in internal versus external programming leads to improvements in students' learning behaviors, self-efficacy, and academic achievement.

In this study, internal services were clearly preferred by teachers and administrators. When teachers and principals discussed the positive outcomes of supplemental educational services, they referred to programming provided internally (i.e., by teachers on staff at the

school). When they reported problems with communication or concerns about the quality of services, they referred to programming provided externally (i.e., by a company or organization not otherwise affiliated with the school). One interpretation of these results is that when teachers are tutors, the quality of the supplemental instruction is better and the students realize positive outcomes. Conversely, when external supplemental educational service providers are tutors, the effect of tutoring is not as good, and the students fail to realize gains and may even fall further behind. Alternatively, teachers and principals may be biased in favor of their colleagues working as tutors. Internal services were provided by teachers at the schools, who were not only colleagues but also likely to be friends. It is important to better understand the extent to which the nature of teachers' and administrators' personal confidence and familiarity with internal supplemental educational service providers influences their perceptions of the quality and impacts of programming. Another alternative interpretation is that teachers and administrators are biased against the companies that provide supplemental educational services. Further research is needed to identify and characterize any biases school personnel may have against external providers of supplemental educational services, and how these biases, or lack of confidence and familiarity, might influence their interpretations of the quality and impact of services. Yet another interpretation is that in schools where teachers are tutors, the principal and teachers report positive outcomes because it is in their self-interest. For example, many of the communities eligible for supplemental services are under significant financial stress. The principal could be aware of the financial benefit afforded teachers as a result of providing supplemental service in-house. Further study of the impact of supplemental educational services in schools where tutoring is provided on-site by regular teachers, or by both regular teachers and

external providers, is needed to more clearly understand the actual or perceived variation in student academic improvement.

Each of the cases in this study was located in a rural community in the Mid-Atlantic region. Thus, such situational factors as demographics of the school populations, school size, and availability of resources were similar. An important next step for research is to investigate whether the themes identified in and across these cases are apparent in urban and suburban areas and in other regions of the United States. The larger populations of urban and suburban areas would presumably attract and support more external supplemental educational service providers. It is possible that a larger market would encourage greater competition, which would lead to the survival of providers that deliver better service and yield superior outcomes. For example, in an effort to out-compete other providers, one might make greater efforts to tailor services to meet client needs or offer more regular and informative communication. It is also possible that a larger market and increased competition could prompt providers to simply offer more incentives that do not necessarily lead to positive student outcomes, such as the laptops as rewards for completion of supplemental educational service programs. Indeed, in the case of Padgett Elementary School, the availability of more external providers seemed to lead to greater dissatisfaction among school personnel than was apparent in the cases where internal providers were available (Fenton, Matthews, and Wainwright Elementary Schools). Further research is needed to determine if dissatisfaction with external providers is simply a by-product of being in a remote location and the lack of competition among supplemental educational service providers.

Further research is needed to understand the relationship between the disposition of school administrators toward the supplemental educational service providers and the efficacy of the supplemental educational programming. In this study, the principals at Matthews and

Wainwright Elementary Schools thought highly of supplemental educational services, the principal at Fenton Elementary expressed significant suspicion of both the competency and motivation of the external providers, and the principal at Padgett Elementary was clearly hostile to the providers. It is important to understand which came first: suspicion, distrust, or hostility of the lead administrator or the under-satisfying outcomes. It is important to understand the relationships among principal perceptions of the benefits of supplemental educational services, the quality of these services, and the gains made by participating students. Results of such research would yield insights into whether principal perceptions are a reasonable estimate of the quality and impact of supplemental educational services.

It would be worthwhile to investigate the relationship between the non-profit status of external supplemental educational service providers and teacher and principal perceptions of their quality. As was seen in this study, the for-profit status of external supplemental educational service providers calls into question their motives, specifically, whether the interest is solely in profit making or in what is best for the child. To what extent do teacher and principal perceptions of for-profit companies' involvement in supplemental education play a role in their assessment of the quality of services or other factors that lead to positive student outcomes from participating in supplemental educational programming?

Recommendations for Practice

Although further research is needed to better understand the relationships among the source of supplemental educational services (internal versus external), the quality of services (including communication and tailoring), and student outcomes, the following recommendations for practice are supported by the results of this study.

First, trained, certified, experienced teachers should be hired whenever possible to conduct tutoring. These individuals have the expertise necessary to diagnose student weaknesses and design responsive instruction. Supplemental educational service providers should also establish training and certification requirements to ensure all staff are properly trained to deliver high quality services.

Second, structures should be in place to support communication between supplemental educational service providers and classroom teachers. In instances where a school's teachers are providing tutoring, this communication is a routine part of the academic day. In places where external providers are involved, communication structures need to be instituted formally. For example, supplemental educational service providers should seek input from classroom teachers at the outset of programming to develop an understanding of students' needs. Then, student progress should be tracked and reported back to teachers and principals so that they have evidence of student progress and can provide additional feedback about how to tailor programming as students' needs change.

Third, supplemental educational programming should be tailored to meet the needs of individual students. Grade-level specificity is not sufficient, as students in the same grade level can be high achieving in one skill and low achieving in another skill. The specific programming in which a student participates should be designed to address their areas of weakness. In addition, if students must work in groups with a tutor, groups should be generated according to skill level rather than grade level. External supplemental educational service providers should seek regular input from classroom teachers as the basis for tailoring programming.

Fourth, further measures should be explored for documenting the outcomes of participating in supplemental educational services. Specifically, observations should be

conducted to identify changes in the learning behaviors and self-efficacy of students participating in supplemental education services. In addition, school assessments should be used whenever possible to track student progress as a result of participating in supplemental educational programming.

Finally, options for restructuring the timing of supplemental educational programming should be explored. Options that should be considered are scheduling programming on weekends rather than after school, and summer, when students would benefit from support that helps them maintain academic skills, productive learning behaviors and a greater sense self-efficacy into the next school year.

REFERENCES

- Allington, R. L. (2006). *What really matters for struggling readers: Designing research-based programs*. Boston: Pearson Education.
- Ascher, C. (2006). NCLB's Supplemental Educational Services: Is this what our students need? *Phi Delta Kappan*, 88, 136-141.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A., & Cervone, D. (1986). Differential engagement of self-reactive influences in cognitive motivation. *Organizational Behavior and Human Decision Processes*, 38, 92-113.
- Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology*, 41, 586-598.
- Barnhart, M. K. (2009). *The impact of participation in supplemental educational services (SES) on student achievement: 2007-2009* (Research and Planning No. 2009-04). Los Angeles: Los Angeles Unified School District.
- Bathon, J. M., & Spradlin, T. E. (2007). *Outcomes of the school choice and supplemental educational services provisions of NCLB*. Bloomington, IN: Center for Evaluation & Education Policy.
- Beane, J. A. (1994). Cluttered terrain: The schools' interest in the self. In T. M. Brinphaupt & R. P. Lipka (Eds.), *Changing the self: Philosophies, techniques, and experiences*. SUNY Series: *Studying the self* (pp. 69-71). Albany: State University of New York Press.

- Belfield, C. R., & d'Entremont, C. (2005). Privatization after school: Will disadvantaged students benefit from a free market in supplemental educational services? *American School Board Journal*, 192, 28-31.
- Berliner, D. C., & Biddle, B. J. (1995). *The manufactured crisis: Myth, fraud, and the attack on America's public schools*. Reading, MA: Addison-Wesley.
- Birrell, H. V., Phillips, C. J., & Stott, D. H. (1985). Learning style and school attainment in young children. *School Psychology International*, 6, 207-218.
- Blitzer, W., Duncan, A., & Bennett, B. (2010, March 10). *The state of U.S. education* [Online video interview]. Retrieved June 10, 2010, from the CNN.com News Archive Web site: [http://www.cnn.com/video/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+rss%2Fcnn_freevideo+\(RSS%3A+Video\)#/video/politics/2010/03/09/sot.duncan.bennett.tsr.cnn](http://www.cnn.com/video/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+rss%2Fcnn_freevideo+(RSS%3A+Video)#/video/politics/2010/03/09/sot.duncan.bennett.tsr.cnn)
- Bloom, S. (1976). *Peer and cross-age tutoring in the schools: An individualized supplement to group instruction*. Washington, DC: National Institute of Education.
- Burch, P. (2007). *Supplemental educational services under NCLB: Emerging evidence and policy issues*. Boulder, CO: Education Policy Research Unit, University of Colorado.
- Burch, P., Steinberg, M., & Donovan, J. (2007). Supplemental educational services and NCLB: Policy assumptions, market practices, and emerging issues. *Educational Evaluation and Policy Analysis*, 29, 115-133.
- Carver, C. S., & Schreier, M. F. (1981). *Attention and self-regulation: A control theory approach to human behavior*. New York: Springer-Verlag.
- Center on Education Policy. (2006). *From the capital to the classroom: Year 4 of the No Child Left Behind Act*. Washington, DC: Author.

- Center on Education Policy. (2007). *State implementation of supplemental educational services under the No Child Left Behind Act. A report in the series, From the capital to the classroom: Year 5 of the No Child Left Behind Act.* Washington, DC: Author.
- Chappell, S. L. (2010). A meta-analysis of supplemental educational services provider effects on student achievement. *Dissertation Abstracts International*, 71 (01) (UMI No. 3391760)
- Cohen, L., Manion, L., & Morrison, K. (2000). *Research methods in education.* London: Routledge Falmer.
- Darling-Hammond, L. (2007). Evaluating “No Child Left Behind.” *The Nation*, May 2, 2007. Retrieved June 10, 2010, from <http://www.thenation.com/article/evaluating-no-child-left-behind>
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior.* New York: Plenum.
- Edwards, C. (2004). *Reagan’s small-government vision.* Retrieved June 10, 2010 from the Cato Institute Web site: http://www.cato.org/pub_display.php?pub_id=4181
- Elementary and Secondary Education Act of 1965, Pub. L. No. 89-10, 79 Stat. 27 (1965).
- Elmer, N. (2001). *Self-esteem: The costs and causes of low self-worth.* York, England: Joseph Rountree Foundation.
- Gewertz, C. (2010). Little progress seen in student results on reading NAEP. *Education Week*, 29, 6.
- Goals 2000: Educate America Act, H.R. 1804, 103d Cong., 2nd Sess. (1994).
- Goslin, D. A. (1967). *Criticism of standardized tests and testing.* Washington, DC: U.S. Department of Health, Education, and Welfare, Office of Education.

- Government Accountability Office. (2006). *No Child Left Behind: Education actions needed to improve local implementation and state evaluation of supplemental educational services* (GAO-06-758). Washington, DC: Author.
- Haahr, M. (2011). *True random number generator*. Retrieved January 16, 2011, from <http://www.random.org/>
- Harper, C., & deJong, E. (2004). Misconceptions about teaching English Language Learners. *Journal of Adolescent and Adult Literacy, 48*, 152-162.
- Harper, G. F., Guidubaldi, J., & Kehle, T. J. (1978). Is academic achievement related to classroom behavior? *The Elementary School Journal, 78*, 203– 207.
- Hattie, J. (1992). *Self-concept*. Hillsdale, NJ: Erlbaum.
- Heinrich, C. J., Meyer, R. H., & Whitten, G. (2010). Supplemental educational services under No Child Left Behind: Who signs up and what do they gain? *Education Evaluation and Policy Analysis, 32*, 273-298.
- Henrico County Public Schools. (2009). *Supplemental educational services: A guidebook for free tutoring opportunities for eligible students*. Henrico, VA: Author.
- Individuals with Disabilities Education Act Amendments of 1997, Pub. L. No. 105-17 (1997).
- Kasmin, M. S., & Farmer, G. L. (2006). The promise of supplemental educational services: Is the policy failing? *Children and Schools, 28*, 181-185.
- Keogh, B. K., & Becker, L. D. (1973). Early detection of learning problems: Questions, caution, and guidelines. *Exceptional Children, 39*, 5–11.
- Kreiser, J. (2006). *Too much testing? Critics: Federal law overemphasizes standardized tests*. Retrieved June 10, 2010, from the CBS News Web site: http://www.cbsnews.com/stories/2006/04/04/cbsnews_investigates/main1472010.shtml

- Linn, D. (2002). *NCLB: Interview with Lisa Graham Keegan about AYP*. Retrieved June 10, 2010, from the National Governors Association Web site: <http://www.nga.org/portal/site/nga/menuitem.9123e83a1f6786440ddcbeeb501010a0/?vgnextoid=9421303cb0b32010VgnVCM1000001a01010aRCRD>
- Locke, E. A., Cartledge, N., & Knerr, C. (1970). Studies of the relationship between satisfaction, goal-setting, and performance. *Organizational Behavior and Human Performance*, 5, 135-158.
- Maykut, P., & Morehouse, R. (1994). *Beginning qualitative research: A philosophic and practical guide*. Washington, DC: Falmer Press.
- McDermott, P. A. (1984). Comparative functions of preschool learning style and IQ in predicting future academic performance. *Contemporary Educational Psychology*, 9, 38-47.
- McDermott, P. A., & Beitman, B. S. (1984). Standardization of a scale for the study of children's learning styles: Structure, stability, and criterion validity. *Psychology in the Schools*, 21, 5-14.
- McDermott, P. A., Leigh, N. M., & Perry, M. A. (2002). Development and validation of the preschool learning behaviors scale. *Psychology in the Schools*, 39, 353-365.
- McDermott, P. A., Mordell, M., & Stoltzfus, J. C. (2001). The organization of student performance in American schools: Discipline, motivation, verbal learning, and nonverbal learning. *Journal of Educational Psychology*, 93, 65-76.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.
- Mid-Atlantic States Departments of Education Web Sites, 2011.

- Miller, R. F. (2009). *The effects of supplemental educational services on student achievement*. Glassboro, NJ: Rowan University.
- Miners, Z. (2007, May). SES effectiveness is a matter of debate. *District Administration*, 43, 18.
- National Commission on Excellence in Education. (1983). *A Nation at Risk: The Imperative for Educational Reform. A Report to the Nation and the Secretary of Education United States Department of Education*. Washington, DC: U.S. Department of Education.
- National Defense Education Act of 1958, Pub. L. No. 85-864, 85 Stat. (1958).
- National Governors Association. (1998). *Social indicators and public policy in the age of devolution*. Washington, DC: Author.
- No Child Left Behind Act of 2001, Pub. L. No. 107-110, 115 Stat. 1425 (2002).
- Peterson, B., & Neill, M. (n.d.). Alternatives to standardized tests. Retrieved June 10, 2010, from http://www.rethinkingschools.org/restrict.asp?path=archive/13_03/assess.shtml
- Pinkerton, E., Kober, N., Scott, C., & Buell, B. (2003). *Implementing the No Child Left Behind Act: A first look inside 15 school districts in 2002-2003*. Washington, DC: Center on Education Policy.
- Pressley, M., Borkowski, J. G., & Schneider, W. (1987). Cognitive strategies: Good strategy users coordinate metacognition and knowledge. *Annals of Child Development*, 4, 89-129.
- Rector and Visitors of the University of Virginia. (2010). Lyndon Baines Johnson Front page. *American President, An Online Reference Resource*. Retrieved June 10, 2010, from <http://millercenter.org/academic/americanpresident/lbjohnson/essays/biography/4>
- Rickles, J. H., Barnhart, M. K., & Gualpa, A. S. (2008). *Five years of supplemental educational services in LAUSD: Participation and impact on student achievement*. (Report No. 2008-03). Los Angeles, CA: Organizational Support and Accountability Office.

- Ross, S. M. (2005). *Evaluating supplemental educational service providers: Suggested strategies for states*. Memphis, TN: Center of Research in Educational Policy, University of Memphis.
- Ross, S. M., Potter, A. P., & Harmon, J. (2006). *Evaluating supplemental educational service providers: Suggested strategies for states* (2nd ed.). Washington, DC: Center for Research in Educational Policy, American Institutes for Research, Academic Development Institute.
- Schiefele, U., Krapp, A., & Winteler, A. (1992). Interest as a predictor of academic achievement: A meta-analysis of research. In K. A. Renninger, S. Hidi, & A. Krapp (Eds.), *The role of interest in learning and development* (pp. 183-207). Hillsdale, NJ: Lawrence Erlbaum.
- Schunk, D. H. (1984). The self-efficacy perspective on achievement behavior. *Education Psychologist, 19*, 119-218.
- Schunk, D. H. (1989). Social cognitive theory and self-regulated learning. In B. J. Zimmerman & D. H. Schunk (Eds.), *Self-regulated learning and academic achievement: Theory, research, and practice* (pp. 83-110). New York: Springer Verlag.
- Seligman, M. E. P. (1993). *What you can change and what you can't: The complete guide to successful self-improvement*. New York: Fawcett.
- Smith-Hughes National Vocational Education Act of 1917, Pub. L. No. 64-347; 39 Stat. 929 (1917).
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage Publications.
- Stephens, D. (1983-1984). President Carter, the Congress, and the NEA: Creating the Department of Education. *Political Science Quarterly, 98*, 641-663.

- Stevenson, H. W. (1992). Con: Don't deceive children through a feel good approach. What's behind self-esteem programs: Truth or trickery? *School Administrator*, 49, 23, 25, 27, 30.
- Stinnett, T. A., Havey, J. M., & Oehler-Stinnett, J. (1994). Current test usage by practicing school psychologists: A national survey. *Journal of Psychoeducational Assessment*, 12, 331-350.
- Stott, D. H., Green, L. F., & Francis, J. M. (1983). Learning style and school attainment. *Human Learning*, 2, 61-75.
- Stott, D. H., McDermott, P. A., Green, L. F., & Francis, J. M. (1988). *Learning Behaviors Scale and Study of Children's Learning Behaviors: Research edition manual*. San Antonio, TX: Psychology Corporation.
- Stout, M. (2000). *The feel-good curriculum: The dumbing down of America's kids in the name of self-esteem*. Cambridge, MA: Perseus Books.
- Stover, D., & Hardy, L. (2008). Read this: As tutoring becomes a billion dollar industry, are you doing what it takes to make a difference for your students? *American School Board Journal*, 195, 14-19.
- Stullich, S., Eisner, E., McCray, J., & Roney, C. (2006). *National assessment of Title I interim report: Volume I—Implementation of Title I*. Washington, DC: U.S. Department of Education, Institute of Education Sciences.
- Tomlinson, C. A., Brighton, C., Hertberg, H., Callahan, C. M., Moon, T. R., Brimijoin, K., Conover, L. A., & Reynolds, T. (2003). Differentiated instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: A review of literature. *Journal for the Education of the Gifted*, 27, 119-145.

- U.S. Department of Education. (2002). *Executive summary: The No Child Left Behind Act of 2001*. Washington, DC: U.S. Department of Education.
- U.S. Department of Education. (2010). *The federal role in education*. Retrieved June 10, 2010, from <http://www2.ed.gov/about/overview/fed/role.html>
- Valentine, J. C., DuBois, D. L., & Cooper, H. (2004). The relation between self-beliefs and academic achievement: A meta-analytic review. *Educational Psychologist, 39*, 111–133.
- Vergari, S. (2007). Federalism and market-based education policy: The supplemental educational services mandate. *American Journal of Education, 113*, 311-341.
- Virginia Department of Education. (2010). *Adequate yearly progress (AYP) report*. Retrieved August 30, 2010, from http://www.doe.Virginia.gov/statistics_reports/accreditation_ayp_reports/ayp/index.shtml
- Weinstein, C. E., Goetz, E. T., & Alexander, P. A. (1988). *Learning and study strategies: Issues in assessment instruction and evaluation*. San Diego, CA: Academic Press.
- Wilson, M. S., & Reschly, D. J. (1996). Assessment in school psychology training and practice. *School Psychology Review, 25*, 9-23.
- Wisconsin Center for Education Research. (2007). Supplemental educational services under NCLB: Emerging evidence and policy issues. Retrieved June 10, 2010, from http://www.wcer.wisc.edu/news/coverstories/SES_under_NCLB.php
- Yen, C.-J., Konold, T. R., & McDermott, P. A. (2004). Does learning behavior augment cognitive ability as an indicator of academic achievement? *Journal of School Psychology, 42*, 157-169.
- Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage.

Ysseldyke, J., Lehr, C. A., & Bulygo, A. S. (2008.) Supplemental educational services:

Implications for students with disabilities. *Remedial and Special Education, 29*, 333-342.

Zehr, M. A. (2008, July 16). States struggle to meet achievement standards for ELLs. *Education Week, 27*, 4.

Zimmer, R., Gill, B., Razquin, P., Booker, K., & Lockwood III, J. R. (2007). *State and local implementation of the No Child Left Behind Act: Volume I—Title I school choice, supplemental educational services, and student achievement*. Report to the U.S. Department of Education, Office of Planning, Evaluation and Policy Development.

Zimmer, R., Hamilton, L., & Christina, R. (2010). After-school tutoring in the context of No Child Left Behind: Effectiveness of two programs in the Pittsburgh Public Schools. *Economics of Education Review, 29*, 18-28.

Zimmerman, B. J. (1986). Development of self-regulated learning: Which are the key subprocesses? *Contemporary Educational Psychology, 16*, 307-313.

Zimmerman, B. J. (1990). Self-regulating academic learning and achievement: The emergence of a social cognitive perspective. *Educational Psychology Review, 2*, 173-201.

Zimmerman, B. J., Bandura, A., & Martinez-Pons, M. (1992). Perceptions of efficacy and strategy use in the self-regulation of learning. In D. H. Schunk & J. Meese (Eds.), *Student perceptions in the classroom: Causes and consequences* (pp. 663-676). Hillsdale, NJ: Erlbaum.

Zimmerman, B. J., & Martinez-Pons, M. (1986). Development of a structured interview for assessing student use of self-regulated learning strategies. *American Educational Research Journal, 23*, 614-628.

APPENDICES

Appendix A

Search Terms

Searches were conducted for terms that included: No Child Left Behind Act, federal government involvement in K-12 education, the Great Society, National Education Defense Act, U.S. Department of Education, Elementary and Secondary Education Act, Goals 2000, Contract With America, National Governors Association, federal government and oversight of programs, federal government and outsourcing, federal government and programmatic accountability, Supplemental Educational Services Quality Center, effectiveness of supplemental educational services, supplemental educational services and student achievement, supplemental educational services and academic achievement, supplemental educational services and educational achievement, supplemental educational services and student motivation, supplemental educational services and metacognition, supplemental educational services and metacognitive prompts, supplemental educational services and student self-efficacy, supplemental educational services and indicators of future academic achievement, supplemental educational services and student interest, supplemental educational services and student self-esteem, supplemental educational services and emotional indicators of achievement, supplemental educational services and non-cognitive indicators of achievement, supplemental educational services and executive function, executive function and academic achievement, self-efficacy and student achievement, non-cognitive indicators of achievement, metacognitive prompts and achievement, self-esteem and achievement, predictors of academic achievement, indicators of academic achievement, motivational indicators of academic achievement, indicators of future academic achievement,

meta-analysis of predictors of student achievement, and emotional indicators of academic achievement.

Appendix B

Interview Protocol for Both Principals and Teachers

Hello, my name is Dan Dolan, and I am a doctoral Student at Virginia Tech. Today is (date) _____ and it is (time) _____. I've asked you to talk with me today because I am interested in your perspective as a principal (teacher) in a school that is providing supplemental educational services to some of its students. In particular, I hope that through our conversation today, I will gain a greater understanding of the impact of supplemental services on your students.

This interview should take approximately 45 - 60 minutes. As you might remember from the informed consent form, I'd like to tape this interview so that my information is as accurate as possible. And just as a reminder, I can assure you of confidentiality -- not only will your identity be coded, but the school and state will be coded, as well. The state, school, or you will never be identified by name in this study. You are not required to answer any questions, and you are welcome to stop the interview and leave at any time.

Do I have your permission to tape this interview?

Are you ready to begin?

1. How do you know if a supplemental educational service provider is doing a good job or having the desired impact with a student?
2. How many providers are active in the building?
 - 2a. Probe: One? Two? Five? Ten?
3. Have you worked for a supplemental educational service provider?
4. If so, what is your opinion of the quality of services provided to students?

- 4a. Probe: Has your experience working for a provider affected your opinion of supplemental educational services?
- 4b. Probe: If so, how?
5. Within the past year, how many times have you been contacted about one of your students receiving supplemental educational services by providers of those services?
- 5a. Probe: Have you ever been contacted for any other reasons by supplemental educational service providers?
6. How did these contacts affect your opinion of the services provided to your students?
7. What supplemental educational services have your students received in the past or are they receiving now?
8. Tell me about any changes in the academic performance in subjects that have been the target of supplemental educational services since those services began.
- 8a. Probe: Have you been able to reduce other services provided to the student as a result of his or her participation in supplemental educational services (e.g., in-class remediation)?
9. Have you considered other measures to determine the impact of supplemental educational services on academic achievement?
10. Tell me about any changes in learning behavior you have seen in students since they began supplemental educational services.
- 10a. Probe: Have you noticed any effect on attentiveness?
- 10b. Probe: Persistence?
- 10c. Probe: Motivation?
- 10d. Probe: Flexibility?

- 10e. Probe: Strategic problem solving?
- 10f. Probe: Goal setting?
- 10g. Probe: Use of metacognitive strategies?
- 10h. Probe: Response to feedback associated with academic improvement?
- 11. Tell me about any changes in the student's self-confidence in handling academic tasks.
- 12. Other than academic achievement, are there other ways to measure the impact of supplemental educational services on elementary students?
 - 12a. Probe: What other strategies should be considered?
 - 12b. Probe: (For each measure) Why do you think that measure would be appropriate?
 - 12c. Probe: What are some other possibilities?
- 13. How can supplementary educational services be improved?
 - 13a. Probe: How do you think that would result in a greater impact on students?
- 14. What is your perception of the supplemental educational service provider's instructors?
 - 14a. Probe: What are your perceptions of their qualifications to teach elementary students?
- 15. What is your overall perception of the impact of supplemental educational services on your students?
- 16. Is there anything you would like to add?

Appendix C

Study Participant Letter

Dear Participant:

Thank you for your willingness to participate in this study. I understand that this is a particularly busy time for you. However, the end of the school year is perhaps the best time to capture the data I need for this study.

I am interest in (school name) because of the NCLB designation of the school (your school was designated as being in the second year or beyond of improvement) and the number of students that participate in supplemental educational services. I have contacted you specifically because of your unique perspective and familiarity with students, supplemental educational services, and the providers of those services.

I will be contacting the school in the next few days to schedule a time and place that is convenient for you to meet. Thanks again for your willingness to help and I'm looking forward to our conversation.

Sincerely,

Dan

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Appendix D

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Informed Consent for Participants

In Research Projects Involving Human Subjects

Title of Project: The Impact of Supplementary Educational Services on Elementary Students

Investigators: David Parks, Ph. D. and Dan Dolan, Doctoral Student, Virginia Tech, Blacksburg, VA

I. Purpose of this Research/Project

You are being invited to participate voluntarily in the above titled research project. The purpose of this project is to examine the impact of supplemental educational services on elementary students. Data acquired from this study will be used as part of Dolan's dissertation.

II. Procedures

This study will make use of a multiple-site, cross-case analysis to assess the impact of supplementary educational services on elementary students. Elementary school administrators and teachers whose students have participated in those services are being asked to consent to an interview where their perspectives on the impact of those programs will be sought. The interview should take approximately 45-60 minutes.

III. Risks

There is no monetary cost to any participants for participation in this project. There are no more than minimal risks associated with participation in this study. Your participation is completely voluntary; if you do not participate, you will not be penalized in any way. Any information you provide will be kept confidential or anonymous.

IV. Benefits

There are no direct benefits to you for participating in this study. Your feedback, however, will be helpful in determining the efficacy of supplemental educational services and potentially offer some guidance to the providers or policy makers as to whether or not these programs should be maintained as they are, modified, or discontinued.

V. Extent of Anonymity and Confidentiality

Evaluators will gather data and promise to keep this information confidential. The researchers will code individual names, the names of the schools, and even the state in which the school is located by random number, which will be used as an identifier on any written material. At no time will the researchers release the raw data to anyone other than the immediate research team and committee members. Data will be retained until the dissertation is accepted and then destroyed.

VI. Compensation

You will not be compensated in any way for your participation in the study.

VII. Freedom to Withdraw

You are free to withdraw from this study at any time without penalty. You are free not to answer any questions or respond to experimental situations without penalty.

VIII. Approval of Research

This research project has been reviewed, as required, by the Institutional Review Board for Research Involving Human Subjects at Virginia Polytechnic Institute and State University.

IRB Approval Date for Study: 4/6/11

Approval Expiration Date: 10/26/2013

IX. Subject's Responsibilities

I voluntarily agree to participate in this study. I have the following responsibilities:

I will participate in a 45 to 60 minute interview with the researcher.

IX. Subject's Permission

I have read the Consent Form and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent:

_____ Date _____

Subject signature

Should I have any pertinent questions about this research or its conduct, and research subjects' rights, and whom to contact in the event of a research-related injury to the subject, I may contact:

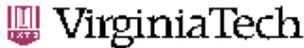
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David M. Moore
Chair, Virginia Tech Institutional Review
Board for the Protection of Human Subjects
Office of Research Compliance
2000 Kraft Drive, Suite 2000 (0497)
Blacksburg, VA 24060
Telephone/e-mail: 540-231-4991/moored@vt.edu

Appendix E

Institutional Review Board Letter (Approval for the Study)



Office of Research Compliance
Institutional Review Board
2000 Kraft Drive, Suite 2000 (0497)
Blacksburg, Virginia 24060
540/231-4606 Fax 540/231-0959
e-mail irb@vt.edu
Website: www.irb.vt.edu

MEMORANDUM

DATE: January 10, 2011

TO: David J. Parks, Daniel Dolan

FROM: Virginia Tech Institutional Review Board (FWA00000572, expires October 26, 2013)

PROTOCOL TITLE: The Impact of Supplementary Educational Services on Elementary Students

IRB NUMBER: 10-381

Effective January 10, 2011, the Virginia Tech IRB Chair, Dr. David M. Moore, approved the new protocol for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report promptly to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at <http://www.irb.vt.edu/pages/responsibilities.htm> (please review before the commencement of your research).

PROTOCOL INFORMATION:

Approved as: Expedited, under 45 CFR 46.110 category(ies) 6, 7

Protocol Approval Date: 1/10/2011

Protocol Expiration Date: 1/9/2012

Continuing Review Due Date*: 12/26/2011

*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

FEDERALLY FUNDED RESEARCH REQUIREMENTS:

Per federal regulations, 45 CFR 46.103(f), the IRB is required to compare all federally funded grant proposals / work statements to the IRB protocol(s) which cover the human research activities included in the proposal / work statement before funds are released. Note that this requirement does not apply to Exempt and Interim IRB protocols, or grants for which VT is not the primary awardee.

The table on the following page indicates whether grant proposals are related to this IRB protocol, and which of the listed proposals, if any, have been compared to this IRB protocol, if required.

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Appendix F

Raw Data Matrix: Themes from Fenton Elementary School Case²

Source	Themes			
	Source of SES* (internal versus external provider)	Quality of SES / Recommendations for improvement	Communication among teachers, families, and SES providers	Responsiveness of SES / Tailoring SES to meet students' needs
School Improvement Coach	<p>We do it internally. And I really don't know what else is available. I know there is a tutoring center in ... [nearby town] that some people have used, but I have no idea about the quality of services there. (p. 2)</p>	<p>I did feel like the particular teachers that we had working this year here as tutors was an exceptional group of teachers. (p. 2)</p> <p>I thought that it was a really quality program. (p. 2)</p> <p>The teachers that participated [as tutors] in the program here this year were among the best teachers in the school, as far as I'm concerned. I think we had a really good quality group of tutors. (p. 6)</p>	<p>He, he is a child with some special needs and needs a lot of one-on-one attention. And so it really worked for him. She and I were in constant communication about what was going on in the class. (p. 1)</p> <p>We worked together really well. It really helped him. [referring to the child's teacher]. p. 1)</p>	<p>Whatever he, whenever he was falling down on something in the class, then I would pick up on that during the tutoring. So we worked together really well. It really helped him. (p. 1)</p> <p>The little boy that I tutored, math is his weakness and that's what the mother's concern was, was his math grade. And so that, I worked on math. (p. 2)</p> <p>I know that [another tutor] has worked on other things if a, if a student's having a difficulty with a social studies assignment or something like that, that, uh, we do address that in tutoring, also. (p.</p>

² Extraneous syllables such as “um” and repeated words have been excised and replaced with ellipsis points. Added words for clarification have been included within brackets.

				3)
Teacher 1		I think it's an overall good program that needs to continue. (p. 7)	I look at their progress reports, and, also, I stay in contact with their homeroom teachers, and they give me a progress on them. (p. 1)	
Teacher 2		<p>[Referring to the external provider] And I know they got a free laptop once they completed. [Interviewer: What did you think of that?] I know it was free, "Where do I sign up?" [Indicating that families sought services from the external provider because of incentives.] (p. 2)</p> <p>I know mine had a hard time going after school so maybe weekends or other times of day besides after they've been here six or eight hours. (p. 5)</p>	<p>I'm not sure how much my kids actually attended [the externally provided services] because I wasn't, I didn't, I got one report at the beginning and I haven't gotten any since. I'm not sure mine continued. (p. 1)</p> <p>They [i.e., the external provider] even asked, when they sent the reports they would send for me to fill out, you know, asking where I thought that, you know, what they needed help with or whatever, so... (p. 2)</p> <p>I would have liked to have known if mine did continue or if he did stop. (p. 5)</p> <p>I mean, like I said, mine improved.</p>	

			You know, whether it was because there was of that or, I mean, I'd like to see how many times they actually went, you know. (p. 6)	
Principal	Well, I feel like quite a few of the companies are doing it,... they don't have the best interest of the children, ... because they're competing for profit and, ... I know that they don't have, they didn't have, we didn't have any here, but I know there are places where, you know, a place the parents come in and if your child completes the year you get to keep the laptop that they've used, and for low-income families that's a big deal. (p. 10)	I don't feel it [the quality of externally provided supplemental educational services] is where it should be.... Quite often as I would go by the room, ... late in the day, they would be involved in a game type situation, and you know there are games that you can use to learn, but not if you're targeting specific skill[s] you need to be working on and have four very different children in there. (p. 8) Well, I feel like quite a few of the companies are doing it, ... they don't have the best interest of the children, ... because they're competing for profit and, ... I know that they don't have, they didn't have, we didn't have any here, but I know there are places where, you	I think we need communication between the teacher and the provider. I just don't understand how they know where to start with the child, honestly. I'm hoping there's some sort of assessment but we're totally in the dark of what's going on. (p. 10) I just wish we had communication and I wish there were a way – I would like to know, as the principal, that they [the external providers] have actually assessed the children or found out where this child is and what they are doing to improve it or just a generic. (p. 11)	I don't know what they're using to assess the students at the beginning or if they're even assessing to see where to start with them. (p. 8) I think we need communication between the teacher and the provider. I just don't understand how they know where to start with the child, honestly. I'm hoping there's some sort of assessment but we're totally in the dark of what's going on. (p. 10)

		know, a place the parents come in and if your child completes the year you get to keep the laptop that they've used and for low-income families that's a big deal. (p. 10)		
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* Supplemental Educational Services.

Raw Data Matrix: Themes from Fenton Elementary School Case³

Source	Themes			
	Student achievement gains as a result of SES or lack thereof	Other gains students made as a result of SES or lack thereof	Source of student gains (SES or other)	Ways to measure impacts of SES
<p>School Improvement Coach</p>	<p>Well, I know just from my own personal experience in talking with the, the student's teacher that I, the student I worked with, ... his math grade went from an F to a B within the time that I was tutoring him. (p. 1)</p> <p>I know that my Title 1 cohort that works in the same room that I do had great success with her student, two students, also. Their grades went -- I'm afraid to tell you numbers -- but I know that the one student, when we looked at his Acuity test scores, ... he was like, ... 20% correct in the fall benchmark, forty percent in the middle of the year, and by the time -- she, she was still</p>	<p>With the little student that I worked with, he is, ... autistic and so, ... I did notice a, a difference in how he related to, was able to relate to me. He was a little more open to, he started out very reluctant to be, ... connected in a personal way. (p. 3)</p> <p>We developed a really good friendship, I felt like. Of course, as far as you can be a friend with a student. But I mean, you know, and I think that he maybe was a little bit more socialized in the, in the classroom. (p. 3)</p> <p>The student I worked with -- is, ... organization skills; getting started and organizing himself,</p>	<p>The tutoring program - and we feel that that had a great, you know, great deal of impact on those scores. (p. 2)</p>	<p>Observation is the only way I know to measure it. Observation and, ... also, I had conversations with his mother, ... and we talked about him feeling better about what he was doing in the class. (p. 6)</p> <p>Just observing, talking to the student, talking to the teachers and the parents. I, I don't know how else you would measure that. (p. 6)</p>

³ Extraneous syllables such as "um" and repeated words have been excised and replaced with ellipsis points. Added words for clarification have been included within brackets.

	<p>tutoring him when he took the third benchmark -- and that score was 56% percent. So he went up considerably. (pp. 1-2)</p>	<p>too. So we did work on that. That did improve as far as him, ... being more focused... (p. 4)</p> <p>Motivation.... I don't know. It depends, depending upon what particular activity you're doing, he's, he's always motivated to do certain types of activities and not so much others. So I don't think lack of motivation was his problem to start with. So I don't know that there was any major change there. (p. 5)</p> <p>Again, that's, that's one of his strengths anyway [in response to question about improvements in student's metacognitive strategies]. (p. 5)</p> <p>With his problem, he is not very flexible. (p. 5)</p> <p>He's a pretty good problem solver to start with. He's a very bright little boy. (p. 5)</p>		
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		<p>Goal setting is still a big problem for him. (p. 5)</p> <p>He was more responsive to positive feedback in that he started to feel more confident and more proud of himself (p. 5)</p>		
Teacher 1	<p>They've done better in every subject. And you know, like I said, we look at the, their reports cards and their, ... progress reports and they'd be increased. (p. 2)</p> <p>I think it enhances their learning and their behavior and their motivation. (p. 7)</p>	<p>I started doing tutoring, and I could see a big difference in the kids and their confidence and their, you know, they would answer more in the classroom (p. 1)</p> <p>I can, just see a big difference with them and I really think it helps them. (p. 1)</p> <p>The other child, when I first got him, I had an individual say, oh, I hope you do good with him because his behavior's awful. But he's done really well, and he's improved in the classroom.... The classroom teachers have talked about how, you know, his attitude had</p>		<p>I guess just by observations – seeing that they answer more in class and are more willing to participate. (p. 6)</p>

		<p>improved. (p. 3)</p> <p>[In response to question about gains in strategic problem solving] In math, especially, you'd show them little tricks ... and then later, you'd see that they were applying that. (p. 5)</p> <p>More self-confidence, especially in the little fifth grade student that we had. A mother made a comment to me about it, teachers made comments. And then when I quit tutoring because they, you know, ran out of money, we saw her slide back about a week and I called her and talked to her and said, you know, you can do this. So she's, for her it was, I think, a real confidence booster. (p. 5)</p> <p>I think it enhances their learning and their behavior and their motivation. (p. 7)</p>		
Teacher 2	I definitely saw improvement in mine, but I'm not	His behavior also improved. (p. 3)	I think mine was a lot maturity, just	

	<p>sure how much they went. (p. 3)</p> <p>Mine had done better. Mine definitely improved over the year. Academically, behavior, his work, his motivation to do it. (p. 4)</p>	<p>Mine had done better. Mine definitely improved over the year. Academically, behavior, his work, his motivation to do it. We had tantrums at the beginning, and we don't have tantrums now. (p. 4)</p> <p>A 100% improvement of mine. Mine used to just lay (sic) down on the floor and have a tantrum. (p. 4)</p> <p>Something he couldn't do or if it was a little bit harder. Now he knows how to work through it. Get on task, stay on task. (p. 4)</p>	<p>being in this kind of atmosphere, being in a school setting. I think mine probably would have come along regardless of [supplemental educational services]. (p. 3)</p> <p>I don't know which affected which. [referring to whether supplemental educational services] or classroom instruction led to students' behavioral improvements]. (p. 3)</p>	
Principal	<p>I have no way of knowing unless the student would just suddenly maybe unless tests go way up or a teacher would come back and say something's finally clicking with this child, which I've never had happen. [referring to impacts of SES]. (p. 7)</p>	<p>A lot of kids would drop out of it or stop going. They lose interest and you know it's not something that they want to do and so they're not made to do it. (p. 11)</p>		<p>Observation. [response when asked about how to assess the impact of SES]. (p. 10)</p>

	<p>I had it [supplemental educational services] in several places. I just don't see it. I don't see a positive impact. (p. 10)</p> <p>So if a student is in the program, and you don't know anything about it, front, back, middle – unless a student's school work improved dramatically, they may just stay under the radar. (p. 10)</p>			
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Appendix G

Raw Data Matrix: Themes from Matthews Elementary School Case⁴

Source	Themes			
	Source of SES* (internal versus external provider)	Quality of SES / Recommendations for improvement	Communication among teachers, families, and SES providers	Responsiveness of SES / Tailoring SES to meet students' needs
Teacher 1		... build off from what we're actually doing not just a general grade- level kind of idea [response when asked how to improve SES]. (p. 4)	More direct contact on what you were doing in the classroom. [response when asked how to improve SES]. (p. 4)	... build off from what we're actually doing not just a general grade-level kind of idea [response when asked how to improve SES]. (p. 4)
Teacher 2	I do believe some of them [external supplemental educational service providers] come in with their set program. (p. 2)	I do believe some of them [external supplemental educational service providers] come in with their set program. Geared maybe to that age group and maybe a specific reading need. Whereas, we delve into—we peel the onion; we know exactly if it's a phonetic problem or fluency problem ... that we start to address. Or comprehension or knowing their facts or something like that. Whereas, I think they come in with more of a – what I [have] seen is more of a canned program. I like to really see it coming in where they work with	About discipline issues [when asked what supplemental educational service providers have discussed with teachers]. (p. 1)	I do believe some of them [external supplemental educational service providers] come in with their set program. Geared maybe to that age group and maybe a specific reading need. Whereas, we delve into—we peel the onion; we know exactly if it's a phonetic problem or fluency problem ...that we start to address. Or comprehension or knowing their facts or something like that. Whereas, I think they come in with more of a – what I [have] seen

⁴ Extraneous syllables such as “um” and repeated words have been excised and replaced with ellipsis points. Added words for clarification have been included within brackets.

		<p>the teacher and it's very specific. (p. 2)</p> <p>I guess one thing I would like to add is the qualifications of the tutors that are hired. I feel like they – they need to be certified. Many are not [certified], and we've had, particularly in this school, one issue this year that a tutor had to be removed for various reasons, but they don't have that background. It's very difficult. The first day that we started tutoring [in] the school this year I was on the phone with one of the providers... [He wanted to know if we could wait two weeks for his company to start.] ...and said do you think you could wait a week or two and I'm talking from the administrative end. I had several issues from that end; however, that's not even talking about the instructional end. I have issues, but I'm on the phone, and he wants to know if we can wait two weeks for his company to start. Do you know what that does? It wreaks havoc in a school, and parents they all think – I said I have 19 students up</p>		<p>is more of a canned program. I like to really see it coming in where they work with the teacher and it's very specific. (p. 2)</p> <p>Do we see any differentiation [in what the supplemental educational service providers offer to students]? (p. 3)</p>
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		<p>here waiting for tutors. He said, “Oh, well, I’ll get them there. I’ll get them there.” In 15 minutes two people showed up. Who are those people? Were they certified? Was there any prior training? He sent two people. (p. 3)</p> <p>Do we see any differentiation? [Asked rhetorically, indicating that respondent expects but does not see differentiated instruction by external SES providers.] (p. 3)</p>		
Principal	<p>Because we are so rural, it’s way different than (large city) where you’ve got... a hundred resources around at your disposal.... That’s the primary service we provide. [Referring to internal SES.] (p. 4)</p> <p>It’s unique to the area and that that interaction plays such a huge part in</p>	<p>I don’t like to use the word “tutoring” because when you picture that, you’re talking about volunteers or Americorps members and those kinds of things. We’re talking about highly skilled professionals. (p. 12)</p> <p>When you have the [external] supplemental learning centers and it’s been around, you had a curriculum which you can look at, that you can see and there’s been success and that can prove through data that it is successful, you know, those, those are okay. There’s</p>	<p>We get feedback and monitoring through the Title 1 coaches... who service them [the students]. They [the Title 1 coaches] always communicate through our professional learning communities with the teachers. We’re able to have professional learning communities during the day and, and those incorporate, ... and we do it vertical, too, so you might have second, third, and</p>	<p>They [the internal SES providers] see the weakness and they’re going to work on it. And they’re going to work at that child’s pace. (p. 8)</p> <p>We do electronic lesson plans, ... we have our pacing guides, we have our PLCs. So, we’re always in the same loop. So, when you talk to the Title 1 teachers here, they’re in the loop with the classroom. (p. 17)</p>

	<p>their [the students'] academic success. [Referring to one-on-one tutoring provided internally at the school.] (p. 15)</p>	<p>others [i.e., other external providers], though, that you really don't know where they've come from or what, what the true goal is. (p. 16)</p> <p>I've really been very fortunate that they [Matthews ES teachers] have agreed to do this [provide tutoring] because many times when you say we're going to provide this, you can't find the professionals to provide it. I think that supplemental educational services providers, the external group, have that same problem – to find qualified people to bring in. (pp. 16-17)</p>	<p>fourth grade teachers. Sometimes it's just grade level. They are meeting with related arts, special ed teachers, and the Title 1 teachers. So you really have a true team there. (p. 5)</p> <p>So we're always in the same loop. So when you talk to the Title 1 teachers here [referring to the internal providers], they're in the loop with the classroom. (p. 17)</p>	
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Raw Data Matrix: Themes from Matthews Elementary School Case⁵

Source	Themes			
	Student achievement gains as a result of SES or lack thereof	Other gains students made as a result of SES or lack thereof	Source of student gains (SES or other)	Ways to measure impacts of SES
Teacher 1	<p>In academic performance I didn't see any growth that I didn't think would already have occurred for her throughout the year.... (p. 2)</p>	<p>From my child that was in the service this year, at the beginning; she is a very bright child; she wasn't as confident, and I think that she kind of built her confidence from being in there. In the class, ... she ... had the knowledge, but the confidence wasn't quite, and I think I saw a confidence build throughout. (p. 1)</p> <p>If you ask them questions or verbally talk to them how if they're not looking at you to see if you're accepting the answer that they're giving or they feel better, they just I know that, "I'm right." (p. 3)</p> <p>[Interviewer: What I'm asking is what impacts you see as a result of that supplemental educational services, not what you're seeing</p>	<p>In academic performance I didn't see any growth that I didn't think would already have occurred for her throughout the year. (p. 2)</p> <p>Overall from what where I thought she would end up being at the end of the year she was still where I projected her to be. (p. 3)</p>	

⁵ Extraneous syllables such as "um" and repeated words have been excised and replaced with ellipsis points. Added words for clarification have been included within brackets.

		<p>in general. Persistence?] No. [Interviewer: Motivation?] Yes. [Interviewer: Flexibility?] Yes. [Interviewer: Strategic problem solving?] No. [Interviewer: Goal setting?] No. [Interviewer: Use of targeted strategies?] No. [Interviewer: Response to feedback?] Yes. (pp. 3-4)</p> <p>I think first off confidence and just realizing that she did have the answers and that she didn't need approval or for someone else to say it before she felt like she was right. (p. 4)</p>		
Teacher 2	<p>I think that's really hard to measure because as students are improving, you know we are under a school improvement school here so we have a lot of interventions, mediation and all this going on in school. Plus our after school program. So it is really difficult to</p>	<p>I could not point that out because we are doing a lot of things. [in response to question about whether students were improving in their motivation, flexibility, self-confidence, etc.]. (p. 2)</p>	<p>I think that's really hard to measure because as students are improving, you know we are under a school improvement school here so we have a lot of interventions, mediation and all this going on in school. Plus our after school program. So it is really difficult to</p>	<p>I would like to say like a mid report. Maybe a starting point with the children. A mid report and an ending report. Some real data. So that we can put it with the data we already have. That would be great. (p. 2)</p>

	<p>measure which or I would say a combination of all of those are improving students. (p. 1)</p>		<p>measure which or I would say a combination of all of those are improving students. (p. 1)</p> <p>It's just hard to isolate it as these companies react on the homepage and we put in our handbook you know, we have no evidence if this program is making a difference or not. So it – it's really difficult for us to make those comments. I, I just think it is a whole school initiative. And SES is a part of that. (p. 2)</p> <p>The answers are difficult as far as proving the value of SES singularly. (p. 3)</p>	
Principal	<p>That's what has the school so excited right now is we made an average of 17.8% increases in reading and math last year across the board. (p. 8)</p> <p>We try to individualize the education of those students, and it's</p>	<p>I would say that's increased, too, any time you have one-on-one instruction. [commenting on gains in students' persistence]. (p. 10)</p> <p>That's what we're trying to do, also. Not only straight academics, but social, improved social behaviors, by this one-</p>	<p>And the services from our Title 1 staff, though, have, there are gains....They might not be immediate through the assessment, but when you have that one-on-one time, it's, it's going to come out. It will, it will come. (p. 13)</p>	<p>Everything's focused on the, ... formative assessments. (p. 7)</p> <p>I would say just besides ... the teacher assessment, ... checking them on DIBELS with the formative ...</p>

	<p>such a small percentage that actually take advantage of these services. And that's what's amazed me. [Interviewer then asks if there is a difference between those who participate in SES and those who do not.] I have not correlated it. You know, when I said across the board, I probably meant average because we didn't have that much of a gain in a couple grade levels. But when you average, we had a 28% increase in math for seventh grade and, you know, so it averaged out. But I don't know if there's a direct correlation. (p. 9)</p> <p>And the services from our Title 1 staff, though, have, there are gains. Uh, they might not be immediate through the assessment, but when you have that one-on-one time, it's... going to come out. It</p>	<p>on-one tutoring. (p. 10)</p> <p>[Interviewer: Have you noticed any effect on attentiveness for the student?] Sure.</p> <p>[Interviewer: How about persistence?] I would say that's increased, too, any time you have one on one instruction.</p> <p>[Interviewer: How about motivation?] Same there.</p> <p>[Interviewer: Flexibility in how they approach their academic challenges?] Somewhat.</p> <p>[Interviewer: Strategic problem solving?] I'm confident the teachers [referring to teachers who tutored] have increased that type of stuff.</p> <p>[Interviewer: Using metacognitive strategies, thinking about how they need to approach things?] Yeah, yes.</p> <p>[Interviewer: Response to feedback associated with academic improvement so it is more constructive?] Yes. (pp. 10-11)</p> <p>[Interviewer: Tell me about any specific examples of these gains.] I'm trying to sum up and pick</p>	<p>Getting those services to... increase my reading skills [when he personally was involved with SES as a student] ...got me over the hump. (p. 14)</p>	<p>[Mid-Atlantic State 1 standardized assessment]. You know... at the young age most of these children are getting these services, they're, I guess, ...shaping ...the personality -- the way they interact with teachers and those kind of things -- is huge. And, ...when you can see increases in that, that is pretty successful, too. (p. 12)</p>
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	<p>will, it will come. (p. 13)</p> <p>Getting those services to... increase my reading skills [when he personally was involved with SES as a student] ...got me over the hump. (p. 14)</p>	<p>individual students out of a group here, and that's, that's difficult to do. You see some kids, some kids probably responded well. Other kids not so much. (pp. 11-12)</p>		
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Appendix H

Raw Data Matrix: Themes from Wainwright Elementary School Case⁶

Source	Themes			
	Source of SES* (internal versus external provider)	Quality of SES / Recommendations for improvement	Communication among teachers, families, and SES providers	Responsiveness of SES / Tailoring SES to meet students' needs
Teacher 1			One of the things that have changed greatly here from when I first came is students walked through the hall and it was very difficult to make eye contact with them. (p. 8)	
Teacher 2			Children are so much more aware of what their achievement level is. I have kids running up to me after a benchmark. 'I'm tier II,' 'I'm tier III,' 'I scored 58.' I moved into tier III. And we have those celebrations. (p. 9)	
Assistant Principal	One of the things that I struggle with, with supplemental services is once you get to a level you lose funding and when you lose funding you lose that service. We fight and struggle to get to		Actually they call and ask us if we have any more students to send them. You know, my understanding, limited understanding, of (the external provider) is they can do it for – it's a business. They do it – first of all, yeah, I know that they want to educate children but they also make money by doing it. (p. 6)	

⁶ Extraneous syllables such as “um” and repeated words have been excised and replaced with ellipsis points. Added words for clarification have been included within brackets.

	<p>a point where we're having success and when we get there the feds say, okay, you're there now ...so we're going to take away your supplemental services. It's the very – one of the most important factors and variables in getting us there and as soon as we get there we lose the position. So if I said – if there was anything that we can do would be to if you have 80% of your student population free and reduced lunch, why would you ever threaten to take away that program? (p. 13)</p>		<p>We prioritize our curriculum based on data and that's where our growth comes from and it's school-wide. It's not just supplemental services doing that, that's everybody doing that, and it's really, again, it's unique in that in our teams we have Title I teachers, special ed teachers, and supplemental [people], what you're calling supplemental people in those teams or on those teams. So we have those conversations. It's wonderful. (p. 8)</p>	
Principal	<p>Not to say that what we did here at school wasn't good. It's all good, but those that seemed like the kids that went to (an external SES provider) made a little bit better</p>	<p>Without the supplemental services, Title I, we wouldn't make it. We would not make it and we are – this school, we are fortunate to have the quality of Title I teachers that we do. (p. 6)</p>	<p>I have a leadership team comprised of a special educator, a title Title I teacher, technology integration specialist, two Title I teachers, and then the assistant principal and I. And, each month we look at our strategic plan. What did we do</p>	

	gains. (p. 5)		<p>that was right? What did we do that was not so good? And they're our guidelines. (p. 4)</p> <p>We are constantly in discussion, not just once a month, but the leadership team--it just works out that they all have lunch at the same time so we have probably three or four working lunches a week where we just sit and talk. (p. 4)</p> <p>The teachers get their data from benchmarks, and ... once a week we have team meetings, horizontal team meetings, and we use the data from benchmarks, from classroom assessments, and that guides us. And, that's not a formal plan but that's the way we do it and it's very effective or it has been and continues to be. (p. 4)</p> <p>I've had – in two years I've had three conferences (with the external SES provider). Those contacts were just basically trying, in my opinion, trying to just, "Do you have students who would need our services?" Sales calls,</p>	
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			<p>courtesy calls, yeah, that's kind of what it was. (p. 7)</p> <p>We – the other supplemental like our Title I program, again, we assess so frequently. We're required to assess so frequently that we constantly are in conversation, okay, what does this kid need? What does this kid need? Here's an example, here's our – like this summer, this is our critical skills. These are students who are enrolled for our summer school. (p. 7)</p> <p>When we go to retreat here in a couple weeks we have a whole session devoted to data notebooks. We are empowering our kids to look at their student data so they know and that empowers them. So they're pushing us to push them [saying], "Now, I need to work on this. I'm weak in comprehension. My ability to do fractions isn't very good." What can – we're – those kinds of things are happening. Believe it or not, they're happening here and</p>	
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			<p>that's where the true growth is coming. You know a lot of people that this last year and a half have sung my praises. Oh, you've come in and you've made all these changes. I just made what they were doing open. I just opened it up and let them do it. (p. 8)</p> <p>It's school wide, our interventionists, we're all a team. We're all a team and they play that. They play their role very well and if you were here on a typical day you would know who the RTI specialist was, interventionist. You would know who the Title I teacher was. You would know who the regular classroom teacher is because we're all working together doing the same thing but they are valuable and viable to the success of Wainwright.... (p. 12)</p>	
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Raw Data Matrix: Themes from Wainwright Elementary School Case⁷

Source	Themes			
	Student achievement gains as a result of SES or lack thereof	Other gains students made as a result of SES or lack thereof	Source of student gains (SES or other)	Ways to measure impacts of SES
Teacher 1		<p>We're making supplemental services and across the board, we're making education enjoyable. When you go into a Title I room or a tutoring room, you'll see students doing the teaching, doing collaborative pairs, working in numbered heads, and the teacher's not standing there throwing information at them. It empowers them. It engages them, and they're more willing to learn and they're having fun in spite of themselves. It's not drill and kill. It's real world application, you know, its learning as a group, and it's sharing, drawing off of each other's experiences, and supplemental services helps us provide that environment. (p. 10)</p> <p>Engagement, attentiveness – it's</p>	<p>We're making supplemental services and across the board, we're making education enjoyable. When you go into a title I room or a tutoring room, you'll see students doing the teaching, doing collaborative pairs, working in numbered heads, and the teacher's not standing there throwing information at them. It empowers them. It engages them and they're more willing to learn and they're having fun in spite of themselves. It's not drill and kill. It's real world application, you know, its learning as a group, and it's sharing, drawing off of each other's experiences and supplemental services helps us provide that environment. (p. 10)</p>	

⁷ Extraneous syllables such as “um” and repeated words have been excised and replaced with ellipsis points. Added words for clarification have been included within brackets.

		increased. (p. 10)		
Teacher 2		So they know why it [completing benchmark assessments] is important now and that's changed their confidence level. (p. 12)		
Assistant Principal				
Principal	<p>Last year and this year we didn't have a lot of walkthroughs from the curriculum team, but our curriculum team at the county comes and does walkthroughs. Well, they walked into a special ed classroom. Okay. And, the kids were having a discussion, and one little boy, they were discussing some item, and I can't remember what it was, but I remember the story and the little boy looked up and said, "You're going to have to justify your answer to me. I need some clarification on your response." And, it just so</p>	<p>The tutoring and supplemental service have had a profound effect because we did this huge frontal assault but the folks who – the timing of the folks who or having the right people in the right place as Jim Collins says in <i>Good to Great</i>, having the right people in the right seat on the bus. Well, that's – we have that with our supplemental service and what we've been able to do through tutoring is a balanced approach. (p. 10)</p> <p>[When asked about student persistence] To some degree. (p. 11)</p> <p>[When asked about improvements in students' motivation] My motto is work hard play hard. So the kids know, if they</p>	<p>It's this whole big thing, but I will say that without a doubt, having supplemental services helps to encourage that growth and has a very positive impact on growth. (p. 12)</p> <p>Don't take my supplemental folks away. I'll be a happy man. (p. 14)</p>	<p>We have a rubric that is provided and that's basically for tutoring and critical skills and we use the RTI, the DIBELS, but as far as any other tools we don't use any. (p. 10)</p> <p>The easiest thing to measure would be attendance because we care about kids; whether they're straight As or struggling C students, we care about them. They're going to show up for school. If we show them we care about them, our attendance is going to</p>

	<p>happened that the special education director was in that group at that time, and he walked into this office with me, and he said, “I cannot believe that you have kids who are special ed using those, that type of vocabulary and understanding that what justification and clarification is – justifying and clarification is.” (p. 12)</p>	<p>work, we’re going to have some kind of an activity. Now it may be a field trip, it may be inflatables, it may be Ronald McDonald. We always write about it afterwards. And, again, they know that we’re going to have fun, but at the end I’m going to have to write something about it.... It’s not forced engagement, but it keeps them engaged.... They know that if they work hard, ... there’s going to be something that happens. (p. 11)</p> <p>[When asked about students’ development of strategic problem solving skills] Absolutely. By having the Title I folks and the tutors [supplemental educational service providers] come in they’re using so many different strategies and they’re using the small groups, they’re using the you and I work together, think, pair, share.... I can’t even name all the strategies that these</p>		<p>improve and that’s an easy one to track. (p. 13)</p>
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		<p>folks are using.... They go into the regular classroom when the supplemental service teacher has the time that he or she is co-teaching in the regular classroom, the full setting. So they're sharing those strategies with [classroom teachers]. (p. 11)</p> <p>[When asked about students' confidence] I told you earlier when I first came kids didn't even, they knew they took West Test, they knew that they took benchmarks, but they didn't know why. We've explained that. We've broken it down. So they know why it's important now and that's changed their confidence level.... (p. 12)</p> <p>Without our supplemental services we would not make AYP. Simple to the point – without having those extra hands on deck to provide that smaller group, smaller class number, without being able to look</p>		
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		very strictly at the data and having those supplemental folks focus on those real challenges for those kids the gap would never get closed. Don't take my supplemental folks away. I'll be a happy man. (p. 14)		
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Appendix I
Raw Data Matrix: Themes from Padgett Elementary School Case⁸

Source	Themes			
	Source of SES* (internal versus external provider)	Quality of SES / Recommendations for improvement	Communication among teachers, families, and SES providers	Responsiveness of SES / Tailoring SES to meet students' needs
Teacher 1		Well, I, I think the timing is horrible. (p. 7)	<p>I wish that we would've been contacted on maybe what the child struggles with, because we don't know what they are receiving down there [in supplemental educational services], if it's helping them or, I mean, I don't know what they're doing. (p. 3)</p> <p>But we have some parents who want them to go just to have that extra time before they come home. Daycare. I mean, as bad as that sounds, that's the case sometimes. (p. 5)</p>	<p>It was pretty much a canned program. (p. 1)</p> <p>This is a program that ... [is] an hour and a half after school. There, the teachers are not necessarily always the same. They ... get this short amount of time to build a relationship with these kids. And then these kids have already built relationships with people and then they're asked to work harder and more by someone that they don't really know. (p. 4)</p>
Teacher 2		It's a good idea with poor planning. (p. 7)	Never [response to question about the number of times the external SES provider had contacted her]. (p.	In the program, there was really no follow-up, no formal assessment that I was awareof. So I was

⁸ Extraneous syllables such as "um" and repeated words have been excised and replaced with ellipsis points. Added words for clarification have been included within brackets.

			2) There's no communication; none at the beginning or middle or end. (p. 3)	doing those things myself. (p. 2)
Teacher 3		All of them are not certified people to, to teach these kids either, so I'm not sure, they might not have the arsenal of things maybe to, to try. (p. 4)	Never [response to question about the number of times the external SES provider had contacted her]. (p. 2) I mean, we haven't communicated with any of them. They haven't tried to contact us at all. (p. 5)	There are a lot of kids who have a special ed service who struggle with decoding, struggle with reading, and then they're told to go for an extra hour and a half and work on their reading with kids who don't have a disability. (p. 6)
Teacher 4		Yeah, it's a good idea, but just not followed through exactly the way it needs to be. (p. 7)	Never [response to question about the number of times the external SES provider had contacted her]. (p. 2) I wouldn't mind writing down, well, this child's going to tutoring, they need to work on this skill this week, they're struggling with that. But that's never been an option for us to do. (p. 7)	
Teacher 5		Well, and I think that it would be wonderful if there was some sort	Never [response to question about the number of times the	

		<p>of way to get this, to get the supplemental education in those three and a half months [referring to summer] where the kids are, they're SES for a reason and then they're at home for three months and it's a tough situation; to give them that structure of having two hours during the summer each day where they get to, where they're reinforced in those skills that they're already struggling with would be helpful rather than making them stay an extra two hours after school every day when they've already worked for eight and they're tired. (p. 7)</p>	<p>external SES provider had contacted her]. (p. 2)</p> <p>I think that has a lot to do with the communication with the teacher and the actual tutor. ...If you knew exactly what they were working on, then you could follow up on it in the classroom to know if they have made progress or not. (p. 3)</p> <p>There's some [students] that qualify for it that don't need it, you know? But they'll, they're still told that they have to go to it. And some that need it don't qualify for it. (p. 5)</p>	
Principal	<p>We've got six different, at least six different, providers in the building this last nine weeks. (p. 3)</p>	<p>They didn't have any classroom control, they are working with small groups. I was disappointed with their ability to manage a classroom. (p. 1)</p> <p>I would say they (external SES providers) had to hire better, qualified people. A lot of their people have no – well, I don't know if they</p>	<p>I will tell you the only time I've been contacted is with discipline issues. And that has happened twice. (p. 1)</p>	<p>I would rather spend \$20 an hour on a teacher who is aware of the students' needs, aware of where they are academically and where they need to be and can carry them through. I think it would be more – we waste a lot of time in the afternoons with the</p>

		<p>have any degrees. I know that they don't have teaching degrees. And in one case we had a lady who was, who had been arrested as a felon. And when it came out in the newspaper, we had to tell them that we did not want this person in the building. They weren't aware that she had been arrested-- sort of a mild known case of embezzlement. (p. 3)</p> <p>It's a waste of money. A giant waste of money. I could have retired, started this business and had a couple million dollars in the bank and not done kids any good. (p. 3)</p> <p>Then the providers show up, sometimes late, often late, and that was an issue with them because no one was watching these children. And then they were marched back to classrooms where a lot of the time I saw a lot of snacks, I saw games being played, but I didn't see specific student needs being met.... (p. 3)</p>	<p>SES and they're not – they're not addressing the students' needs according to the data we are getting back. (p. 2)</p> <p>We ought to spend the money with the teachers who can use the money, who are qualified to teach, who are – who are the most aware of the needs of their students and can provide that service ... in a timely manner. (p. 3)</p> <p>... I saw a lot of snacks, I saw games being played, but I didn't see specific student needs being met. Where a teacher would know that this student lacks something in this specific area. Or a weakness in reading they can concentrate on. I have no problem with snacks, but I saw a lot of that. They are giving away toys to kids which I don't know, maybe has a place I don't know. But I don't think</p>
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				they met the needs except in their bank accounts. And we spent a boat load of money. (p. 3)
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Raw Data Matrix: Themes from Padgett Elementary School Case⁹

Source	Themes			
	Student achievement gains as a result of SES or lack thereof	Other gains students made as a result of SES or lack thereof	Source of student gains (SES or other)	Ways to measure impacts of SES
Teacher 1	I haven't seen very much. (p. 2)			I think there definitely needs to be assessments, pre and post assessments, too, and progress reports given to the teacher to show us how they're doing on what they're working on week after week. I think ... there needs to be individualized plans. (p. 7)
Teacher 2	None really noticeable. (p. 2)	I haven't seen any change in confidence. (p. 6)	That [gains in learning behavior] would be another shady area where you don't know if it's because of something that you've done in the classroom.... (p. 6)	And differentiated placement. (p. 7)
Teacher 3			You can't really tell whether the students' progress is from their classroom or the service itself. (p. 3)	
Teacher 4	I've actually had three or four	I had a kid who would cry every		

⁹ Extraneous syllables such as “um” and repeated words have been excised and replaced with ellipsis points. Added words for clarification have been included within brackets.

	[students] out of seven that had dropped out from lack of liking it, not feeling like the parents are getting anything out of it. (p. 3)	morning because he had to go. (p. 4)		
Teacher 5		Nothing really, I mean, my kids show their disdain by not wanting to go, that's for sure. (p. 4)		
Principal	Not much. And in some cases we've seen where they have lost ground. That is based on assessments that we are giving our students.... Some show minor [gains], but most cases its either none [i.e., no gains] or they fall back. That's not based on their assessments. [i.e., those of the supplemental educational services providers]. That's based on our assessments of them on the... [Mid-Atlantic State 2 standardized assessment]. We were looking at this yesterday [response to question about	[Interviewer: So tell me about any changes in behavior you have seen in students since they begin supplemental educational services.] I don't see a lot of behavioral changes. Not much. Nothing. I haven't seen decreases or increases. [Interviewer: So attentiveness, persistence, motivation, flexibility, strategic problem solving, goal setting, metacognitive strategies, response to feedback?] No. My teachers aren't seeing a lot either. [Interviewer: Okay. Tell me about any changes in self-efficacy you have seen in the students, so their self-confidence, that kind of thing.] I can't		We have a pretty good system of assessing our students and where they are because we – we monitor that constantly and I think we've got a pretty good handle on it.... (p. 3)

	changes in academic performance as a result of SES]. (p. 2)	really address that. You probably want to talk to some of the teachers that have one in there... (p. 2)		
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