A Formative Evaluation of a Midwest District's Integrated Services Pilot

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Dedication

This work is dedicated to my husband, David, our children Matthew and Emily, my

parents, Dwight and Marion, and sister, Karen. Thank you for your patience and

unwavering support.

Abstract

The purpose of the Integrated Services pilot was to develop models for the delivery of special education, supplemental programs, and English as a second language services that were based on a philosophy of inclusion. The intent was to provide all students with learning experiences in which they could be successful both academically and socially in the most inclusive environment. The pilot was conducted at four elementary schools in a large Midwestern public school district. The pilot schools served students with diverse needs and were situated in divergent communities, which provided four unique contexts for the pilot. Teacher collaboration and co-teaching were utilized at each pilot school to achieve pilot goals.

The purpose of this formative evaluation was to inform pilot development and to determine if the Integrated Services Pilot should be expanded to other elementary schools in the district. To inform these decisions, qualitative and quantitative data were collected in five areas: (1) professional development and support; (2) collaboration and professional learning communities; (3) impact on teacher knowledge and practice; (4) impact on student engagement and achievement; and (5) overall perceptions of the pilot. Surveys, individual and group interviews, and student achievement data provided the data for analysis and evaluation of pilot results.

Teachers, instructional coaches, and principals reported that the pilot positively impacted both student engagement and student achievement. Additionally, the Integrated Services Pilot had a positive impact on teacher practice and on the relationships between support service and classroom co-teaching partners. Participants indicated that they were

eager to continue with the Integrated Services model and had no desire to return to past

practice.

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Chapter 1

Statement of the Problem

As the needs of students become increasingly diverse and resources for teaching them become more limited, educators continue to search for effective instructional models and strategies to meet the academic and social needs of all students in their classrooms. A review of the literature indicates that teachers and administrators have found co-teaching to be an effective instructional model that facilitates an inclusive learning environment (Cramer & Nevin, 2006; Hang & Rabren, 2009; Scruggs, Mastropieri, & McDuffie, 2007). Co-teaching has been found to have a positive impact on academic growth and social development for English Learners (ELs), special education (SpEd) students, and students at risk for failure. A critical factor for successful co-teaching is a strong collaborative relationship between the support services staff and general educator who comprise the co-teaching team (Bessette, 2008; Mastropieri et al., 2005). This program evaluation examined the effectiveness of co-teaching as an instructional model for the inclusion of all students and the conditions that facilitate the development of successful co-teaching relationships.

Background and Rationale

The passage of The Education for All Handicapped Children Act in 1975 guarantees each disabled student receive a free and appropriate education in the least restrictive environment. Since the passage of this act, subsequently reauthorized as the Individuals with Disabilities Act (IDEA, 1990), practices have evolved; becoming more diagnostic and increasingly disconnected from the general education classroom (Sailor & Roger, 2005). The increased influence of the testing industry and behaviorist theories in

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psychology, supported a special education delivery model focused on assessment and

appropriate "treatment." Typically, the treatments were not provided in the general

education classroom. Furney and Hasazi (2006) suggest that when education for students

receiving support services is based on education as an individual right, the model for

service delivery assumes an individual deficit, resulting in an assimilation model that

focuses on the student as discrepant rather than focusing on the need to modify the

environment. It is important to note than an inclusive model focuses on the cultural and

organizational aspects that lead to inclusion.

    The reauthorization of the Elementary Secondary Education Act in 2001, as No

Child Left Behind (NCLB), has renewed the focus on inclusion of all students and

supporting them to meet high academic standards (Bessette, 2008; Cramer & Nevin,

2006; Sailor & Roger, 2005; Zigmond, Kloo, & Volonino, 2009). The evolution and

implementation of these revised polices has changed the external environment, or

context, for schools; resulting in increased accountability and pressure for educational

change. Context issues, as defined by Armenakis and Bedeian (1999), "principally focus

on forces or conditions existing in an organization's external and internal environments"

(p. 293). In addition to policy changes, increasing student diversity and student needs,

coupled with declining financial resources, represent significant external changes to

which schools must respond. This increases the challenge of supporting all students to

meet high academic standards and makes maximizing resources essential.

    An analysis of several research studies, conducted in varied industries, found that

external context changes often provide the impetus for an organization to overcome

inertia, prompting significant change (Armenakis & Bedeian, 1999). Federal

accountability measures embedded in NCLB (2001) and the revisions to IDEA (2004) represent federal mandates that have provided impetus for school change. Although changes in the external context of a school may be sufficient to overcome the inertia of current practices, they are not sufficient to promote sustained change (Kruse & Louis, 2009; McDonnell & Elmore, 1987). Often mandates "fail due to lack of knowledge, skill and competence rather than the will to comply" (McDonnell & Elmore, 1987, p. 138). Therefore, it is essential to couple the implementation of federal and state policies with systemic professional development. This increases the probability that students will receive the quality instruction required to meet rigorous academic standards and perform beyond the minimum results often associated with a mandate. Even when partnered with quality professional development, however, the effectiveness of federal mandates to create changes in school culture is limited. This is certainly true for a complex school-wide change such as inclusion. Zigmond et al. (2009) found that even in schools with a commitment to full inclusion and ongoing on-site professional development, the changes in practice essential to full inclusion were difficult to implement. "Internal change may be stimulated from the outside, but it must be nurtured internally. State and even district policies lack the leverage and credibility to create the conditions of community, learning and trust needed to foster real cultural change" (Kruse & Louis, 2009, p. 13).

The internal organizational environment adds another contextual dimension to the change process. Prior to Fall 2010 in the district studied, the most common delivery model for students receiving Special Education (SpEd) or Supplemental Program (SP) services (instruction supported with compensatory education funds and Title I monies) in elementary mathematics and literacy, was a pull-out model. Generally, English as a

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Second Language (ESL) teachers have been more receptive to inclusive instructional models (York-Barr, Ghere, & Sommerness, 2007). This stems in part from the language acquisition needs of ELs. With the exception of newcomers, ELs acquire English more quickly when they are immersed in a supportive learning environment with multiple opportunities to hear English spoken.

High frequency use of pull-out instructional models reflects a culture of exclusion rather than inclusion (Furney & Hasazi, 2007; Sailor & Roger, 2005) and does not align with IDEA (2004). Furthermore, pull-out models limit access of special needs students to the general education curriculum and social networking with other students. Aligned and coherent instruction is critical for struggling learners and requires collaboration between classroom teachers and teachers providing support services. In several program evaluations SP and SpEd teachers in the district studied, have reported that they were unfamiliar with classroom curriculum and seldom collaborated with general education teachers (King, York-Barr, & Toal, 2008; Resch, 2010; Toal, York-Barr, Magruder, & Krebsbach, 2009); making the practice of pull-out instruction more problematic.

In addition to teacher feedback regarding the disconnect between classroom instruction and support services, the proficiency gap on the State Comprehensive Assessment II (SCA II) provided further evidence that it was necessary to explore a new service delivery model in the district. In this district, the proficiency gap on the 2010 SCA II in math, between students identified for SpEd services and all students, was 30 percent. In reading, the gap for the same populations was 34 percent (State Department of Education, 2010). In 2009, the gap between students qualifying for free or reduced lunch and those who did not, within each NCLB subgroup, was approximately 20 percent

(Midwest District, 2010). Although a causal relationship cannot be established, it is reasonable to assume that unaligned instruction is less likely to support our most fragile learners, thus contributing to the achievement gap.

In an effort to increase alignment of academic interventions with classroom instruction, general education and support services teachers received training in specific small group interventions in both mathematics and reading. Teacher feedback, aligned with formative and summative assessment results, indicated that student achievement for SP and SpEd students involved in these interventions increased. Teachers reported very encouraging increases in student growth; significantly greater than anticipated. However, as the variety and number of interventions increased, the overlap between service providers made it difficult to determine the instruction that meets Independent Education Plan (IEP) time requirements; the services in SP that were supplemental (additional services or instruction provided only to students qualifying for free and reduced lunch); and, those considered supplanting (paying for services or instruction that are a part of the general education curriculum with Title I monies). Increasing class size, increased student needs, and a decrease in resources made it difficult for teachers to deliver these services to all identified students in both reading and mathematics. The need for interventions and overlap of services represents another internal contextual factor that supported the need to develop a new approach for the delivery of support services. In response to this identified need, a co-teaching pilot was begun in the 2010-2011 school year at four elementary schools. Findings from the first year of the pilot were used to shape Year Two of the pilot and to inform this evaluation.

The change needed for successful pilot implementation represented a significant cultural shift that may have challenged the belief systems of individuals. Consequently, the pilot required the "deep change" associated with second-order change at both the individual and system level. Second-order change, as defined by Van de Ven and Poole (1995), represents "a break with the past basic assumptions or framework. The process is emergent as new goals are enacted. It can produce highly novel features; the outcome is unpredictable because it is discontinuous with the past" (p. 523). Episodic, second-order change requires changes in the structure and culture of a school and the underlying mental maps or schema that support them (Weick & Quinn, 1999).

In the pilot schools, many classroom and support services teachers believed that student needs were best met when support services are delivered in a pull-out instructional model. The delivery of support services in the general education classroom required a change in the scheduling of staff, increased opportunities for collaboration, and the deprivatization of teacher practice. Each of these had the potential to create a "high degree of uncertainty and a need to make sense of the changes" (Van de Ven & Poole, 1995, p. 523). These feelings are often associated with second-order change. Consequently, it was reasonable to assume that successful implementation of the pilot would require strong principal leadership, significant professional development, and ongoing support (Sindelar, Shearer, Yendol-Hoppey, & Libert, 2006); "inclusion, in short, would seem to be a challenging school-wide reform to establish and implement, and its sustainability would seem difficult to achieve" (p. 319). Although inclusion may be a challenge, administration and staff perceived it to be a worthy school-wide reform.

The impact of inclusive school practices is not limited to the individual student, school or district level. Because development of an inclusive school culture is a social justice issue (Causton-Theoharis, & Theoharis, 2008; Florian, 2008; Furney & Hasazi, 2006; Nisbet, 2004), it has impact throughout the larger community. Inclusive school cultures are built on the premise that all students have intrinsic value and can learn when the school environment is structured for success. A critical component of inclusive service delivery models was collaboration between general educators and support service providers. Teacher collaboration increases educators' ability to differentiate instruction and meet the needs of diverse learners, resulting in increased student achievement. Additionally, collaboration between teachers, openness to new ideas, reflection, and community partnerships result in a school culture that reflects democratic principles and prepares students to contribute to a democratic society. As a result, inclusive school cultures support the development of intellectually capable students who can contribute to a just and democratic society (Florian, 2008).

Purpose

The IDEA, as reauthorized in 2004, requires that all students receive instruction in core areas in the least restrictive environment. Additionally, the anticipated changes in SpEd funding, to reflect a non-discrepancy model, will decrease funding needed to maintain pull-out services. The intent of the Integrated Services Pilot was to provide all students with learning experiences in which they could be successful both academically and socially in the most inclusive environment. Teacher collaboration and co-teaching models were utilized to achieve this goal in the four participating schools in the district studied.

The Integrated Services Pilot was intended to have a three-year duration. In the first two years the evaluation was formative with the intent to improve the object's implementation process. Findings were shared with program leaders and participants and used to inform and modify their work. Thus, the first goal of this evaluation was object improvement. Evaluation in the third year was summative, to assess the extent to which the program achieved its goals. Therefore, a second goal of this evaluation was rational goal attainment. The evaluation results were used to determine if the service delivery models developed in this pilot should become standard protocol for service delivery at the elementary level in this school district. Year Two of the evaluation focused on the support structures that contributed to successful implementation of co-teaching. The findings from Year One of the evaluation, and current research on co-teaching, indicated that administrators, teachers, and students perceive co-teaching as beneficial both to students receiving support services and to general education students (Resch, 2011). However, a review of the current literature also suggests that further research is needed on how to effectively support teachers in developing the truly collaborative partnerships essential to co-teaching (Mastropieri, Scruggs, Graetz, Norland, Gardizi, & McDuffie, 2005). The purpose of this evaluation during Year Two of the pilot was to determine the extent to which educators perceived co-teaching to impact student engagement and learning, and, the conditions that supported co-teaching relationships; such that students were provided a coherent instructional program grounded in the philosophy of inclusion.

The study examined the following evaluation questions:

1. What professional development and support did teachers, coaches and principals find most beneficial?

2. What structures did teachers, instructional coaches, and principals find most

   effective in planning service delivery for students receiving support services?

   a. What was the focus of co-planning and reflection between teaching partners?

   b. What administrative, school, and team supports were identified as supportive of

      co-planning and reflection between teaching partners?

   c. What were the constraining forces or barriers to co-planning and reflection?

3. What structures and strategies did teachers, instructional coaches, and principals

   find most effective in optimizing service delivery for students receiving support

   services?

   a. What school or team level structures did teachers find most effective in

      supporting learning for students receiving support services?

   b. What classroom structures and instructional strategies did teachers find most

      effective in supporting learning for students receiving support services?

4. To what extent did teachers, instructional coaches, and principals find integrated

   services to be a model effective in supporting:

   a. Aligned instruction between classroom teachers and support service teachers?

   b. An inclusive learning culture for students?

   c. An inclusive learning culture for students?

5. What was the impact, both perceived and measured, of the Integrated Services

   Pilot on student engagement and learning?

6. Overall, how did participants perceive the Integrated Services Pilot?

   a. What recommendations did teachers, instructional coaches and principals have

      for improvement?

b. What professional development experiences did teachers, instructional coaches, and principals recommend to support the establishment and sustainability of co-teaching teams?

Definition of Terms

Inclusive schools are an effort to address the social justice issue of equity in education as a part of a human rights agenda (Florian, 2008). Inclusive schools, as defined by Causton-Theoharis, and Theoharis (2008), are places where students, regardless of ability, race, language, and income, are integral members of classrooms, feel a connection to their peers, have access to rigorous and meaningful general education curricula, and receive collaborative support to enhance success. In inclusive schools, students do not have to leave to learn. Rather, services and supports are brought directly to them (Causton-Theoharis & Theoharis, 2008, p. 25).

Co-teaching involves "two or more teachers delivering substantive instruction to a diverse, or blended, group of students in a single physical space" (Cook, & Friend, 1995, para. 5). In this model, all teachers in the classroom are involved in the planning, instruction, and assessment of students (Villa, Thousand, & Nevin, 2008). Researchers use different terminology to identify approaches to co-teaching. The four approaches to co-teaching that are most frequently used include: supportive, parallel, complementary, and team teaching (Thousand, Villa, & Nevin, 2006). Friend and Cook (2010) divide the supportive teaching approach into two categories: one teaching, one observing; and one teaching, one assisting. They also include station teaching and alternative teaching as separate approaches, while Thousand et al. (2006) include these in parallel teaching. The Thousand et al. (2006) terminology will be used in the Integrated Services Pilot.

General education students in this evaluation refer to students receiving the general education curriculum who have not been identified for additional support services.

Support services are instructional or behavioral support provided by a special educator or an ESL teacher, and/or instruction provided to students funded with Title I or compensatory education monies.

Utilization-focused evaluation, as defined by Patton (2008), "is evaluation done for and with specific intended primary users for specific, intended uses" (p. 36). Therefore, utilization-focused evaluation focuses on the information that the primary intended user requires to make decisions regarding the focus of the evaluation.

Review of Related Research

The literature pertinent to this evaluation is drawn from research that focuses on four areas of co-teaching: (a) the measurable and perceived impact of co-teaching on student achievement and socialization; (b) the relationships between co-teachers and how they are formed; (c) classroom structures, instructional strategies, professional development, and site level supports that facilitate the development of co-teaching partnerships; and (d) the impact of co-teaching on the development of an inclusive culture. Since the findings of this evaluation will be used to inform work in elementary schools, the studies selected for review were limited to those conducted at the elementary level, unless they provided relevant insight into one of the aspects of co-teaching previously listed.

The impact of co-teaching on student achievement and socialization. Generally, teachers and administrators positively perceive the impact of co-teaching on academic achievement and the social skill development for general education (GE) students and students with disabilities, ELs, and students receiving Title services (Hang & Rabren,

2009; Idol, 2006; Nevin, Cramer, Voight, & Salazar, 2008; Salend, Johansen, Mumper, Chase, Pike, & Dorney, 1997; Walther-Thomas, 1997). Inclusionary practices, including co-teaching at the elementary level, appear to have the greatest impact on reading and language arts achievement, while increases in mathematics achievement are generally smaller, but positive (Murawski & Swanson, 2001; Signor-Buhl, LeBlanc, & McDougal, 2006).

In addition to increased academic achievement, another benefit of co-teaching is the positive impact inclusion has on the social development of both general education students and students receiving support services (Austin, 2001). Walther-Thomas (1997) found an increase in students with disabilities playing with peers during recesses, and visits to their peers' homes as evidence of increased social development.

> Teachers noted that many students with disabilities "lost" their labels when the special education service delivery format was changed…. Teachers indicated that the identified students paid more attention to their schoolwork, physical appearance and many showed increased school attendance. They also participated in classroom and extracurricular activities more actively. (Walther-Thomas, 1997, p. 399)

York-Barr et al. (2007) reported similar findings for ELs. Teachers reported students "feeling more included and less scared, experiencing a greater sense of community and more varied relationships, including friendships between ELs and non-EL students" (p. 321).

Challenges to inclusion as an educational model are generally grounded in two concerns. The first is the potential of learning risks to the majority; and the second is the loss of specialized instruction for students with disabilities (Sharpe, York, & Knight, 1994, p. 282). In a study with multiple limitations, Huber, Rosenfeld, and Fiorello (2001) did find a decrease in academic achievement of GE students in inclusive classrooms. The

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results of this study are confounded by concurrent changes in the mathematics and reading curriculum and testing measures. A number of studies contradict the findings of Huber et al. (2001) and indicate that academic achievement of GE students in inclusive classrooms either increased or was not statistically different from their peers in comparison groups (Hang & Rabren, 2009; Nevin et al., 2008; Sharpe et al., 1994; Walther-Thomas, 1997; York-Barr et al., 2007). Perhaps the most convincing findings regarding the positive impact of co-teaching on students' academic achievement and social development, are those from a qualitative metasynthesis conducted by Scruggs et al. (2007). This study involved school districts across the United States, in a wide variety of settings, indicating that both general and special education students benefited both academically and socially from co-teaching in inclusive classrooms.

Research on the number of students receiving support services that a single GE teacher can effectively teach in one classroom is limited. Additionally, further evidence is needed to determine the impact of co-teaching on specific identified student needs as well as which students are better served by the co-teaching model. Even when concerns regarding the impact of co-teaching on high performing students and the areas for further study are considered, there is sufficient evidence regarding increased academic achievement and socialization for all students to support the continued implementation and evaluation of co-teaching as an inclusionary model.

The relationships between co-teachers and how they are formed. The research is unequivocal about the correlation between a strong professional relationship between co-teaching partners and the effectiveness of co-teaching. Genuine trust and respect between co-teachers are central to an effective co-teaching relationship (Bessette, 2008;

Mastropieri et al., 2005). "The development of a trusting relationship over the life of a co-teaching partnership may be the most critical issue of all" (Bessette, 2008, p. 1394). Strong co-teaching partnerships have several common characteristics. These characteristics include shared ownership for the academic and social development of all of the students (Mastropieri et al., 2005), shared structures for classroom management and shared authority (Bessette, 2008; Mastropieri et al., 2005), and shared content knowledge (Mastropieri et al., 2005). Each of these characteristics contributes to the development of a more equitable relationship between co-teaching partners.

Even in high functioning partnerships, general educators are often seen as the content experts providing direct instruction; while special education teachers assume responsibility for modifying and adapting curriculum, modeling instructional strategies, and providing individualized instruction in math and reading (Anita, 1999; Austin, 2001; Wood, 1998; Zigmond et al., 2009). Unless both teachers value these roles equally, special educators often feel underutilized in the co-teaching model (Bessette, 2008; Wood, 1998). Bessette (2008) emphasized the importance of taking a proactive approach to defining how the instructional roles will be distributed. Clear role distribution facilitates the opportunities for professional learning between co-teaching partners, allowing each to alternate between the role of expert and learner. Over time, as the co-teaching relationship evolves, the role differentiation between the general and special educators decreases. When serving ELs, role differentiation between the general educator and the ESL teacher was not as noticeable. In fact, co-teaching reduced role differentiation between general education and ESL teachers (Dove & Honigsfeld, 2010).

Research into the development of the relationships between co-teachers is rather limited. There is some research to indicate that the years of teaching experience and volunteering to co-teach, versus being assigned, do not appear to have a correlation with the success of co-teaching partnerships (Mastropieriet et al., 2005). Research on strategies used to support the development of co-teaching relationships is also limited. Bessette (2008) found open-ended, non-directed teacher journaling to be an effective strategy in helping teachers identify and discuss instructional differences directly. Identification of other team building strategies that can support co-teaching relationships is essential. "Future research could address the means by which individual schools are able to develop truly collaborative or genuine partnerships, and the specific gains that can be realized by such practices" (Scruggs et al., 2007, p. 413).

Supporting co-teaching partnerships. The support of district and building administrators is essential for the successful implementation of co-teaching (Bessette, 2008; Dove et al. 2010; Idol, 2006; Nevin et al., 2008; York-Barr et al. 2007). "Leadership support is needed to gather information about co-teaching before it is implemented, provide resources to support co-teaching while it is being implemented, and be a visible proponent of co-teaching throughout the implementation and fine-tuning stages" (Bessette, 2008, p. 1394).

Administrative supports that teachers found helpful were time for co-planning, adjustments to caseloads for special educators, scheduling, and opportunities to dialogue with the principal about co-teaching concerns (Gerber & Popp, 2000; Klingner & Vaughn, 2002; Mastropieri et al., 2005; Nevin et al., 2008; York-Barr et al., 2007). Teachers indicated that co-planning time should be provided daily. However, those who

had time for co-planning daily disagreed about its effectiveness (Austin, 2001). Anita (1999) found that development of a collaborative culture was probably more important than common planning time.

Co-teaching partners and principals should discuss and delineate teachers' roles and responsibilities prior to implementation of co-teaching (Bessette, 2008; Bouck, 2007; Wood, 1998). Classroom management and instructional strategies, curriculum, and instructional adaptations for students needing special services, are topics that should be included in this discussion and revisited as the co-teaching relationship evolves. Cramer and Nevin (2006) found special and general educators had the least similarity in instructional practices related to how to structure, adapt, and individualize learning activities, and how to manage inappropriate behavior. These instructional practices are critical to the inclusion of students receiving support services in the general education classroom. Prior to co-teaching, teaching partners must arrive at a shared understanding about how instruction and behavior will be managed.

When co-teachers both have strong instructional skills and deep content knowledge, a more equitable partnership and collaborative classroom environment develops (Mastropieri et al., 2005). This has implications for the professional development needed to support co-teaching. Support service teachers need opportunities to become familiar with the general education curriculum, and general educators need to learn additional strategies for differentiating and adapting curriculum to meet the needs of all students. This can be accomplished both through formal and embedded professional development. Teachers have found that the practice of co-teaching contributes to their professional development by increasing special educators' content knowledge and general educators'

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classroom management and curriculum adaptation skills (Cramer & Nevin, 2006). Other

topics that should be considered when planning professional development are

interpersonal communication, listening, conflict resolution, problem solving skills and

strategies, differentiated instructional practices, collaborative planning, and other

research-based instructional practices (Salend et al., 1997; Thousand et al., 2006).

The impact of co-teaching on development of an inclusive culture. "Inclusive

education is based on the principle that local schools should provide for *all* children,

regardless of any perceived difference, disability or other social, emotional, cultural or

linguistic difference" (Florian, 2008, p. 202). Co-teaching, as an inclusive education

model, benefits students with and without disabilities by promoting tolerance for

difference and increasing acceptance. Classrooms in which co-teaching has been

implemented have an increased sense of community among staff and students (Pugach &

Wesson, 1995; Salend et al., 1997; Walther-Thomas, 1997; Zindler, 2009). Development

of an inclusive culture that supports co-teaching requires administrative leadership at the

district and school level (Nevin et al., 2008; Theoharis & Causton-Theoharis, 2008;

Walther-Thomas, 1997).

Causton-Theoharis and Theoharis (2008) identified four indicators of administrative

commitment to inclusive education: (1) an established inclusive student placement

process, (2) student membership in the general education classroom is not dependent on

being "ready for inclusion," i.e., all students belong, (3) separate spaces for students with

different needs do not exist, and (4) teachers are provided professional development in

differentiated instruction and collaboration (pp. 27-28). These indicators reflect the belief

that in an inclusive school culture, all children are members of the school community,

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necessitating a change in the environment, rather than remediation of the individual

(Nisbet, 2004), to maximize learning for all students.

Historically, the model for delivery of special education in the United States has

been built on the concept of least restrictive environment (LRE), which is a readiness

model. Students with special needs must earn the right, by having the requisite skills, to

participate in the general education classroom (Taylor, 1988). Although legislation and

legal decisions have provided new interpretations of LRE, it is still reflected in education

funding formulas and special education monitoring policies. Once a service delivery

model is developed using a continuum of services, it is difficult to develop a fully

inclusive community (Nisbet, 2004). Co-teaching is an instructional model that supports

inclusion by creating a positive classroom culture, while meeting the requirements of

IDEA (2004) and the NCLB requirement for highly qualified teachers.

There are many barriers to inclusion that require change beyond the school and

district level. However, administrators and teachers can still change the way differences

in learning are approached in their schools and classrooms. "Teachers are free to think

differently about the nature of the problem of 'learning difficulties' and the responses that

they might make when students encounter barriers to learning" (Florian, 2008, p. 207).

Pugach and Wesson (1995) found that in co-taught classrooms, students felt supported by

their peers and had more friends. Students felt that "kids got nicer" (p. 286). One student

remarked, "We all feel like one family or something" (p. 286). Thus, co-teaching is a

collaborative teaching model that provides the opportunity to address student differences

through development of an inclusive culture.

Importance of the Evaluation

> Salend et al. (1997) emphasize the importance of research grounded in practice. Future research based on the voices and real-life experiences of educators involved in cooperative teaching is needed to document and compare experiences of other cooperative teaching teams and to identify the obstacles they encounter as well as solutions they employ to overcome barriers to successful cooperative teaching efforts. (p.10)

Although additional research on co-teaching conducted after 1997 has identified some of the barriers to implementation, there are limited data about the implementation of co-teaching as a systemic model for inclusion. A review of the research literature validates the importance of the relationship between co-teachers and the need for common planning time. However, few studies offer a plan of action for the successful implementation of co-teaching.

Cramer and Nevin (2006) recommend that the supports examined include the "identification of administrative and professional development supports [needed] to establish and maintain co-teaching teams as well as the assessment of instructional modules to prepare teachers to take on co-teaching roles" (Cramer & Nevin, 2006, p. 272). A three-year case study on collaborative teaching with ELs, by York-Barr et al. (2007), provides the most explicit guidance for implementation of co-teaching and was used to guide the Integrated Services Pilot. York-Barr et al. (2007) state that "additional research is warranted that examines such interventions more explicitly as well as on a larger scale" (p. 331). Signor-Buhl et al. (2006) validate the importance of program evaluation conducted by school districts in their local context. "Although some inclusion practices have been shown to be effective, this does not necessarily indicate that the same

programs also will be effective in another school or district….[Thus,] it becomes essential for districts to evaluate their own efforts to assess student outcomes" (p. 110).

This utilization-focused evaluation (Patton, 2008) examines the efficacy and supports provided for the implementation of co-teaching in the diverse contexts of four elementary schools. The findings of this evaluation will be used to inform the potential expansion of co-teaching as a model for developing inclusive classrooms. Thus, the value of this program evaluation is, by focusing on a "specific program rather than more broadly based theoretical constructs typically evaluated in more classically based research, school districts can get answers to relevant questions about their specific programs" (Signor-Buhl et al., 2006, p. 110).

Administrators and teachers have responded positively to co-teaching as a delivery structure for increasing student achievement and developing more inclusive learning environments. Systematic expansion of co-teaching to benefit a greater number of students and school communities has merit. The outcomes of co-teaching are very dependent on the relationships between co-teachers and overall school culture. Therefore, expansion of co-teaching will require the knowledge gained through implementation of co-teaching in different contexts to identify the critical supports needed for successful implementation. The Integrated Services Pilot provided this opportunity. The findings from implementation in four diverse school settings were used to identify variables that support co-teaching common to each context and those that were unique. The models developed through this evaluation can be used to guide the implementation of co-teaching in other sites.

Limitations

    Ethics. The author of this document was the Director of Elementary Curriculum, Instruction, and Assessment for the district studied and one of the leaders for the Integrated Services Pilot and the formative evaluation. Previous district program evaluations and achievement data indicated that a proficiency gap, ranging from 16% to 36%, existed between student groups receiving support services and those not receiving service. Based on the proficiency gap, in conjunction with the nonalignment of support services instruction, the author recommended to the associate superintendent that it was necessary to explore a different delivery model for support services. A review of the literature indicated that co-teaching held promise as a strategy for increasing engagement and achievement for students receiving support services. Thus, it was determined that a pilot focused on co-teaching as an inclusionary model would be conducted. The associate superintendent, elementary director, and University partner presented the proposal to the principals of the schools invited to participate. Subsequently, the planning and implementation of the pilot began. To minimize potential bias (positive or negative) introduced by the participation of the author, surveys were conducted by the district Achievement Analysts. The Achievement Analysts, who were not directly involved in the pilot, also conducted interviews. Interviews were audiotaped and subsequently transcribed.

    Pilot organization. The Integrated Services Pilot was implemented differently in each of the four pilot schools. Using logic models, existing documents and interview responses, the evaluator could determine which pilot activities teachers were involved in at each school. Recognizing the individualized nature of the pilot at each site adds

complexity to the study and increases the challenge of drawing conclusions for all four schools.

Resources. In Year One the funding source for this pilot was American Recovery and Reinvestment Act, Title I funding (federal stimulus funds) as a one-time funding for the pilot and the evaluation. In Year Two of the pilot, the Elementary Curriculum Department provided funding for the evaluation. Evaluation of the pilot in Year Three was also completed using existing district budgets.

Social concerns. Moving to a more inclusive model requires a huge cultural shift for many teachers. Consequently, the evaluation will required a mixed methods approach allowing for the assessment of cultural changes that may be reflected in teacher practice, student engagement, relationships between students and other social variables. Teachers were also concerned about the academic impact of the pilot on general education students and students receiving special services. Evaluating the impact of the pilot on academic achievement was limited to perception data in Year 2 of the evaluation. This limitation made it difficult to measure the impact on the achievement of general education students in a complex environment. In Year 3 the achievement measures used were standardized tests. When evaluating a second-order change, three years does not usually allow enough time for the change to impact student achievement. However, in Year 3 of the evaluation student achievement on state and local standardized tests provided guidance for further pilot development.

Conclusion

The Integrated Services Pilot represents a second-order change implemented for the purpose of increased learning for all students in an inclusive environment. It is imperative

that schools develop service delivery models that maximize learning for all students. The intent of the Integrated Services Pilot was to accomplish that goal. This evaluation examined the conditions that supported co-teaching as an inclusive instructional model. A deep understanding of the supports needed for successful implementation of co-teaching will help facilitate the successful expansion of this model to other school sites and provide other districts a successful model to consider.

Inclusive learning environments provide expanded learning experiences for all students in both the academic and affective domains. A public education system that addresses the needs of all learners ensures that all students will have the opportunity to develop the skills and abilities necessary to compete in a global marketplace and contribute to the commonwealth of our nation, thus sustaining our democracy.

Chapter 2

Methods

Pilot Description

The purpose of this pilot was to develop service delivery models for Special

Education (SpEd), Supplemental Programs (SP), and English as a Second Language

(ESL) programming based on a philosophy of inclusion rather than exclusion. The intent

was to provide all students with learning experiences in which they could be successful

both academically and socially in the most inclusive environment.

Pilot Context

The Midwestern suburban school district in which this pilot was conducted is

located north of a large urban area. The district has the largest student population in the

state and covers a large geographic area. As a result, it serves communities that are

significantly varied and which consequently have diverse needs. The total student

population of the school district in 2010, when the pilot was initiated, was 40,193

students K-12. Slightly less than half of these students were of elementary age and were

served by twenty-four elementary schools. Prior to fall 2010, the most common delivery

model in the district for both SpEd and SP services in elementary mathematics and

literacy was a pull-out model. Generally, English learners (ELs) received support services

in the mainstream classroom.

In an effort to increase alignment of academic interventions with classroom

instruction, general education and special services teachers received training in specific

small group interventions in math and reading. As the variety and number of

interventions delivered increased, the overlap between service providers has made it

difficult to determine the instruction that met IEP time requirements and which services in SP were supplemental, and which would be considered supplanting. Increasing class size, increasing student need, and a decrease in resources made it difficult for teachers to deliver these services to all identified students in both reading and mathematics. Therefore, it was necessary to reorganize the delivery of instruction by classroom and special service teachers, maximizing resources to provide the most appropriate support to all learners.

As noted above, the purpose of this pilot was to develop models of service delivery that were based on a philosophy of inclusion rather than exclusion. The intent ultimately was to provide all students with learning experiences in which they could be successful both academically and socially in the most inclusive, coherent, and supportive learning environment. Teacher collaboration and co-teaching models, in conjunction with deeper reflective practice among teaching staff, were utilized to achieve the pilot goals. This pilot represented a large cultural shift that challenged the belief systems of many individuals. It was important for this pilot to have strong principal leadership, significant staff development, and ongoing support.

Pilot Design

The overarching goals of the Integrated Services Pilot were to increase student achievement in math and reading and to increase the positive social interaction between general education students and students with special needs. This was to be accomplished through the delivery of ESL, SpEd and SP services and instruction using an integrated service model in inclusive classrooms. To determine how to work most effectively in an inclusive environment with all students, the district implemented a pilot study in four

schools during the 2010-2011 school year. This formative evaluation was conducted at the end of Year Two. Student achievement data collected at the end of Year Three provide measures for the impact on student achievement. It is reasonable to assume that three years is not an adequate timeframe for a second order change to occur. Therefore, the measured changes in student achievement may not be significant.

The logic model illustrated in Figure 1 describes the major components of overall project design. At a glance, readers are provided an overview of the participating schools and the professional development available to all four schools. Each principal determined the learning opportunities and support that would be provided at his/her site for implementation of the pilot. The diverse needs of students and staff at each school required a different implementation plan for each school site. The results of surveys and interviews conducted were used to guide further development of the pilot.

Purpose of the Evaluation

The Integrated Services Pilot was intended to have a three to five-year duration. In the first two years, the evaluation was be formative with the intent to improve the pilot's implementation process. Findings were shared with program leaders and participants and used to inform and modify their work. Thus, the first goal of this evaluation was object improvement. Evaluation in the third year was summative, to assess the extent to which the program achieved its goals. Therefore, a second goal of this evaluation was rational goal attainment. The evaluation results were used to determine if the service delivery models developed in this pilot should become standard protocol across the district.

General Approach to Evaluation

This evaluation utilized two approaches. The objectives-oriented approach was used to determine the extent to which the goals and objectives of the pilot were achieved. Logic models (Figure 1) were used to strengthen this approach by identifying program inputs, activities, outputs and outcomes.

A formative evaluation approach was also be utilized. The elementary associate superintendent, directors, principals, teaching and learning specialists, and instructional coaches, each with specific areas of expertise, were engaged in on-going pilot development. Additionally, they were included in development of the evaluation tools. The University partners contributed their evaluation expertise as a part of the design team. Together, district staff and the University partners collaborated to modify the pilot in response to challenges, the needs of the participants, and new learning, while being aware of the context of the school community. As noted previously, the following evaluation questions guided this study:

1. What professional development and support did teachers, coaches, and principals find most beneficial?

2. What structures did teachers, instructional coaches, and principals find most effective in planning service delivery for students receiving support services?

   a. What was the focus of co-planning and reflection between teaching partners?

   b. What administrative, school, and team supports were identified as supportive of co-planning and reflection between teaching partners?

   c. What were the constraining forces or barriers to co-planning and reflection?

3. What structures and strategies did teachers, instructional coaches, and principals find most effective in optimizing service delivery for students receiving support services?

    a. What school or team level structures did teachers find most effective in supporting learning for students receiving support services?

    b. What classroom structures and instructional strategies did teachers find most effective in supporting learning for students receiving support services?

4. To what extent did teachers, instructional coaches, and principals find integrated services to be a model effective in supporting:

    a. Aligned instruction between classroom teachers and support service teachers?

    b. Relationships between classroom teachers and support services teachers?

    c. An inclusive learning culture for students?

5. What was the impact, both perceived and measured, of the Integrated Services Pilot on student engagement and learning?

6. Overall, how did participants perceive the Integrated Services Pilot?

    a. What recommendations did teachers, instructional coaches and principals have for improvement?

    b. What professional development experiences did teachers, instructional coaches, and principals recommend to support the establishment and sustainability of co-teaching teams?

Figure 1: Integrated Services Pilot Logic Model

Pilot Schools	Professional Development and Support	Impact on Teacher Knowledge and Practice	Impact on Student Engagement and Achievement
School A • School-wide Implementation • School-wide Title F & R*(51.9%) • EL (11.4%) • SpEd (14.3) **School B** • School-wide Implementation • School-wide Title F & R* (53.8%) • EL (10.5%) • SpEd (15.0%) **School C** • Selected Team Implementation • F & R* (27.9%) • EL (8.9%) • SpEd (9.4%) **School D** • Selected Team Implementation • F & R* (16.2%) • EL (0.0%) • SpEd (11.8%)	**Professional Development and Support for Teachers** • Support from Principals Instructional Coaches University Partner External Staff Developer (ENVoY) • Professional Learning Communities • Team Collaboration Time • School Training on Inclusive Classrooms **Professional Development and Support for Coaches** • Support from: Principals Central Office Staff University Partner External Staff Developer • Collaboration with Pilot Coaches **Professional Development and Support for Principals** • Support from: Central Office Staff University Partner External Staff Developer Collaboration with Pilot Principals	**Classroom Teachers** • Increased alignment of instruction • Increased understanding of effective strategies for students receiving support services • Increased collaboration with support service teachers **Support Service Teachers** • Increased alignment of instruction • Increased understanding of classroom curriculum • Increased collaboration with classroom teachers	**Students Receiving Support Services** • Increased engagement in classroom activities • Increased inclusion in the classroom community • Increased academic achievement, perceived and measured • Increased instructional time in the classroom • Increased alignment of learning activities **Students Not Receiving Support Services** • Increased participation in an inclusive community • Increased or maintenance of academic achievement

*F&R are students qualifying for free or reduced lunch and are serviced by staff in supplemental programs

Design of Evaluation by Question

The evaluation design for this pilot used mixed measures to gather data from multiple stakeholder groups. The design of the evaluation by question is provided in Appendices A and B.

Participants

Four schools were identified for participation in the pilot on the basis of school size, percentage of EL students, poverty level, and percentage of students receiving special education services. The schools selected had very different characteristics.

Program staff. The principals in each of these schools were considered strong leaders with varied leadership styles. Both School C and School D have assistant principals due to their size. Additionally, an instructional coach supported teachers in each of these schools.

In the first and second year of the pilot, School A and School D shared the same instructional coach. In both School A and School D the principal and instructional coach had developed a strong collaborative relationship. The instructional coach at School C was also in a position shared with another elementary school in the district. During Year One of the pilot, the instructional coach at School B was shared with another elementary school. However, in the second year this coach assumed a combined position as a Title teacher and a half-time instructional coach at School B. This allowed the coach to be available before and after school to support teachers and work side by side with students needing additional support. The principal at School B requested a coaching model that paired instructional coaching responsibilities with a building SP teaching assignment. The principal at School B and instructional coach worked together on identifying school

goals and the development and implementation of school action plans, including planning for Integrated Services Pilot.

The teaching staff varied in years of experience. However, since all probationary teachers were terminated due to budget cuts in the 2010-2011 school year, nearly all have more than three years of experience. The exception would be the few staff in extremely specialized positions that are difficult to fill. Table C1 provides a summary of the staffing allocations pertinent to this project.

School A. School A is a culturally diverse school with 35% students of color in 2009-2010 and 28.5% students of color in 2010-2011. In both Year One and Year Two of the pilot, 52% of students qualified for free or reduced lunch. This is a high percentage relative to the entire district. Thus, this school was identified as a school-wide Title school. The percentage of students receiving special education services was 2% higher than the district average of 12.1%. School A does not have a center-base special education program. The student population at School A was culturally diverse and represented the new norm for student populations in this attendance area. At the end of Year One of the pilot, the principal reorganized the grade level teaching teams to maximize teacher assets and create a more collaborative community. This was a significant change for the school. Significant staffing changes in the SpEd department also occurred during the pilot.

The principal at School A was a collaborative leader and was a visible proponent of the co-teaching pilot. Additionally, the teachers at School A reported that their principal provided time for co-planning, adjustments to the schedule for support services teachers, and opportunities to discuss the pilot. These supports were identified in the literature as

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important to successful implementation of inclusive schools designs (Gerber & Popp, 2000; Klingner & Vaughn, 2002; Mastropieri et al., 2005; Nevin et al., 2008; York-Barr et al., 2007). The principal at School A also arranged for on-going professional development as the pilot evolved.

School B. As a result of the school closing process and boundary changes, enrollment at School B increased by approximately 200 students for the 2010-11 school year. Additionally, the number of students qualifying for free or reduced lunch increased from 44.3 percent to 53.6 percent. Due to the relatively high number of students qualifying for free or reduced lunch, School B was identified as a school-wide Title school. Furthermore, School B had a new principal, the second in two years, due to the retirement of one principal and subsequently, the need to lay off principals due to declining enrollment.

The principal at School B had a strong instructional background and commitment to all learners. He/she was comfortable with the use of data to inform instruction. As a result, PLC time was often focused on formative assessment and student learning.

School C. School C resulted from the merger of two elementary schools during the 2010 school closing process. These schools were engaged in two very different district initiatives. One of the merged schools had been a specialty school and the other had implemented specialization at grades four and five. Thus, a new school community was formed and an existing principal was assigned as the leader. The new student body had approximately 25% students of color and 28% of students qualified for free or reduced lunch.

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The principal identified the development of a shared culture among staff and students as a priority for the 2010- 2011 school year. This focus continued in 2011-2012. The principal determined that selected teams would participate in the pilot as a choice. This made it difficult to identify which teachers actively participated in the pilot. Another result was that professional development and principal support of the pilot was limited.

School D. School D was a large school located in a more affluent area of the district. The school had limited student diversity, received no Title I funds, received funding for one support teacher from compensatory dollars, and had no students receiving ESL services. School D was the site for a Developmentally Cognitively Delayed (DCD) Center-base SpEd program. Historically, the center-base program had been conducted in a separate classroom with minimal mainstreaming of students. Thus, SpEd was the focus for inclusion work at this school. Based on professional development needs in reading, and the desire to start "small", the principal decided to implement the pilot in three classrooms at grades four and five that were serviced by special educators. The focus of instruction for the pilot in School D was reading and small group instruction.

After Year One of the pilot, the principal and participating teachers and the principal discussed if it would be best for the SpEd teachers to travel with the students from fourth grade to fifth grade or to maintain the same teaching partnerships. They decided it was in the best interest of the students for the SpEd teachers to move to fifth grade with the students. This proved to be a challenge in Year Two because new teams were formed and the initial team building work done in Year One was not repeated. After the need to provide more support for new teaching teams was identified, both the instructional coach and principal collaborated to provide the support requested by teachers.

It is apparent from the individual school descriptions that the diverse needs of students and schools in this project required an implementation plan individually tailored to each school.

Program clients/participants. The students and families serviced by these schools represented diverse backgrounds and had diverse needs. The majority of students attending these schools were from the surrounding neighborhoods, although some attended from other district schools and surrounding districts as a part of desegregation programs or open enrollment. (Tables C2 and C3 provide information on the demographics of the student body.)

All 24 elementary schools in the District served K-5 students, providing instruction in the core areas of reading, math, science, and social studies. Each principal had responsibility for the management and instructional leadership of his/her school.

Kindergartens through second grade classrooms were self-contained and utilized a blend of pull-out and push-in programs to provide support services to students. Some third grade classrooms specialized in content areas. In grades K-3, specialist teachers provided instruction in the areas of art, media, music, physical education, and science. All four pilot schools have specialized classroom instruction in grades four and five where one GE teacher was responsible for English language arts and social studies instruction; the other GE teacher was responsible for math and science instruction.

To ensure that all students have access to the same learning opportunities, the District's School Board has adopted a policy supporting a district-wide curriculum and its implementation. Differentiated professional development for implementation of curriculum and instructional practices is provided both at the district and building levels.

As required by state law, programs were reviewed as part of a continuous improvement cycle.

Organization/structure/administration.

The Integrated Services Pilot was a collaborative effort among the Associate Superintendent for Elementary Education; the Elementary Curriculum, Instruction and Assessment department; the Special Education Department; four elementary schools, and University partners. The pilot planning team included the Elementary Associate Superintendent, the four pilot school principals, department directors, instructional coaches, University partners, and the teaching and learning specialists for SpEd and ESL.

Rationale for the Methods Selected

The Integrated Services Pilot incorporated four methods of data collection to address the evaluation questions. Perception data were collected at the end of Year 2 using three methods: teacher surveys, small group interviews, and individual interviews. The final method of data collection utilized measures of student performance on the State Comprehensive Assessment (SCA) and Measures of Academic Progress (MAP) that was developed by Northwest Educational Assessment.

Surveys. All teachers (i.e., all kindergarten through fifth grade teachers and support services teachers who participated in the pilot) completed electronic surveys using Survey Monkey. Surveying all participants provided an opportunity for each individual to provide feedback regarding the pilot. It was important in a utilization-focused evaluation to be adaptive and responsive to the needs, interests, and culture of the organization in which the evaluation was being conducted (Patton, 2008). In this district there is a tradition of surveying each teacher involved in a pilot project. Thus, each teacher

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involved in the Integrated Services Pilot was asked to complete the survey. Conducting the surveys internally reduced the cost of survey administration.

Surveys were developed for both the classroom and the support service teachers. The differences between the surveys were minimal and reflected the previous experience and role of the classroom or support service teacher. For example, the classroom teacher survey asked: *To what extent did the Integrated Services Pilot provide opportunities to increase your understanding of effective learning strategies for students receiving support services?* The support services teacher survey question was: *To what extent did the Integrated Services Pilot provide opportunities to increase your understanding of the general education curriculum and instruction?* The majority of the survey items used a five-point Likert scale to measure teacher opinions regarding the impact of the pilot on their practice and the perceived impact on student learning and participation. Items measuring the frequency of behaviors provided multiple-choice responses. Four open-response items were included, providing opportunities for teachers to indicate strengths and weaknesses of the pilot, as well as suggestions for improvement. Due to the small number of support services teachers in each category, support services teachers were not asked to identify their school assignment. Providing this level of anonymity supported engagement and trust in the evaluation process. The surveys utilized in this evaluation are provided in Appendices D and E.

All the teachers participating in the pilot were surveyed at the end of year two. A total of 39 classroom teachers completed the survey; a response rate of 59.1%. The number of classroom teachers participating in the pilot at each site was dependent on the model of implementation chosen by the principal and, as a result, varied by school.

Response rates also varied by school, with Schools A and D having the highest response rate, 75% or greater. At School C it was difficult to determine which classroom teachers should receive the survey due to the choice nature of pilot participation. It is possible that teachers at School C who were sent the survey but did not identify themselves as pilot participants did not respond, negatively impacting the response rate. A total of 24 support service teachers completed the survey; a response rate of 82.8%. The support service teachers were asked to identify their area of service (SP, SpEd, or ESL), but not their school, due to the small number of teachers providing each type of service in each school. For example, in School A there was one ESL teacher providing both the school and area of service, which would make their responses personally identifiable.

Group interviews with classroom teachers and support service teachers. The second method used was group interviews. Group interviews, approximately 60 to 90 minutes in length, were conducted with pilot participants from each school. Principals selected and invited teachers to participate in the group interviews; a maximum of four classroom teachers from each school were invited. Two group interviews were conducted with classroom teachers in cross-school groups. A total of nine teachers participated in the classroom interviews. Interview groups of classroom teachers included teachers from each school.

One group interview was conducted for each of the support services areas: SP, SpEd, and ESL. Each principal selected two SpEd teachers and two SP teachers to participate in the support services group interviews. All five ESL teachers at the pilot sites were asked to participate. These interviews provided an opportunity to document the perspective of a cross section of classroom and support services teachers from the four schools. The

questions used in the classroom teacher and support services interviews are provided in Appendix F. Each interview was recorded in a digital format. Transcripts were subsequently created and used in data analysis.

Interviews provided an opportunity for exploration and discovery, yielding a more complete understanding of the pilot. "Qualitative interviews are used for learning the perspectives, attitudes, behaviors, and experiences of others… Only through hearing and interpreting the stories of others through interviews can the evaluator learn the multiple realities and perspectives that different groups and individuals bring to an object or experience" (Fitzpatrick, Sanders, & Worthen, 2011, p. 434). Conducting group interviews provided the information necessary to identify modifications needed to further pilot implementation and to inform expansion to additional schools. Additionally, the group interviews gave pilot participants an opportunity to interact with each other and share how the Integrated Services Pilot had impacted their instruction.

Individual interviews with co-teaching partners. Teachers selected for participation in the individual interviews were those principals identified as having developed strong co-teaching partnerships. Conducting the interviews by school allowed analysis of the data in reference to the school's logic model. A total of ten teaching partners (20 teachers) participated in these interviews. Questions for individual interviews with co-teaching partners are provided in Appendix G. Each 60-minute interview was recorded in a digital format and transcribed. Transcripts were used in data analysis.

Principal and instructional coach interviews. Principals and instructional coaches from each pilot site participated in individual interviews, conducted by a University

partner, to share their perceptions of the pilot. These interview questions can be found in Appendix H. Each interview was recorded in a digital format. Transcripts were subsequently developed and used in data analysis. Due to the diversity of the school communities, the implementation of co-teaching at each site involved very different inputs. Therefore, interviewing principals and coaches individually provided data that could be evaluated with reference to each school's experience as represented by the logic models.

Achievement data. Test scores from the state-required accountability measures, SCA II in reading, SCA III in math, and the district-required MAP (an achievement test that includes growth measures) were used to provide achievement data in reading and math. The MAP test was administered in the fall of each year, providing both achievement and fall-to-fall growth data. The SCA assessments were administered in the spring, providing proficiency data relative to state standards. Additional information regarding the rationale for selection of achievement data from varied years is provided in the data analysis section.

Methods Constraints

The methods constraints for each method used in the evaluation are provided in Tables 1, 2 and 3.

Table 1. Electronic Surveys Methods Constraints

Weakness of Electronic Surveys	How This Design Attends to Them
Difficult to develop good survey items	▪ Survey items will be piloted ▪ A pool of survey items used in similar projects provided items that have worked well in the past
Respondents may not be motivated to complete the survey	▪ Teachers knew that survey data is used in decision-making and thus are more willing to complete the survey. ▪ Everyone was provided information from the survey results and an opportunity to discuss them.
Potential for a low response rate	▪ An invitation was sent to participate prior to sending the survey. ▪ After the survey was sent a reminder to complete the survey was sent. ▪ Principals were provided the option to use time in a staff meeting for completion of the survey. This has worked will in the past.

Table 2. Group Interviews Methods Constraints

Weakness of These Methods	How This Design Attends to Them
Need to establish rapport	▪ The Achievement Analysts who conducted the interviews have worked in the district for a number of years and the department was known to value teachers' opinions. ▪ Focus groups and group interviews have been a regular component of elementary program evaluations. Generally, teachers appreciate the opportunity to dialogue with one another and share their experiences.
Time consuming and costly	▪ The district Achievement Analysts and the University partner conducted interviews. Using internal staff decreased the cost of the interview process.

Table 3. Achievement Data Methods Constraints

Weakness of These Methods	How This Design Attends to Them
Small student group sizes	▪ It was not be possible to draw conclusions that can be generalized to other groups to predict student achievement in other contexts. However, results were used to guide the design and implementation of classroom structures to increase inclusive practices.
The varied primary disabilities in the SpEd student group and the varied English proficiency levels of EL.	▪ Further examination of the data using these two variables at each site would be necessary to make recommendations for students with specific needs. Generalized suggestions for primary disabilities and English proficiency levels could then be determined.

Data Analysis

    Surveys. Descriptive statistics were used to describe the survey respondents and

their responses. Since the majority of the survey items on each survey instrument used an

ordinal Likert scale, the most appropriate item analysis for these surveys was the

percentage of responses in each response category. In addition, mode could be used to

describe central tendencies. Due to the ordinal nature of the data, median, mean, and

range were not the best measures for this data set. Nevertheless, ordinal survey data are

frequently given numerical values, which are used to calculate the central tendency. Since

this is a common practice, mean, median, and range were calculated for survey data.

    Question 27 on the classroom and support services teacher survey asked the teachers

to identify two adjectives that best described their overall experience with the

implementation of the Integrated Service Pilot. These responses were categorized using a

deductive analytic framework that identified the responses as positive or negative

adjectives. Additionally, the total number of positive and negative responses was

determined. Survey questions 28 – 30 were open-response items that asked teachers to identify strengths, challenges, and one idea for improvement of the pilot. These items were coded and categorized using content analysis (Fink, 2009) in an inductive framework.

Interviews. Data in qualitative research must be found, and the patterns of those data must also be found. Erickson (2004) describes this search for the data as progressive problem solving. Unlike quantitative data, qualitative data are not explicit and so the analysis of data can be influenced by the evaluator's perspective. Therefore, an awareness of how the evaluator's personal beliefs, values and experiences may influence the interpretation of qualitative data is important (Haller & Kleine, 2001). Sipe and Ghiso (2004) state that

> …Unpacking our positioning makes clear the lenses we are drawing on as we grapple with our data and relate to participants at our site. All aspects of identity are brought to bear in interactions and in the process of developing conceptual categories. (p. 474)

The evaluator in this study was invested in the pilot and the collaborative work amongst the implementation team. To minimize subjectivity, the Elementary Achievement Analysts reviewed conceptual categories and data sorting. In addition, the Achievement Analysts conducted the group and individual teacher interviews. These parameters minimized the evaluator's biases.

The awareness of the evaluator's perspective is especially critical when using grounded theory (Haller & Kleine, 2001). The constant comparative method in grounded theory as described by Glaser and Strauss (1967) was used to analyze interview responses. Analysis began with open coding of transcripts from the group interview,

followed by a two-stage analytical process. First, the coded responses were sorted into conceptual categories. The second stage required the synthesis of similar categories into overall findings regarding co-teaching. The appropriateness of each conceptual category was constantly evaluated as new data were categorized, making categorization a highly iterative process. Development of conceptual categories required balance. "Too many categories result in a fractured, splintered view of the data that is unwieldy and unproductive; too few result in a lack of precision and in analytical confusion" (Sipe & Ghiso, 2004, p. 478). The grounded theory method was be utilized to analyze interviews. A comparison of the findings from each interview type provided multiple perspectives that were used to inform next steps for the pilot.

Achievement Data. Three conditions of the pilot made it difficult to draw conclusions that relied on the concept of statistical significance. First, the duration of the pilot and the changes in the state comprehensive assessments provided only two years of SCA-II reading data during the pilot, a new state accountability assessment in reading was administered during 2012-2013. Thus 2009-2010 (the year prior to the pilot) assessment results were used as an initial measure for reading. The SCA-III in mathematics was first administered in the 2010-2011 school year. Data from Spring 2011 to Spring 2013 were used to make magnitude of change calculations for SCA-III in mathematics. As a result, although there is overlap in student groups, the cohorts of students considered for the changes in reading are not exactly the same as those considered for mathematics. Additionally, in Year Two of the pilot (2011-2012), students were allowed to take the SCA-III in math three times and report the highest score. The general pattern for math proficiency rates was an increase from Spring 2011 to Spring

2012 and a decrease from Spring 2012 to Spring 2013. The impact of this change in test administration was minimized by using Spring 2011 and Spring 2013 SCA-III Math assessment results for analysis.

To provide a consistent measure of student growth, MAP growth data were used. The percent of students meeting their Fall 2009 to Fall 2010 growth targets (the year prior to the pilot) were compared to the percent of students meeting their Fall 2012 to Fall 2013 growth targets. Growth measures were important for these student groups because although students may be growing academically, they may not have reached grade level proficiency as measured by state accountability assessments.

The second condition that limited findings of statistical significance was the small sample size of student groups (SP, SpEd and ESL) and the change in composition of student groups, particularly the SpEd and ESL, during the pilot. Finally, although it would seem logical to combine the data from all four schools for each of the three student groups to produce a larger sample size, the differences in implementation among schools were significant and combining the data would have decreased their utility.

Magnitude of change calculations were used to determine the percentage of change that occurred in student proficiency, student growth, and the achievement gap relative to the first measure considered for each change. The year selected to provide the initial measure for the SCA was chosen to make available proficiency results using the same assessment for the greatest number of years. Since a new SCA math assessment was administered in Spring 2011 though Spring 2013, the data from 2011 were used as the initial measure. A new SCA reading assessment was administered in Spring 2013, therefore these results were not used in change calculations. Using assessment results

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from Spring 2010 as the initial reading measure provided data immediately prior to pilot implementation as well as three years of assessment results. Magnitude of change was calculated for six measures:

1. Percent change from 2010 proficiency rate to 2012 proficiency rate on SCAII – Reading

2. Percent change from 2011 proficiency rate to 2013 proficiency rate on SCAIII – Math

3. Percent change form Fall 2009 – Fall 2010 percent of students meeting growth on MAP to Fall 2012 – Fall 2013 percent of students meeting growth on MAP - Reading

4. Percent change form Fall 2009 – Fall 2010 percent of students meeting growth on MAP to Fall 2012 – Fall 2013 percent of students meeting growth on MAP - Math

5. Percent change in the achievement gap from 2010 to 2012 on SCAII – Reading

6. Percent change in the achievement gap from 2011 to 2013 on SCAIII – Math

Although it may not be possible to find statistical significance in the achievement data, the data are of practical significance. The achievement data were correlated with the components of pilot implementation at each site to guide further development and implementation of inclusive teaching and learning structures in the classroom community. In addition, the results were used to determine if the pilot negatively impacted students not receiving support services; a concern raised in an earlier study.

A Plan to Promote Use of the Study

The district leadership team was involved with the evaluators in the planning and implementation of the pilot since its inception. Throughout the process, the principles of utilization-focused evaluation were applied. A final written report and PowerPoint presentation were shared with principals.

During the first year of the pilot, the evaluator aligned the survey and interview data with the evaluation questions. The intended users then synthesized the data to identify patterns and determine next steps. Principals received the compiled results from the survey and group interviews to refine practices and to plan for Year Two. In Fall 2011, a meeting was held at each school to share the results with teachers and facilitate conversations about the pilot. A similar process was used to share findings from this evaluation.

Involving the intended users in this evaluation maximized the potential utilization of evaluation results. Providing opportunities for teachers to explore the evaluation findings and discuss implications for their own work further enhanced utilization. A final written report and PowerPoint presentation was shared with the principals at pilot schools. Principals could choose to share this information with their staff to celebrate staff accomplishments and inform future practice. Further, administrators will use this information to discuss expansion of the Integrated Services Pilot with the School Board.

Chapter 3

Results

The purpose of this evaluative study was to provide information to guide further development of inclusive practices in elementary schools in the pilot district. Analysis of the data collected informed the professional development provided to teachers; support provided by principals and instructional coaches; opportunities for collaboration; and, organizational structures that supported inclusive school communities. The results are presented in five sections aligned with the evaluation questions and the logic model: (1) professional development and support; (2) collaboration and Professional Learning Communities (PLCs); (3) impact on teacher knowledge and practice; (4) impact on student learning and engagement; and (5) participants overall perceptions and suggestions for improvement.

Professional Development and Support

Educators in varied roles provided professional development and support for the Integrated Services Pilot. These professionals included: the school principals and instructional coaches at each school; a University partner; and an external staff developer. Additionally, PLCs, and collaboration among colleagues at each site, were structured to provide meaningful opportunities for new learning.

Principal support. Each principal approached the implementation of the Integrated Service Pilot in a manner consistent with his or her personal leadership style and understanding of the school's culture. The importance of internal context (Armenakis & Bedeian, 1999) such as school culture, physical space, and staffing necessitated that each principal be afforded this flexibility. The principals at Schools A, B and D were highly

involved in leading pilot implementation and provided specific expectations for teachers.

During an individual interview, one principal stated:

> The more clear and articulate you can be as a building leader about the rationale behind the work and why this change is in the best interest of kids, the more buy-in you'll have initially. So I always start anything I'm doing with the rationale. I start with that first, and then I talk about the change. Because when I talk about the change first, without the rationale, it leads to increased anxiety for staff. (Principal Interview, 2012)

Overall, teachers reported that principals communicated the expectations for the pilot and were supportive of their work. This is supported by teacher responses of *much* and *very much* to teacher survey items as reported in Table 4.

Table 4. Teacher Perceptions of Principal Support

Much and *Very Much* Responses To what extent did your principal…	Classroom Teachers N = 33	Support Service Teachers N = 22
	n (%)	n (%)
Communicate expectations for implementing the Integrated Services Pilot?	18 (54.5)	11 (50)
Support your work with the Integrated Services Pilot?	18 (54.6)	N = 23 16 (69.6)

With regard to communicating expectations for the pilot, the overall mode and the mode for each school were three on a scale of zero to four (see Table J1, and Table L2). However, Schools A, B, and D had higher percentages of classroom teachers with responses of *much* or *very much* (on a scale of 0-4, *very much* = 4) as reported in Table 5.

Table 5. Classroom Teacher Perceptions of Principal Support by School

Much and *Very Much* Responses	School A N = 11	School B N = 9	School C N = 9	School D N = 3
To what extent did your principal…	n (%)	n (%)	n (%)	n (%)
Communicate expectations for implementing the Integrated Services Pilot?	7(63.6)	5(55.6)	3(33.3)	3(100.0)
Support your work with the Integrated Services Pilot?	6(54.5)	4(44.4)	5(55.5)	3(100.0)

It should be noted (as described more fully in chapter two), that School B had a new

principal for the 2010-2011 school year, at the beginning of the pilot. And School C was

a new school formed by the merger of two existing elementary schools. The principal at

School C chose to have the school participate in the pilot, but as the school year began

indicated that this would not be a central focus of her/his work; instead it would be a

"grass roots" effort (Principal Interview, 2012).

In group interviews, teachers were asked to reflect on their experiences during Year

Two and the ways in which their principal supported their work. The sample responses to

this question, reported in Table 6, represent the varied principal actions that teachers

perceived as supportive.

Table 6. Examples of Principal Support – Classroom and Support Teacher Interviews

Classroom Teacher	"And the principal has been very involved in, you know, sharing the kids between teachers and classes…We have had many meetings about…this group…and how they're doing and the kind of progress they are making."
Classroom Teacher	"The [principal] has done a good job of asking the questions. So instead of 'This is what we are going to do'…asking…'What is the purpose? What is the goal? …This is what the kid doesn't know. What are you going to do about it?'"

SpEd Teacher	[There was a decrease in the number of SpEd teachers at our building.] "So our principal stepped in a lot more with dealing with the schedule for some of our SpEd kids, which helped a lot…Having the behavior paras helped a lot too. Otherwise, I wouldn't be in the classroom very much."
ESL Teacher	"I think one of the ways my principal supports is by connecting with [the University partner] S/he would say 'Did you invite [the University partner]…I just started saying, I'm inviting her. And so then there was good support."
ESL Teacher	"Putting support services teachers' desks in the classroom. I think that has been huge for our school."
SP Teacher	"The principal usually walked in, I would say a least once a week, to observe me and the co-teacher."

Instructional coach support. Principals and instructional coaches both saw the principal/coach relationship as central to the success of the pilot. One principal stated, "I think the principal/coach relationship is key in moving something like this forward because you have to have someone else who believes in this type of work who can help" (Principal Interview, 2012). The principals at the other pilot schools expressed similar sentiments, as well as the desire to have the coach available in their buildings full-time.

Due to the individualized nature of support provided by coaches, it is difficult to quantify their work. The most frequent types of coaching support reported by classroom teachers (on a scale of 0-4, 4 = *very much*) were lesson planning and preparation (30.3% *much* and *very much*), and reflecting on how students engaged in learning (27.3% *much and very much*). Support services teachers reported reflection on how students engaged in learning (36.4% *much* and *very much*) as the most frequent type of coaching support. Model lessons were the least frequently indicated model of coaching support reported by

both classroom teachers (9.1% *much* and *very much*; 57.6% *not at all*) and support service teachers (9.0% *much* and *very much*; 36.4% *not at all*).

Support services teachers reported seeking out their coach to a significantly higher degree than did classroom teachers (Table J1). One possible explanation is that classroom teachers have been collaborating with instructional coaches for the past eight years. Thus, classroom teachers had already established a relationship with the coach. Collaboration between support services teachers and coaches began more recently. The pilot provided increased opportunity for support services teachers to engage with the instructional coach. (See Appendix I and Table J1 for a summary of instructional coach support provided to support service teachers.)

Group interviews provided an opportunity for teachers to describe in more detail interactions with their coaches. A sample of these comments is reported in Table 7.

Table 7. Examples of Instructional Coach Support – Classroom and Support Teacher Interviews

Classroom Teacher	"The coach came in one day and taught the [SP teacher's] group, and then, the [SP teacher] came and sat with me while I taught one of my groups. And then, vice versa. So that we knew what each other was doing. And [the coach] is always open to doing that with us…supporting us in that way."
Classroom Teacher	Our coach was part of our PLC; part of the group….The principal set it up to…start the ball rolling.
Special Education Teacher	"I used the coach during my prep to say, how can I best move this group forward, when I was stuck. So s/he really worked with me a lot and helped me plan."
Supplemental Programs Teacher	"Having observations done in the other classroom settings. And then having conversations about that with the coach."

University partner support. The University partner served primarily as a resource for the pilot planning team, principals, and coaches. At the start of the pilot, the University partner met with principal/coach teams to design the introduction of the pilot. Each principal was provided with the book, *A guide to co-teaching: Practical tips for facilitating student learning* (Villa, Thousand, & Nevin, 2008) and the video, *The Power of 2* (Friend, 2005), to support implementation. In Schools A C, and D, the University partner did a presentation to staff on co-teaching prior to Year One.

Very few teachers reported seeking out the support of the University partner. Those who did reported the collaboration to be helpful. One ESL teacher commented, and another confirmed that, "[the University partner] has been really helpful for me, asking…probing questions and talking with teachers. And I feel having her at the meetings with the group that I work with has been really beneficial" (ESL Group Interview, 2012). In teacher interviews, several participants expressed a desire to work with the University partner in the future. They stated they had been unaware that this was a possibility.

Teachers at School A had the greatest interaction with the University partner. At this school she met monthly with staff before school. The focus of these conversations was productive reflective practice and conversation skills within their teams with an emphasis on building trust. Support service teachers also met with the University partner periodically to design planning conversations with classroom teachers during which they would reflect and plan for upcoming units. In addition, she made occasional visits to classrooms to observe co-teaching and student engagement.

The principals at schools A, B, and D reported inviting the University partner to principal/instructional coach meetings, throughout the year, as they reflected on their work and planned next steps for the pilot. The University partner also assisted principal and coach teams in the development of logic models for the pilot, goal setting, and aligning the work of the pilot with school improvement plans. One principal stated that it has been helpful

> …to dialogue with someone who can pull your ideas together…pull themes out of what you're talking about. [This] really helps and is energizing as you move to the next step… Whenever [the instructional coach] and I can meet with [the University partner], that helps us refocus. (Principal Interview, 2012)

In addition to reflective practice, principals asked the University partner to assist in the facilitation of difficult discussions. An instructional coach shared,

> Overall, the big piece that I remember from last year is the trust and having that as our foundation. We didn't have that system-wide last year [Year One]. And so we really needed to have some tough, honest, open, sincere conversations. And [the University partner] helped us do that. It took a while. It took, gosh…four or five whole group staff meetings. (Coach Interview, 2012)

The University partner also met several times each year with the instructional coaches from the pilot schools. Instructional coaching is an isolating position. Coaches reported that these sharing and problem solving opportunities were supportive of their work. "The support of the University partner was central for forward progress" (Instructional Coach Interview, 2012).

External professional development support. Over the course of the Integrated Services Pilot, all four schools engaged in ENVoY training. ENVoY is an acronym for Educational, Non-Verbal Yardsticks, a professional development program developed by Michael Grinder and Associates. This professional development focuses on the use of

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non-verbal communication skills in a group setting. The goals of ENVoY training are to effectively manage individual classrooms by increasing productivity and preserving relationships and, to create a positive school culture.

Pilot schools engaged in this professional development as principals and staff identified the need to support teachers in sharing classroom space and in developing shared instructional and classroom management practices. The timeline and training accessed are listed in Table 8.

Principals, instructional coaches, and teachers identified ENVoY training as a key support for the pilot. Pilot participants reported that the focus of ENVoY training included behavior plans at Schools A and B; transitions between teachers and activities; sharing classroom space; organizing and de-cluttering the classroom; voice volume; and non-verbal behavior management strategies. Participants in each group interview initiated discussion about the impact of ENVoY training. Table 9 provides examples of teacher perceptions regarding the impact of ENVoY strategies in pilot classrooms.

Table 8. ENVoY Training

School	Initial Training	All Staff Summer - paid	Building Staff Development	Visit to Demo Site	Small Group Training	Individual Coaching	Leadership Coaching
				Training Structure			
School A	March 2011	Year 2	Year 1 Year 2 Year 3	Year 2 Year 3	Year 2 Year 3	Year 2 Year 3	Year 1 Year 2 Year 3
School B	August 2011		Year 2 Year 3	Year 2	Year 2 Year 3	Year 2 Year 3	Year 2 Year 3
School C	May 2012		Year 2 Year 3		Year 3	Year 2 Year 3	Year 2 Year 3
School D	August 2012		Year 3		Year 3	Year 3	Year 3

Table 9. ENVoY Training Classroom Impact – Classroom and Support Teacher Interviews

Classroom Teacher	"I think ENVoY has been the most unifying thing that our building has done….It has helped the most with Integrated Services. It really is almost like the glue. Definitely people have more of an awareness, and it's definitely brought…more calmness."
Classroom Teacher	"When I spent the day at the demonstration site…and really [saw] ENVoY happening, that really solidified it. I came back and implemented it…much more."
Classroom Teacher	"[ENVoY has helped develop] more of a shared management responsibility which really encompasses the word *integrated*."
ESL Teacher	"The [ENVoY trainer] is revamping our discipline [practices for] our whole building. It is going well. It is amazing, totally amazing."
Supplemental Programs Teacher	"In our building we had a real focus on ENVoY and sharing – really thinking about making an environment for learning and how we can work together to support the classroom environment. And I think there have been a lot of connections made between classroom teachers and supplemental teachers on how to jointly support the classroom, making sure that the kids are on task."

By June 2012, Year Two of the pilot, teachers at Schools A and B had participated in multiple days of ENVoY training, provided in varied formats, and were working toward certification as ENVoY schools. Certification reflects the degree of effective implementation of ENVoY strategies by 80% of licensed teachers. Additionally, both Schools A and B had non-licensed staff who achieved ENVoY certification. To further the implementation of ENVoY strategies, schools A and B offered optional weeklong summer advanced workshops. Almost all teachers attended. During the pilot, all four schools began training internal support (resident coaches and trainers) for increased sustainability. The ENVoY staff developer is highly regarded by administrators, teachers, and support staff (Individual Principal Interviews, 2012; Classroom Teacher Group Interviews, 2012; Support Services Teachers Group Interviews, 2012).

District level support. District support for the pilot included financial support for professional development with the University partner, substitute teachers for collaboration, and some of the professional development provided by the external staff developer. Principals found this financial support essential to pilot success. "We couldn't have done this work without the support and resources provided" (Principal Interview, 2012). Further, principals found the direction and collaboration provided by central departments supportive: "You've got more coherence when you have someone centrally connecting all of the various forces" (Principal Interview, 2012). The shared beliefs between the Elementary Curriculum Department and the Special Education Department, about inclusion, were specifically noted. Instructional coaches and principals identified this as important. "The SpEd department was extremely supportive of [the pilot]…and really saw the importance and value of alignment and having cohesive instruction"

(Principal Interview, 2012). One tangible form of support provided by the SpEd

department was the allocation of a behavior paraeducator position to each of the pilot

schools. The SpEd paraeducator responded to immediate behavior needs of students,

enabling the SpEd teacher to provide instruction in the classroom with fewer

interruptions.

> Having the behavior para helped a lot, too. Otherwise, I wouldn't be in the
> classroom very much….It is almost essential because…we could be pulled all days.
> Some days, for one student, three or four times a day. I wouldn't be teaching half my
> groups. (SpEd Teacher Group Interview, 2012)

> Another aspect of district support noted by an instructional coach, was the

understanding that pilot implementation needed to be tailored to each site.

> The fact that [district staff] took this large picture and said, "Okay, we're going to
> put this into four systems, and you have to frame it up in a way that makes sense for
> you" versus giving a system-wide, top-down [view] of how this looks, significantly
> changed the outcome in all buildings. (Instructional Coach Interview, 2012)

Collaboration and Professional Learning Communities

The second evaluation question focused on professional development imbedded in

the day-to-day experiences of teachers. Development of an inclusive school culture and

implementation of inclusive classroom practices, require professional development that

deprivatizes practice and provides multiple opportunities for teacher collaboration

focused on student learning. Professional learning communities (PLCs), and

collaboration between teacher teams, provided opportunities for this type of imbedded

professional development.

Support service teachers and classroom teachers both indicated that the opportunities

to collaborate with their co-teachers increased somewhat this year (see Table 10).

Classroom teachers had time during recess for collaboration with their grade level team;

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collaboration was required one day per week. This opportunity was not available to support teachers. As a result, collaboration between the classroom teacher and his/her support services co-teacher was often limited to time before or after school, unless the school schedule was planned to intentionally provide time for this type of collaboration.

Table 10. Perceived Increases in Collaboration Between the Classroom and Support Service Teachers

	N	Not at all n (%)	A Little n (%)	Somewhat n (%)	Much n (%)	Very Much n (%)
Classroom Teacher	36	10 (27.8)	6 (16.7)	13 (36.1)	5 (13.9)	2 (5.56)
Support Services Teacher	23	4 (17.4)	5 (21.7)	7 (30.4)	5 (21.7)	2 (8.7)

The majority of the 24 support service teachers responding (70.9%) reported meeting at least twice per month with their classroom co-teachers to collaborate, plan, and reflect on instruction and/or student learning (Figure 2). Over 50.0% of the 39 classroom teachers reported meeting with special service teachers at least twice a month to collaborate, plan, and reflect (Figure 2). This apparent discrepancy may have resulted because support services teachers co-teach with multiple classroom teachers; thus they may be collaborating with some classroom teachers more than others.

Figure 2. Support Service Teacher Reporting of Collaboration with Classroom Co-Teacher
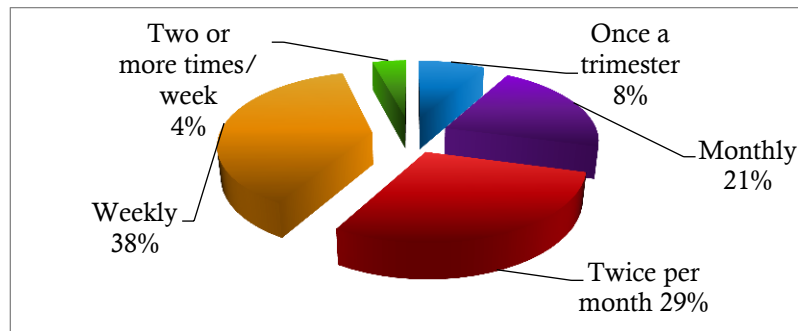
Classroom teachers reported meeting with SP teachers with the greatest frequency; 71.4%

reported collaborating two or more times per month. Classroom teachers reported

collaborating with SpEd teachers least frequently; 50.0% collaborated two or more times

per month (Table 11).

Table 11. Classroom Teacher Reporting of Collaboration with Support Service Teacher

	N	Once per Trimester	Monthly	Twice per Month	Weekly	Twice or More/Week
		n (%)	n (%)	n (%)	n (%)	n (%)
SpEd Teacher	28	4 (14.3)	10 (35.7)	4 (14.3)	7 (25.0)	3 (10.7)
ESL Teacher	21	4 (19.0)	4 (19.0)	6 (28.6)	3 (14.2)	4 (19.0)
SP Teacher	28	4 (14.3)	4 (14.3)	12 (42.9)	6 (21.4)	2 (7.1)

The staffing ratios of support service teachers, and the number of grade levels they must

service, increases the challenges of teacher collaboration (see Table C1). For example,

the staffing ratio for ESL teachers is one teacher to 40 EL students. As a result of this

high student to teacher ratio, there are only one or two ESL teachers to serve students at

all grade levels in the pilot schools. This increases the number of classroom teachers each

ESL teacher must collaborate with to deliver aligned instruction.

Focus of co-planning and reflection between teaching partners. Collaboration

between co-teachers provided opportunities for partners to discuss classroom

management and student learning. Research has identified discussion on these topics as

essential for a successful co-teaching partnership and development of an inclusive school

culture (Gerber & Popp, 2000; Klingner & Vaughn, 2002; Mastropieri et al., 2005; Nevin

et al., 2008; York-Barr et al., 2007). The partnership's stage of development, and the

individual needs of students and classrooms, determines the focus of collaboration. It

seems reasonable that the specific topics for team collaboration would vary. However, the survey results indicated teaching and learning as the focus for collaboration. Three survey questions, each with subparts, addressed the focus of teacher collaboration. (See Tables K2 and L2).

Classroom teachers reported curricular and instructional topics as the area of greatest focus for collaboration (Table X). The average response for classroom teachers was 2.87 on a scale of zero to four, with a mode of three, *much* (41.2%). Support services teachers reported an average response of 2.71 on a scale of zero to four, with a mode of four, *very much* (33.3%).

Support services teachers reported the most frequent topic of collaboration (an average of 2.83 on a scale of zero to four) as assessment of student progress to determine next steps in instruction; close to *much*, with a mode of four, *very much* (39.1%). Classroom teacher responses yielded a bimodal distribution of *much* (32.4%) and *very much* (32.4%).

Both support service (mean = 1.74) and classroom teachers (mean = 2.21) reported student behavior challenges as the least frequently discussed topic. However, classroom teachers reported behavior challenges as a topic for collaboration with significantly greater frequency than support services teachers (Table 12). These responses suggest that teachers devoted considerable time engaging in discussion around topics that supported instruction and student learning.

Table 12: Focus of collaboration

Focus of Collaboration	Classroom Teachers *Much* and *Very Much*		Support Service Teachers *Much* and *Very Much*	
	N	n (%)	N	n (%)
Curricular and instructional issues	38	28 (73.7)	24	14 (58.3)
Assessment of student progress to determine next steps for instruction	37	24 (64.8)	23	14 (60.8)
Instructional strategies to engage specific students	38	21 (55.3)	23	12 (52.1)
Student behavior challenges	38	16 (42.1)	23	4 (17.4)

Teachers were also asked to what extent they and their co-teacher shared responsibility for decision making in four areas: what to teach, how to teach, differentiation of instruction, and how student learning will be assessed (Table J2). Neither classroom nor support services teachers reported significant shared decision making regarding classroom instruction. Of the four areas measured, only differentiation was identified as *somewhat* (classroom teachers mean = 2.14, support service teachers mean = 2.00) a topic for shared responsibility, by both groups of teachers. This may reflect the definitive nature of teaching and assessment in a system grounded in academic standards. There is not a lot flexibility regarding what to teach due to the magnitude of the standards. The mode for shared decision making regarding what to teach for both groups of teachers was zero (classroom teachers 31.6%, support services teachers 30.4%), on a scale of zero to four. The District focus on unpacking the standards in PLC discussions was evident in teacher interviews. "I think our coach and our PLCs were

really trying to focus on state standards and really unpacking those state standards… It is helping as a bridge for conversation" (Classroom Teacher Group Interview, 2012).

Even in a standards-based system, one would assume that determining areas of instructional focus, instructional strategies, and assessment, would still require discussion when addressing individual learner needs. Support services teachers (60.8%) did report assessment to determine next steps for instruction, as occurring *much* or *very much*. It may be that discussion occurred around assessment in the context of instruction, but that there was not much shared decision making regarding summative assessments. Most summative assessments are common district assessments administered to all students. For students with IEPs, accommodations and modifications are made to assessments as defined by the IEP. This may be a topic for further inquiry and possibly professional development.

Administrative, school and team supports identified as supportive of co-planning and reflection between teaching partners. Two years prior to the start of the Integrated Services Pilot, the District did a "reboot" of PLCs at the elementary level. In those two years, a staff developer from *Solution Tree* provided on-going training to PLC leadership teams from all elementary schools. In subsequent years during the pilot, the same staff developer provided support through individual site visits and principal coaching. This contributed to the challenge in determining the relative impact of collaboration between co-teachers and PLCs. Each serves an important function and they complement one another. The conversations from one collaborative structure often spill into the other. This is to be expected if the school is truly a learning community.

Teacher survey data indicated that PLCs were *somewhat* (close to two, on a scale of 0-4 with 4 = *very much*) supportive (J1), of the pilot. An average for support services teachers of 2.30 with a mode of 2 (43.5%) and an average for classroom teachers of 1.82 with a mode of 3 (27.3%), suggest that PLCs and collaborative experiences varied widely from group to group. Figures 3 and 4 illustrate teachers' perceptions.

Figure 3. PLCs Support for the Integrated Services Pilot – Support Service Teachers Survey

N = 23
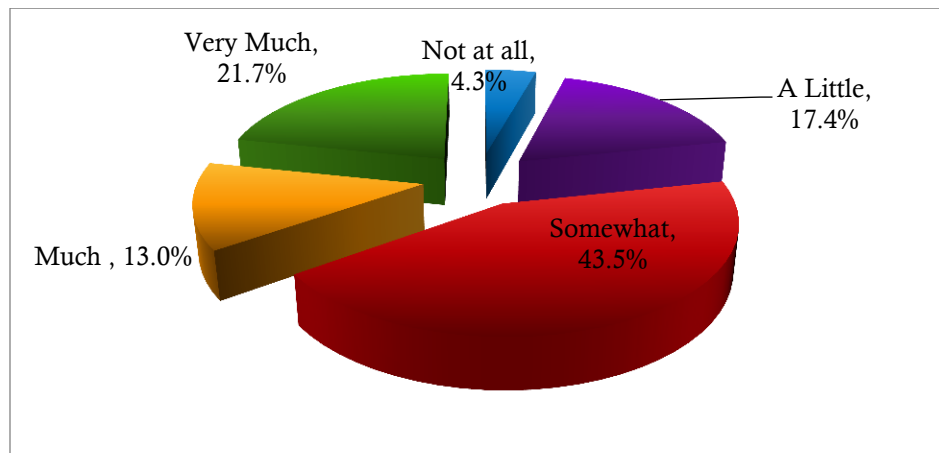
Figure 4. PLCs Support for the Integrated Services Pilot – Classroom Teachers N = 33
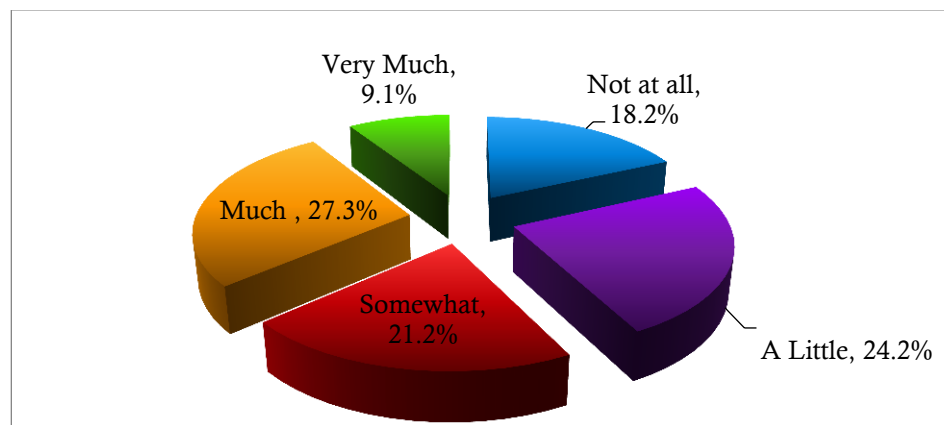
Disaggregating classroom teacher responses by school suggests that the perceived support of collaboration and PLCs varied significantly by school. Over half of classroom

teachers (63.7%) in School A indicated that PLC's were "much" or "very much" supportive of the pilot. This was the highest response of the four schools (Table 13). Examining the data by percentage for each response illustrates the variance of teacher perceptions by school.

Table 13. Extent PLCs and Collaboration Supported the Pilot - Classroom Teacher Survey

School	N	Classroom Teachers n (%)				
		Not at All	*A Little*	*Somewhat*	*Much*	*Very Much*
School A	11	1 (9.1)	2 (18.2)	1 (9.1)	6 (54.6)	1 (9.1)
School B	9	1 (11.1)	2 (22.2)	2 (22.2)	3 (33.3)	1 (11.1)
School C	9	3 (33.3)	2 (22.2)	3 (33.3)	0 (0.0)	1 (11.1)
School D	3	1 (33.3)	1 (33.3)	1 (33.3)	0 (0.0)	0 (0.0)

Support for collaboration and PLCs was provided in many ways. It is difficult for support services teachers to participate in classroom teacher PLCs because their schedules often do not align. Quotations from teacher group interviews (Table 14) and individual principal and instructional coach interviews (Table 15) provide insight into the team and school structures participants perceived as supportive of collaboration and PLCs. It is notable and not surprising that a significant number of the comments reference paid time, provided with either substitute teachers or outside the duty day.

Table 14. Support for Collaboration and PLCs – Teacher Group Interviews

Classroom Teacher	"[We were provided] release days as a building… [with] subs, planned on a few evenings and have been paid."
Classroom Teacher	"Anybody in the pilot got a half a day and …we also had planning time."

Classroom Teacher	"[Our principal] really did make a lot of adjustments trying to make it work for people to get to a PLC every week."
Classroom Teacher	"And [the principal] made sure those support people had subs so that we could have them participate in the PLC."
Special Education Teacher	"I think what was really helpful is we took very specific periodic times where we got subs even to sit down, like every trimester…I think it was important to have that very defined time to constantly reflect."
Supplemental Programs	"After school PLC…a paid time where teachers could come and work for an hour after school…it was support. A coach was there."

Table 15. Support for Collaboration and PLCs – Principal and Coach Individual Interviews

Principal	"The time provided by the principal meeting with a grade level of students once in an eleven-day cycle 'freed up' time for the teachers to come together as a data team, talk about [student learning]"
Principal	"This is a school that meets every day at recess. You're only required to meet one day a week. But they go every day."
Instructional Coach	"The [principal] funded an optional PLC time on Monday nights….They showed up with their standards. They showed up with student work. They showed up with SCA test results. And [the instructional coach] brought treats, so everyone would be happy and well fed. And every Monday, for probably the whole winter, [the Math Recovery teacher, Reading Recovery and the instructional coach] supported optional PLCs, and it could be on whatever topic."

Constraining forces or barriers to co-planning and reflection. Classroom and support service teachers were asked to respond to three open-ended questions. These questions asked teachers to identify the single greatest strength of the Integrated Services Pilot, the single greatest challenge, and one idea for improvement. Both classroom teachers and support service teachers identified collaboration as a single greatest strength (Table 16). Not surprisingly, both classroom teachers and support service teachers identified too little time for collaboration as the greatest challenge (Table 17). Classroom

and support services teachers also most frequently identified increased collaboration time as an idea for improving the pilot (Table 18). A summary of all open-ended responses is provided in Appendix M.

Table 16. Single Greatest Strength of Integrated Service Pilot – Open Response

Teacher	Greatest Strength	N = Total Responses n (%)	Sample Open-ended Comments
Classroom Teachers	Collaboration	N = 28 5 (18%)	• *Ability to collaborate* • *Teamwork together to help students* • *More minds put together to help student achievement* • *Sharing the work*
Support Service Teachers	Collaboration	N = 22 7 (32%)	• *Teamwork and shared curriculum* • *Sharing ideas, knowledge, students, challenges, and the learning* • *Collaboration with classroom teachers felt like a team* • *Shared focus*

Table 17. Single Greatest Challenge of Integrated Services Pilot - Open Response

Teacher	Greatest Challenge	N = Total Responses n (%)	Sample Open-ended Comments
Classroom Teachers	Too little time for collaborative planning	N = 29 16 (55%)	• *The time for teachers to collaborate is the biggest challenge* • *Time to collaborate with co-teachers* • *No time to collaborate with supplemental teachers because of their busy schedules*
Support Service Teachers	Too little time for collaborative planning	N = 22 9 (41%)	• *More collaboration time is needed* • *Finding time and support to collaborate with teachers* • *Finding time to collaborate to move towards co-teaching*

Table 18. One Idea for Improvement – Open Response

Teacher	Improvement	N = Total Responses n(%)	Sample Open-ended Comments
Classroom Teachers	Increased collaboration time	N = 24	• *A common collaboration time would be the biggest improvement*
		13 (54%)	• *Scheduled chunks of collaboration time* • *More time to collaborate with co-teachers*
Support Service Teachers	Increased collaboration time	N = 22	• *Teamwork together to help students* • *More minds put together to help student achievement*
		8 (36%)	• *Sharing the work*

The interview comments in Table 19 provide a sampling of the barriers to collaboration. The most common barriers identified by teachers and coaches in interviews were scheduling and the number of grade levels supported by the support service teachers.

Table 19. Constraints or Barriers to Collaboration - Interviews

Principal	"Collaboration with the SP teachers is dependent on their schedule. PLCs often occur before their duty day starts."
Principal	"And so [co-teaching] facilitates a lot more conversations, and I have teachers doing creative things like…reserving 10 minutes at the time when the person is in the room to stop and have that collaborative conversation while the kids are working independently."
Instructional Coach	"Scheduling is a challenge, where support staff [are] divided among so many different either grade levels or students and classrooms…that trying to connect with that many teachers was a challenge and still continues to be."`
Supplemental Programs	"We don't have time to collaborate with classroom teachers or special ed."
Classroom Teachers	"Well, I think that common collab[oration] time is really important. And during the day, that's really hard to do. So I know in our building they would like us collab-ing every day so the only time available is before school time."

Classroom Teachers	"Challenges? I think collab[oration] time would be for us, it's been a struggle because we collab[oration] with our [grade-level team] but often when we're want to collab with ESL, special ed., supplemental service we're at recess and they're at another grade level."

Impact on Teacher Knowledge and Practice

It has been well documented that teachers' knowledge and practices have a significant impact on student learning (Marzano, 2003). It is reasonable to assume that when teachers learn more about their practice and their colleagues' practices, and subsequently apply their new learning to instruction, students will learn more. Shared knowledge and practices are particularly important when two or more teachers share the instruction for an individual student or a group of students. Thus, teacher knowledge and practice are a critical component of the logic model for this pilot.

Alignment of instruction. Both classroom teachers and support services teachers indicated an increase in the alignment of instruction between the classroom and support services teachers. Over half, 57.9% of classroom teachers (n = 22) and 58.4% of support services teachers (n = 14), indicated an increase of "much" or "very much" (very much = 4 on a zero to four scale) in the alignment of instruction. Teacher interview comments support this finding (Table 20).

Table 20. Alignment of Instruction – Classroom and Support Teacher Interviews

Classroom Teacher	"Focusing on the standards has helped with the alignment of instruction between teachers with different roles…. Uncovering the standards together."
Classroom Teacher	"[Support services teachers] aren't planning their own lessons. The kids are hearing all the same things. And, again then they know we're all on the same page. Oh, they are all talking about main idea. Maybe that's really important."

SP Teacher	"Just being more familiar with what is happening within the classroom….What the standards are…we can't help our students get there if we don't know what the end goal is."
Teacher	"I think it is a great fit for [ELs]…because kids are getting instruction consistently."
ESL Teacher	"And a lot of what our EL kids need is what a lot of our low language and poverty kids need. They all need language. I think when we're teaming with teachers, we're able to bring that aspect into a lot of their lessons."
SpEd Teacher	"[The students] are hearing everything in the classroom, and if we pull them out, they might have missed something that the teacher refers back to. And now, that's not happening. They just become a part of that classroom rather than in and out."
SpEd Teacher	"One of the things I really like about [the pilot] is that I can see where a typical student is supposed to be adding [in mathematics], and I get to see other students' work. I get to see how they are reading….How quickly they're moving DRAs [levels of reading] versus some of the kids that we're working with. So that has helped me really kind of focus my teaching strategies…and develop IEPs"

When interviewed, coaches and principals also reported that instruction had become more aligned. "You can tell that things are all moving in the right direction…and they are more aligned" (Instructional Coach Interview, 2012). The interview statements in Table 21 provide evidence that support services teachers' increased understanding of classroom curriculum has led to reflection on past practice and new knowledge to inform future practice.

Table 21. Alignment of Instruction – Principal and Instructional Coach Interviews

Principal	"Teachers working together in the same room began to identify places where the content of each teacher was not aligned….Now you know, and now we can do something about it. If we were still pullout, you would never know."

Principal	"And [the special education teacher] would say we pull them out, teach them something…not connected to what they're doing…And then we sent them back, hoping that they could figure out what was going on in the classroom where they were supposed to pick up what they missed. So our learners that have challenges with learning, we were actually asking them to do some really hard things."
Principal	"Last year I think the ah-ha for all of the teachers, but especially special education teachers, was 'Why are we pulling them out?'…We were doing it backwards before. They didn't know that until they tried it this way. And so I think they were able to see all the connections that happen within a classroom again."
Instructional Coach	"The special education teachers' …interactions are so different….They're confident. They know what the problem solving chart is."

Co-Teaching relationships. Interviews, both individual and group, provided evidence that participants generally perceived the Integrated Serviced Pilot as having a positive impact on teacher relationships (Table 22). Changing co-teaching partners from one year to the next provided a challenge for some teachers. Three classroom teachers (N = 24) identified keeping partnerships together as their one idea for pilot improvement (Table L5). "I was really disappointed in the fact that we didn't get to keep those established [partnerships] and that we would kind of be rebuilding again this year and trying to come up with new partnerships" (SpEd Teacher Group Interview, 2012). Teachers also indicated that they could work well professionally with their co-teacher, even if they were not friends on a personal level. They identified shared professional beliefs as more important than personal friendship. "We are two totally different people. [My co-teacher] isn't somebody that I would ever be a great friend with…but working together is just great….She's always wanting to advance in this and advance kids. We share those same philosophies" (Classroom Teacher Interview, 2012).

Table 22. Co-Teaching Relationships – Classroom and Support Teacher Interviews

Classroom Teacher	"My kids and your kids – it's everybody. And that's one of the huge strengths of the co-teaching pilot, I feel as a classroom teacher – It's shared. We're truly a team…. I'm not the only one working with these kids. And we come together, and that's what I really love about it. We have a team."
Classroom Teacher	"My relationship has grown quite beautifully with both of my co-teachers….They're absolutely wonderful people. Different styles. But I have grown a lot as an educator, learning from them. I hear what they're doing and I think, 'Oh, that's good,' and vice versa. I feel like we're a husband and wife team."
Classroom Teacher	"I would say our ESL teacher has done such a phenomenal job of really trying to see what's happening in each classroom, and she's really trying to put those pieces together to make a picture of [what we are all working on]."
SP Teacher	"That community feel….And that we are really an important part of that, it is not just the classroom teacher giving you your assignment, but that we are really working toward a shared goal."
SP Teacher	"I don't feel like I'm really co-teaching. I am renting a table in someone else's room."
ESL Teacher	"When you are working with teachers that are willing to work with you, they start talking and they start seeing the benefits. And so then other people are like, 'Oh, if I do this, will you come in my room and show me how?'....So I think that has been one of the key pieces to this year. I feel like the word is spreading more. Like this is what we're about."
SpEd Teacher	"I guess the biggest thing with me that's different this year is being looked at as more of resource to the regular teachers….I'm able to give them some ideas, which feels good because I…feel more a part of the team instead of just an outsider."

Shared structures for classroom management and shared authority have been

identified as a characteristic of strong co-teaching relationships (Bessette, 2008;

Mastropieri et al., 2005). Classroom teachers indicated greater agreement between co-

teachers regarding classroom management than did support service teachers. When asked

if co-teachers had a shared discipline policy, 62.1% of classroom teachers responded "much" or "very much" while only 43.5% of support services teachers indicated this to be the case. The responses were very similar to the question regarding agreement on discipline procedures and responsibility for discipline. When asked if the co-teachers shared the monitoring of on-task behavior during instruction, 55.0% of classroom teachers responded "much" or "very much"; 45.5% of support services teachers indicated shared responsibility. (See Table J2.)

There was significant variation in responses of classroom teachers by school (Table 23) regarding the questions about alignment and implementation of discipline philosophies. School A indicated the greatest alignment between co-teachers' discipline philosophies, with 90.9% of classroom teachers indicating a shared discipline policy of "much" or "very much." As reported in the section on ENVoY training, at the end of Year One, School A began development of a school-wide behavior plan with the support of the external staff developer. It is reasonable to assume that this may have affected this finding.

Table 23. Classroom Teachers Perceptions of Shared Structures for Classroom Management

Much and *Very Much* Responses	School A N = 11	School B N = 9	School C N = 9	School D N = 3
To what extent do you and your co-teacher	n (%)	n (%)	n (%)	n (%)
Have a shared discipline philosophy?	10 (90.9)	5 (55.6)	6 (66.6)	1 (33.3)
Agree on discipline procedures and share responsibility for student discipline?	9 (81.8)	4 (44.4)	4 (44.4)	2 (66.6)
Share the monitoring of on-task behavior during instruction?	8 (72.7)	1 (11.1)	5 (55.5)	1 (33.3)

Teacher knowledge. Classroom teachers indicated that the Integrated Services Pilot increased their understanding of effective strategies for students receiving support services *somewhat* or *a little*. The mode for increased classroom teacher understanding in each support services category was two, with means ranging from 1.64 to 1.75 (Table J3). The pilot had a greater perceived impact on support services teachers' understanding of general education curriculum and instruction (mean = 2.41 on 0-4 scale and mode of 3). Half of the support services teachers indicated an increased understanding of *much* (3) or *very much* (4) (Figure 5).

Figure 5. Increase in Support Services Teachers' Understanding of General Education Curriculum and Instruction
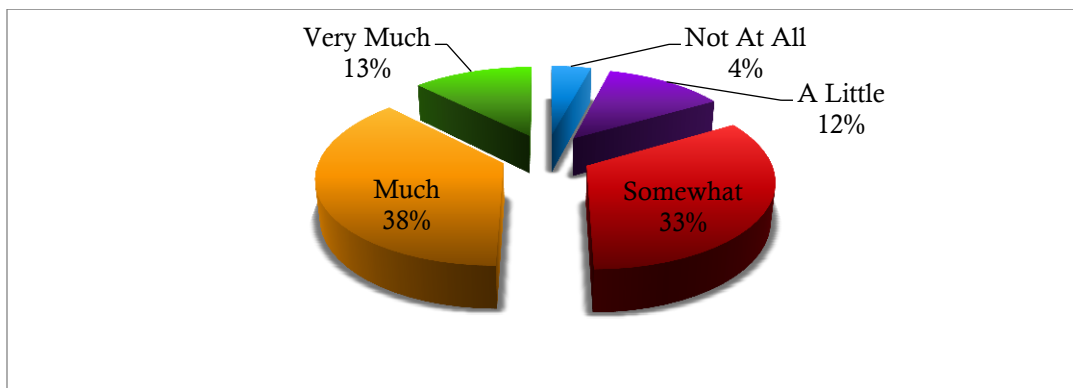
The interview responses of principals and instructional coaches supported these findings. Although teachers indicated a limited impact on their knowledge of instructional practices, principals indicated that by working in a shared classroom, co-teachers gained a deeper understanding of their partner's work.

> The classroom teacher has learned some different teaching strategies from the special education teacher….On the special education side…they realize just the complexity of the classroom teacher's day, the amount of curriculum that they have to teach, and what a challenge that is to fit in with the schedule. (Principal Interview, 2012)

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Teaching structures. Survey results of classroom teachers (mean = 1.66, 1 = *a little*, 2 = s*omewhat*) and support services teachers (mean = 1.79) indicated that the classroom schedule facilitated teaching together *somewhat* or *a little*. The daily schedule was frequently identified as a challenge for pilot participants. This was compounded by another scheduling challenge mentioned often by both classroom and support service teachers: "sticking to the schedule." Honoring the schedule was seen as essential to the success of co-teaching. "We need to honor [support services teachers'] time and this is what we need to do when it's their time to be in [the classroom.] If it's not going to happen, then [classroom teachers] really should be talking to us" (SpEd Teacher Group Interview, 2012). Both classroom and support services teachers corroborated this finding when asked to identify the single greatest challenge for the pilot. Scheduling of the day was identified as a challenge in 14% of classroom teacher responses and in 23% of support services teacher responses (Tables L3 and L4).

A school-wide structure that many principals implemented to support the work of support services teachers was clustering students with similar needs in a classroom. This facilitated developing a school schedule that decreased the number of separate classrooms the support services teacher must serve. Principals were very intentional about the clustering process. "So our philosophy is, first, best instruction….Cluster the students and have a schedule that maximizes [the support services teachers'] time" (Principal Interview, 2012). One principal with a staffing allocation of three special education teachers aligned each teacher to support K-1, 2-3, or 4-5 grade level classrooms. This "narrow[ed] their focus and make the job more manageable" (Principal Interview, 2012). This was a change from past practice when the SpEd teacher generally

followed students from Kindergarten to fifth grade. At one pilot school, the team decided to have SpEd teachers follow the students. This presented some challenges in maintaining collaborative teaching relationships. "The [SpEd teachers] decided, with the caseloads that they had, to follow the kids because they had an understanding with the children. But then, it was almost in a way starting year one over again in that they needed to build that co-teaching relationship" (Instructional Coach Interview, 2012). Upon reflection, the principal determined that not enough support had been provided for developing the new co-teacher relationships. Since it was Year Two of the pilot and the relationships in Year One had been strong, providing time and support for building new relationships was overlooked (Principal Interview, 2012).

The organizational structure most frequently used by co-teachers for instruction was each teacher teaching a small group. Almost two-thirds of classroom teachers, 63.2% (mean = 4.00, *several times a week* on a scale of zero to five, five = *daily*), and 79.2% of support services (mean = 4.46) teachers, reported using this structure daily (see Table J4). This aligns well with the method teachers reported using most frequently for organizing instructional groups. Classroom teachers (81.6%) and support services teachers (91.7%) reported using students' Developmental Reading Assessment (DRA) levels on a daily basis to organize groups for small group reading instruction. Small group instruction is the structure used for Guided Reading, a critical component of the Balanced Literacy approach the District has implemented for literacy instruction. Some teachers are applying their knowledge of Balanced Literacy structures to mathematics, with the implementation of Guided Math groups.

The use of flexible grouping across classrooms was frequently reported in participant interviews. Flexible groups allow teachers to share students across grade level classrooms, maximizing the delivery of support services. Teachers perceived the sharing of students among classrooms as having a positive impact on instruction (Table 24).

Table 24. Flexible Groups – Teacher, Principal, and Instructional Coach Interviews

Classroom Teacher	"We have our kids going to any of five rooms with groups going on in each room. And so, we travel quite a bit, and basically it's the supplemental people that we're working with."
SP Teacher	"We share learners across the grade level."
SpEd Teacher	"The nice thing about 3rd grade was that all of the classroom teachers, ESL, and myself…they were all [using] flexible groups. The kids were in flexible groups, so all of the kids moved to different teachers."
Principal	"I think the overall culture is better. There are more grade levels flexibly grouping students."

There was a significant difference in reporting between classroom and support services teachers regarding the frequency that students were grouped by support service; i.e., ESL, SP or SpEd. Classroom teachers indicated this grouping structure was used *once a week* (mean = 3.05, mode = 5 *daily*, 40.5%) while support service teachers reported using the structure *several times a month* (mean = 2.04, mode = 0 never, 52.2% on a scale where 5 = daily). Another significant difference in reporting occurred when asked how often the support teacher worked one-on-one with a student. Classroom teachers reported the use of this structure on average *once a week* (mean = 3.08, mode = 5 daily, 30.6%), while support service teachers reported that this structure was used *several times per month* (mean = 2.04, mode = 0 never, 34.8%). The difference in the

modes for these questions highlights the difference in perception between teacher groups

regarding the structure used for delivery of support services.

Another factor that impacts the structures used for instruction of students receiving

support services is the amount of service provided in a pull-out model. Both classroom

and support service teachers reported that the amount of time students received pull-out

services decreased close to *much* (*much* =3 on a scale of 0-4), with a mode of 4 (4 = *very*

much) for each student subgroup (Table 25).

Table 25. Decrease in Time Students Received Pull-Out Services

Student Group	Classroom Teachers N = 38			Support Service Teachers N = 24		
	n	Mode	Mean	n	Mode	Mean
Special Education	28	4 (42.9%)	2.93	17	4 (47.1%)	2.53
English Learners	29	4 (40.1%)	2.50	15	4 (53.3%)	2.67
Supplemental Programs	30	4 (33.3%)	2.47	16	4 (74.0%)	3.00
"None of these students were in my class" was offered as a response option. These responses were not included in central tendency calculations.						

This finding for SpEd students is supported by a review of district data collected from

Individual Education Plans (IEPs), regarding the percentage of student IEPs that

indicated service delivery in the classroom, rather than in a resource classroom or pull-

out setting. These data do not include IEPs for students identified as developmentally

cognitively delayed (DCD). The data for School D in grades four and five, the grade

levels that participated in the pilot, are reported separately from the data for other grade

levels. Table 26 provides the rank order of the pilot schools relative to other district

elementary schools, with a rank of one having the greatest percentage of SpEd service delivered in the classroom. The data for all schools are reported in Appendix N.

Table 26. Teacher Reports of SpEd Services Delivered in the Classroom or Pull-Out

Rank	School (N = 25)	% of Services Delivered in the GE Classroom	% of Services Delivered in Resource Classrooms
1	School B	93.33%	6.67%
3	School A	81.40%	18.60%
6	School C	53.52%	46.48%
14	School D: grades 4 & 5	37.50%	62.50%
23	School D: grades K - 3	9.30%	90.70%

One limitation of these teacher-reported data is that speech services are usually delivered in a pull-out model and therefore are included in the pull-out percentage. This could disproportionately increase the percentage of pull-out services reported for student populations with a high number of students receiving speech services. Furthermore, delivering service in the classroom does not ensure alignment of SpEd instruction with classroom instruction. Another variable that may have impacted the percentage of service delivered in the classroom, was physical space. In School B, every instructional space was completely utilized, leaving little space for resource classrooms or pull-out instruction.

Principals, instructional coaches, and most teachers identified the decrease in pull-out instruction as having a positive impact on students. A sampling of the statements made in interviews, provides insight into the perceived benefits of a decrease in pull-out instruction (Table 27).

Table 27. Benefits of Decreased Pull-out Instruction – Teacher, Principal, and Instructional Coach Interviews

Classroom Teacher	"I didn't think I'd like push in….But it's worked really well, it's just so natural….We don't have lost time….It's great for kids."
SP Teacher	"I think one of the challenges for students is integrating back [into the classroom] after being in a group, and when the class is doing something else…and they're coming in halfway through."
Instructional Coach	"The first year I…calculated the amount of travel time a kid saves in this model. That alone, instructional time during the year was a benefit….It added up to…weeks of instructional time."
Principal	"[Teachers] struggle with having kids leave the room. And so, that really was a big buy-in for them because I did feel kids were missing important pieces of learning."

Although these comments represent the majority of teachers' comments, three support services teachers (14% of the 22 open-ended responses) did state returning to the pull-out model as one idea for improvement. Their comments were: "I want my kids pulled back into my classroom," and "Go back to ESL and special education groupings" (Support Services Teacher Survey, 2012).

Impact on Student Engagement and Achievement (Perceived and Measured)

Overall, teachers indicated that the Integrated Services Pilot had a positive effect on student engagement and achievement. To examine the engagement of students in the classroom experience, four variables were considered: classroom routines, student participation, peer interaction, and membership in the classroom community.

Classroom routines. The results of the teacher survey indicate that both classroom and support services teachers perceived a significant increase in familiarity with classroom routines by students receiving support services (Table 28).

Table 28. Familiarity with Classroom Routines - Teacher Surveys

Much and *Very Much* Responses To what extent did ___ students become familiar with classroom routines?	Classroom Teachers		Support Services Teachers	
	N	n (%)	N	n (%)
Special Education Students	24	19(79.2)	16	10(62.6)
English Learners	21	18(85.7)	16	12(75.0)
Supplemental Programs	31	27(87.1)	16	10(62.6)

These results were supported by numerous comments made during teacher group

interviews (Table 29).

Table 29. Classroom Routines – Teacher, Principal, and Instructional Coach Interviews

Classroom Teacher	"I've seen that my students have become more independent… They have taken on more responsibility for having things done, like their homework, their planners and just their assignments in class."
Classroom Teacher	"[The students] all know the SpEd teacher and ESL teacher all expect the same things."
SpEd Teacher	"Not being pulled out of the classroom, [the support services students] seemed to just flow like all the other kids do….And if they don't, I am able to give them visuals or show them some prompts or non-verbal signs…to help them without looking obvious to the other kids."

Familiarity with classroom routines showed a greater perceived increase than either peer

interactions or participation (Table J5).

Participation. Teachers did not report a noticeable increase in participation in

classroom instruction by students receiving support services. The mean response for both

classroom and support services teachers was around two, *somewhat*. Additionally, there

was not a significant difference among students receiving different services, e.g., SpEd,

ESL or SP (Table J5). Teachers were also asked how the pilot impacted the participation

of students not receiving any support services. Again the response was *somewhat* (two on a scale of 0-4). However, it was evident from the teacher interviews that students receiving support services were engaging in a way that was noticeable. One SpEd teacher stated: "The students felt more involved and more invested in the class. It was more of a community of students rather than, well these students are different. They need to go somewhere else to work" (SpEd Group Interviews, 2012). An ESL teacher commented that the pilot had supported her by increasing her knowledge about what to pre-teach to students so they can engage in classroom discussion.

> Teachers are finding that [the EL] kids have their hands up, going like crazy [during *Making Meaning*]. They are in full participation and [the EL students] really like the model because they have some confidence, and they know what it's about because they had a heads up. So that's working really well. (ESL Teacher Interview, 2012)

Peer Interaction. Over 70% of classroom teachers reported a perceived increase of *much* (three on a scale of 0 - 4) or *very much* (four on a scale of 0 – 4) by support services students in their ability to work and interact with peers. Classroom teachers indicated that 57.1% of students receiving ESL services increased their peer interaction very much. (See Table J5.) Support services teachers also reported an increase in peer interaction, but to a lesser degree (Table 30).

Table 30. Increased Ability to Work and Interact With Peers - Teacher Surveys

Much and *Very Much* Responses To what extent did ___ students increase their ability to work with and interact with peers?	Classroom Teachers		Support Services Teachers	
	N	n (%)	N	n (%)
Special Education Students	24	17 (70.3)	16	10 (62.5)
English Learners	21	16 (76.2)	16	10 (62.5)
Supplemental Programs	31	24 (77.4)	15	7 (46.7)

When teachers and principals were asked what they have noticed that was different for students, they provided examples of how students' interactions with peers had changed over the course of the pilot (Table 31).

Table 31. Peer Interactions – Teacher and Principal Interviews

SpEd Teacher	"I think friendships [have changed]; you see that on the playground. [The kids with special needs] are making friends no matter who the student is. "
SpEd Teacher	"I see students helping [special education students]…not by mothering them, but they're showing them what to do and participating with them and wanting them to be successful."
Classroom Teacher	"This year in particular, with the number of special education kids we have and the degrees of special ed., they just meld right in….they're not singled out like they used to be. I just feel everybody just accepts each other a lot more after these two years of watching the pilot."
Principal	"I think the other students [see the support services students] as one of them. I mean, there isn't as much of a distinction, and I think that is huge for relationships and friendships….So if somebody is leaving the classroom, and they're not, why is that? - It's odd, and so, the [student] might just be skeptical….So I see huge academic benefits, but tied to that, huge social/emotional benefits for students who are at risk."

Classroom Community. Classroom teachers and support services teachers identified inclusion as one of the greatest strengths of the Integrated Services Pilot (Table 32).

Table 32. Single Greatest Strength of Integrated Services Pilot – Open Response

Teacher	Greatest Strength	N = Total Responses n (%)	Sample Open-ended Comments
Classroom Teachers	Inclusion	N = 28 7 (25%)	• *Inclusion of special education students* • *Students are in the classroom and not missing out on core content instruction* • *All students got the message that multiple teachers care about them and their success* • *Students are included in daily curriculum with modified lessons*
Support Service Teachers	Inclusion	N = 22 8 (36%)	• *Students are able to be a contributing part of their classroom* • *Students are grouped by ability not label* • *There was no pull-out so students felt a part of the class* • *Keeps special education students more involved with mainstream peers and curriculum*

Principals, instructional coaches, and teachers reported a change in the culture of the classroom and the school. One teacher stated that the pilot has built a "better community between the whole grade level that's totally separate from academics" (Classroom Teacher Group Interview, 2012). A principal affirmed this, noting that relationships throughout the school have been strengthened.

> Relationships, that's one of the things we're learning here….When kids have a significant relationship, it makes a huge difference….I think kids are responding better in the whole building to everyone just because adults are really preserving relationships with students. (Principal Interview, 2012)

Interviewees from each interview group validated the decrease in "difference" in the way students are viewed by their peers and teachers both in the classroom and the larger school community (Table 33).

Table 33. Classroom Community – Teacher and Principal Interviews

SP Teacher	"So [the students are] not along for the ride. They're part of the planning committee for the journey."
ESL Teacher	"I don't see that [EL students] feel they're different from anyone else; they feel like they belong."
Classroom Teacher	"Even if [students] go to a different room, we're all doing the same thing….Everybody is doing a reading group….And so I think it brings us together as a grade level. And even our special ed. students don't feel like they're being singled out."
Principal	"I think the students feel more connected to the classroom community. And I think not all the other students know who is necessarily getting special education services, because the special education teacher sees other students as well."
Principal	"The [pilot] has become an equalizing factor for kids. I don't think kids are seen as different when they go to a different group. We have kids asking when it's their turn to go to a different group, and they see it as a privilege or something special. So I think that those are huge benefits.

Recurrently, interviewees expressed a positive change in the classroom community. Classrooms had become a place where students were included regardless of their academic needs: a community of learners.

Academic Achievement – Educator Perceptions. Results from the classroom teacher survey indicated that approximately three-fourths of classroom teachers identified students receiving ESL services (76.2%, *much* or *very much*) and students served by Supplemental Programs (74.2%, *much* or *very much*), as increasing their knowledge in core curricular areas (Figure 6). Over half of Support Services teachers (Figure 7) reported an increase in core curricular knowledge for ELs (56.3%, *much* or *very much*) and students receiving SP support (53.3%, *much* or *very much*). Both classroom teachers

and support services teachers reported the smallest increase in core curricular knowledge for students receiving special education services (see Table J5).

Figure 6. Classroom Teachers' Perceptions of Increase in Student Knowledge
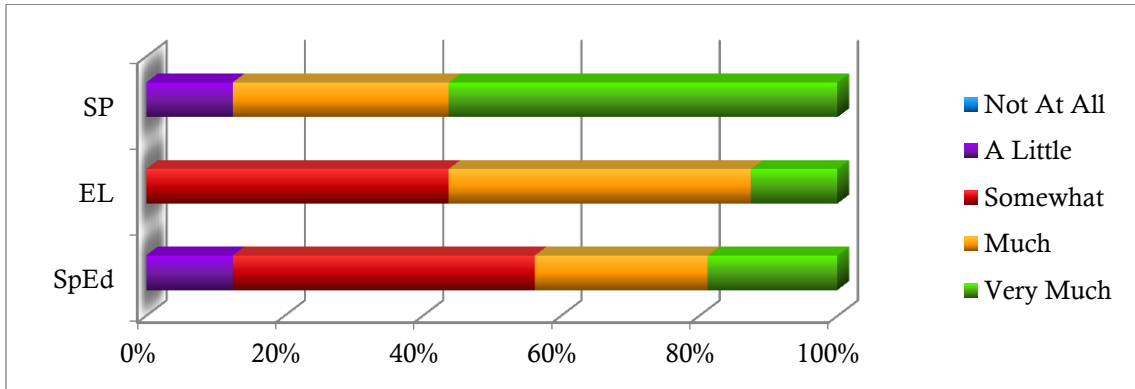
Figure 7. Support Services Teachers' Perceptions of Increase in Student Knowledge
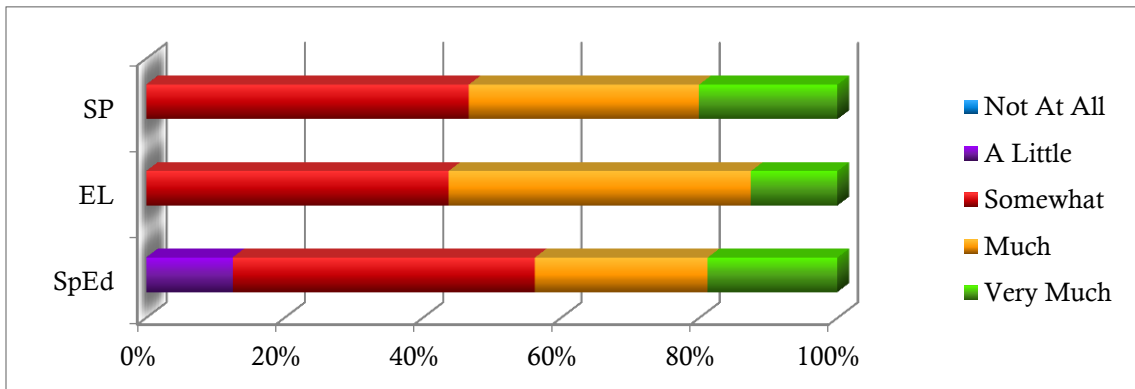
It is interesting to note that both classroom and support services teachers indicated that the learning experiences for students receiving support services became considerably more aligned with classroom instruction. The increase in alignment, reported by support services teachers, is much greater than the perceived increase in student knowledge.

Figure 8. Increase in the Alignment of Learning Experiences and Classroom Instruction for Students Receiving Support Services - Classroom Teachers' Perceptions
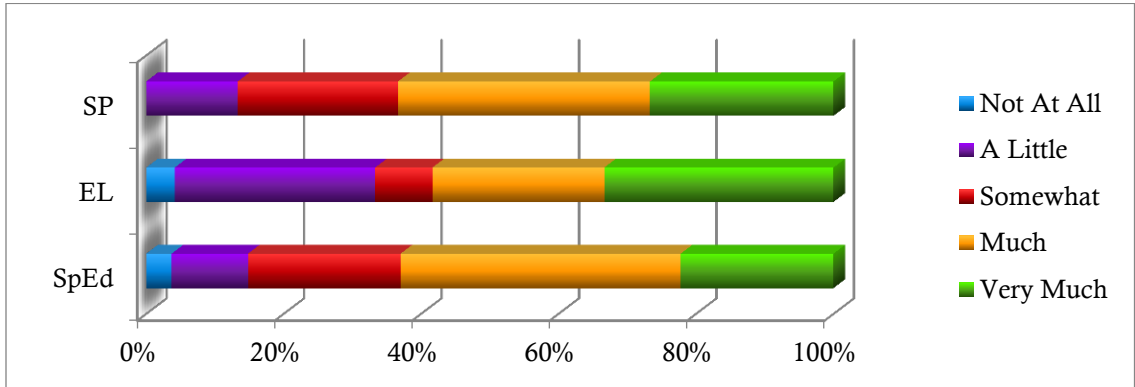
Classroom teachers reported the greatest increase in alignment of learning experiences for students receiving special education services (62.9% *much* and *very much*) and those receiving supplemental programming (58.3% *much* and *very much*) (Figure 8). The support for ELs has typically reflected a more inclusive model, which may explain in part why classroom teachers did not view the pilot as a significant change for ESL programming. Support services teachers indicated a sizeable increase in alignment for both ELs (80.0% *much* and *very much*) and students receiving SP services (98.2% *much* and *very much*) as represented in Figure 9.

Figure 9. Increase in the Alignment of Learning Experiences and Classroom Instruction for Students Receiving Support Services - Support Services Teachers' Perceptions
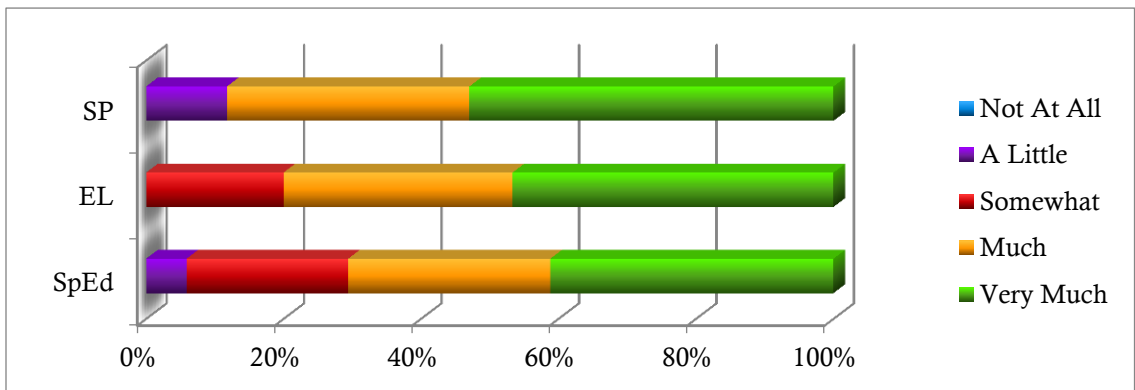
One possibility for the differences reported in perceived increases in student knowledge and alignment of learning experiences could be that alignment occurs first and the increase in knowledge will follow. It is also interesting to note that both classroom and support services teachers indicated a greater increase in the alignment of student learning experiences than in the alignment of instruction. This may be due in part because aligning instruction is seen as a planning action requiring time for teachers to collaborate. However, aligning learning experiences can happen more spontaneously, especially as co-teachers become more comfortable working together.

Classroom teachers, support services teachers, and instructional coaches provided specific examples of the impact of the Integrated Services Pilot on achievement (Table 34).

Table 34. Impact on Academic Achievement – Teacher Interviews

SP Teacher	"I think one of the successes for our students was they became very aware of what their goals were and what we wanted….They know they are making steps to get to their goal."
SpEd Teacher	"We've been flexibly grouping students…and a couple of [SpEd] students are getting to the point where they really don't need to be seen by me because they are actually reading within the realm of what the rest of the kids in the class are reading. And so, [I'm] really seeing them take off."
Instructional Coach	"These teachers had a strong co-teaching … relationship…and the students are benefitting….One little boy…his gains in math were astronomical this year. It's like everything came together for him."

Overall, both classroom and support services teachers perceived the Integrated Services Pilot as supporting a considerable increase in student knowledge. They perceived the impact to be greatest for students receiving ESL and SP services. Moreover, they reported a greater perceived increase in the alignment of student learning

experiences. Support services teachers reported a greater increase in alignment than the classroom teachers. The perception by classroom and support services teachers was that the pilot had a noticeably positive impact on the learning experiences for students receiving support services.

Academic Achievement Measures. An important long-term goal of the Integrated Services Pilot was to decrease the achievement gap between students identified for support services and the students not identified, while raising the achievement of all students in the pilot. However, when implementing a complex initiative requiring second order change such as the Integrated Services Pilot, a change in student achievement of statistical significance may not occur in three years. It should be noted that overall, students not receiving support services continued to show gains in reading and math proficiency during the pilot. Reading data for pilot students are available in Appendix O: SCA II Reading and Appendix P: MAP Growth Data - Reading. Math data can be found in Appendix Q: SCA III Math and Appendix R: MAP Growth Data - Math.

The State Department of Education uses a rating system for Title schools, as a part of the NCLB waiver, based on multiple indicators of success. The rating system includes three components for elementary schools: student proficiency, student growth, and achievement gap reduction. The top two ratings in this system are Rewards Schools, the top 15% of all Title schools in the state and Celebration Eligible Schools, the 25% of schools below the Rewards Schools. In the pilot, School A and School B were both Title schools and therefore were eligible for these designations. School A was identified as a Celebration Eligible School in 2013. School B was selected as a Rewards School in 2012 and 2013. These designations rank schools relative to the performance of other schools in

the state. The three measures used in these rankings are also the academic measures considered in this pilot. The designations awarded School A and School B support the academic achievement results of the pilot.

As discussed in the data analysis section of Chapter Two, there were multiple variables that placed limitations on the conclusions that could be drawn regarding the impact of the Pilot on student achievement. One of these variables was the small sample size for each of the student groups. This was particularly true for the ESL and SpEd student groups. When considering the reading achievement of a small sample of ELs, it would be important to know the language proficiency of each student entering or leaving the student group, due to the impact of this measure on reading proficiency. (Individual student language proficiency was not included in data analysis for the pilot.) Further, when considering students qualifying for SpEd services, the type and degree of student disability may have had an impact on the proficiency rate of the student group. For example, was the large magnitude of change in the proficiency rate for the student groups highlighted in Table 35 due to a change in the composition of the student group, or to an increase in the proficiency rate for the students who were part of the student group in both Spring 2010 and Spring 2012?

Table 35. Magnitude of Change for SCA II Reading Proficiency Rate from 2010-2012

School	Grade	Student Group	N in 2010	N in 2012	Magnitude of Change
School A	3	SpEd	7	10	+180%
School B	4	ESL	5	11	+ 309%

Answering this question will require a review of each student's level of language proficiency and/or IEP. The answers to this question are important to consider at each grade level and at each school when teachers plan programming and instruction for these

students. However, even with these limitations, there are some important observations of practical significance that can be made regarding the academic achievement of pilot participants.

Reading achievement. It was not surprising that teachers reported reading as the focus of instruction provided by support services teachers. Historically, in district elementary schools, the focus of IEPs and SP instruction has been reading. Student language acquisition, the focus of instruction for ESL teachers, was also closely aligned with literacy measures. The classroom structures teachers reported using for instruction substantiated the literacy focus. Classroom teachers (81.6%) and support services teachers (91.7%) reported using students' DRA levels on a daily basis to organize groups for small group reading instruction. Given the focus of support services teachers on reading, it would seem reasonable to conclude that the impact on reading proficiency (Appendix O) would be greater than the impact on math (Appendix Q).

The percentage of students who met proficiency on the Reading SCA-II from 2010 to 2012 increased in 24 of the 31 student groups in grades three through five (see Appendix O) for students receiving support services (F/R, SpEd, and ESL). Another noteworthy result indicated by SCA-II data was that over half of pilot "grade level cells" had a greater proficiency gap reduction between students who received support services and those who did not than the corresponding district grade level cells (O6). (For purposes of this discussion, a grade level cell refers to a school, grade level, and student group. For example, School A, Grade 3, F/R would be considered a cell.) Although it was not possible to claim statistical significance for these changes, the overall increase in proficiency and decrease in the achievement gap did have practical significance. It

appears that the practices implemented during the pilot contributed to positive changes in student achievement. Results for some specific grade levels and student subgroups were of particular interest. These results are discussed by school in the following sections.

School A. The Grade three achievement measures at School A merited examination due to the large magnitude of change in the SpEd proficiency rate (Figure 10) and increased reading proficiency for all three student groups as measured by the SCA-II (Figures 11, 12, and 13).

Figure 10. Magnitude of Change in Proficiency Rate for Reading SCA II 2010-2012
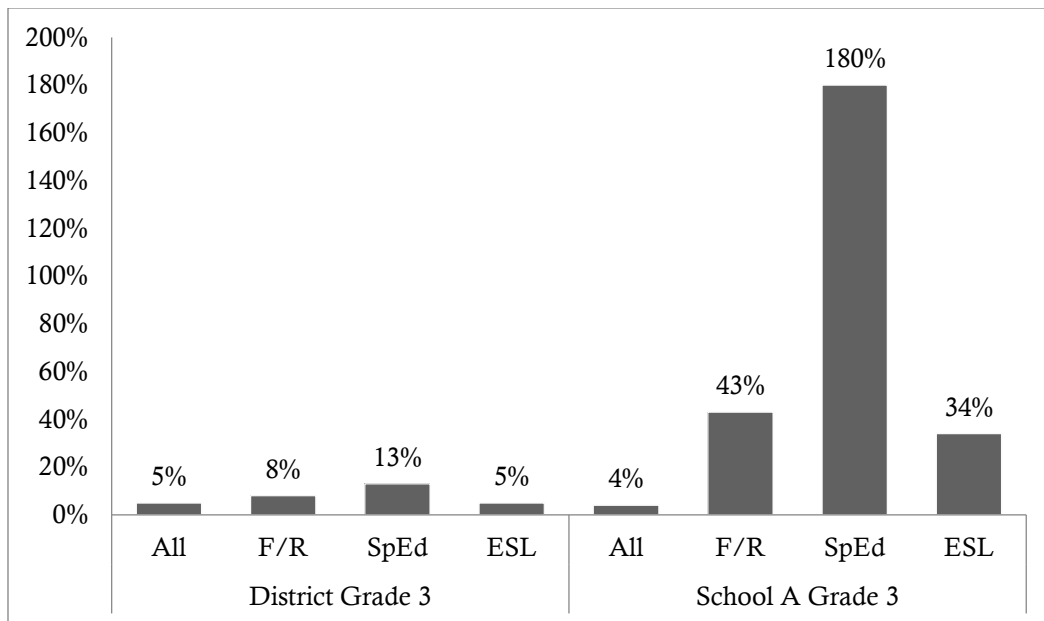
Figure 11. SCA II Proficiency Rate for School A: Grade 3 Students - F/R

Figure 12. SCA II Reading Proficiency Rate for School A: Grade 3 Students - SpEd

Figure 13. SCA II Reading Proficiency Rate for School A: Grade 3 Students - ESL
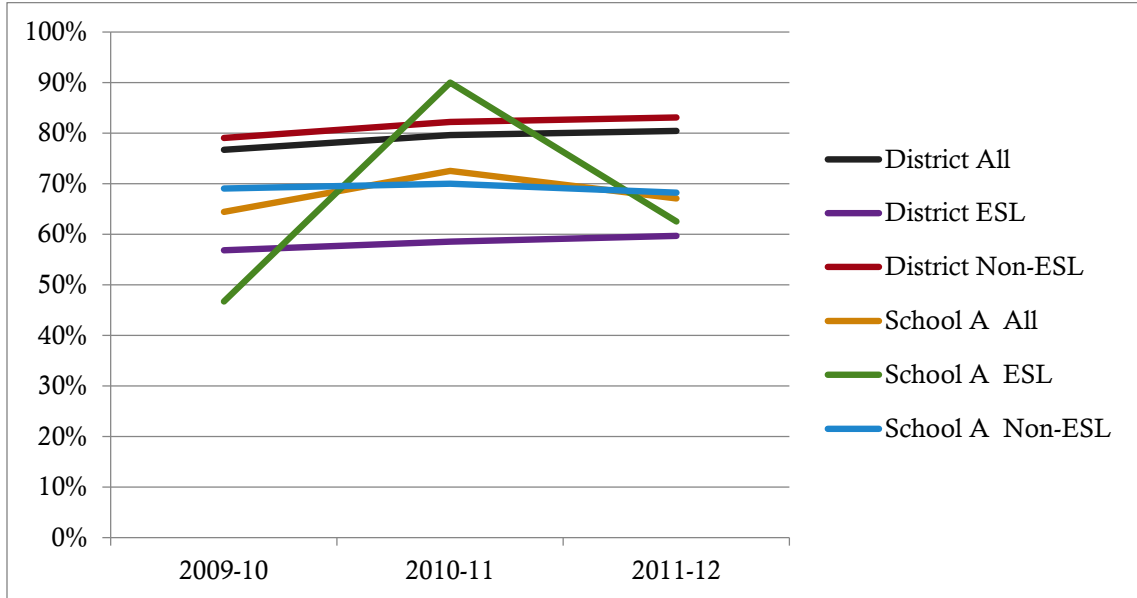
Additionally, many of the other achievement measures showed positive gains.

Particularly notable were the magnitude of change in the achievement gap reductions and

the magnitude of change in the proficiency rate (Table 36). The decrease in SpEd

students meeting MAP growth targets requires further inquiry.

Table 36. School A: Grade 3 Achievement Measures in Reading

Measure	All	F/R	SpEd	ESL
N 2010	73	34	7	15
N 2012	84	39	10	16
	%	%	%	%
Magnitude of Change in Proficiency Gap Reduction 2010 – 2012 SCA II Reading (a negative value represents a gap reduction)	NA	- 64	- 44	- 75
Magnitude of Change in Proficiency Rate 2010 – 2012 SCA II Reading	4	43	180	34
Magnitude of Change in Percentage of Students Meeting Growth Targets Fall 2009 to Fall 2010 compared to Fall 2012 to Fall 2013	- 7	6	- 36	- 3

A review of the proficiency scores for grade 3 provided another perspective by which to evaluate the changes in student achievement and highlighted the challenges in determining reasonable explanations for the changes in achievement such as those highlighted in Table 35. For example, while a 43% magnitude of change increase in the proficiency of students for the F/R subgroup (Table 36) was notable and contributed to a decrease in the achievement gap, another contributing factor was the overall decrease in grade 3 reading proficiency (Figure 11). Although the gains made by students included in the F/R subgroup are certainly important, the decrease in proficiency of students not in the F/R subgroup resulted in an overstatement of the achievement gap reduction. As stated previously, the goal was to close the achievement gap while raising academic proficiency for all students.

The proficiency scores for SpEd students and ELs illustrated the need for the synthesis of both contextual information about the school setting and specific information on language proficiency of ELs and the disabilities of SpEd students. This information would be helpful in understanding the 14% proficiency level of SpEd students in 2010 (Figure 12.) and the variation in proficiency for ELs from one year to another (Figure 13), as the number of ELs increased from 10 to 16. Contextual information could include the number of students entering and exiting the program and changes in staffing. Throughout the pilot, there were changes in SpEd staff at School A as well as a new ESL teacher for the 2011-2012 school year.

Another grade level cell of interest is grade four ESL. The 30% magnitude of change in the proficiency rate for this group was not particularly large; however, it is important due to the proficiency rate for this subgroup. The 80% proficiency rate for ELs in grade

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four was equal to the proficiency rate for all students district wide and greater than the non-ESL students proficiency rate of 75% for the all student group in grade four at School A (Figure 14). The high proficiency level of ELs resulted in an achievement gap reduction with a 190% magnitude of change.

Figure 14. SCA II Reading Proficiency Rate for School A: Grade 4 Students - ESL
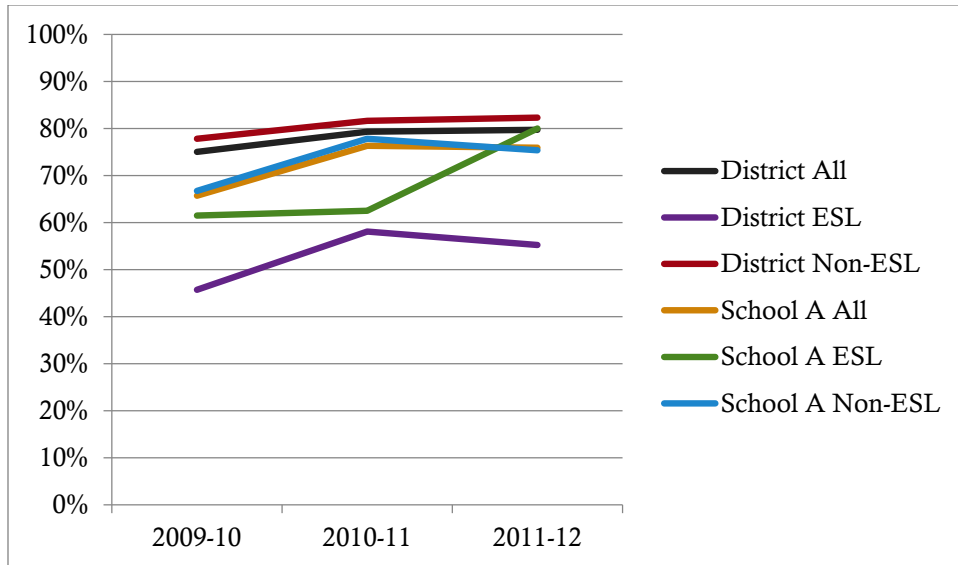
In grades three through five, six of the nine grade level cells in School A exceeded the district magnitude of change for the proficiency rate (Table O4) on SCA II Reading. Additionally, five of these cells decreased the achievement gap by more than 40% (Table O5). One grade level cell had substantially discrepant results, grade four, SpEd (Table O4 and O5). A more complete understanding of this result would require further inquiry. Overall, these data indicated positive changes in reading achievement for students at School A.

School B. The achievement gains made by grade four students at School B merited review because each subgroup substantially reduced the achievement gap (Table 36) and increased the proficiency rate (Figures 15, 16, and 17). Additionally, each subgroup had a

greater magnitude of change in proficiency than the district (Figure 18). The only

subgroup that did not increase the percentage of students meeting their growth targets

was SpEd (Table 37).

Table 37. School B: Grade 4 Achievement Measures in Reading

| Measure	All	F/R	SpEd	ESL
N 2010	72	33	16	5
N 2012	99	48	6	11
	%	%	%	%
Magnitude of Change in Proficiency Gap Reduction 2010 – 2012 SCA II Reading (a negative value represents a gap reduction)	NA	- 73	- 26	- 81
Magnitude of Change in Proficiency Rate 2010 – 2012 SCA II Reading	28	52	52	309
Magnitude of Change in Percentage of Students Meeting Growth Targets Fall 2009 to Fall 2010 compared to Fall 2012 to Fall 2013	10	24	- 15	33

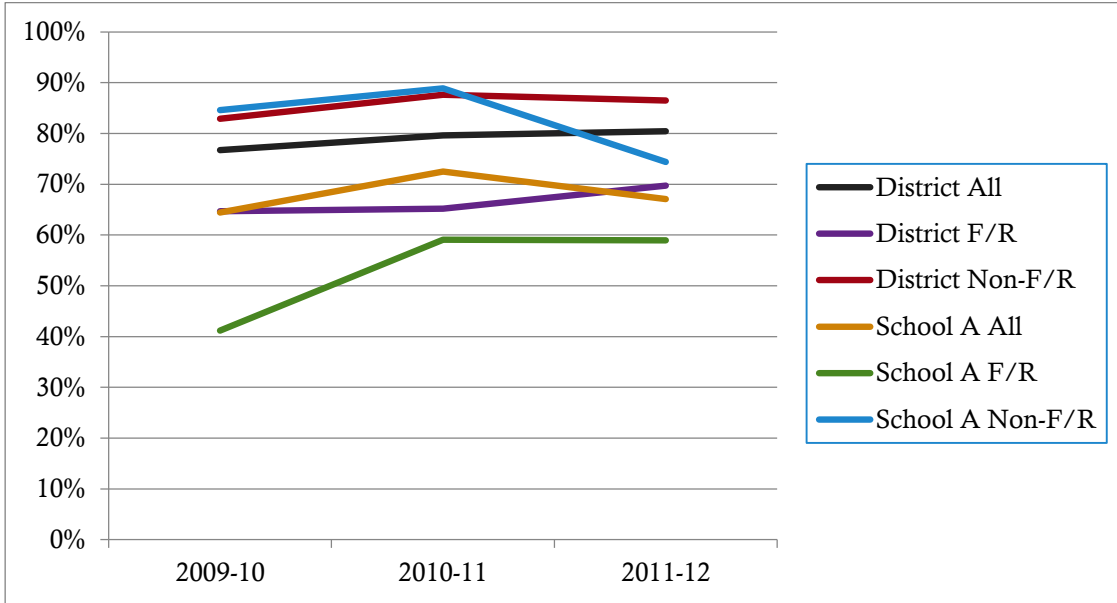Figure 15. SCA II Reading Proficiency Rate for School B: Grade 4 Students – F/R
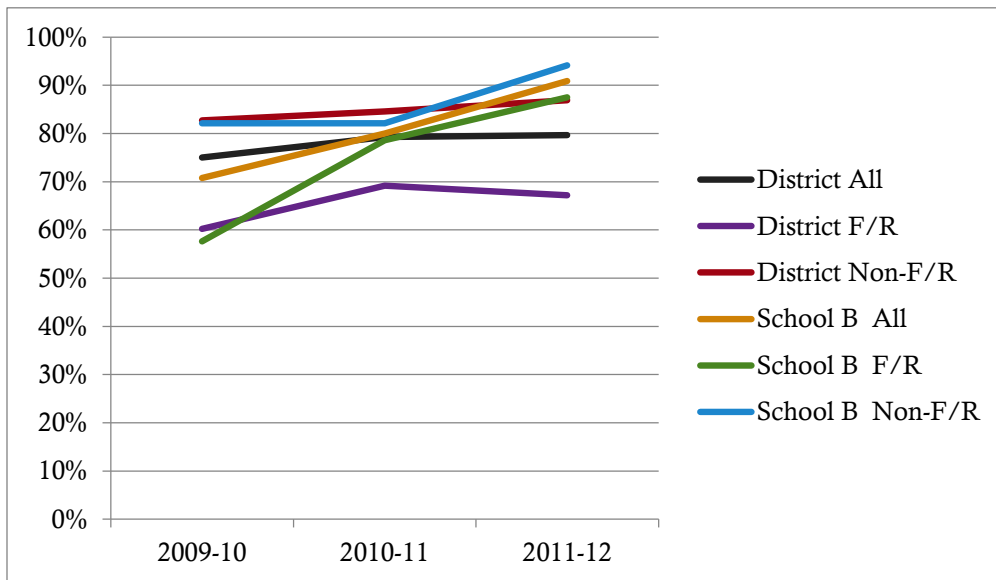
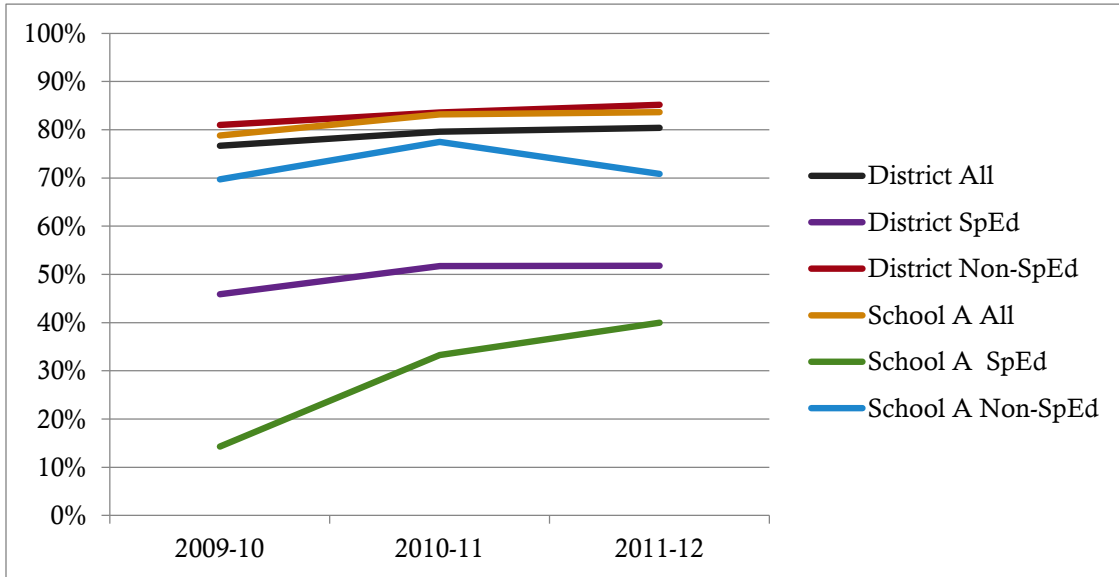Figure 16. SCA II Reading Proficiency Rate for School B: Grade 4 Students -SpEd
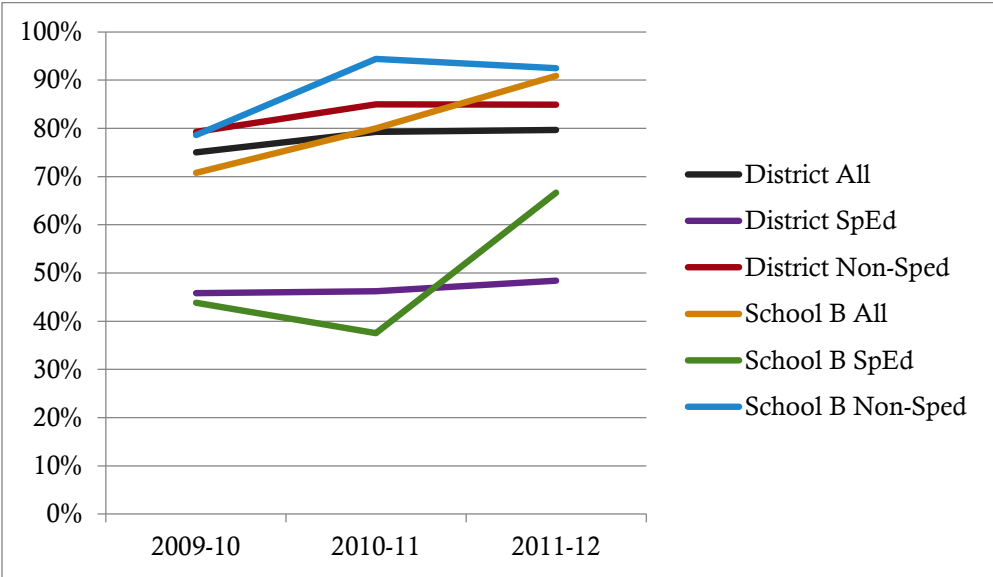
Figure 17. SCA II Reading Proficiency Rate for School B: Grade 4 Students - ESL
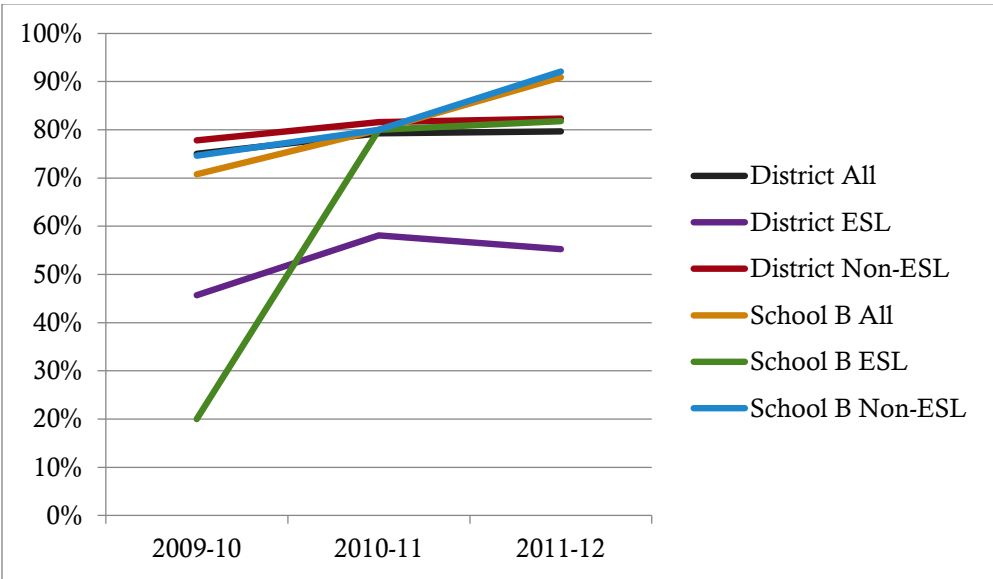
Figure 18. Magnitude of Change in SCA II for Reading Proficiency Rate 2010-2012
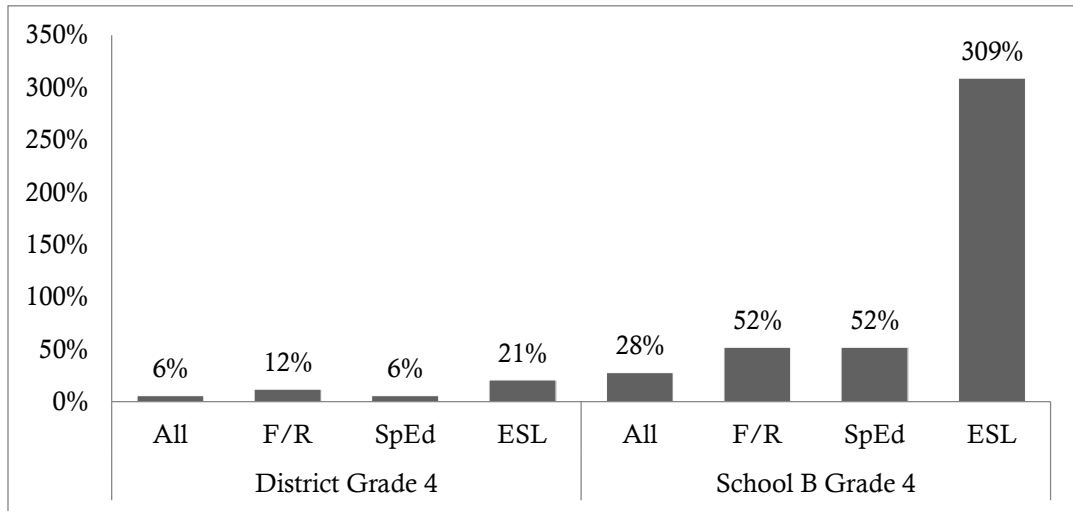
Although these results may not have been statistically significant they are of practical

significance. Examination of the school structures and instructional strategies for grade

four at School B could inform future pilot development.

School C. Results from SCA indicated decreases in reading proficiency from 2010 to

2012 in the F/R and ESL subgroup with the exception of grade three, F/R (Table O1 and

O3). Furthermore, all of these grade level cells with the exception of grade three F/R had

an increase in the achievement gap (O5). In contrast to these results, the reading

proficiency rate for SpEd subgroups at each grade level increased (Table O2), grade four

made the greatest gains. This increase was reflected in a corresponding decrease in the

proficiency gap (Table O5). The magnitude of change for the proficiency rate and the

proficiency gap were not as large as those highlighted in Schools A and B.

School D. The focus of the pilot in School D was the SpEd subgroup. The magnitude

of change in the SCA-II Reading proficiency rate for grade four students receiving SpEd

services was only 23%. The corresponding magnitude of change in the proficiency gap

was a decrease of 25%. Although these changes were not of the magnitude of those

highlighted in other cells, the proficiency rate of SpEd students in grade 4 is 65% (Table

O2), which is 8% higher than the district wide proficiency level for grade four SpEd

students (Figure 19). Furthermore, these increases in proficiency and the proficiency gap

Figure 19. SCA II Reading Proficiency Rate for School D: Grade 4 Students (SpEd)
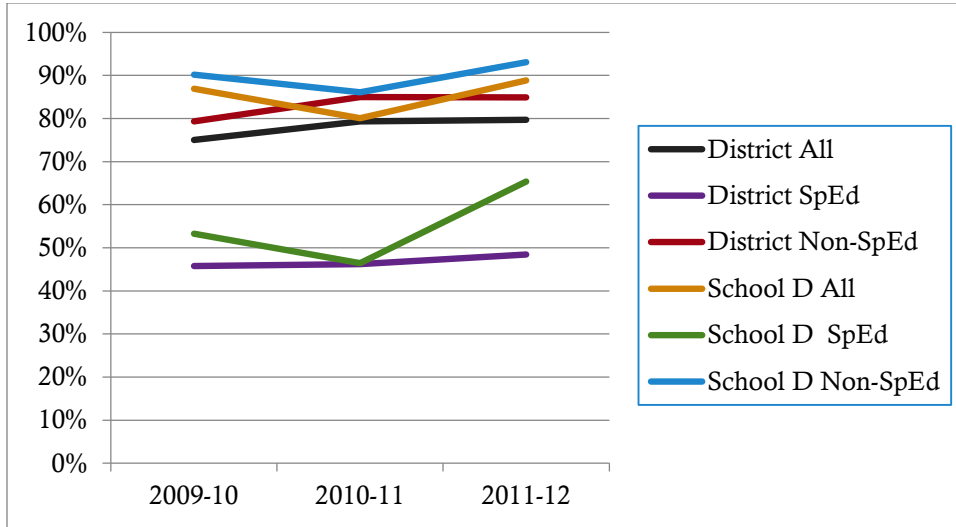
reduction were achieved as the size of the subgroup increased from 15 students in 2012 to

26 students in 2012. The increased size of the subgroup contributed to the importance of

these results because it is difficult to maintain proficiency with an increased number of

students with significant needs. The pilot appears to have had a positive impact on

reading achievement for fourth grade students receiving SpEd services at School D.

Mathematics achievement. The measures used to evaluate the impact of the pilot on

mathematics achievement included assessment results from MAP and the SCA. Results

from MAP assessments in 2010 through 2013 provided a measure of student growth.

Proficiency measures were obtained from SCA results from 2011 to 2013. A new math

SCA-III was administered in Spring 2011, thus, Spring 2010 SCA-II scores were not included in this discussion.

In Spring 2012, students were allowed to take the SCA-III three times and report the highest score. A review of the data indicates that this had a positive impact on proficiency rates for students receiving SpEd services. Thirteen of the 15 SpEd grade level cells had in increase in the proficiency rate for 2011-2012 and decreases of varying magnitude in 2012-2013 (Table Q2). The pattern was also evident to a lesser degree for students qualifying for F/R services (11 of 15 cells decreased in the proficiency rate, Table Q1) and ELs (6 of 12 cells decreased in proficiency rate Table Q3).

Overall, the percentage of students who met proficiency on the Math SCA-III from 2011 to 2013 increased in 18 of the 31 grade level cells in grades three through five (see Appendix Q) for students receiving support services (F/R, SpEd, and ESL). These results showed that there were fewer cells in math, than in reading, with an increase in the proficiency rate. The focus of support services teachers on literacy instruction may have contributed to the difference in proficiency rates. Grade level cells with a magnitude of change noticeably different from other cells were reviewed as they were reviewed for the reading data.

School A. The math proficiency rate in grade five for students qualifying for F/R (Figure 20) and ELs (Figure 21) increased substantially while the all student category also showed a sizable increase in proficiency, as measured by the magnitude of change in the proficiency rate (Figure 22).

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Figure 20. SCA III Math Proficiency Rate for School A: Grade 5 Students (F/R)
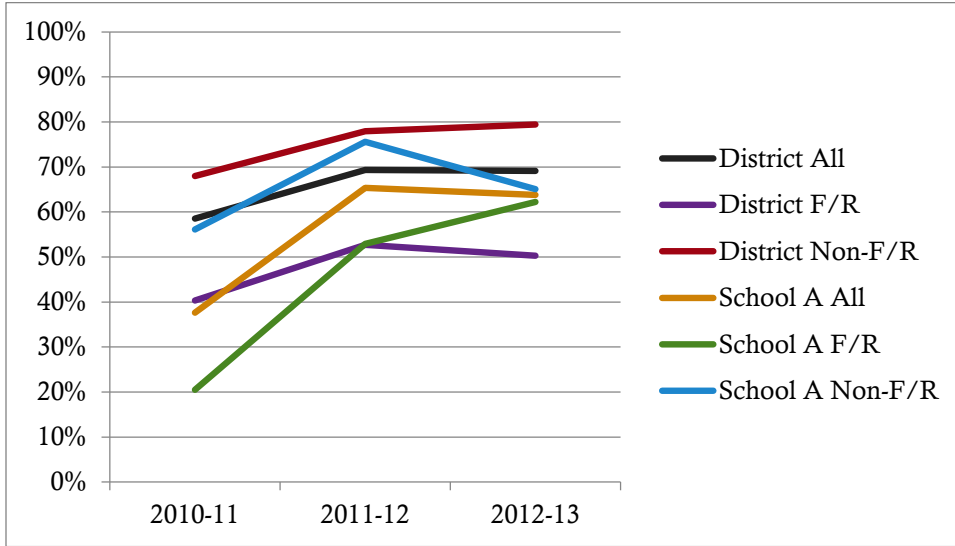
Figure 21. SCA III Math Proficiency Rate for School A: Grade 5 Students (ESL)
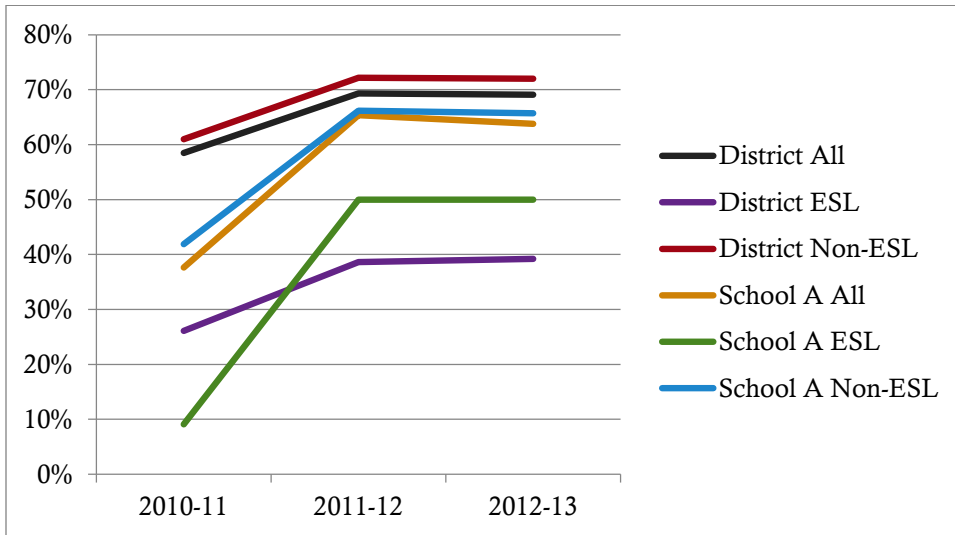
Both of these grade level cells had considerably higher proficiency rates than the

corresponding district grade level cells (Figure 19).

Figure 22. Comparison: Magnitude of Change in SCA III Math Proficiency Rate 2011-2013 School A and the District
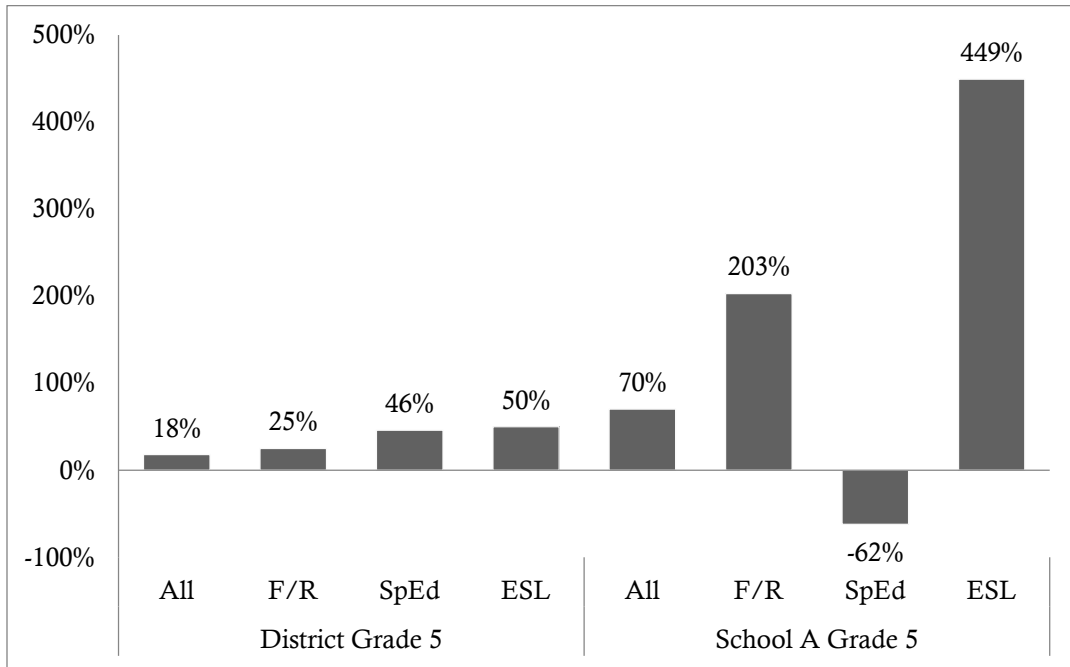
In addition to increased proficiency levels, there was a considerable decrease in the proficiency gap for both students qualifying for F/R lunch and ELs (Table 38). These results indicated a positive change in student achievement.

Table 38. School A: Grade 5 Achievement Measures in Mathematics

Measure	All	F/R	SpEd	ESL
N 2011	85	44	17	11
N 2013	80	37	9	10
	%	%	%	%
Magnitude of Change in Proficiency Gap Reduction 2011 – 2013 SCA III Math (a negative value represents a gap reduction)	NA	-92	476	-52
Magnitude of Change in Proficiency Rate 2010 – 2012 SCA III Math	70	203	-62	449
Magnitude of Change in Percentage of Students Meeting Growth Targets Fall 2009 to Fall 2010 compared to Fall 2012 to Fall 2013	-44	-14	67	0

The concurrent decrease in the proficiency rate for students qualifying for SpEd services (Figure 23) and a positive 67% magnitude of change in students meeting their growth targets appeared contradictory. It is important to note that the proficiency measure was obtained from the SCA-III while the growth measure was obtained from MAP. Another confounding factor was the decrease in the cell size from 17 in 2011 to 9 in 2013 (Table 37). MAP results indicate that the students who were members of the cell in 2013 continued to grow. One possible explanation for these results was that students with the highest levels of math proficiency were no longer receiving SpEd services. Alternatively, students in need of more support may have been placed in a more intensive program; such as a center-based program providing services for autistic students with significant needs. The decrease in the SCA-III proficiency rate (Table Q4) for SpEd students in grades three through five and corresponding increase in the achievement gap (Table Q5) was concerning. A more complete understanding of the data would require information about the individual students being served and their specific disabilities.

Figure 23. SCA III-Math Proficiency Rate for School A: Grade 5 Students (SpEd)
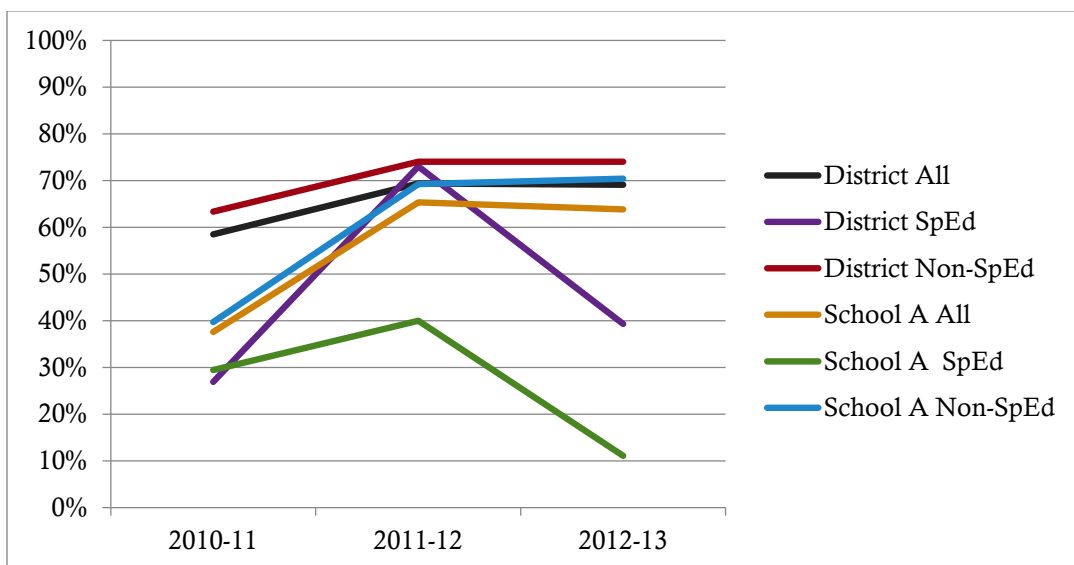
Overall, the data indicate that grade five students, in School A, receiving support services increased in mathematical proficiency. Furthermore, this was not occurring at the expense of students not receiving service; they also showed a sizable and positive magnitude of change in math proficiency.

School B. The proficiency rate on the SCA-III Math increased for the all student group in grade five and for students in each subgroup (Figures 24, 25, and 26).

Figure 24. SCA III-Math Proficiency Rate for School B: Grade 5 - F/R
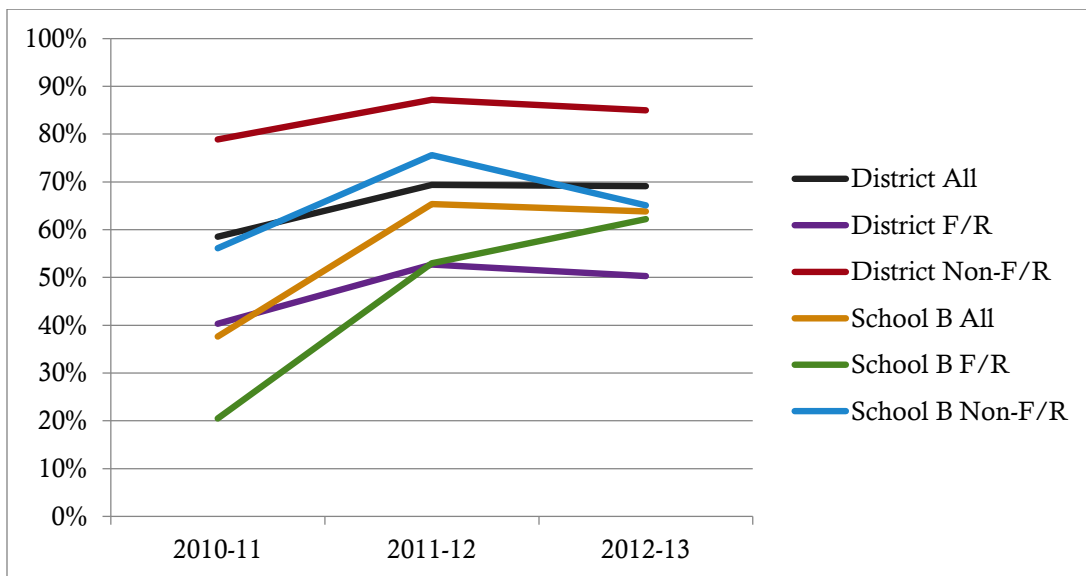
Figure 25. SCA III-Math Proficiency Rate for School B: Grade 5 - SpEd
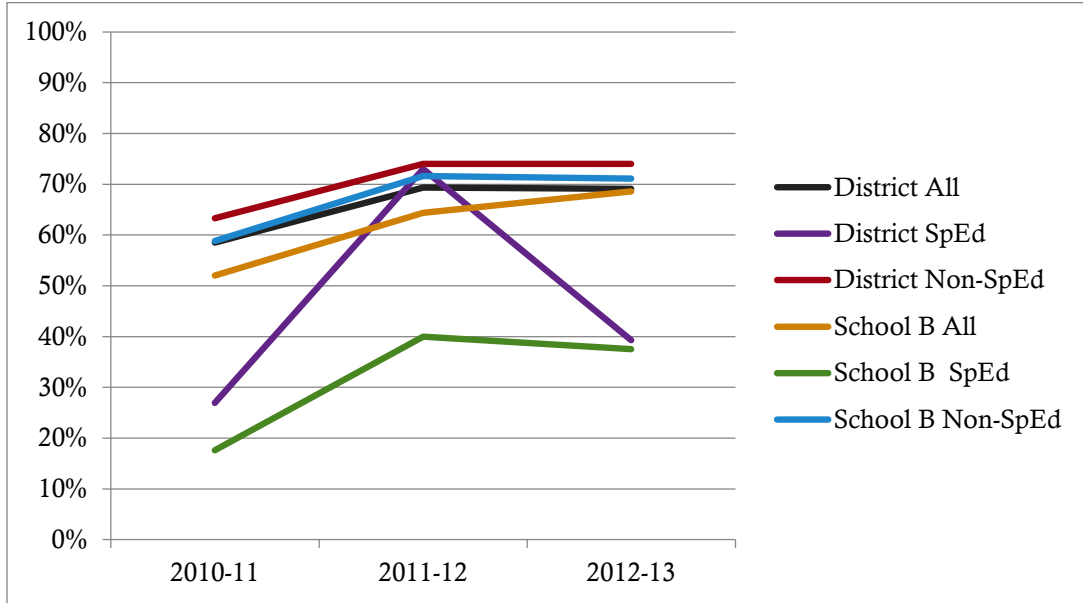
Figure 26. SCA III Math Proficiency Rate for School B: Grade 5 Students -ESL
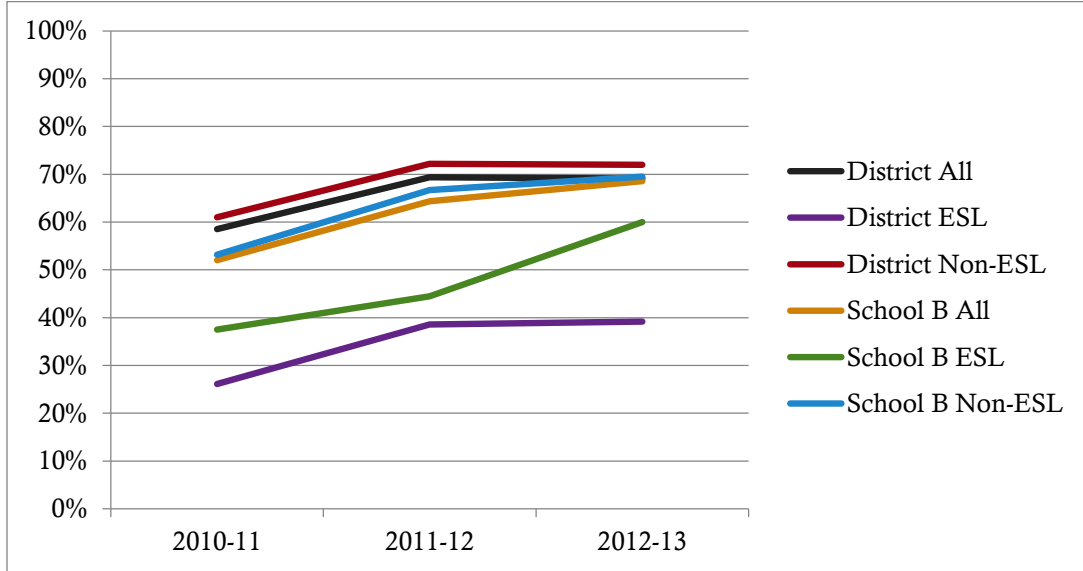
When compared to the district, the grade five SpEd and ESL subgroups at School B had a greater magnitude of change in the proficiency rate than the comparable district subgroups (Figure 27).

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Figure 27. Magnitude of Change in SCA III Math Proficiency Rate 2011-2013
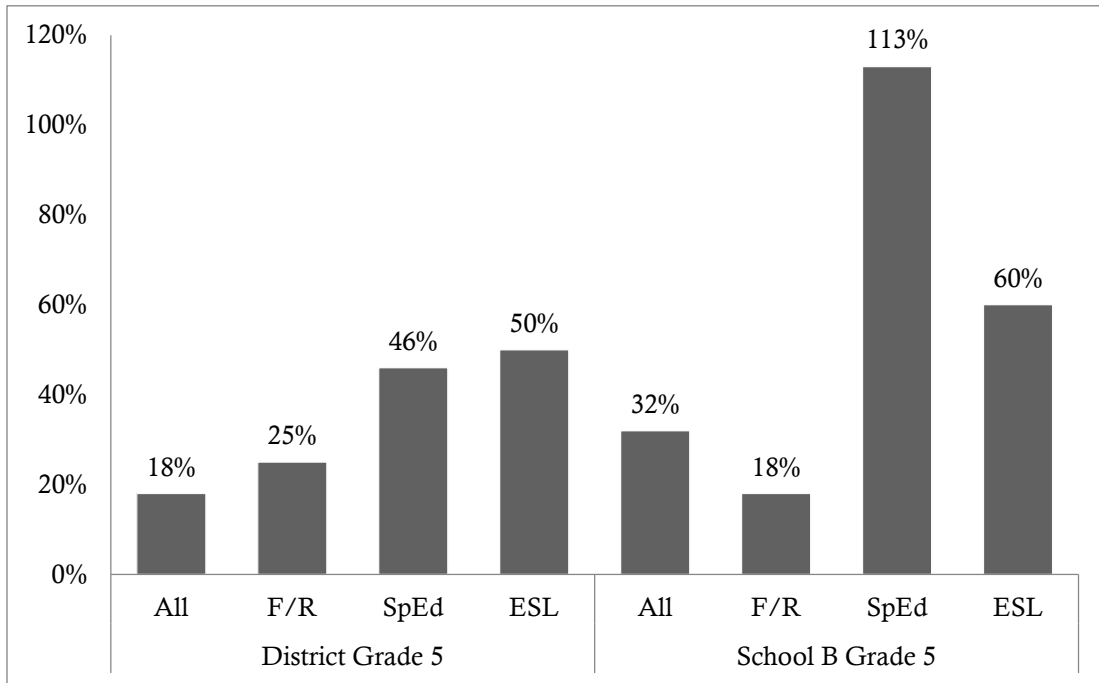
Moreover, the magnitude of change in the proficiency rate was accompanied by a decrease in the achievement gap for students receiving for SpEd and ESL services (Table 39). Although these achievement gains may not have been statistically significant they were of practical importance.

Table 39. School B: Grade 5 Achievement Measures in Mathematics

Measure	All	F/R	SpEd	ESL
N 2011	102	51	17	8
N 2013	105	58	8	10
	%	%	%	%
Magnitude of Change in Proficiency Gap Reduction 2011 – 2013 SCA III Math (a negative value represents a gap reduction)	NA	147	-18	-39
Magnitude of Change in Proficiency Rate 2010 – 2012 SCA III Math	32	18	113	60
Magnitude of Change in Percentage of Students Meeting Growth Targets Fall 2009 to Fall 2010 compared to Fall 2012 to Fall 2013	-40	-29	-21	-33

The achievement gap increase for students qualifying for F/R services was not due to a decrease in the proficiency rate of the F/R subgroup, but rather to a greater change in the proficiency rate for all students. The students qualifying for F/R lunch in grade five, School B achieved the same magnitude of change as the district all student group but less than the all student group in School B (Figure 28).

The decrease in the percentage of students who met their MAP growth targets is concerning (Table 39). The percentage of students meeting their growth targets was at a high rate in 2010 and has declined since that time (Appendix R). It may be that as student proficiency increases, students have greater difficulty meeting the increasingly high proficiency levels necessary to meet growth targets.

The achievement results indicate the all students group and students receiving support services in grades four and five either maintained or increased their math proficiency rate. The achievement gap did increase for some subgroups. This increase was due in part to a sizable increase in the student proficiency rate for students in the all student groups. SpEd and ESL subgroups in grade three showed a slight decrease in the proficiency rate. Due to the small number of students in these subgroups, it was not possible to determine the significance of this change. Overall, the data indicate that School B has increased proficiency in mathematics.

School C. The grade three ESL subgroup in School C had a 66% magnitude of change in the proficiency rate and a 66% magnitude of change reduction in the achievement gap. Students qualifying for F/R showed increases in math proficiency that were less than the district increases and decreases in proficiency for both grades four and five. This is worthy of mention because it is the largest subgroup in the school. There was

a noteworthy decrease in the proficiency gap for ELs in grade three. However, there was a corresponding decrease in the number of students receiving service from eleven to three. There were no other notable changes in achievement for this grade level, or in grades four or five.

School D. As discussed earlier, the focus of the pilot in School D was primarily reading instruction and students receiving SpEd services. The goal was to support a more complete implementation of guided reading groups with the inclusion of SpEd students (Principal Interview, 2012). Thus, the increases in math achievement were a particularly positive result. The magnitude of change in the Math SCA-III proficiency rate for grade four students receiving SpEd services was 48%. The corresponding magnitude of change in the proficiency gap was a decrease of 25%. Additionally, the SpEd subgroup proficiency rate for grade four at School D was higher than the corresponding district subgroup (Figure 28). Students who qualified for SpEd services in mathematics made considerable gains in mathematics.

Figure 28. School D and District: Grade 4 SpEd Math Achievement
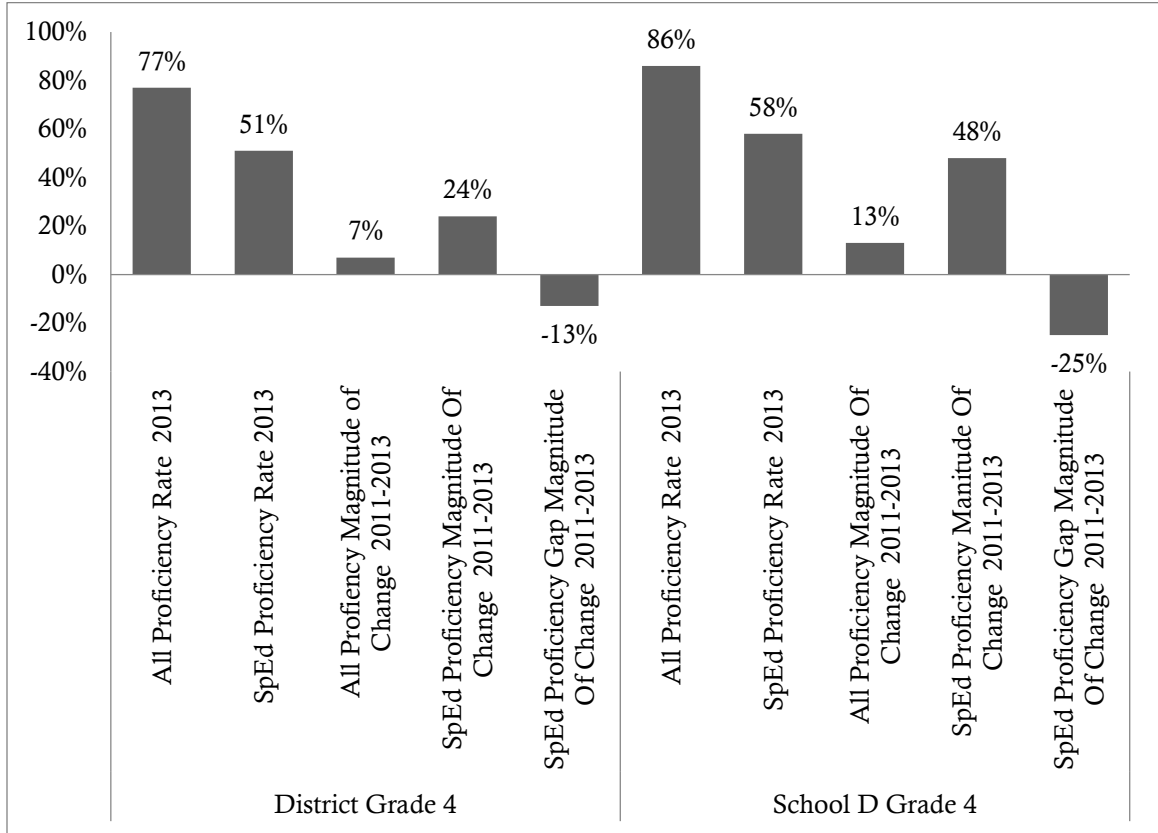
Analysis of the achievement data indicates that the pilot appears to have had a positive impact on student achievement. Overall, the gains in literacy were greater than the gains in mathematics. This is not surprising given the literacy focus of the instruction provided by support service teachers. The increases in achievement for students receiving support services were not evenly distributed, but for many grade level cells they were substantial. Furthermore, the students not receiving support services did not decrease in their proficiency, and for many grade level cells proficiency increased. Analysis of the achievement data provides important information for teachers and principals, at both the school level and the grade level, to inform practice and guide further pilot development.

Overall Perceptions of the Pilot

The overall perceptions of the Integrated Services Pilot were positive. Both classroom teachers (56.7%, *much* and *very much*) and support services teachers (68.2%, *much* and *very much*) reported that students receiving SP services received the greatest overall benefit from the pilot, with a mode of three (*much*) for both classroom (53.3%) and support services teachers (50.0%). Teachers reported that SpEd students benefitted least from the pilot (Table J5).

A concern reported in the literature about inclusive classroom models was the potential negative impact on students not receiving support services. Over 40% of classroom teachers (42.0%) reported that students not receiving support services benefited *much* or *very much* from the Integrated Services Pilot (Figure 29). Support services teachers reported similar results; 60.0% indicated that students not receiving support services benefitted *much* or *very much* from the pilot (Figure 30). One could postulate that students not qualifying for support services benefited from additional teacher support in the classroom.

> The other benefit I find [from the pilot]…is when we have students who don't qualify [for service], and parents are disappointed because they see a need, as do staff…I can put [the student] in a classroom where we are using an integrated services model. (Principal Interview, 2012)

A SpEd teacher elaborated on this stating:

> [The pilot] has benefited those on the fence kind of kids because they can get that extra help, and they get that double dose of reading…the two lowest guided reading groups get seen probably seven or eight times by their teachers each week. (Co-Teaching Partner Interview, 2012)

Figure 29. Overall Student Benefit from the Integrated Services Pilot – Classroom Teacher Survey
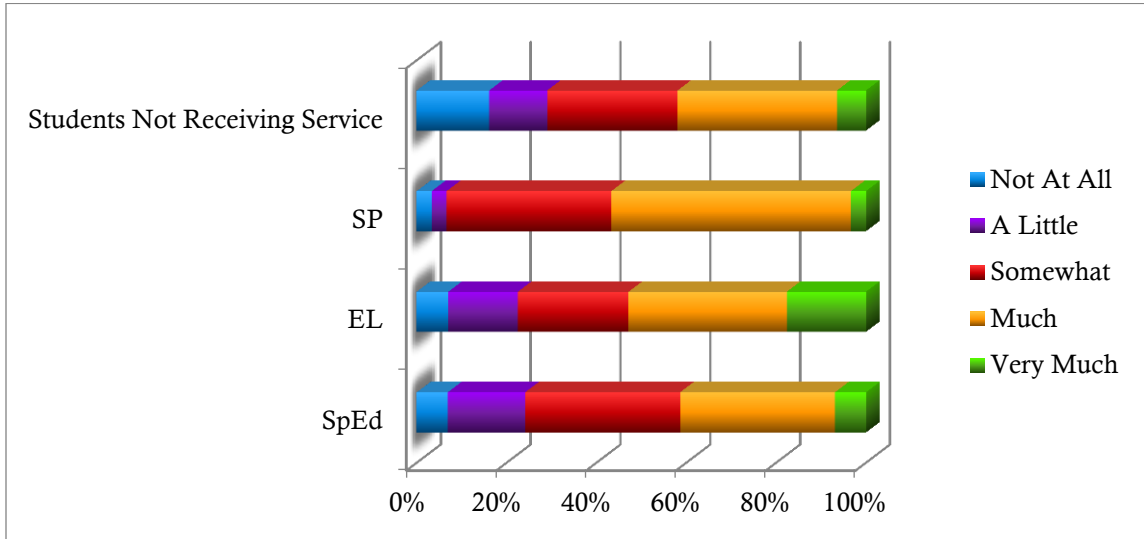
Figure 30. Overall Student Benefit from the Integrated Services Pilot – Support Services Teacher Survey
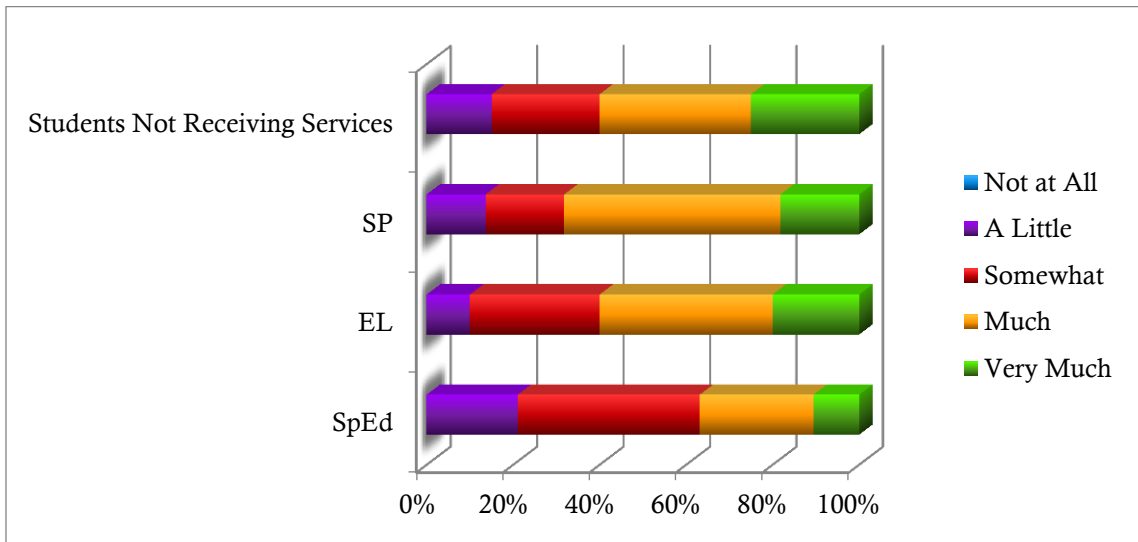
An open-ended item on both the classroom and support services teacher surveys asked teachers to provide two adjectives that describe their overall experience with the Integrated Services Pilot. The words were categorized as positive, neutral, or negative. (See Appendix O for a complete list of the adjectives reported.) Of the total list of 51 words generated by classroom teachers, 56.9% were positive (e.g., beneficial,

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collaborative, and successful); 9.8% were neutral (e.g., challenging and okay); and 33.3% were negative (e.g., frustrating, time consuming and confusing). The responses by support services teachers had a similar distribution. Of the list of 40 words generated, 60% were positive (e.g., diverse, helpful, and enjoyable); 19% were neutral (e.g., challenging); and 30% were negative (e.g., frustrating). Put another way, over two-thirds of the words used to describe the Integrated Services Pilot, by both classroom and support service teachers, were neutral or positive.

Classroom teachers identified increased student support as the greatest strength of the pilot (Table L.1). Teachers reported that this increased support resulted from an increased ability to differentiate instruction and provide more small group instruction (Table 40).

Table 40. Greatest Strength of Pilot – Classroom Teachers

Greatest Strength	Teacher Responses N=28 n (%)	Sample Open-ended Comments
Increased student support	9 (32%)	• *More students are receiving service* • *The students get a lot of one-on-one/small group instruction* • *Students are getting MORE guided reading instruction from both teachers* • *Interventions that are helpful to many students*

"I think we've been able to differentiate the instruction to a greater degree than you would be able to in a classroom with just one teacher...And so, we're able to really target the needs of the kids better because they are in smaller groups" (Co-Teaching Partner Interview, 2012). Classroom teachers saw this as a benefit for all students. "It just

benefits more students more of the time…and students feel like they belong" (Classroom Teacher Group Interview, 2012).

Teachers, coaches, and principals all commented in interviews about the cultural shifts that had occurred, "the shift from my learners to our learners" (Instructional Coach Interview, 2012). The shift to a more inclusive experience impacted teachers as well as students. Support services teachers reported being treated as equal professionals who made meaningful contributions to student learning, rather than helpers going into a classroom to fix a problem. "We were a real team in every aspect I wasn't an outsider" (Special Education Group Interview, 2012).

> I think I probably always knew it, but it was something I got to see more, the power of working with a team versus by yourself...how powerful it is for everybody: the classroom, the kids, the teacher; when we have a true team working. And that makes you hungry for more….There is so much more to inclusion than I ever imagined. (Special Education Group Interview, 2012)

Support services teachers identified inclusion as the greatest strength of the pilot (Table L.2) while classroom teachers listed it second in importance (Table L.1). Comments made by both support services and classroom teachers stated that having all the students in the classroom, receiving the same messages from multiple teachers, was important (Table 41). Teachers perceived that this facilitated classroom participation by all students.

Table 41. Inclusion as a Pilot Strength

Teacher Group	Teacher Responses N n (%)	Sample Open-ended Comments on Inclusion as a Strength of the Pilot
Support Services Teachers	N = 22 8 (36%)	• *Students are able to be a contributing part of their classroom* • *Students are grouped by ability not label* • *There was no pull-out so students felt a part of the class* • *Keeps special education students more involved with mainstream peer and curriculum*
Classroom Teachers	N = 29 7 (25%)	• *Inclusion of special education students* • *Students are in the classroom and not missing out on core content instruction* • *All students got the message that multiple teachers care about them and their success* • *Students are included in daily curriculum with modified lessons*

All four principals in the pilot schools perceived a change in culture during the pilot.

One stated that,

> The culture has changed from a classroom teacher saying, "This kid isn't learning, and this is someone else's problem" to "this kid isn't learning, and what can I do about it?" It takes a long time to get everyone thinking that way. (Principal Interview, 2012)

Reflecting on his/her experience, an instructional coach shared,

> My big ah-ha was the shift in culture and what a difference that makes for student learning. The shift from making excuses to empowering learners, the shift from power to influence, the shift from isolation to reflection…the momentum is so exciting. (Instructional Coach Interview, 2012)

Principals also commented on the inclusive behavior of students,

> I think students are better served by this approach because, I don't think kids see themselves as different. I don't hear special ed students feeling like they're different or they're not smart.…I don't feel there is the stigma I've experienced in my prior buildings. (Principal Interview, 2012)

Collaboration was identified by both support services teachers (Table L2) and classroom teachers (Table L1) as one of the greatest strengths of the pilot. One teacher commented, "Because the pilot is a great collaborative model, it is much better for students" (Classroom Teacher Interview, 2012). A SpEd teacher stated that the pilot provided the opportunity "to work cooperatively with mainstream teachers for the betterment of all students, not just special ed students" (Special Education Group Interview, 2012). Teachers acknowledged that collaboration and inclusive practices require work and commitment.

> This year made me realize it's a process. Sharing a classroom doesn't just happen overnight. It's a dance, and if you want to be *Dancing with the Stars,* you've got to take the first steps. So I think it's a journey and a process. (Special Education Group Interview, 2012)

When pilot teachers were asked if they would recommend the pilot to others, the response was overwhelmingly, yes. When asked what they would share with others one classroom teacher said,

> I would tell someone I can't imagine not doing this....I can sleep at night because I know as a team we are really doing what is best to meet the specific needs of our learners, and that is such a good feeling….I feel that as a team, we have done our best work. And the kids benefit. (Classroom Teacher Group Interview, 2012)

Another teacher shared,

> I have really enjoyed [the pilot] and I can't even imagine going back to what we had, the pull-out model. I just hope that doesn't happen because that would be a real shock. I really like it. I think it's good for kids. Everybody, all the kids. (Classroom Teacher Group Interview, 2012)

Principals also shared this opinion. When asked, "Why would another principal would consider implementing integrated services?" s/he responded, 'I think the biggest

why is, it's best for kids, for them to be getting their instruction in their classroom"

(Principal Interview, 2012).

Suggestions for improvement and expansion. Suggestions for improvement and

expansion focused around three topics: professional development and support,

collaboration time, and teacher relationships. Overall, teachers appreciated the

opportunity to develop inclusionary practices, including co-teaching, in ways that fit their

teaching styles. However, some teachers would have appreciated more definition and

specific direction than they received. The degree to which this was desired varied among

schools and teaching partnerships.

Professional development and support. Most teachers shared the desire for more

professional development in August, prior to the new school year; both at the building

and district level. Several teachers, coaches, and principals suggested providing an

opportunity for a panel discussion and the sharing of ideas among schools. "Bringing

schools together [who are in the pilot], like we did when we started specialization, I think

there's a lot of power in that; in empowering teachers who are responsible for the

development of the pilot" (Instructional Coach Individual Interview, 2012). Pilot

participants also felt that a panel discussion would be helpful to schools where the pilot

was being implemented. For schools new to the pilot, teachers suggested sharing the

videos and text materials they accessed at the beginning of the pilot.

Additional strategies for learning from other schools involved in the district pilot

were also suggested. Teachers, coaches, and principals indicated an interest in visiting

classrooms in other district schools to share ideas and learn from each other (Table 42).

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Table 42. Site Visits as Professional Development – Individual and Group Interviews

SpEd Teacher	"I think it would be really helpful to see how [other schools] are implementing the pilot. We can get ideas for things that would work in our school."
SP Teacher	"I want to know what other people are doing and see what we can change and move forward with."
Instructional Coach	"It would be helpful to see [the pilot] in action, within a system where it is working well…do a site visit…where you can experience it in a different way than it was implemented at your school."

Teachers who visited an ENVoY certified school found the visits both motivational and a good learning opportunity. Similarly, teachers suggested that observations at schools outside the district where other models of inclusionary practices have been implemented would provide meaningful professional development. Another suggestion by teachers for sharing teaching practices was making videos of classrooms. This would provide teachers with opportunities to view how different teachers shared instruction and managed their classrooms.

Continued opportunities to learn from outside professional developers, were also recommended to support future development of the pilot. Teachers described ENVoY training as an experience that provided a shared focus and united them in their work. Many suggested ongoing ENVoY training, including coaching for individual teacher teams. Teachers in schools that have not developed a student behavior plan with the external trainer thought that would be a helpful next step. Others suggested further work with the University partner. "I know we had [the University partner] at the beginning of the year [and that] helped us get started and understand co-teaching. But maybe, even

having her come in more to meet with some of the partnerships would be helpful" (ESL Teacher Individual Interview, 2012).

Another area of support that teachers felt had been addressed in most settings was the initial physical preparation of classrooms for the pilot, including a teaching station for support services teachers in the classroom. This not only facilitates their work but also, communicates the importance of an inclusive classroom. Teachers stated that this type of support should be considered when new schools are added to the pilot (Co-Teaching Partner Interview, 2012). In addition to space, support services teachers indicated that keeping the same teams from one year to the next would be very helpful (Table L5). They would like to work with their principal to address this need and their desire to limit the number of classroom teachers with whom support services teachers team. One principal suggested that principals

> …really need to think carefully about their building schedule and how they align staff to support student needs. [To do this] principals need to have a really strong understanding of what the needs of the student population are, and the supports they have in place. Finally, how they might think differently about aligning them. (Principal Interview, 2012)

A limited number of teachers suggested curriculum materials that would support the pilot. For example, some support services teachers requested their own copies of curriculum documents rather than sharing documents among their team. A request was also made for additional guided reading books at multiple levels, as students meet more frequently for guided reading.

Collaboration time. Collaboration time was identified as critical to the pilot. Both classroom and support services teachers identified increased collaboration time as an area for improvement. Classroom teachers saw a greater need for increased collaboration with

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support services teachers than with their grade level teams. Teachers indicated they would like to adjust the daily schedule to provide more opportunities for the partnership of classroom and support services teachers to collaborate more frequently. Additionally, teachers expressed a desire to continue the release time with substitutes to meet with their teaching partners as well as the afternoon collaboration time (after school) that was implemented in School A. Teachers were appreciative of the efforts principals have made to provide additional time for collaboration (Classroom Teacher Group Interview, 2012).

Teacher relationships. The majority of teachers indicated that their relationships with their co-teachers had been positive and rewarding. In interviews with teachers who principals identified as having developed successful partnerships, teachers shared a few variables that they felt contributed to their success. First, they took time at the beginning of the year to decide how they would manage the classroom, student discipline, and organize their workspaces. Although adjustments were often made throughout the year, this was a necessary first step. Where these conversations occurred, support services teachers reported feeling welcomed and less anxious of about sharing the classroom (Co-Teaching Partners Interviews, 2012). Secondly, they found it essential to assume their partners' positive intent and professionalism. Finally, many teachers mentioned openness to new ideas and flexibility as essential to success. "You have to be flexible in the way you work with people and the way you approach them" (Partnership Interview, 2012).

From the data collected, it appears that the pilot was well received by the educators who participated in it and it had a positive impact on students. The suggestions made for

improvement and expansion are reasonable and can be managed. The most challenging

will be providing additional collaboration time between co-teaching partners.

Chapter 4

Discussion and Recommendations

Summary

The implementation of No Child Left Behind in 2001 and the continued implementation of standards-based instruction and assessment required educators to reflect on what it meant to have all students reach academic proficiency, as defined by rigorous state academic standards. It was also necessary to examine school and classroom practices intended to support all students, including those receiving support services, in reaching high academic standards. Changing the delivery of support services to English Learners (ELs), students receiving special education services (SpEd), and students qualifying for supplemental program services (SP), from a pull-out model to an inclusionary model necessitated a significant change in school culture. The change from a pull-out service delivery model to one where all students receive instruction in the general education (GE) classroom to the maximum extent possible represented a second-order change (Weick & Quinn, 1999).

The Integrated Services Pilot was developed to provide all students with academic and social learning experiences in the most inclusive environment. Four schools situated in dissimilar communities, with different student needs and school cultures, were presented with the opportunity to participate in the pilot. Principals were given the choice to opt into the pilot or to opt out; all four chose to participate. To address the varied needs and cultures of the schools, plans for pilot implementation were site-specific. Principals and their leadership teams developed individual site plans and facilitated implementation

of the pilot. All four pilot schools focused on co-teaching and collaboration as components of the pilot.

The purpose of this formative evaluation was to examine the effectiveness of co-teaching as an instructional model and its impact on increased inclusion of all students in the GE classroom. Furthermore, it examined the professional development and supports that teachers, instructional coaches, and principals perceived as effective in facilitating implementation of inclusive practices and the development of professional relationships between co-teachers. Finally, the evaluation examined the impact on student engagement and academic achievement. The results of this evaluation were used to inform pilot development and will continue to guide the implementation of inclusive practices in the district studied.

The data collected in the evaluation were obtained from surveys, group and individual interviews, and assessments of student achievement. Survey questions asked classroom and support services teachers about their pilot experience in five areas:

- Professional development and support

- Collaboration and professional learning communities

- Impact on teacher knowledge and practice

- Impact on student engagement and achievement

- Overall perceptions of the pilot

Interviews of pilot participants were conducted to provide a richer and more complete understanding of the pilot. Group interviews were conducted with classroom teachers and with each group of support service teachers: ESL, SpEd, and SP. Individual interviews were conducted with pilot school principals and instructional coaches. Additionally,

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individual interviews were conducted with 20 teachers (10 co-teaching teams) who were identified by principals as having developed strong co-teaching partnerships.

The data used to evaluate student achievement included student growth data from the Measures of Academic Progress (MAP) assessment and proficiency data from the State Comprehensive Assessment (SCA). Magnitude of change calculations were used to identify areas of substantial change in student achievement. This calculation was used because the small size of student groups, such as ESL and SpEd, limited identifying changes of statistical significance.

Overall, teachers, instructional coaches, and principals reported that the pilot positively impacted school culture, resulting in more inclusive classrooms. The evaluation also found that professional relationships between general education classroom teachers and support services teachers were enhanced. Support services teachers felt valued and treated as full partners in their work with students. Teachers also reported an increased understanding of academic standards, use of assessment, and a larger repertoire of instructional strategies. Most importantly, pilot participants reported positive academic gains for most students, as well as increased engagement in learning and in the classroom community. Educators felt that all students had become part of the classroom community, with less emphasis on difference and more emphasis on shared learning experiences.

Interpretation of Findings

A summary of the findings of this evaluation are presented in Table 43 by answering the six overarching questions that guided the study.

Table 43. Summary of Findings by Evaluation Question

Evaluation Questions	Findings
1. What professional development and support did teachers, coaches, and principals find most beneficial?	• In schools where the principal was actively engaged in pilot implementation and development teachers reported the most positive outcomes for the pilot. • Principals identified a strong professional relationship between the coach and the principal as key to success. • The University partner was involved in planning and staff development at schools where the pilot had the greatest impact on teacher collaboration and co-teaching. • ENVoY provided a shared learning experience that teachers identified as having a major impact on teacher practice and co-teacher relationships. • Pilot participants identified financial support for additional collaboration time, ENVoY professional development, and support for the University partner as important district support.
2. What structures did teachers, instructional coaches, and principals find most effective planning service delivery for students receiving support services?	• Pilot participants identified collaboration and co-planning as strengths of the pilot and central to the development of successful co-teaching relationships. • Support services and classroom co-teachers identified finding time for collaboration as a challenge. • Collaboration associated with increased student performance focused on formative assessment to inform instruction and instructional strategies to engage students with specific needs. • Meaningful principal support for collaboration included providing additional collaboration time, focused support of PLCs, professional development with the University partner, and ENVoY training. • Teachers engaged in shared decision making for differentiation of instruction.

Evaluation Questions	Findings
3. What structures and strategies did teachers, instructional coaches, and principals find most effective in optimizing service delivery for students receiving support services?	• Clustering students receiving support services facilitated teacher collaboration and delivery of instruction to students receiving support services. • Flexible grouping across grade level teams facilitated the differentiation of instruction. • Small group instruction, organized by students' levels of learning, was the structure most frequently by co-teachers when co-teaching. • A decrease in pull-out services increased the amount of grade level instruction support services students received.

4. To what extent did teachers, instructional coaches, and principals find integrated services to be a model effective in supporting:
  a. Aligned instruction between classroom teachers and support services teachers?
  b. Relationships between classroom teachers and support services teachers?
  c. An inclusive learning culture for students?
	• Teachers perceived a greater increase in the alignment of student learning experiences than in the alignment of instruction.
	• SpEd teachers reported an increased understanding of grade level curriculum and standards.
	• Co-teachers perceived an increase in shared responsibility for instruction and classroom management.
	• Co-teachers identified common instructional and classroom practices as important to development of strong co-teaching teams. Personal friendships were not identified as essential to successful co-teaching.
	• Support services teachers reported feeling more valued as a professional, and as a member of the classroom and school community.
	• Teachers perceived that students supported each other to a greater degree.
	• Teacher reported that students receiving support services interacted to a greater degree with GE students.
	• Pilot participants perceived the classroom and school community as more inclusive.

Evaluation Questions	Findings
5. What was the impact, both perceived and measured, of the Integrated Services Pilot on student engagement and learning?	• The impact on student achievement was perceived to be greatest for students receiving EL and SP services. • Although the gains in student achievement were not statistically significant, overall proficiency in reading and math increased while the achievement gap decreased. • The gains in achievement were slightly greater in reading than in math.
6. Overall, how did participants perceive the Integrated Services Pilot?	• Pilot participants perceived Integrated Services as having a positive impact on teacher relationships, teacher practice, student engagement, and student achievement. Teachers preferred the inclusive structures implemented in the pilot to a pull-out service delivery model. They expressed a desire to continue with the Integrated Services model.

The results of the data collected in this evaluation, both qualitative and quantitative, reflected the intentionality of principal leadership and implementation of creative solutions to challenging problems by both principals and staff. Not surprisingly, teachers in schools where principals were most actively engaged in the initial implementation and ongoing development of the pilot reported being the most supported. Principal actions that teachers reported as supportive included:

- supporting and participating in PLCs;

- providing additional time for collaboration;

- revising the schedules and assignments of support services teachers to facilitate co-teaching and collaboration;

- facilitating the organization of GE classrooms to ensure that support services teachers had an instructional space (including the necessary furniture) in the GE classroom;

- scheduling and supporting on-going professional development identified by teachers as necessary to support the pilot; and

- making classroom observations (formal and informal) and providing feedback to support pilot implementation.

These findings align closely with the administrative supports identified in the literature as having a positive impact on co-teaching and other inclusive school models (Cramer & Nevin, 2006; Gerber & Popp, 2000; Klingner & Vaughn, 2002; Mastropieri et al., 2005; Nevin et al., 2008; York-Barr et al., 2007).

Principals in schools where the pilot had the greatest perceived and measured impact identified the professional relationship between the instructional coach and the principal as key to success (Principal Interview, 2012). The type of coaching support accessed by teachers varied widely. The most frequent coaching request made by support services teachers was lesson planning and preparation (Table J1). Both classroom teachers and support services teachers reported that reflecting with the instructional coach on how students engaged in learning was supportive of their work (Table J1).

The principals at School A and School B utilized support from the University partner to the greatest degree. In these schools, the University partner became a member of the planning team and met on a regular basis with the instructional coach and the principal (Principal Interviews, 2012). Involvement of the University partner in Schools C and D was more limited. Teachers in Schools A and B perceived the pilot as having the greatest

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impact on student achievement and engagement. In addition to supporting coach and principal teams, the University partner met on a regular basis with instructional coaches - both as a group and individually - to support pilot implementation. In School A and School C she provided professional development for teachers on co-teaching. In School A the University partner worked with small groups of teachers and the instructional coach to support co-teaching relationships. As teachers became aware of the support the University partner had provided in other settings, they indicated a desire to work more closely with this resource.

ENVoY training provided a shared learning experience for teachers, which was relevant and supportive of their work together in a shared classroom. ENVoY professional development provided opportunities for teachers to discuss and shape how student instruction and behavior was managed. This resulted in mutually determined practices for instruction and classroom management, with shared responsibility in both areas (Classroom and Support Teacher Interviews, 2012). One teacher described ENVoY training as "the most unifying thing that our building has done….It is almost like glue" (Classroom Teacher Interview, 2012). A shared understanding of classroom and instructional management were among the components identified in the literature as characteristics common to strong co-teaching relationships (Cook & Friend, 2005; Mastropieri et al., 2005). ENVoY also provided structure and opportunities for coaching when new management and instructional strategies were implemented. Cramer and Nevin (2006) found that successful co-teachers were involved in some type of on-the-job training related to co-teaching.

District support for the pilot, which participants identified as important to successful pilot implementation, included: financial support for pilot activities; collaboration as a district team; and collaboration with external experts. Specifically, the monetary resources provided included funding to staff an additional SpEd paraeducator at each school; funding for additional collaboration time; support of the University partner; and support for an external professional developer. Principals also appreciated the shared vision and leadership among district departments.

Collaboration and opportunities for co-planning have been identified as central to successful co-teaching partnerships (Bessette, 2008; Dove & Honigsfeld, 2010; Hang & Rabren 2009; Klingner & Vaughn, 2002; Mastropieri et al., 2005; York et al., 2005). The second question of this formative evaluation examined these aspects of the pilot. As evidenced by teacher perception data and student achievement results, teaching teams that engaged in on-going collaboration focused on instruction had the most noteworthy impact on teacher practice, student achievement, and student engagement (Appendix O; Appendix Q; Principal Interviews, 2012; Table K2). This finding is aligned with Little's early work regarding teacher practices (as cited in Killion & Roy, 2009) that lead to high performing cultures. She identified four norms of high performing cultures. Two of these norms focused on collaboration:

- teachers engage in frequent, continuous, and increasingly concrete and precise *talk* about teaching *practice*; and

- teachers and administrators *plan, design, research, evaluate and prepare teaching materials together* (Killion & Roy, 2009, p. 38).

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In the Integrated Services Pilot, increased opportunities for collaboration that focused on learning for all students were the result of principal leadership. In schools A, B, and D (Table K1), principals supported ongoing development of PLCs (most often for classroom teachers) and provided time for collaboration between co-teachers. Additionally, coaches in these three schools engaged in on-going collaboration with teachers focused on standards, formative assessment (Co-Teaching Partner Individual Interviews, 2012), and how students engaged in learning (Table J1).

Evaluation results indicated that the focus of collaboration was instruction and student learning; discussion on discipline and student behavior was minimal. Shared decision making for instruction is an important component of inclusive classrooms because it increases the alignment of instruction for students receiving support services. The desired outcome of increased alignment of instruction is increased student learning and achievement. Teachers indicated only one area of shared decision making for instruction: differentiation of instruction (Classroom and Support Services Teacher Group Interviews, 2012; Table J2). Overall, teachers reported a limited amount of shared decision making. Classroom teachers indicated considerably more shared decision making than support services teachers. This suggested that classroom teachers and support services teachers were not yet equal partners in the classroom. Although support services teachers indicated that the classroom environment had become more inclusive for students and teachers, the classroom teacher was still "in charge." The limited amount of time support services teachers actually teach in each classroom on a daily basis, may have contributed to this outcome.

Classroom and support services teachers both identified collaboration time as the single greatest strength, the single greatest challenge, and the most frequently suggested idea for pilot improvement (Appendix L). Teachers identified the opportunities for classroom and support services teachers to collaborate as central to both improved instruction and building a strong a co-teaching relationship (Classroom and Support Services Teacher Group Interviews, 2012). Most of the collaboration and PLC time available to classroom teachers was focused around grade level teams and provided little opportunity for involvement of support services teachers. At School A, the principal provided additional time for collaboration between classroom teachers and support services teachers, while at School D the schedule was arranged to provide co-teachers with a common preparation time. Teacher feedback indicated that although appreciated, the amount of time available for collaboration was insufficient. The schedules of support services teachers and the number of grade levels they serve were identified as limiting the possibilities for collaboration between co-teachers. This is consistent with previous research on co-teaching (Klingner & Vaughn, 2002).

The third evaluation question focused on the teaching structures at a school or team level and the classroom level that were effective in supporting learning for students receiving support services. In general, both classroom and support services teachers found the daily schedule to be one of the greatest challenges of the pilot. A school-wide structure that principals implemented to address this challenge was the clustering of students. Clustering students receiving the same supplemental services into a classroom maximizes the time a support services teacher can spend instructing the same group of students. Furthermore, because support services teachers were assigned to fewer

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classrooms, clustering decreased the number of classroom teachers that support teachers needed to collaborate with. Similarly, teachers found that the decrease in the number of co-teaching partnerships supported the development of co-teaching relationships.

A classroom and grade level team structure that aligned well with clustering was the use of flexible groups among grade level teams. During guided reading and guided math (if implemented), teachers on a grade level team shared students to create flexible student groups based on student instructional levels. Teachers found this structure to have a positive impact on teacher practice, student learning, and creating a more inclusive classroom culture. Because all students were moving between classrooms and were taught by more than one teacher, the labels and stigma associated with receiving support services diminished.

A third school structure that was found to support co-teaching and inclusive classrooms was the decrease in pull-out instruction. This study found that a decrease in pull-out instruction was associated with an increased alignment of instruction, increased instructional time, and a more inclusive classroom community.

The most frequently used structure for co-teaching at the classroom level was small group instruction. This structure aligned well with the district philosophy for elementary instruction. Thus, teachers were familiar with this structure and had the resources needed to support small group instruction. When combined with clustering and flexible groups across the grade level, small group instruction facilitated differentiation of instruction; teachers had fewer small groups to plan for and to teach, and the range of student abilities in each group decreased.

The fourth evaluation question focused on the inclusive nature of the pilot including alignment of instruction, relationships between co-teachers, and an inclusive classroom culture. In an inclusive classroom, one would expect to find both alignment of instruction provided by the classroom teacher and the support services teachers and collaborative professional teacher relationships. This evaluation found that the Integrated Services Pilot markedly increased the perceived alignment of student learning experiences (Table J5) and facilitated shared responsibility for instruction and classroom management. Support services teachers indicated that being included in the classroom gave them a better understanding of the learning expectations for grade level students and opportunities to increase their understanding of academic standards. These understandings provided the information needed to facilitate the alignment of support services with GE learning experiences, set rigorous yet achievable student goals, and provide instruction that would accelerate student learning toward grade level expectations. It is interesting to note that teachers reported greater perceived increases in the alignment of student learning experiences than in the alignment of instruction. Klingner and Vaughn (2002) also found that co-teaching resulted in an increased understanding by SpEd teachers of the GE curriculum and an increased understanding of IEPs by classroom teachers.

This evaluation found that "blurring the lines" between teaching assignments supported an inclusive classroom community. Students did not identify teachers as SpEd or ESL teachers; this provided a model for students. All but one support services teacher reported that their relationship with the GE teacher had become more of a partnership in which the GE teacher respected their contributions to instruction and support for students.

Support services teachers said that they no longer felt like the paraeducator in the back of the classroom.

The pilot evaluation found that the Integrated Services Pilot, overall, had a positive impact on student engagement and achievement. Increased student engagement was evident in the familiarity of students receiving support services with classroom routines. Knowing classroom routines enabled students to become more independent and take more responsibility for their work. Furthermore, knowing routines and staying in the classroom allowed students receiving support services to follow the flow of the classroom, decreasing perceived differences between them and their classmates. Remaining in the GE classroom also decreased interruptions during instruction. Support services students did not leave the classroom learning experience for another experience; only to re-enter the classroom experience after the class had moved on. In an inclusive classroom, students do not have to leave to learn (Causton-Theoharis &Theoharis, 2008).

A perceived increase in students' ability to work and interact with their peers was also indicated by the evaluation. The resulting classroom and school community had become a place where students were increasingly accepted regardless of student differences. Teachers indicated that students supported each other to a greater degree and that students receiving support services interacted more with GE students; subsequently new friendships developed. This aligns with the findings of Pugach and Wesson (1995) that "kids got nicer" (p.286) and the classroom began to feel like a family. Pilot participants identified inclusion as one of the greatest strengths of the pilot.

The perceived impact on academic achievement was found to be greatest for ELs and student receiving SP services; while alignment of learning experiences for all support

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service students was perceived to have increased greatly. Although no changes of significance were found in proficiency measures, there was an overall increase in proficiency in reading (Table O4) and math (Table Q4) and a decrease in the achievement gap (Tables O5 and Q5). These changes are of practical significance because as students receiving support services showed an increase in proficiency overall, GE students either maintained or increased their level of proficiency. These results support teachers' perception data (Table J5) and principal reports (Principal Interviews, 2012).

The focus of most instruction provided by support service teachers, particularly in the primary grades, was reading. Thus, it would seem logical to assume that the increases in student proficiency would have been greater in reading than in mathematics. This has been the case in other studies of co-teaching (Murawski & Swanson, 2001; Signor-Buhl, LeBlanc, & McDougal, 2006). Overall, the gains in student achievement in this study also appear to have been greater for reading than for math. However, the difference between the proficiency gains in reading and math were less than anticipated. This may have been due in part to curriculum specialization practices in some third grade and all fourth and fifth grade classrooms. In addition, many intermediate (grades three through five) classroom teachers have implemented guided math instruction. This instructional model uses flexible small group teaching structures at the students learning level, similar to guided reading. Using this structure maximized the limited support services available and facilitated teaming with SP teachers. Furthermore, the math recovery teacher provided support and leadership for SP teachers providing math interventions. When one considers these existing and embedded practices and the fact that the assessments used to

measure student proficiency are administered in the intermediate grades, it seems reasonable to expect a greater impact on mathematics than found in previous studies.

An important finding of this study is the correlation between pilot variables and increases in student achievement. Schools where achievement increases were most notable were associated with five practices, as indicated by classroom teacher survey data:

- Collaboration focused on assessment of student progress to determine next steps for instruction (Table K2).

- Collaboration focused on instructional strategies to engage specific students (Table K2).

- Co-teachers had a shared building-wide discipline philosophy (Table K3).

- Co-teaching partners agreed on discipline procedures and shared responsibility for student discipline.

- Co-teachers shared monitoring of on-task behavior during instruction (Table K3).

Student behaviors associated with increased achievement included:

- Students became familiar with classroom routines (Table K5); and

- Students increased their ability to work with peers (Table K5).

The study found that these student behaviors increased to the greatest degree for students receiving SP services.

School A had the largest number (66.7%) of cells (students in the same grade level and school, receiving the same support service) that showed a magnitude of change in proficiency greater than comparable district cells and the greatest number of cells

(61.1%) in which the proficiency gap decreased with a magnitude of change greater than the district (Tables O5 and Q5). Further, this school also had the highest measures for each of the teacher practices listed above. Teachers at School A (with the exception of teachers at School C regarding special education students) also reported the highest mode and percentage responses of *much* and *very much* for the student behaviors (listed above) that were associated with increases in proficiency.

Overall, teachers found the pilot to be a positive experience for educators and for students. Classroom teachers and support services teachers developed professional relationships with more equitable sharing of responsibility, leadership for instruction, and classroom management; which resulted in a more inclusive classroom culture. The findings of this evaluation indicate that students receiving support services engaged in more aligned learning experiences and generally increased in their academic proficiency-while their peers, who were not receiving support services, also increased in proficiency. Furthermore, multiple measures indicated that teachers perceived students receiving ESL, SpEd, and, SP services as being included more fully in the classroom community.

Limitations

One of the limitations of this study was the small number of students in each cell and the changing membership therein. The limited number of students in the SpEd cells, and the impact a particular disability may have on academic proficiency, necessitates an examination of student proficiency data correlated with the students' disability. This is also the case for ELs. Students receiving ESL services had acquired varied levels of English proficiency, impacting proficiency results. Students entering and exiting these subgroups could have greatly impacted proficiency measures. Although these variables

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must be considered, this was the reality of schools in the pilot and is the reality of public schools in general. It was incumbent on the educators working with students receiving support services to consider these factors as they reviewed data and evaluated their professional practice. It is through the objective identification of individual student needs and individual results that the greatest amount of information regarding the impact of the service delivery models on individual learners is acquired. The results of this evaluation are somewhat limited by the absence of this data.

A second limitation is that the data regarding teacher practice in this study are self-reported perception data collected through surveys and interviews. Although these data are important because they summarize educators' experiences and their perceptions, they do not provide a measure regarding the fidelity of implementation of co-teaching. Classroom observations would provide the opportunity to determine the fidelity of implementation of co-teaching models. Furthermore, observations would provide the data to begin associating teacher practices with increased learning for students with varied special needs. Although data on the fidelity of implementation would enrich the results of this evaluation, the evaluation results provide sufficient information for decision making regarding next steps to support inclusive practices and expansion of the Integrated Services Pilot in the district studied.

Another limitation of this evaluation was when the small number of support services teachers at each school was coupled with the commitment to maintain individuals' anonymity, it was not possible to disaggregate the data of support services teachers by school. The use of aggregated data limited the evaluator's ability to associate specific practices used by support services teachers with either the practices of classroom teachers

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and student achievement. Removing this limitation would allow a more complete analysis of the instructional and classroom practices that support student achievement and engagement for all students thus, providing information to further the development of inclusive classrooms.

Finally, although each school provided very different contexts for the pilot, they were all in the same district. The district in which this pilot was conducted has a district wide curriculum and approach to instruction, which may limit the applications of the results to another setting.

Implications for Practice

Suggestions for improvement and expansion of the pilot focus on three areas:

- Administrative leadership, professional development and support.

- Collaboration time.

- Teacher relationships.

Principals, instructional coaches, and teachers all made suggestions for each of these areas that were similar.

Administrative leadership professional development and support. For schools considering implementing an integrated services approach to inclusion, principal leadership and commitment are essential. New projects or initiatives that deflect the focus of leaders from implementing this model should be limited. Principal leadership, with the support of the building leadership team, clearly focused on pilot implementation, is critical for success. This aligns with the findings of earlier research (Bessette, 2008; Dove et al., 2010; Idol, 2006; Nevin et al., 2008; York-Barr et al., 2007). This study identified

six administrative supports for schools implementing an integrated services model to consider. These included:

- Providing clear expectations and opportunities for learning when the pilot is initiated

- Providing physical space for support services teachers in the GE classroom

- A willingness to listen to teacher feedback and make adjustments

- Participation in the on-going planning and monitoring of the pilot implementation and student learning data

- Participation in and support of professional learning communities

- Responding to teacher suggestions for professional development in response to learning needs identified as the pilot evolves

Teachers and principals suggested that professional development, at the onset of Integrated Services (perhaps August), include a panel presentation by teachers and principals who have experience implementing this model. This would serve to provide an overview of the pilot experiences and an opportunity to answer teachers' questions.

Pilot school principals, instructional coaches, and teachers have recommended three on-going professional development opportunities for the four schools currently involved in the pilot. These included:

- Opportunities to visit schools that have successfully implemented inclusionary practices

- Continued training in ENVoY strategies

- Opportunities to learn more about co-teaching from the University partner

Providing a shared learning experience that supported and enhanced co-teaching relationships and the work of grade level teams had a significant impact on the pilot. When implementing a co-teaching (or another inclusion model), professional development should include a focus on teachers' classroom management and instructional practices. Time and support should be provided for co-teachers to share their current practices and for the development of shared practices. In schools where this was a building wide focus, the impact was significant.

Recommended next steps in professional development for the four pilot schools include the study of additional co-teaching structures linked with opportunities for implementation, coaching, and reflection. Many teachers in pilot schools indicated an eagerness to learn more about co-teaching and enhance their own practice. These learning opportunities could include a book study or professional development with a University partner, coupled with opportunities for classroom observations in the teachers' current school or visits to a school with established co-teaching practices or another inclusive model.

Another area for further learning and development is an increased knowledge of disability specific instructional modifications and accomodations. This will require new learning by both special educators and classroom teachers. Mastropieri et al. (2005), in their case studies of co-teaching, found expertise in disability-specific teaching adaptations as supportive of co-teaching relationships.

Collaboration time. To sustain the gains made in this pilot, the scheduling of collaboration time must be addressed. Co-teachers, at each of the four schools, need

regularly scheduled time for collaboration. This could be accomplished by dedicating building staff development resources to this effort or by realigning teaching schedules.

On a broader scale, if the expectation for alignment of instruction and learning experiences for students receiving support services is to be accomplished in this district, the time for collaboration between classroom teachers and support services teachers must be provided on a regular basis within the typical school day. This may require the adjustment of teachers' schedules, such as the start times for SP teachers. A recent redesign for SpEd teachers' duty assignment, was to allocate 20% of their duty time for the observation of students in GE classroom and collaboration with classroom teachers. This has the potential for enhancing SpEd teachers' understanding of the GE curriculum, making recommendations to facilitate GE teachers' support of SpEd students in the GE classroom, and increasing collaboration with classroom teachers. Application of the findings from this evaluation will be used to support on-going development of this model. ESL teachers have requested consideration of a similar model for their work with ELs.

Teacher relationships. Teachers recommended that when a school implements the Integrated Services model, teachers should be provided time and support, prior to the start of the school year, to develop shared classroom management practices, and instructional structures, and to organize their shared classroom. Furthermore, teachers emphasized the need for teachers to be flexible and assume positive intent on the part of their co-teacher.

ENVoY had an extremely positive impact on the development of professional relationships between co-teachers. It provided a shared learning experience that helped to remove barriers to co-teaching and supported the achievement of goals created and

shared by co-teachers. Teachers in the pilot indicated a desire to continue ENVoY training to support continued development of school wide and classroom structures that contribute to an inclusive school culture.

Establishing strong co-teaching relationships is core to successful inclusion models. It is apparent from this study that establishing these relationships requires focused leadership and support, and a commitment by teachers. Although teachers acknowledged success with different co-teaching partners, they requested that whenever possible the co-teaching partnerships be maintained from year to year. The need to establish new co-teaching partnerships each year will make it more difficult to sustain an Integrated Support Services model.

Suggestions for Future Research

The results of this evaluation have several implications for future research. This section provides recommendations for research in three areas: (1) pre-service teaching programs that provide training for pre-service teachers enabling them to support inclusion of students receiving support services in the GE classroom; (2) further inquiry into co-teaching models that are effective in schools and classrooms with limited support staff; and (3) administrative leadership that supports sustained use of educational practices that foster inclusive learning communities.

The Integrated Services Pilot has demonstrated that positive gains can be achieved for students and teachers in an inclusive classroom utilizing co-teaching practices. As the implementation of the non-discrepancy SpEd model moves forward, it is essential to examine the role of the special educator. It will no longer be sufficient to provide service in a pull-out model. Furthermore, the financial resources will not be available to support

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high levels of pull-out services. These changes in practice will require special educators to have an increased understanding of specific learning disabilities and how they can be supported in the GE classroom. Research on pre-service training for SpEd teachers and GE teachers that supports a non-discrepancy model and inclusive practices is needed.

The co-teaching structure most frequently used in the Integrated Services Pilot was parallel co-teaching, utilizing small group instructional structures. This was due in part to teachers' familiarity with this instructional model. However, another important contributing factor was the limited amount of time support services teachers are available in each classroom. Research on additional co-teaching strategies that can be successfully implemented in settings with limited staffing resources would contribute to the use of co-teaching practices.

Research into the actions of district and school administrators that sustain inclusive classroom and school cultures would make a significant contribution to the field. Additionally, this research would include inquiry into the leadership practices and structures that support continuous improvement of inclusive models. Sustainability of successful educational initiatives is essential to forward progress in education. Furthermore, sustained support for successful initiatives that embrace a continuous improvement model decrease the perception that school improvement efforts swing from one innovation to the next.

Conclusion

Inclusion is a social justice issue. The implementation of the *Least Restrictive Environment* has often excluded students from general education classrooms until they were ready to learn in traditional ways. By changing the environment in which students

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learn, inclusive school and classroom structures provide access to learning for all students. Including all students in the general education classroom, to the greatest extent possible, provides all students with access to rigorous academic standards and membership in the social aspects of the school community. Furthermore, schools are places where students learn the meaning of community. Providing students with experiences in an inclusive school community supports the development of inclusive communities beyond the school setting.

The Integrated Services Pilot demonstrated that with supportive principal leadership committed to inclusive practices, classroom teachers, support services teachers, and students working together can create inclusive classrooms and school communities. The results of this evaluation indicate that teachers and students alike benefited from these efforts. Support services students benefited through increased learning opportunities, increased academic achievement, and increased social interaction with their peers. Teachers benefited through increased collaborative professional relationships, opportunities for professional learning, and sharing the enormous responsibility for teaching and learning with other professionals.

The results of this evaluation indicate that the Integrated Services Pilot, has to varying degrees, supported the development of inclusive learning communities in each of the four schools. Teachers, instructional coaches, and principals have found the pilot to be a positive experience for educators and students. They will not go back to the previous pull-out model, rather they will continue to develop inclusive classroom and school communities. On educator shared this compelling summary:

Really, we've pulled it together at [our school] in a huge way. This year has been really exciting! … I feel that as a team, we have done our best work. And the kids [have] benefited. (Classroom Teacher Group Interview, 2012)

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Appendices

Appendix A: Design of Evaluation by Question

Evaluation Question	Information Needed	Information Source	Methods Used
1. What professional development and support did teachers, coaches and principals find most beneficial?	▪ Professional development provided ▪ Teacher perceptions regarding professional development	▪ Teachers ▪ Instructional coaches ▪ Principals ▪ Logic Models	▪ Electronic surveys ▪ Group interviews of classroom and support services co-teaching partners ▪ Principal Interviews ▪ Instructional Coach Interviews ▪ Individual Teacher Interviews
2. What structures did teachers, instructional coaches, and principals find most effective in planning service delivery for students receiving support services? a. What was the focus of co-planning and reflection between teaching partners? b. What administrative, school and team supports are identified as supportive of co-planning and reflection between teaching partners? c. What are the constraining forces or barriers to co-planning and reflection?	▪ School team structures for collaboration ▪ Support for collaboration ▪ Scheduling of collaboration opportunities ▪ Barriers to planning and reflection	▪ Teachers ▪ Instructional coaches ▪ Principals	▪ Electronic surveys ▪ Group interviews of classroom and support services co-teaching partners ▪ Principal Interviews ▪ Instructional Coach Interviews ▪ Individual Teacher Interviews

Evaluation Question	Information Needed	Information Source	Methods Used
3. What structures and strategies did teachers and principals find most effective in optimizing service delivery for students receiving support services? a. What school or team level structures did teachers find most effective in supporting learning for students receiving support services? b. What classroom structures and instructional strategies did teachers find most effective in supporting learning for students receiving support services?	▪ Current teacher practices ▪ Scheduling of support services teachers ▪ Professional development provided ▪ Activities and structures that support co-teaching relationships	▪ Teachers ▪ Instructional coaches ▪ Principals	▪ Electronic surveys ▪ Group interviews of classroom and support services co-teaching partners ▪ Interviews with partnering principals and coaches

4. To what extent did teachers, instructional coaches, and principals find integrated services to be a model effective in supporting:
a. Aligned instruction between classroom teachers and support services teachers?
b. Relationships between classroom teachers and support services teachers?
c. An inclusive learning culture for students?
	▪ Current teacher practices relevant to
	  o co-teaching
	  o curriculum alignment
	▪ Teacher perception of the classroom culture as inclusive
	▪ Teacher perception of curriculum alignment
		▪ Teachers
		▪ Instructional coaches
		▪ Principals
			▪ Electronic surveys
			▪ Group interviews of classroom and support services co-teaching partners
			▪ Principal Interviews
			▪ Instructional Coach Interviews
			▪ Individual Teacher Interviews

Evaluation Question	Information Needed	Information Source	Methods Used
5. What was the impact, both perceived and measured, on student engagement and learning?	▪ Perceived impact on student engagement ▪ Perceived impact on student learning ▪ Achievement measures in math and reading	▪ Teachers ▪ Instructional coaches ▪ Principals ▪ Measures of Academic Progress ▪ State Accountability Assessments	▪ Electronic surveys ▪ Group interviews of classroom and support services co-teaching partners ▪ Interviews with principals and coaches
6. Overall, how did participants perceive the Integrated Services Pilot? a. What recommendations did teachers, instructional coaches, and principals have for improvement? b. What professional development experiences did teachers, instructional coaches, and principals recommend to support the establishment and sustainability of co-teaching teams?	▪ Perceptions about the Integrated Services Pilot ▪ Professional development provided ▪ Activities and structures that support co-teaching relationships ▪ Desired future professional development and support	▪ Teachers ▪ Instructional coaches ▪ Principals	▪ Electronic surveys ▪ Group interviews of classroom and support services co-teaching partners ▪ Interviews with principals and coaches

Appendix B: Correlation Between Evaluation Questions and Data Collection Tools

Evaluation Question	Tool	Item Numbers
1. What professional development and support did teachers, coaches and principals find most beneficial?	▪ Classroom Teacher Survey	6, 21, 22, 23, 24, 25, 26
	▪ Support Services Teacher Survey	20, 21, 22, 23, 24, 25, 26
	▪ Co-Teaching Partners Interviews	10, 11, 15, 17
	▪ Classroom Teacher and Support Services Teacher Group Interviews	7, 11a
	▪ Principal and Coach Interviews	12, 13, 14
2. What structures did teachers, instructional coaches and principals find most effective in planning service delivery for students receiving support services? a. What was the focus of co-planning and reflection between teaching partners? b. What administrative, school and team supports are identified as supportive of co-planning and reflection between teaching partners? c. What are the constraining forces or barriers to co-planning and reflection?	▪ Classroom Teacher Survey	a. 12, 13, 14 b. 10, 11, 21, 22, 23, 24 c. 5, 13, 14, 29
	▪ Support Services Teacher Survey	a. 9, 11, 12, 13, 22, 23 b. 9, 10, 20, 21, 22, 23 c. 4, 12, 13, 29
	▪ Co-Teaching Partners Interviews	a. 5 b. 10, 11, 14, 17
	▪ Classroom Teacher and Support Services Teacher Group Interviews	a. 2, 4, 5, 10b, 11b b. 2, 3, 4, 5, 6, 10b c. 4, 5, 6, 10b, 11b, 13c, 13d
	▪ Principal and Coach Interviews	a. 7 b. 8, 10, 11 c. 7, 9

Evaluation Question	Tool	Item Numbers
3. What structures did teachers, instructional coaches and principals find most effective in optimizing service delivery for students receiving support services? a. What school or team level structures did teachers find most effective in supporting learning for students receiving support services? b. What classroom structures and instructional strategies did teachers find most effective in supporting learning for students receiving support services?	▪ Classroom Teacher Survey	a. 3, 4, 5, 21, 22 b. 7, 8, 9
	▪ Support Services Teacher Survey	a. 4, 9, 21, 23 b. 5, 6, 8
	▪ Co-Teaching Partners Interviews	b. 6, 7
	▪ Classroom Teacher and Support Services Teacher Group Interviews	a. 3, 4 b. 10a, 4
	▪ Principal and Coach Interviews	
4. To what extent did teachers, instructional coaches, and principals find integrated services to be a model effective in supporting: a. Aligned instruction between classroom teachers and support services teachers? b. Relationships between classroom teachers and support services teachers? c. An inclusive learning culture for students?	▪ Classroom Teacher Survey	a. 5, 6, 7, 10, 11 b. 13, 14, 15, 28, 29 c. 1, 2, 3, 4
	▪ Support Services Teacher Survey	a. 4, 5, 6, 9, 10 b. 12, 13, 14, 28, 29 c. 1, 2, 3, 7
	▪ Co-Teaching Partners Interviews	a. 5, 6, 7 b. 5, 6, 7, 8, 9, 12, 17 c. 12
	▪ Classroom Teacher and Support Services Teacher Group Interviews	a. 13a, 13c b. 2, 5, 10, 13a, 13c, 15 c. 8, 9, 13b, 13d
	▪ Principal and Coach Interviews	a. 1, 5 b. 7, 10 c. 1, 3, 6

Evaluation Question	Tool	Item Numbers
5. What was the impact, both perceived and measured, on student engagement and learning?	▪ Classroom Teacher Survey	16, 17, 18, 19, 20
	▪ Support Services Teacher Survey	15, 16, 17, 18, 19
	▪ Co-Teaching Partners Interviews	1, 2, 3, 4
	▪ Classroom Teacher and Support Services Teacher Group Interviews	8, 9, 13b, 13d
	▪ Principal and Coach Interviews	1, 2, 4
6. Overall, how did participants perceive the Integrated Services Pilot? a. What recommendations did teachers, instructional coaches, and principals have for improvement? b. What professional development experiences did teachers, instructional coaches, and principals recommend to support the establishment and sustainability of co-teaching teams?	▪ Classroom Teacher Survey	a. 20, 27, 28, 30 b. 30
	▪ Support Services Teacher Survey	a. 19, 27, 28, 30 b. 30
	▪ Co-Teaching Partners Interviews	a. 8, 9, 13, 14, 15, 16, 17 b. 13, 14, 15, 16, 17
	▪ Classroom Teacher and Support Services Teacher Group Interviews ▪	a. 11, 12, 14, 15, 16 b. 11a, 11b
	▪ Principal and Coach Interviews	a. 13, 14 b. 14

Appendix C: School Descriptions

Table C1. Elementary Teaching and Paraeducator Staff

School	Total number of Teachers	Classroom Teachers	SP Teachers	SP Para-educators	ESL Teachers	ESL Para-educators	SpEd Teachers	SpEd Para-educators
School A	30	16	6	1	1	1	3	7.5
School B	37	20	6	2	2	0	5	8
School C	49	31	3 (1 KIP)	1	2	0	5	5
School D	58	38	3 (1 KIP)	0	0	0	11	18
District K-5	1008	598	113	40	38	6	129	

KIP: Kindergarten Intervention Program (available to schools without all-day kindergarten).
(District Staffing Report, 2010)

Appendix C: School Descriptions

Table C2. School District Student Demographics 2009-2010

School	Student Population	Am. Indian	Asian Pacific	Black	Hispanic	White	Free and Reduced Lunch	Limited English Proficiency	Special Education
School A	413	2%	9%	17%	7%	65%	52%	22%	14%
School B	394	2%	9%	11%	2%	76%	42%	10%	18%
School C	Data not Available	Data not Available	Data not Available	Data not Available	Data not Available	Data not Available	Data not Available	Data not Available	Data not Available
School D	1023	1%	2%	2%	2%	94%	15%	1%	12%
District	39,100	1%	6%	10%	4%	79%	29%	7%	12%

(State Department of Education, 2010 *These schools had significant changes for the 2010-2011 school year.)

Table C3: Diversity in School District Demographics 2010-2011

School	Student Population	Am. Indian	Asian Pacific	Black	Hispanic	White	Free and Reduced Lunch	Limited English Proficiency	Special Education
School A	526	2.9%	4.4%	16%	4.9%	71.5%	51.9%	11.4%	14.3%
School B	612	2%	10.6%	11.8%	4.1%	71.6%	53.8%	10.5%	15%
School C	853	1.4%	9.5%	11.1%	2.3%	75.6%	27.9%	8.9%	9.4%
School D	1032	1.1%	1.6%	2.1%	1.6%	93.5%	16.2%	0%	11.8%
District	40,193	1.4%	6.6%	10.3%	4.1%	77.6%	32.7%	6.1%	12.1%

(Midwest District Viewpoint, October 2010) *These schools had significant changes for the 2010-2011 school year.

Appendix D: Classroom Teacher Survey

Integrated Services Classroom Teacher Survey

1. Integrated Services Pilot

Thank you for participating in the Integrated Services Pilot. You are being asked to complete a survey about your experience in this pilot. The aggregated responses to the survey questions will provide a snapshot of the current Integrated Services Pilot. The information collected will be used to provide ongoing support for schools currently involved in the Integrated Services Pilot and to inform possible expansion to other schools. Survey results will be shared with school teams at their site in Fall 2012.

Your responses will remain confidential; any personal identifiers associated with your responses will be removed. Your participation is completely voluntary.

Important: For the purpose of this survey, support service teachers are teachers who provide support to students who receive ESL, SPED or Supplemental Program services.

Thank you in advance for your participation in this survey.

Integrated Services Classroom Teacher Survey

2. Teacher Knowledge and Practice

1. To what extent did "co-teaching" or teacher collaboration increase the alignment of instruction between the classroom teacher and the support services teacher?

- ○ Not at all
- ○ A Little
- ○ Somewhat
- ○ Much
- ○ Very Much

2. To what extent did learning experiences for students receiving support services become more aligned with classroom instruction?

	Not at all	A Little	Somewhat	Much	Very Much	None of these students were present in my class
Special Education Students	○	○	○	○	○	○
English Language Learners	○	○	○	○	○	○
Supplemental Program Students	○	○	○	○	○	○

3. Please check which statement is most true for you and your classroom concerning clustering of students.

- ○ Students with Special Education needs were clustered in my classroom.
- ○ English Language Learner Students were clustered in my classroom.
- ○ Supplemental Program Students were clustered into my classroom.
- ○ There was a variety of special services students in my classroom.

4. To what extent did the amount of time students received pull-out services decrease?

	Not at all	A Little	Somewhat	Much	Very Much	None of these students were present in my class
Special Education Students	○	○	○	○	○	○
English Language Learners	○	○	○	○	○	○
Supplemental Program Students	○	○	○	○	○	○

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Integrated Services Classroom Teacher Survey

3. Teacher Knowledge and Practice

5. To what extent did the classroom schedule facilitate teaching together?

- ○ Not at all
- ○ A Little
- ○ Somewhat
- ○ Much
- ○ Very Much

6. To what extent did the Integrated Services Pilot provide opportunities to increase your understanding of effective learning strategies for students receiving support services?

	Not at all	A Little	Somewhat	Much	Very Much	None of these students were present in my class
Special Education Students	○	○	○	○	○	○
English Language Learners	○	○	○	○	○	○
Supplemental Program Students	○	○	○	○	○	○

7. Thinking about the ONE support staff you spent the most time teaching with, how often did you use the following "structures" in working together?

	Daily	Several times a week	Once a week	Several times a month	Once a month	Never
Each teacher teaches a small group	○	○	○	○	○	○
Teaching a lesson together	○	○	○	○	○	○
Support teacher works one-on-one with a student	○	○	○	○	○	○
One teacher teaches the class while the other moves around to assist students	○	○	○	○	○	○

Other (please specify)

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Integrated Services Classroom Teacher Survey

4. Teacher Knowledge and Practice

8. For the previous question (#7) I am thinking about my work this past year with...

○ a Special Education Teacher

○ an English as a Second Language Teacher

○ a Supplementary Program Teacher

Other (please specify)

[   ]

9. When using small group instruction, to what extent were students grouped in the following manner?

	Daily	Several times a week	Once a week	Several times a month	Once a month	Never
By student groups (such as all the ELL or SpEd students together)	○	○	○	○	○	○
By academic level (such as by DRA level)	○	○	○	○	○	○
Mixed Groups (such as multiple academic levels combined in one group)	○	○	○	○	○	○

10. How often did you and the support services teacher(s) meet to collaborate, plan, reflect on instruction and/or student learning with each other?

	About once per trimester	Monthly	Twice per month	Weekly	Two or more times per week	I did not work with this type of teacher
Classroom teacher and SPED teacher	○	○	○	○	○	○
Classroom teacher and ESL teacher	○	○	○	○	○	○
Classroom teacher and SP teacher	○	○	○	○	○	○

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Integrated Services Classroom Teacher Survey

5. Teacher Knowledge and Practice

11. To what extent did opportunities to collaborate with your co-teacher increase this year?

- ○ Not at all
- ○ A Little
- ○ Somewhat
- ○ Much
- ○ Very Much
- ○ I did not co-teach last year

12. To what extent did collaboration between teachers focus on...

	Not at all	A Little	Somewhat	Much	Very Much
curricular and instructional issues	○	○	○	○	○
assessment of student progress to determine next steps	○	○	○	○	○
instructional strategies to engage specific students	○	○	○	○	○
student behavior challenges	○	○	○	○	○

13. When planning for co-teaching to what extent do you and your co-teacher share responsibility for...

	Not at all	A Little	Somewhat	Much	Very Much
deciding what to teach	○	○	○	○	○
deciding how to teach	○	○	○	○	○
differentiation of instruction	○	○	○	○	○
determining how student learning will be assessed	○	○	○	○	○

Integrated Services Classroom Teacher Survey

6. Teacher Knowledge and Practice

14. To what extent do you and your co-teacher

	Not at all	A Little	Somewhat	Much	Very Much
have a shared discipline philosophy	○	○	○	○	○
agree on discipline procedures and share responsibility for student discipline	○	○	○	○	○
share the monitoring of on-task behavior during instruction	○	○	○	○	○

15. I feel more successful in my co-teaching role this year than I did last year.

○ Not at all

○ A Little

○ Somewhat

○ Much

○ Very Much

○ I did not co-teach last year

Integrated Services Classroom Teacher Survey

7. Impact on Students

16. To what extent did PARTICIPATION increase in general classroom instruction with...

	Not at all	A Little	Somewhat	Much	Very much	None of these students were in my class
students identified as Special Education	○	○	○	○	○	○
students identified as English Language Learners	○	○	○	○	○	○
students eligible for supplementary services	○	○	○	○	○	○
students not receiving support services	○	○	○	○	○	○

Integrated Services Classroom Teacher Survey

8. Impact on Students

17. To what extent did the Special Education Students...

	Not at all	A Little	Somewhat	Much	Very much	None of these students were present in my class
become familiar and comfortable with classroom routines	○	○	○	○	○	○
increase their ability to work and interact with classroom peers	○	○	○	○	○	○
increase their knowledge related to core curricular areas	○	○	○	○	○	○

18. To what extent did the English Language Learners...

	Not at all	A Little	Somewhat	Much	Very much	None of these students were present in my class
become familiar and comfortable with classroom routines	○	○	○	○	○	○
increase their ability to work and interact with classroom peers	○	○	○	○	○	○
increase their knowledge related to core curricular areas	○	○	○	○	○	○

19. To what extent did the supplemental program students...

	Not at all	A Little	Somewhat	Much	Very much	None of these students were present in my class
become familiar and comfortable with classroom routines	○	○	○	○	○	○
increase their ability to work and interact with classroom peers	○	○	○	○	○	○
increase their knowledge related to core curricular areas	○	○	○	○	○	○

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Integrated Services Classroom Teacher Survey

9. Impact on Students

20. Overall, to what extent did the following students benefit from the Integrated Services Pilot?

	Not at all	A Little	Somewhat	Much	Very much
Students identified as Special Education	○	○	○	○	○
Students identified as English Language Learners	○	○	○	○	○
Students eligible for supplementary services	○	○	○	○	○
Students not receiving support services	○	○	○	○	○

Integrated Services Classroom Teacher Survey

10. Professional Development

21. To what extent did your principal...

	Not at all	A Little	Somewhat	Much	Very much
communicate expectations for implementing the Integrated Services Pilot	○	○	○	○	○
engage you in conversations about the Integrated Services Pilot	○	○	○	○	○
support your work with the Integrated Services Pilot	○	○	○	○	○

22. To what extent did your instructional coach...

	Not at all	A Little	Somewhat	Much	Very Much
engage you in follow-up after professional development sessions	○	○	○	○	○
help you reflect on how students were engaged in learning	○	○	○	○	○
help you think about lesson planning and preparation	○	○	○	○	○
model lessons	○	○	○	○	○

23. To what extent did you seek out the support of your instructional coach related to the Integrated Services Pilot?

○ Not at all

○ A Little

○ Somewhat

○ Much

○ Very much

Integrated Services Classroom Teacher Survey

11. Professional Development

24. To what extent did professional learning communities (PLC's) at your school support the Integrated Services Pilot?

○ Not at all

○ A Little

○ Somewhat

○ Much

○ Very much

25. To what extent did school based professional development support the Integrated Services Pilot?

○ Not at all

○ A Little

○ Somewhat

○ Much

○ Very much

26. To what extent did you have opportunities to work with the University of Minnesota partners related to the Integrated Services Pilot?

○ Not at all

○ A Little

○ Somewhat

○ Much

○ Very much

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Integrated Services Classroom Teacher Survey

12. Overall Perceptions of the Integrated Services Pilot

Please answer the following questions regarding your overall perceptions of the Integrated Services Pilot. Please keep your answers within the indicated characters.

27. What TWO adjectives best describe your overall experience with the implementation of the Integrated Services Pilot? (20 characters)

First Adjective

Second Adjective

28. What do you see as the SINGLE greatest strength associated with the implementation of the Integrated Services Pilot?
(70 characters)

29. What do you see as the SINGLE greatest challenge associated with the implementation of the Integrated Services Pilot?
(70 characters)

30. What is ONE idea that would improve the Integrated Services Pilot for next year? (100 characters)

Integrated Services Classroom Teacher Survey

13. Demographics

31. At which school site do you teach?

○ Champlin-Brooklyn Park Academy

○ Eisenhower Elementary

○ Mississippi Elementary

○ Rum River Elementary

32. Are you a Classroom Teacher?

○ Yes

○ No

If other, please specify your position.

[   ]

33. What grade do you teach?

○ Kindergarten   ○ Grade 3

○ Grade 1   ○ Grade 4

○ Grade 2   ○ Grade 5

Other (please specify)

[   ]

34. How many years have you participated in the Integrated Services Pilot?

○ One year

○ Two years

Appendix E: Support Teachers Survey

Integrated Services Support Services Teacher Survey

1. Integrated Services Pilot

Thank you for participating in the Integrated Services Pilot. You are being asked to complete a survey about your experience in this pilot. The aggregated responses to the survey questions will provide a snapshot of the current Integrated Services Pilot. The information collected will be used to provide ongoing support for schools currently involved in the Integrated Services Pilot and to inform possible expansion to other schools. Survey results will be shared with school teams at their site in Fall 2012.

Your responses will remain confidential, any personal identifiers associated with your responses will be removed. Your participation is completely voluntary.

Important: For the purpose of this survey, support service teachers are teachers who provide support to students who receive ESL, SPED or Supplemental Program services.

Thank you in advance for your participation in this survey.

Integrated Services Support Services Teacher Survey

2. Teacher Knowledge and Practice

1. To what extent did "co-teaching" or teacher collaboration increase the alignment of instruction between the classroom teacher and the support services teacher?

- ○ Not at all
- ○ A Little
- ○ Somewhat
- ○ Much
- ○ Very Much

2. To what extent did learning experiences for students receiving support services become more aligned with classroom instruction?

	Not at all	A Little	Somewhat	Much	Very Much	None of these students were present in my class
Special Education Students	○	○	○	○	○	○
English Language Learners	○	○	○	○	○	○
Supplemental Program Students	○	○	○	○	○	○

3. To what extent did the amount of time students received pull-out services decrease?

	Not at all	A Little	Somewhat	Much	Very Much	None of these students were present in my class
Special Education Students	○	○	○	○	○	○
English Language Learners	○	○	○	○	○	○
Supplemental Program Students	○	○	○	○	○	○

4. To what extent did the classroom schedule facilitate teaching together?

- ○ Not at all
- ○ A Little
- ○ Somewhat
- ○ Much
- ○ Very Much

Integrated Services Support Services Teacher Survey

3. Teacher Knowledge and Practice

5. To what extent did the Integrated Services Pilot provide opportunities to increase your understanding of the general education curriculum and instruction?

○ Not at all

○ A Little

○ Somewhat

○ Much

○ Very Much

○ None of these students were present in my class

6. Thinking about the ONE classroom teacher you spent the most time teaching with, how often did you use the following "structures" in working together?

	Daily	Several times a week	Once a week	Several times a month	Once a month	Never
Each teacher teaches a small group	○	○	○	○	○	○
Teaching a lesson together	○	○	○	○	○	○
Support teacher works one-on-one with a student	○	○	○	○	○	○
One teacher teaches the class while the other moves around to assist students	○	○	○	○	○	○

Other (please specify)

7. For the previous question (#6) I am thinking about my work this past year with...

○ A Primary Classroom Teacher

○ An Intermediate Classroom Teacher

Other (please specify)

Integrated Services Support Services Teacher Survey

4. Teacher Knowledge and Practice

8. When using small group instruction, to what extent were students grouped in the following manner?

	Daily	Several times a week	Once a week	Several times a month	Once a month	Never
By student groups (such as all the ELL or SPED students together)	○	○	○	○	○	○
By academic level (such as by DRA level)	○	○	○	○	○	○
Mixed Groups (such as multiple academic levels combined in one group)	○	○	○	○	○	○

9. How often did you and the classroom teacher(s) meet to collaborate, plan, reflect on instruction and/or on student learning with each other?

○ About once per trimester

○ Monthly

○ Twice per month

○ Weekly

○ Two or more times per week

10. To what extent did opportunities to collaborate with your co-teacher increase this year?

○ Not at all

○ A Little

○ Somewhat

○ Much

○ Very Much

○ I did not co-teach last year

11. To what extent did collaboration between teachers focus on...

	Not at all	A Little	Somewhat	Much	Very much
Curricular and instructional issues	○	○	○	○	○
Assessment of student progress to determine next steps	○	○	○	○	○
Instructional strategies to engage specific students	○	○	○	○	○
student behavior challenges	○	○	○	○	○

Integrated Services Support Services Teacher Survey

5. Teacher Knowledge and Practice

12. When planning for co-teaching to what extent do you and your co-teacher share responsibility for...

	Not at all	A Little	Somewhat	Much	Very Much
deciding what to teach	○	○	○	○	○
deciding how to teach	○	○	○	○	○
differentiation of instruction	○	○	○	○	○
determining how student learning will be assessed	○	○	○	○	○

13. To what extent do you and your co-teacher..

	Not at all	A Little	Somewhat	Much	Very Much
have a shared discipline philosophy	○	○	○	○	○
agree on discipline procedures and share responsibility for student discipline	○	○	○	○	○
share the monitoring of on-task behavior during instruction	○	○	○	○	○

14. I feel more successful in my co-teaching role this year than I did last year.

○ Not at all

○ A Little

○ Somewhat

○ Much

○ Very Much

○ I did not co-teach last year

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Integrated Services Support Services Teacher Survey

6. Impact on Students

15. To what extent did PARTICIPATION increase in general classroom instruction with...

	Not at all	A Little	Somewhat	Much	Very much	None of these students were in my class
Students identified as Special Education	○	○	○	○	○	○
Students identified as English Language Learners	○	○	○	○	○	○
Students eligible for supplementary services	○	○	○	○	○	○
Students not receiving support services	○	○	○	○	○	○

16. To what extent did the Special Education Students...

	Not at all	A Little	Somewhat	Much	Very much	None of these students were present in my class
become familiar and comfortable with classroom routines	○	○	○	○	○	○
Increase their ability to work and interact with classroom peers	○	○	○	○	○	○
Increase their knowledge related to core curricular areas	○	○	○	○	○	○

17. To what extent did the English Language Learners...

	Not at all	A Little	Somewhat	Much	Very much	None of these students were present in my class
become familiar and comfortable with classroom routines	○	○	○	○	○	○
Increase their ability to work and interact with classroom peers	○	○	○	○	○	○
Increase their knowledge related to core curricular areas	○	○	○	○	○	○

Integrated Services Support Services Teacher Survey

7. Impact on Students

18. To what extent did the supplemental program students...

	Not at all	A Little	Somewhat	Much	Very much	None of these students were present in my class
become familiar and comfortable with classroom routines	○	○	○	○	○	○
Increase their ability to work and interact with classroom peers	○	○	○	○	○	○
Increase their knowledge related to core curricular areas	○	○	○	○	○	○

19. Overall, to what extent did the following students benefit from the Integrated Services Pilot?

	Not at all	A Little	Somewhat	Much	Very much
Students identified as Special Education	○	○	○	○	○
Students identified as English Language Learners	○	○	○	○	○
Students eligible for supplementary services	○	○	○	○	○
Students not receiving support services	○	○	○	○	○

8. Professional Development

20. To what extent did your principal...

	Not at all	A Little	Somewhat	Much	Very much
communicate expectations for implementing the Integrated Services Pilot	○	○	○	○	○
engage you in conversations about the Integrated Services Pilot	○	○	○	○	○
support your work with the Integrated Services Pilot	○	○	○	○	○

21. To what extent did your instructional coach...

	Not at all	A Little	Somewhat	Much	Very much
engage you in follow-up after professional development sessions	○	○	○	○	○
help you reflect on how students were engaged in learning	○	○	○	○	○
help you think about lesson planning and preparation	○	○	○	○	○
model lessons	○	○	○	○	○

22. To what extent did you seek out the support of your instructional coach related to the Integrated Services Pilot?

○ Not at all   ○ A Little   ○ Somewhat   ○ Much   ○ Very much

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Integrated Services Support Services Teacher Survey

9. Professional Development

23. To what extent did professional learning communities (PLC's) at your school support the Integrated Services Pilot?

○ Not at all   ○ A Little   ○ Somewhat   ○ Much   ○ Very much

24. To what extent did school based professional development support the Integrated Services Pilot?

○ Not at all   ○ A Little   ○ Somewhat   ○ Much   ○ Very much

25. To what extent did you have opportunities to work with the University of Minnesota partners related to the Integrated Services Pilot?

○ Not at all   ○ A Little   ○ Somewhat   ○ Much   ○ Very much

26. To what extent did your Teaching and Learning Specialist (TALS) that supports your speciality...

	Not at all	A Little	Somewhat	Much	Very much
communicate expectations for implementing the Integrated Services Pilot	○	○	○	○	○
engage you in conversations about the Integrated Services Pilot	○	○	○	○	○
support your work with the Integrated Services Pilot	○	○	○	○	○

10. Overall Perceptions of the Integrated Services Pilot

Please answer the following questions regarding your overall perceptions of the Integrated Services Pilot. Please keep your answers within the indicated characters.

27. What TWO adjectives best describe your overall experience with the implementation of the Integrated Services Pilot? (20 characters)

First Adjective _____

Second Adjective _____

28. What do you see as the SINGLE greatest strength associated with the implementation of the Integrated Services Pilot?

(70 characters)

_____

29. What do you see as the SINGLE greatest challenge associated with the implementation of the Integrated Services Pilot?

(70 characters)

_____

30. What is ONE idea that would improve the Integrated Services Pilot for next year? (100 characters)

_____

Integrated Services Support Services Teacher Survey

11. Demographics

31. Which type of Support Services Teacher are you?

○ Special Education Teacher

○ English as a Second Language Teacher

○ Supplemental Programs Teacher

If other, please specify your position.

32. How many years have you participated in the Integrated Services Pilot?

○ One year

○ Two years

Appendix F: Group Interview Questions for Classroom and Support Service Teachers

The purpose of this interview is to learn from you about your experiences during the second year of the Integrated Services Pilot. This is NOT an evaluation of you! The information
you share will help inform decisions about how to proceed next year and, possibly, with additional schools in the future.

We recognize that co-teaching is a significant change in how most teachers are used to and comfortable with teaching. We also know it involves some significant changes in where and how students learn. So, our main purpose is to learn from you as a basis for determining the types of strategies and support that would be useful in the future.

About your participation this year…

1. After you received your grade level and co-teaching assignments for this year, what were your initial reactions, thoughts, or questions?

2. How did you begin to prepare for the year with your co-teaching partner?

3. Are you aware of any school-wide adjustments that were made to support co-teaching for this school year?

4. As you reflect on your experiences from last year and this year, are there ways that your co-teaching changed? If so, what were some of the changes and reasons these changes seemed to make sense?

5. … were there ways that your planning and reflection with your co-teachers changed?

6. … were there ways that your coach or principals supported your work?

7. …were there other activities or professional development that supported your work?

About the students…
8. How would you describe the ways that special services students engaged in the co-taught classrooms?
   For example: What did you observe about how they participated in classroom routines, as well as how they engaged and responded to instruction?

9. What did you notice about interactions between special services students and other students in the class?
   … How did they do getting used to the classroom routines?
   …Were there changes in the ways that students engaged with one another?

Thinking ahead to next year…

10. You shared what co-teaching and integrated services looked like this year for you and for the students. What do you envision as ways to work together with your co-teachers next year, in terms of
    a. How you might co-teach together… ways you might advance co-teaching?
    b. How you would reflect and plan together?

11. In thinking about your learning interests…
    a. Are there things you would like to learn more about? If so, what would these be?
    b. Are there ways that the coach or principal could offer more support for your learning?

Overall reflections on this year…

12. Overall, what were one or two of the most important things you learned?

13. What do you view as
    a. …successes for teachers who were involved – special services teachers and classroom teachers?
    b. … successes or benefits for students who were involved, especially thinking about special services students. (There might be individual students who stand out for you as having grown/change??? in important ways)
    c. …challenges for teachers – you personally, as well as what seemed challenging for your teaching partners?
    d. …challenges for students?

14. [For support services teachers] As you think about the movement toward standards-based IEPs or support services plans, how might co-teaching support this movement?

Last two questions…

15. As you reflect on this conversation about Year Two of the Integrated Services Pilot, what two or three statements would you share with someone who wanted to know about this pilot?
    Please take a couple of minutes and jot down what you heard as some important themes or insights. Then each of you will have a chance to share.

16. Before we finish is there anything else you would like us to know about your co-teaching experience?

Thank you very much for sharing your experience with us today. Your experiences will help us build a better program. Your work to implement co-teaching is greatly appreciated. Most importantly you are making a difference in the life of each child you teach. Thank you for your work and your commitment to students.

Appendix G: Individual Interviews with Co-Teaching Partners

Thank you for spending time with us today. We have set aside about 90 minutes for this conversation. The purpose of this conversation is to learn about your experiences with co-teaching. Your responses will be used to inform the decision regarding the expansion of co-teaching to other schools and if we do expand what actions we can take to support teachers.

We would like to begin by learning about the students in your classrooms.

1. In what ways do you think students have benefited from co-teaching?

2. To what extent do you think students have encountered challenges in a co-taught classroom that they don't encounter in other classroom settings? Please provide examples.

3. How would you describe the peer interactions of SpEd, ELL, and students receiving supplemental support services? Please provide examples.

4. In what ways do you think co-teaching has impacted academic performance for students receiving support services and those who do not receive support services? Lets start with students receiving support services? Those not receiving service?

You have shared about your students. Now let's focus on instruction.

5. As you think about your co-teaching experience this year, how did you and your co-teaching partner plan for your work together?

6. How would you describe the way in which you divided or shared your teaching responsibilities?

7. You have a number of resources that describe approaches to co-teaching. Villa, Thousand and Nevin (2008), (show the resource) describe these as:

    Supportive   One teacher leads the lesson while one observes or supports students

    Parallel   This includes station teaching, split class, cooperative group monitoring, one teacher works with the entire class while the other teacher works with a small group – each teacher teachers their own group and coordinate instruction during their preplanning

    Complementary   The classroom teacher leads the lesson; co-teacher contributes to the lesson from their area of expertise, instruction flows from one teacher to the other

    Team teaching   Teachers plan and design the lesson or unit together and then take turns delivering the components of the lesson

Without worrying about terminology, how would you describe your approach to co-teaching? (The descriptions of co-teaching will be used as needed to help participants understand the question.)

Central to instruction in a co-taught classroom is the relationship between co-teachers.

The research literature is unequivocal about the correlation between a strong professional relationship between co-teaching partners and the effectiveness of co-teaching. Genuine trust and respect between co-teachers are central to an effective co-teaching relationship. Your principal has identified each of the your teaching teams as having strong partnerships. We would like to learn more about how your partnership developed and how we might support others in developing strong co-teaching partnerships.

8. What do you think your principal observed that led her/him to believe you have developed a strong co-teaching partnership?

9. What do you think contributed to building a strong partnership?

10. Are there things your principal has done to support your partnership? If so what are they?

11. Are there ways in which your instructional coach has supported your work?

12. How do you think students perceive your teaching partnership?
…Do you think they see you as equal partners?
…What would they see as evidence of this?

Expansion of co-teaching

13. If it is decided that co-teaching will be expanded, what structures do you think should be in place before the school year starts?

14. What do you think are the most significant things principals, instructional coaches, district staff could do support teachers in their initial experience?

15. Are there professional development activities that have supported your co-teaching experience that you think others would benefit from?

16. If you could give teachers beginning the co-teaching journey one piece of advice, what would it be?

17. Thinking about yourself, what would support your co-teaching partnership in the year ahead? (Some areas you might consider are ways your principal or coach can support you, professional development, school structures, etc.)

Before we finish

Is there anything else you would like us to know about your co-teaching experience?

Thank you very much for sharing your experience with us today. Your experiences will help us build a better program. Your work to implement co-teaching is greatly appreciated. Most importantly you are making a difference in the life of each child you teach. Thank you for your work and your commitment to students.

Appendix H: Principal and Instructional Coach Interview Questions

Thank you for spending time with us today. We have set aside about 90 minutes for this conversation. The purpose of this conversation is to learn about your experiences with co-teaching. Your responses will be used to inform the decision regarding the expansion of co-teaching to other schools and if we do expand, what actions we can take to support principals, instructional coaches, and teachers.

We would like to begin by learning about the students in your classrooms.

1. In what ways do you think students have benefited from co-teaching?

2. To what extent do you think students have encountered challenges in a co-taught classroom that they don't encounter in other classroom settings? Please provide examples.

3. How would you describe the peer interactions of SpEd, ELL, and students receiving supplemental support services? Please provide examples.

4. In what ways do you think co-teaching has affected academic performance for students receiving support services and those who do not receive support services? Lets start with students receiving support services? Those not receiving service?

5. In your opinion, what affect, if any, has co-teaching had on the alignment of instruction between classroom and special service providers?

6. To what extent has co-teaching affected the culture of your school community?

Support of co-teaching takes many forms; please reflect on how you have supported co-teaching in your school.

7. When you reflect on strong co-teaching partnerships, what do you think supported the development of those relationships?

8. What specific activities have supported co-teaching?

9. What changes, if any, did you make that contributed to the implementation of co-teaching? What are the indicators that these changes made a difference?

10. In what ways do you think co-teaching has affected the relationships between classroom and support teachers?

11. In what ways has the development of PLCs affected co-teaching?

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12. Please describe any professional development that you feel has supported co-teaching.

Looking ahead…

13. Do you plan to continue the co-teaching model in your school?
    a. If so, what do you think would support the continued development of co-teaching?
    b. What will you work to maintain and what will you change?

14. If the decision is made to expand co-teaching to additional schools what do you think are critical variables to consider for the first year of implementation?
    a. What initial supports should be provided for the principal?
    b. What key ideas would you share about the role of the instructional coach?
    c. What professional development would you provide?

Thank you very much for your work on this pilot. The contributions you have made to students and to our professional community are greatly appreciated.

Appendix I: Integrated Services Teacher Survey Results, Spring 2012

Classroom Teachers (N=39)   CT = Classroom Teachers
Support Services Teachers (N=24)   SS = Support Service Teachers

In reflecting on YOUR Integrated Services Pilot experience this year… (n=classroom teacher sample) (n=support service teacher sample)	Possible Range	Actual Range		Mode x(%)		Mean	
		CT	SS	CT	SS	CT	SS
Section I: Teacher Knowledge and Practice							
1. (SS#1) To what extent did "co-teaching" or teacher collaboration increase the alignment of instruction between the classroom teacher and the support services teacher? (n=38) (n=24)	0-4	0-4	0-4	3(44.7)	3(41.4)	2.47	2.50
2. (SS#2) To what extent did learning experiences for students receiving support services become more aligned with classroom instruction?*							
Special Education Students (n=27) (n=17)	0-4	0-4	1-4	3(40.7)	3(40.7)	2.67	3.06
English Learners (n=24) (n= 15)	0-4	0-4	2-4	4(33.3)	4(33.3)	2.54	3.27
Supplemental Program Students (n=30) (n=17)	0-4	0-4	1-4	3(36.7)	3(36.7)	2.77	3.29
4. (SS#3) To what extent did the amount of time students received pull-out services decrease?*							
Special Education Students (n=28) (n=17)	0-4	0-4	0-4	4(42.9)	4(47.1)	2.93	2.53

In reflecting on YOUR Integrated Services Pilot experience this year… (n=classroom teacher sample) (n=support service teacher sample)	Possible Range	Actual Range		Mode x(%)		Mean	
		CT	SS	CT	SS	CT	SS
English Learners (n=22) (n=15)	0-4	0-4	0-4	4(40.1)	4(53.3)	2.50	2.67
Supplemental Program Students (n=30) (n=16)	0-4	0-4	0-4	4(33.3)	4(74.0)	2.47	3.00
5. (SS#4) To what extent did the classroom schedule facilitate teaching together? (n=38) (n=24)	0-4	0-4	0-4	2(44.7)	2(33.3)	1.66	1.79
(SS#5) To what extent did the Integrated Services Pilot provide opportunities to increase your understanding of the general education curriculum and instruction? (n=24)	0-4		0-5		3(37.5)		2.41
6. To what extent did the Integrated Services Pilot provide opportunities to increase your understanding of effective learning strategies for students receiving support services?*							
Special Education Students (n=28)	0-4	0-4		2(46.4)		1.75	
English Learners (n=22)	0-4	0-4		2(31.8)		1.64	
Supplemental Program Students (n=30)	0-4	0-4		2(50.0)		1.67	
7. (SS#6) Thinking about the one support staff (classroom teacher) you spent the most time teaching with, how often did you use the following "structures" in working together?[1]							
Each teacher teaches a small group (n=38) (n=24)	0-5	0-5	0-5	5(63.2)	5(79.2)	4.00	4.46
Teaching a lesson together (n=38) (n=23)	0-5	0-5	0-5	0(65.8)	0(73.9)	0.79	0.70

In reflecting on YOUR Integrated Services Pilot experience this year… (n=classroom teacher sample) (n=support service teacher sample)	Possible Range	Actual Range		Mode x(%)		Mean	
		CT	SS	CT	SS	CT	SS
Support teacher works one-on-one with a student (n=36) (n=24)	0-5	0-5	0-5	5(30.6)	0(34.8)	3.08	2.04
One teacher teaches the class while the other moves around to assist students (n=38) (n=22)	0-5	0-5	0-5	0(42.1)	0(45.5)	1.58	2.14
9. (SS#8) When using small group instruction, to what extent were students grouped in the following manner?[1]							
By student groups (such as all the EL or special education students together) (n=37) (n=23)	0-5	0-5	0-5	5(40.5)	0(52.2)	3.05	2.00
By academic level (such as by DRA level) (n=38) (n=24)	0-5	0-5	1-5	5(81.6)	5(91.7)	4.53	4.79
Mixed groups (such as multiple academic levels combined in one group) (n=37) (n=23)	0-5	0-5	0-5	5(29.7)	0(65.2)	2.65	1.74
(SS#9) How often did you and the classroom teacher(s) meet to collaborate, plan, reflect on instruction and/or student learning with each other?[2] (n=24) (	1-5		1-5		4(37.5)		3.08
10. How often did you and the support services teacher(s) meet to collaborate, plan, reflect on instruction and/or student learning with each other?[2]							
Classroom teacher and Special Education teacher (28)	1-5	1-5		2(35.7)		2.82	

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In reflecting on YOUR Integrated Services Pilot experience this year… (n=classroom teacher sample) (n=support service teacher sample)	Possible Range	Actual Range		Mode x(%)		Mean	
		CT	SS	CT	SS	CT	SS
Classroom teacher and English as a Second Language teacher (21)	1-5	1-5		3(28.6)		2.95	
Classroom teacher and Supplemental Programs teacher (28)	1-5	1-5		3(42.9)		2.93	
11. (SS#10) To what extent did opportunities to collaborate with your co-teacher increase this year?[**] (n=38) (n=24)	0-4	0-4	0-4	2(36.1)	2(30.4)	1.83	1.83
12. (SS#11) To what extent did collaboration between teachers focus on…							
Curricular and instructional issues? (n=38) (n=24)	0-4	0-4	0-4	3(41.2)	4(33.3)	2.87	2.71
Assessment of student progress to determine next steps? (n=37) (n=23)	0-4	0-4	0-4	3(32.4) 4(32.4)	4(39.1)	2.70	2.83
Instructional strategies to engage specific students? (n=38) (n=23)	0-4	0-4	1-4	3(39.5)	3(39.1)	2.47	2.48
Student behavior challenges? (n=38) (n=23)	0-4	0-4	0-4	1(26.3) 2(26.3) 3(26.3)	2(43.5)	2.21	1.74
13. (SS#12) When planning for co-teaching to what extent do you and your co-teacher share responsibility for…							
Deciding what to teach? (n=38) (n=23)	0-4	0-4	0-4	0(31.6)	0(30.4)	1.34	1.57

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In reflecting on YOUR Integrated Services Pilot experience this year… (n=classroom teacher sample) (n=support service teacher sample)	Possible Range	Actual Range		Mode x(%)		Mean	
		CT	SS	CT	SS	CT	SS
Deciding how to teach? (n=38) (n=22)	0-4	0-4	0-4	1(31.6)	1(31.8)	1.50	1.55
Differentiation of instruction? (n=37) (n=22)	0-4	0-4	0-4	3(29.7)	2(31.8)	2.14	2.00
Determining how student learning will be assessed? (n=38) (n=22)	0-4	0-4	0-3	1(28.9)	2(40.9)	1.24	1.18
14. (SS#13) To what extent do you and your co-teacher							
Have a shared discipline philosophy? (n=37) (n=23)	0-4	0-4	0-4	3(37.8)	2(30.4)	2.43	2.22
Agree on discipline procedures and share responsibility for student discipline? (n=37) (n=23)	0-4	0-4	0-4	3(35.1)	2(30.4) 4(30.4)	2.24	2.35
Share the monitoring of on-task behavior during instruction? (n=37) (n=22)	0-4	0-4	0-4	3(27.0)	2(31.8)	2.08	2.32
15. (SS#14) I feel more successful in my co-teaching role this year than I did last year. (n=36) (n=20)	0-4	0-4	0-4	2(29.0)	2(25.0) 3(25.0)	1.84	2.00
Section II: Impact on Students							
16. (SS#15) To what extent did participation increase in the general classroom instruction with…[*]							
Students identified as Special Education? (n=25) (n=17)	0-4	0-4	0-4	2(32.0)	3(29.4)	2.16	1.88
Students identified as English Learners? (n=23) (n=15)	0-4	0-4	0-4	2(39.1)	3(26.7)	2.30	2.13

In reflecting on YOUR Integrated Services Pilot experience this year… (n=classroom teacher sample) (n=support service teacher sample)	Possible Range	Actual Range		Mode x(%)		Mean	
		CT	SS	CT	SS	CT	SS
Students eligible for supplementary programs? (n=30) (n=16)	0-4	0-4	0-4	2(46.7)	2(31.3)	2.27	2.25
Students not receiving support services? (n=33) (n=20)	0-4	0-4	0-4	2(45.5)	1(25.0) 4(25.0)	2.18	2.10
17. (SS#16) To what extent did the Special Education Students …*							
Become familiar and comfortable with classroom routines? (n=24) (n=16)	0-4	2-4	1-4	4(45.8)	3(31.3) 4(31.3)	3.25	2.81
Increase their ability to work and interact with classroom peers? (n=24) (n=16)	0-4	0-4	1-4	3(54.2)	3(37.4)	2.63	2.75
Increase their knowledge related to core curricular areas? (n=24) (n=16)	0-4	1-4	1-4	2(33.3)	2(43.8)	2.17	2.50
18. (SS#17) To what extent did the English Learners …*							
Become familiar and comfortable with classroom routines? (n=21) (n=16)	0-4	1-4	1-4	4(61.9)	3(50.0)	2.59	2.94
Increase their ability to work and interact with classroom peers? (n=21) (n=16)	0-4	1-4	2-4	4(57.1)	3(43.8)	3.14	2.81
Increase their knowledge related to core curricular areas? (n=21) (n=16)	0-4	2-4	2-4	4(47.6)	2(43.8) 3(43.8)	3.19	2.69

In reflecting on YOUR Integrated Services Pilot experience this year… (n=classroom teacher sample) (n=support service teacher sample)	Possible Range	Actual Range		Mode x(%)		Mean	
		CT	SS	CT	SS	CT	SS
19. (SS#18) To what extent did the Supplemental Program Students …*							
Become familiar and comfortable with classroom routines? (n=31)(n=16)	0-4	1-4	1-4	4(54.8)	3(31.1) 4(31.1) 5(31.1)	3.39	2.88
Increase their ability to work and interact with classroom peers? (n=31) (n=15)	0-4	0-4	1-4	3(48.4)	2(46.7)	2.65	2.60
Increase their knowledge related to core curricular areas? (n=31) (n=15)	0-4	1-4	2-4	3(48.4)	2(46.7)	2.94	2.73
20. (SS#19) Overall, to what extent did the following students benefit from the Integrated Services Pilot?							
Students identified as Special Education (n=29) (n=19)	0-4	0-4	1-4	2(34.5) 3(34.5)	2(42.1)	3.21	2.26
Students identified as English Learners (n=27) (n=20)	0-4	0-4	1-4	3(37.0)	3(40.0)	2.48	2.70
Students eligible for supplementary services (n=30) (n=22)	0-4	0-4	1-4	3(53.3)	3(50.0)	2.50	2.73
Students not receiving support services (n=31) (n=20)	0-4	0-4	1-4	3(35.5)	3(35.0)	2.03	2.70
Section III: Professional Development							
21. (SS#20) To what extent did your principal…							
Communicate expectations for implementing the Integrated	0-4	0-4	1-4	3(42.4)	2(40.9) 3(40.9)	2.30	2.50

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In reflecting on YOUR Integrated Services Pilot experience this year… (n=classroom teacher sample) (n=support service teacher sample)	Possible Range	Actual Range		Mode x(%)		Mean	
		CT	SS	CT	SS	CT	SS
Services Pilot? (n=33) (n=22)							
Engage you in conversations about the Integrated Services Pilot? (n=33) (n=22)	0-4	0-4	0-4	2(30.3) 3(30.3)	3(40.9)	1.97	2.32
Support your work with the Integrated Services Pilot? (n=33) (n=23)	0-4	0-4	1-4	3(39.4)	3(43.5)	2.33	2.91
22. (SS#21) To what extent did your instructional coach…							
Engage you in follow-up after professional development sessions? (n=33) (n=22)	0-4	0-4	0-4	2(30.3)	2(45.5)	1.58	1.96
Help you reflect on how students were engaged in learning? (n=33) (n=22)	0-4	0-4	0-4	2(42.4)	2(45.5)	1.94	2.18
Help you think about lesson planning and preparation? (n=33) (n=23)	0-4	0-4	0-4	2(27.3)	2(56.5)	1.73	2.00
Model lessons? (n=33) (n=22)	0-4	0-4	0-4	0(57.6)	0(36.4)	1.18	1.14
23. (SS#22) To what extent did you seek out the support of your instructional coach related to the Integrated Services Pilot? (n=33) (n=22)	0-4	0-3	0-4	0(45.5)	2(45.5)	0.85	1.41
24. (SS#23) To what extent did professional learning communities (PLCs) at your school support the Integrated Services Pilot? (n=33) (n=23)	0-4	0-4	0-4	4(27.3)	2(43.5)	1.82	2.30

In reflecting on YOUR Integrated Services Pilot experience this year… (n=classroom teacher sample) (n=support service teacher sample)	Possible Range	Actual Range		Mode x(%)		Mean	
		CT	SS	CT	SS	CT	SS
25. (SS#24) To what extent did school based professional development support the Integrated Services Pilot? (n=32) (n=23)	0-4	0-4	0-4	2(34.4)	2(39.1)	1.47	1.83
26. (SS#25) To what extent did you have opportunities to work with the University of Minnesota partner related to the Integrated Services Pilot? (n=31) (n=23)	0-4	0-2	0-4	0(67.7)	0(43.5)	0.45	1.09
(SS#26) To what extent did your Teaching and Learning Specialist (TaLS) that supports your specialty…							
Communicate expectations for implementing the Integrated Services Pilot? (n=23)	0-4		0-3		0(43.5)		1.00
Engage you in conversations about the Integrated Services Pilot? (n=23)	0-4		0-4		0(39.1)		1.13
Support your work with the Integrated Services Pilot? (n=23)	0-4		0-4		0(34.8)		1.17

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much

[1] Response options: 0-never; 1-once a month; 2-several times a month; 3-once a week; 4-several times a week; 5-daily

[2] Response options: 1-about once per trimester; 2-monthly; 3-twice per month; 4-weekly; 5-two or more times per week; I did not work with this type of teacher

[*] "None of these students were in my class" was offered as a response option. These responses were not included in central tendency calculations.

[**] "I did not co-teach last year" was offered as a response option. These responses were not included in central tendency calculations

Appendix J: Teacher Survey Results by Evaluation Question

Table J1. Professional Development and Support (0/low-4/high)

Survey Question	Classroom Teachers			Support Service Teachers		
	n	mode	mean	*n*	mode	mean
To what extent did your principal…						
• Communicate expectations for implementing the Integrated Services Pilot?	33	3(42.4%)	2.30	22	2(40.9%) 3(40.9%)	2.50
• Engage you in conversations about the Integrated Services Pilot?	33	2(30.3%) 3(30.3%)	1.97	22	3(40.9%)	2.32
• Support your work with the Integrated Services Pilot?	33	3(39.4%)	2.33	23	3(43.5%)	2.91
To what extent did your instructional coach…						
• Engage you in follow-up after professional development sessions?	33	2(30.3%)	1.58	22	2(45.5%)	1.96
• Help you reflect on how students were engaged in learning?	33	2(42.4%)	1.94	22	2(45.5%)	2.18
• Help you think about lesson planning and preparation?	33	2(27.3%)	1.73	23	2(56.5%)	2.00
• Model lessons?	33	0(57.6%)	1.18	22	0(36.4%)	1.14
To what extent did you seek out the support of your instructional coach related to the Integrated Services Pilot?	33	0(45.5%)	0.85	22	2(45.5%)	1.41

To what extent did professional learning communities (PLCs) at your school support the Integrated Services Pilot?	33	4(27.3%)	1.82	23	2(43.5%)	2.30
To what extent did school based professional development support the Integrated Services Pilot?	32	2(34.4%)	1.47	23	2(39.1%)	1.83
To what extent did you have opportunities to work with the University of Minnesota partner related to the Integrated Services Pilot?	31	0(67.7%)	0.45	23	0(43.5%)	1.09
To what extent did your Teaching and Learning Specialist (TaLS) that supports your specialty…						
• Communicate expectations for implementing the Integrated Services Pilot?				23	0(43.5%)	1.00
• Engage you in conversations about the Integrated Services Pilot?				23	0(39.1%)	1.13
• Support your work with the Integrated Services Pilot?				23	0(34.8%)	1.17

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much

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Table J2. Collaboration between Classroom and Support Teachers (0/low-4/high)

Survey Question	Classroom Teachers			Support Service Teachers		
	n	mode	mean	*n*	mode	mean
To what extent did opportunities to collaborate with your co-teacher increase this year?	38	2(30.4%)	1.83	24	2(30.4%)	1.83
How often did you and the support services teacher(s) meet to collaborate, plan, and/or reflect on instruction and/or student learning with each other?[*]						
• Classroom teacher and special education teacher[*]	28	2(35.7%)	2.82			
• Classroom and English as a second language teacher[*]	21	3(28.6%)	2.95			
• Classroom teacher and supplemental programs teacher[*]	28	3(42.9%)	2.93			
How often did you and the classroom teacher(s) meet to collaborate, plan, and reflect on instruction and/or student learning with each other?				24	4(37.5%)	3.08
To what extent did collaboration between teachers focus on…						
• Curricular and instructional issues?	38	3(41.2%)	2.87	24	4(33.3%)	2.71
• Assessment of student progress to determine next steps?	37	3(32.4%) 4(32.4%)	2.70	23	4(39.1%)	2.83

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Survey Question	Classroom Teachers			Support Service Teachers		
	n	mode	mean	*n*	mode	mean
• Instructional strategies to engage specific students?	38	3(39.5%)	2.47	23	3(39.1%)	2.48
• Student behavior challenges?	38	1(26.3%) 2(26.3%) 3(26.3%)	2.21	23	2(43.5%)	1.74
When planning to what extent do you and your co-teacher share responsibility for…						
• Deciding what to teach?	38	0(31.6%)	1.34	23	0(30.4%)	1.57
• Deciding how to teach?	38	1(31.6%)	1.50	22	1(31.8%)	1.55
• Differentiation of instruction?	37	3(29.7%)	2.14	22	2(31.8%)	2.00
• Determining how student learning will be assessed?	38	1(28.9%)	1.24	22	2(40.9%)	1.18
To what extent do you and your co-teacher						
• Have a shared discipline philosophy?	37	3(37.8%)	2.43	23	2(30.4%)	2.22
• Agree on discipline procedures and share responsibility for student discipline?	37	3(35.1%)	2.24	23	2(30.4%) 4(30.4%)	2.35
• Share the monitoring of on-task behavior during instruction?	37	3(27.0%)	1.81	22	2(31.8%)	2.32

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much

[*] Response options: 1-about once per trimester; 2-monthly; 3-twice per month; 4-weekly; 5-two or more times per week; I did not work with this type of teacher – These responses were not included in central tendency calculations.

Table J3. Impact on Teacher Knowledge and Practice (0/low-4/high)

Survey Question	Classroom Teachers			Support Service Teachers		
	n	mode	mean	*n*	mode	mean
To what extent did the Integrated Services Pilot provide opportunities to increase your understanding of effective learning strategies for students receiving support services?*						
• Special Education Students	28	2(46.4%)	1.75			
• English Learners	22	2(31.8%)	1.64			
• Supplemental Program Students	30	2(50.0%)	1.67			
To what extent did the Integrated Services Pilot provide opportunities to increase your understanding of the general education curriculum and instruction?				24	3(37.5%)	2.41
To what extent did co-teaching or teacher collaboration increase the alignment of instruction between the classroom teacher and the support services teachers	38	3(44.7%)	2.47	24	3(41.4%)	2.5
I feel more successful in my co-teaching role this year than I did last year.	36	2(29.0%)	1.84	20	2(25.0%) 3(25.0%)	2.00

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much

Table J4. Classroom Structures

Survey Question	Classroom Teachers			Support Service Teachers		
	n	mode	mean	*n*	mode	mean
To what extent did the classroom schedule facilitate teaching together?	38	2(44.7%)	1.66	24	2(33.3%)	1.79
Thinking about the one support staff (or classroom teacher) you spent the most time teaching with, how often did you use the following "structures" in working together?[*]						
• Each teacher teaches a small group[*]	38	5(63.2%)	4.00	24	5(79.2%)	4.46
• Teaching a lesson together[*]	38	0(65.8%)	0.79	23	0(73.9%)	0.70
• Support teacher works one-on-one with a student[*]	36	5(30.6%)	3.08	23	0(34.8%)	2.04
• One teacher teaches the class while the other moves around to assist students[*]	38	0(42.1%)	1.58	22	0(45.5%)	2.14

When using small group instruction, to what extent were students grouped in the following manner?[*]						
• By student groups (e.g., all the EL or special education students together) [*]	37	5(40.5%)	3.05	23	0(52.2%)	2.00
• By academic level (e.g., DRA level) [*]	38	5(81.6%)	4.53	24	5(91.7%)	4.79
• Mixed groups (e.g., multiple academic levels combined in one group) [*]	37	5(29.7%)	2.65	23	0(65.2%)	1.74

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much

[*] Response options: 0-never; 1-once a month; 2-several times a month; 3-once a week; 4-several times a week; 5-daily

Table J5. Impact on Student Achievement and Engagement (0/low-4/high)

Survey Question	Classroom Teachers			Support Service Teachers		
	n	mode	mean	*n*	mode	mean
To what extent did participation increase in the general classroom instruction with…*						
• Special Education Students?	25	2(32.0%)	2.16	17	3(29.4%)	1.88
• English Learners?	23	2(39.1%)	2.30	15	3(26.7%)	2.13
• Supplemental Program Students?	30	2(46.7%)	2.27	16	2(31.3%)	2.25
• Students not receiving support services?	33	2(45.5%)	2.18	20	1(25.0%) 4(25.0%)	2.10
To what extent did the amount of time students received pull-out services decrease?*						
• Special Education Students	28	4(42.9%)	2.93	17	4(47.1%)	2.53
• English Learners	29	4(40.1%)	2.50	15	4(53.3%)	2.67
• Supplemental Program Students	30	4(33.3%)	2.47	16	4(74.0%)	3.00
To what extent did Special Education Students…*						
• Become familiar and comfortable with classroom routines?	24	4(45.8%)	3.25	16	3(31.3%) 4(31.3%)	2.81
• Increase their ability to work and interact with peers?	24	3(54.2%)	2.63	16	3(37.4%)	2.75
• Increase their knowledge related to core curricular areas?	24	2(33.3%)	2.17	16	2(43.8%)	2.50

To what extent did English Learners…*						
• Become familiar and comfortable with classroom routines?	21	4(61.9%)	2.59	16	3(50.0%)	2.94
• Increase their ability to work and interact with peers?	21	4(57.1%)	3.14	16	3(43.8%)	2.81
• Increase their knowledge related to core curricular areas?	21	4(47.6%)	3.19	16	2(43.8%) 3(43.8%)	2.69
To what extent did Supplemental Program Students…*						
• Become familiar and comfortable with classroom routines?	31	4(54.8%)	3.39	16	3(31.1%) 4(31.1%) 5(31.1%)	2.88
• Increase their ability to work and interact with peers?	31	3(48.4%)	2.65	15	2(46.7%)	2.60
• Increase their knowledge related to core curricular areas?	31	3(48.4%)	2.94	15	2(46.7%)	2.73
To what extent did learning experiences for students receiving support services become more aligned with classroom instruction?*						
• Special Education Students	27	3(40.7%)	2.67	17	3(40.7%)	3.06
• English Learners	24	4(33.3%)	2.54	15	4(33.3%)	3.27
• Supplemental Program Students	30	3(36.7%)	2.77	17	3(36.7%)	3.29

Overall, to what extent did the following students benefit from the Integrated Services Pilot?						
• Special Education Students	29	2(34.5%) 3(34.5%)	3.21	19	2(42.1%)	2.26
• English Learners	27	3(37.0%)	2.48	20	3(40.0%)	2.70
• Supplemental Program Students	30	3(53.3%)	2.50	22	3(50.0%)	2.73
• Students not receiving support services	31	3(35.5%)	2.03	20	3(35.0%)	2.70

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much

[*] "None of these students were in my class" was offered as a response option. These responses were not included in central tendency calculations.

Appendix K: Classroom Teacher Survey Results by School

Table K1. Professional Development and Support (0/low-4/high): Classroom Teachers by School

Survey Question	School A			School B			School C			School D		
	n	Mode (%)	mean	*n*	Mode (%)	mean	*n*	Mode (%)	mean	*n*	Mode (%)	mean
To what extent did your principal…												
• Communicate expectations for implementing the Integrated Services Pilot?	11	3(54.6)	2.54	9	3(44.4)	2.22	9	3(33.3)	2.00	3	3(66.7)	3.33
• Engage you in conversations about the Integrated Services Pilot?	11	2(45.5)	2.0	9	3(33.3)	1.89	9	3(33.3) 2(33.3)	1.89	3	3(66.7)	2.67
• Support your work with the Integrated Services Pilot?	11	3(45.5)	2.54	9	3(33.3)	1.89	9	3(33.3)	2.33	3	3(66.7)	3.33

To what extent did your instructional coach…												
• Engage you in follow-up after professional development sessions?	11	1(36.4)	2.09	9	0(33.3)	1.22	9	2(44.4)	1.56	3	0(33.3) 2(33.3) 3(33.3)	1.67
• Help you reflect on how students were engaged in learning?	11	4(36.4) 3(36.4)	2.36	9	0(22.2) 1(22.2) 2(22.2) 3(22.2)	1.78	9	2(77.8)	1.78	3	0(33.3) 2(33.3) 3(33.3)	1.67
• Help you think about lesson planning and preparation?	11	4(27.3) 3(27.3) 2(27.3)	2.36	9	0(44.4)	1.44	9	2(55.6)	1.67	3	0(66.7)	1.00
• Model lessons?	11	0(45.5)	1.18	9	0(55.6)	0.889	9	0(66.7)	0.44	3	0(66.7)	0.667

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much

	N			N			N			N		
To what extent did you seek out the support of your instructional coach related to the Integrated Services Pilot?	11	0(45.5)	0.93	9	0(44.4)	0.889	9	1(44.4)	1.00	3	0(66.7)	0.667
To what extent did professional learning communities (PLCs) at your school support the Integrated Services Pilot?	11	3(54.6)	2.36	9	3(33.3)	2.11	9	0(33.3) 2(33.3)	1.33	3	0(33.3) 1(33.3) 2(33.3)	1.00
To what extent did school based professional development support the Integrated Services Pilot?	11	2(45.5)	2.0	8	0(37.5)	1.5	9	1(55.6)	0.778	3	2(66.7)	1.33
To what extent did you have opportunities to work with the University of Minnesota partner related to the Integrated Services Pilot?	10	2(40.0) 0(40.0)	1.0	9	0(77.8)	0.222	9	0(88.9)	0.111	2	0(50.0) 1(50.0)	0.50

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much

Table K2. Collaboration between Classroom and Support Teachers (0/low-4 or 5*/high): Classroom Teachers by School

Survey Question	School A			School B			School C			School D		
	n	Mode (%)	mean	*n*	Mode (%)	mean	*n*	Mode (%)	mean	*n*	Mode (%)	mean
To what extent did opportunities to collaborate with your co-teacher increase this year?	11	2(27.3)	1.64	9	0(33.3)	1.33	9	2(55.6)	1.89	3	2(66.7)	1.33
How often did you and the support services teacher(s) meet to collaborate, plan, and/or reflect on instruction and/or student learning with each other?*												
• Classroom teacher and special education teacher*	9	2(44.4)	3.0	7	2(57.1)	2.67	5	5(25)	4.20	3	4(100)	4.00
• Classroom and English as a second language teacher*	11	2(18.2) 3(18.2) 5(18.2)	2.18	9	3(44.4)	2.11	4	5(25)	4.00	3	NA	NA
• Classroom teacher and supplemental programs teacher*	11	3(45.5)	3.45	7	4(57.1)	2.29	5	3(28.6) 4(28.6)	3.20	3	NA	NA

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much
*Response options: 1-about once per trimester; 2-monthly; 3-twice per month; 4-weekly; 5-two or more times per week; I did not work with this type of teacher – These responses were not included in central tendency calculations.

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To what extent did collaboration between teachers focus on…												
• Curricular and instructional issues?	11	3(63.6)	3.18	9	4(44.4)	2.67	9	3(55.6)	2.67	3	2(66.7)	3.33
• Assessment of student progress to determine next steps?	10	4(50.0)	3.10	9	4(44.4)	2.33	9	3(33.3)	2.569	3	3(66.7)	3.33
• Instructional strategies to engage specific students?	11	3(45.5)	3.00	9	3(55.6)	2.22	9	2(33.3) 3(33.3)	2.33	3	3(66.7)	3.33
• Student behavior challenges?	11	2(36.4)	2.27	9	3(44.4)	2.22	9	2(33.3)	2.00	3	4(33.3) 3(33.3) 1(33.3)	2.67
When planning to what extent do you and your co-teacher share responsibility for…												
• Deciding what to teach?	11	0(27.3) 3(27.3)	1.73	9	0(33.3)	1.33	9	1(44.4)	0.889	3	2(66.7)	3.00
• Deciding how to teach?	11	1(45.5)	1.91	9	2(55.6)	0.556	9	1(44.4)	1.56	3	1(66.7)	0.667
• Differentiation of instruction?	11	1(36.4)	2.09	9	3(33.3)	1.67	8	3(50.0)	2.75	3	1(33.3) 2(33.3) 3(33.3)	2.00
• Determining how student learning will be assessed?	11	1(36.4)	1.73	9	2(44.4)	1.11	9	1(44.4) 2(44.4)	1.33	3	1(33.3) 2(33.3) 3(33.3)	2.00

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much

*Response options: 1-about once per trimester; 2-monthly; 3-twice per month; 4-weekly; 5-two or more times per week;

I did not work with this type of teacher – These responses were not included in central tendency calculations.

To what extent do you and your co-teacher											
• Have a shared discipline philosophy?	11	3(45.5) 4(45.5)	3.45	9	3(55.5)	1.67	9	3(33.3) 4(33.3)	2.56	3	1(33.3) 2(33.3) 4(33.3)	2.33
• Agree on discipline procedures and share responsibility for student discipline?	11	3(45.5)	3.09	9	3(44.4)	1.67	9	1(55.6)	2.11	3	1(33.3) 3(33.3) 4(33.3)	2.67
• Share the monitoring of on-task behavior during instruction?	11	3(45.5)	2.73	9	2(44.4)	1.33	9	1(44.4)	2.33	3	0(33.3) 2(33.3) 4(33.3	2.00

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much
*Response options: 1-about once per trimester; 2-monthly; 3-twice per month; 4-weekly; 5-two or more times per week;
I did not work with this type of teacher – These responses were not included in central tendency calculations.

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Table K3. Impact on Teacher Knowledge and Practice (0/low-4/high): Classroom Teachers by School

Survey Question	School A			School B			School C			School D		
	n	Mode (%)	mean	*n*	Mode (%)	mean	*n*	Mode (%)	mean	*n*	Mode (%)	mean
To what extent did the Integrated Services Pilot provide opportunities to increase your understanding of effective learning strategies for students receiving support services?[*]												
• Special Education Students	9	2(44.4)	1.67	6	2(50.0)	1.83	6	1(33.3) 2(33.3) 3(33.3)	2.00	3	2(66.7)	2.33
• English Learners	8	2(37.5) 3(37.5)	2.00	7	1(28.6) 2(28.6)	1.29	5	0(40.0)	1.20	3	NA	NA
• Supplemental Program Students	11	2(54.5)	1.91	7	1(28.6) 2(28.6)	1.86	6	2(50.0)	1.17	1	2(66.7)	2.00
To what extent did co-teaching or teacher collaboration increase the alignment of instruction between the classroom teacher and the support services teachers	11	3(45.5)	2.82	9	3(33.3)	2.11	9	3(77.8)	2.89	3	2(66.7)	2.33
I feel more successful in my co-teaching role this year than I did last year.	11	2(36.4)	2.09	8	0(37.5)	1.38	9	2(33.3)	2.00		0(33.3) 1(33.3) 3(33.3)	1.33

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much

Table K4. Classroom Structures: Classroom Teachers by School

Survey Question	School A			School B			School C			School D		
	n	Mode (%)	mean	*n*	Mode (%)	mean	*n*	Mode (%)	mean	*n*	Mode (%)	mean
To what extent did the classroom schedule facilitate teaching together?	11	2(54.6)	2.09	9	2(44.4)	1.57	9	2(66.7)	1.19	3	0(33.3) 2(33.3) 3(33.3)	1.67
Thinking about the one support staff (or classroom teacher) you spent the most time teaching with, how often did you use the following "structures" in working together?*												
• Each teacher teaches a small group*	11	5(72.7)	4.18	9	5(66.7)	4.22	9	5(55.6)	4.00	3	5(100)	5.00
• Teaching a lesson together*	11	4(18.2) 1(18.2)	1.36	9	0(77.8)	0.222	9	0(55.6)	0.778	3	2(66.6)	1.33
• Support teacher works one-on-one with a student*	10	5(50.0)	3.55	8	5(37.5)	3.25	9	2(44.4)	2.88	3	5(33.3) 4(33.3) 0(33.3)	3.00
• One teacher teaches the class while the other moves around to assist students*	11	0(45.5)	2.00	9	0(66.7)	0.889	9	4(44.4)	2.86	3	2(33.3) 1(33.3) 0(33.3)	1.00

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much
* Response options: 0-never; 1-once a month; 2-several times a month; 3-once a week; 4-several times a week; 5-daily

When using small group instruction, to what extent were students grouped in the following manner?*											
• By student groups (e.g., all the EL or special education students together) *	9	5(55.6)	3.67	9	5(55.6)	4.22	9	5(33.3) 0(33.3)	2.67	3	5(33.3) 4(33.3) 0(33.3)	3.00
• By academic level (e.g., DRA level) *	11	5(72.7)	4.36	9	5(88.9)	4.67	9	5(77.8)	4.22	3	5(100)	5.00
• Mixed groups (e.g., multiple academic levels combined in one group) *	9	5(44.4)	3.33	9	5(33.3) 0(33.3)	3.00	9	5(22.2) 3(22.2) 2(22.2) 0(22.2)	2.67	3	2(66.7)	1.33

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much
* Response options: 0-never; 1-once a month; 2-several times a month; 3-once a week; 4-several times a week; 5-daily

Table K5. Impact on Student Achievement and Engagement (0/low-4/high): Classroom Teachers by School

Survey Question	School A			School B			School C			School D		
	n	Mode (%)	mean	*n*	Mode (%)	mean	*n*	Mode (%)	mean	*n*	Mode (%)	mean
To what extent did participation increase in the general classroom instruction with…*												
• Special Education Students?*	10	2(40.0)	1.90	8	2(37.5)	1.25	8	3(37.5)	1.88	3	2(33.3) 3(33.3) 4(33.3)	3.00
• English Learners*?	11	2(27.3) 3(27.3)	2.18	9	2(22.2) 3(22.2)	1.67	8	2(50.0)	1.38	3	NA	NA
• Supplemental Program Students? *	11	2(36.4) 3(36.4)	2.64	8	2(37.5) 3(37.5)	2.13	7	2(57.1)	2.00	1	2(100.)	2.00
• Students not receiving support services? *	11	2(45.5)	2.64	8	2(50.0)	1.75	7	2(42.9)	2.00	3	2(66.7)	1.33
To what extent did the amount of time students received pull-out services decrease? *												
• Special Education Students*	10	4(50.0)	2.60	7	4(28.6)	2.00	9	3(33.3)	2.11	3	4(100)	4.00
• English Learners*	11	4(63.6)	2.73	9	0(44.4)	1.11	9	3(44.4)	1.89	3	NA	NA
• Supplemental Program Students*	11	4(63.6)	3.09	7	0(42.9)	1.57	9	1(33.3)	1.22	1	2(100)	2.00

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much
* "None of these students were in my class" was offered as a response option. These responses were not included in central tendency calculations.

To what extent did Special Education Students…[*]											
• Become familiar and comfortable with classroom routines?[*]	3	4(36.4)	2.36	9	2(22.2) 3(22.2) 4(22.2)	2.00	9	3(33.3)	2.11	3	4(66.7)	3.67
• Increase their ability to work and interact with peers?[*]	3	3(45.5)	2.09	9	2(22.2) 3(22.2)	1.67	9	3(44.4)	1.89	3	3(66.7)	3.00
• Increase their knowledge related to core curricular areas?[*]	3	3(45.5)	2.09	9	2(33.3)	1.56	9	1(33.3)	1.22	2	2(100)	2.00
To what extent did English Learners…[*]											
• Become familiar and comfortable with classroom routines?[*]	11	4(54.6)	2.27	9	3(33.3)	2.11	9	3(33.3)	2.00	3	NA	NA
• Increase their ability to work and interact with peers?[*]	11	4(45.5)	2.18	9	4(33.3)	2.22	9	4(33.3)	2.00	3	NA	NA
• Increase their knowledge related to core curricular areas?[*]	11	4(45.5)	2.18	9	2(33.3)	2.22	9	3(22.2) 4(22.2)	1.78	3	NA	NA

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much
[*] "None of these students were in my class" was offered as a response option. These responses were not included in central tendency calculations.

To what extent did Supplemental Program Students…*												
• Become familiar and comfortable with classroom routines?*	11	4(72.7)	3.64	9	3(44.4)	3.00	9	3(44.4)	2.67	1	2(100)	2.00
• Increase their ability to work and interact with peers?*	11	4(54.6)	3.45	9	3(66.7)	2.89	9	3(55.6)	2.22	1	2(100)	2.00
• Increase their knowledge related to core curricular areas?*	11	3(45.5) 4(45.5)	3.36	9	3(66.7)	2.89	9	3(44.4)	2.00	1	2(100)	2.00
To what extent did learning experiences for students receiving support services become more aligned with classroom instruction?*												
• Special Education Students*	10	3(40.0)	2.30	7	2(28.6)	2.29	8	3(37.5)	1.63	3	3(66.7)	3.33
• English Learners*	10	4(40.0)	2.20	8	1(37.5)	1.88	9	3(33.3)	1.89	3	NA	NA
• Supplemental Program Students*	10	3(50.0)	3.00	6	3(33.3) 4(33.3)	2.83	9	3(33.3)	2.00	1	2(100)	2.00

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much
* "None of these students were in my class" was offered as a response option. These responses were not included in central tendency calculations.

Overall, to what extent did the following students benefit from the Integrated Services Pilot?											
• Special Education Students[*]	10	2(50.0)	2.60	7	3(42.9)	2.43	7	1(42.9) 2(42.9)	1.71	3	3(66.7)	3.33
• English Learners[*]	9	3(44.4)	2.67	8	3(37.5)	2.38	6	2(33.3) 3(33.3)	2.5	3	NA	NA
• Supplemental Program Students[*]	11	3(63.6)	3.36	8	3(50.0)	2.50	6	2(66.8)	2.33	2	1(50.0) 3(50.0)	1.50
• Students not receiving support services[*]	11	3(54.6)	2.64	8	2(37.5)	1.38	6	2(66.7)	2.33	3	2(66.7)	2.33

Response options: 0-not at all; 1-a little; 2-somewhat; 3-much; 4-very much
[*] "None of these students were in my class" was offered as a response option. These responses were not included in central tendency calculations.

Appendix L: Responses to Open Response Teacher Survey Questions

Table L1. Single greatest strength – Classroom Teachers

Greatest Strength	Teacher Responses N=28 n (%)	Sample Open-ended Comments
Increased student support	9 (32%)	• *More students are receiving service* • *The students get a lot of one-on-one/small group instruction* • *Students are getting MORE guided reading instruction from both teachers* • *Interventions that are helpful to many students*
Inclusion	7 (25%)	• *Inclusion of special education students* • *Students are in the classroom and not missing out on core content instruction* • *All students got the message that multiple teachers care about them and their success* • *Students are included in daily curriculum with modified lessons*
Collaboration	5 (18%)	• *Ability to collaborate* • *Teamwork together to help students* • *More minds put together to help student achievement* • *Sharing the work*

Table L2. Single greatest strength – Support Services Teachers

Greatest Strength	Teacher Responses N=22 n (%)	Sample Open-ended Comments
Inclusion	8 (36%)	• *Students are able to be a contributing part of their classroom* • *Students are grouped by ability not label* • *There was no pull-out so students felt a part of the class* • *Keeps special education students more involved with mainstream peer and curriculum*
Collaboration	7 (32%)	• *Teamwork and shared curriculum* • *Sharing ideas, knowledge, students, challenges, and the learning* • *Collaboration with classroom teachers felt like a team* • *Shared focus*

Table L3. Single greatest challenge – Classroom Teachers

Greatest Challenge	Teacher Responses N=29 n (%)	Sample Open-ended Comments
Too little time for collaborative planning	16 (55%)	• *The time for teachers to collaborate is the biggest challenge* • *Time to collaborate with co-teachers* • *No time to collaborate with supplemental teachers because of their busy schedules*
Classroom environment	6 (21%)	• *Noise level, behavior issues* • *Meeting the students who would benefit from a quieter environment* • *Space, distractions by class or students*
Scheduling of the day	4 (14%)	• *My co-teacher cannot spend the entire time with me during a lesson* • *Following such a set schedule every day*

Table L4. Single greatest challenge – Support Services Teachers

Greatest Challenge	Teacher Responses N=22 n (%)	Sample Open-ended Comments
Too little time for collaborative planning	9 (41%)	• *More collaboration time is needed* • *Finding time and support to collaborate with teachers* • *Finding time to collaborate to move towards co-teaching*
Scheduling of the day	5 (23%)	• *Scheduling: transitions rooms, grade levels* • *Scheduling- even when the building schedule works, the classrooms are not always doing what is schedule for that time*
Classroom environment	3 (14%)	• *Space issues in classrooms* • *Behavior/distractibility of special education students*

Table L5. One idea for improvement – Classroom Teachers

Idea for Improvement	Teacher Responses N=24 n (%)	Sample Open-ended Comments
Increased collaboration time	13 (54%)	• *A common collaboration time would be the biggest improvement* • *Scheduled chunks of collaboration time* • *More time to collaborate with co-teachers*
Consistent teams	3 (13%)	• *No rotation of special education teachers from year to year* • *Keep partnerships together for more than one year*

Table L6. One idea for improvement – Support Services Teachers

Idea for Improvement	Teacher Responses N=22 n (%)	Sample Open-ended Comments
Increased collaboration time	8 (36%)	• *Teamwork together to help students* • *More minds put together to help student achievement* • *Sharing the work*
Consideration for support services teachers	3 (14%)	• *Consideration for supplemental teachers by classroom teachers* • *Communicating to classroom teachers that their room is a shared space* • *More input from special education and ESL staff when working with students who have case managers*
Return to a pull-out model	3 (14%)	• *I want my kids pulled back into my classroom* • *Go back to ELL groupings and special education groupings*

Appendix M: Special Education Services Delivered in Classroom and Resource Room

Rank	School (N = 25, Grades 4 & 5 School D were reported separately)	% of Services Delivered in the GE Classroom (%)	% of Services Delivered in Resource Classrooms (%)
1	School B	93.33	6.67
2		84 .48	15.52
3	School A	81.40	18.60
4		60.71	39.29
5		55.84	44.16
6	School C	53.52	46.48
7		51.06	48.94
8		50.59	49.41
9		47.37	52.63
10		44.44	55.56
11		39.76	60.24
12		37.88	62.12
13		37.78	62.22
14	School D Pilot	37.50	62.50
15		35.14	64.86
16		29.79	70.21
17		25.00	75.00
18		22.12	77.88
19		17.91	82.09
20		15.38	84.62
21		14.12	85.88
22		9.38	90.63
23	School D Overall	9.30	90.70
24		2.55	95.45
25		4.17	95.83

Appendix N: Words Teachers Used to Describe their Integrated Services Experience in Year 2

Classroom Teachers			Support Services Teachers		
Positive	Neutral/Other	Negative	Positive	Neutral/Other	Negative
Acceptable	Challenging (2)	Confusing (2)	Adaptable	Challenging (3)	Change
Beneficial (2)	Mixed	Crowded room	Belonging	Experimental	Confusing
Collaborative (3)	Okay (2)	Demanding	Beneficial		Difficult
Cooperative (2)		Frustrating (2)	Commonsense		Frustrating (4)
Differentiated		Minimal	Differentiating		Invisible
Effective		Not a Priority	Diverse (2)		Time consuming
Enriching		Overwhelming	Effective		Waste of time
Exciting		Same	Enjoyable		
Good		Time (3)	Enlightening		Not good for low
Great		Unchanged	Exciting		learner
Helpful		Unclear	Fun		
Inclusive		Expectations	Helpful (2)		Too many grade
Integrated		Vauge	Inspiring		level assignments
Intentional		Weak	Logical		for SpEd students
Partnership			Organized		
Positive			Positive		
Productive			Productive		
Rewarding			Professional		
Successful (3)			Satisfied		
Supportive (2)			Smoother		
Useful			Successful		
Worthwhile			Team work		

Appendix O: State Comprehensive Assessment - Reading Percent Proficient

Table O1. Percent Proficient for All Students, Students Qualifying for Free or Reduced (F/R) Lunch and Students Not Qualifying for F/R on the State Comprehensive Assessment (SCA) - Reading

SCA Reading		All					F/R					Non-F/R				
		2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change
District	Grade 3	77%	80%	80%	61%	5%	65%	65%	70%	47%	8%	83%	88%	86%	68%	4%
	Grade 4	75%	79%	80%	58%	6%	60%	69%	67%	42%	12%	83%	85%	87%	68%	5%
	Grade 5	79%	83%	84%	68%	6%	67%	72%	73%	51%	9%	84%	89%	89%	77%	6%
School A	Grade 3	64%	73%	67%	51%	4%	41%	59%	59%	45%	43%	85%	89%	74%	57%	-12%
	Grade 4	66%	76%	76%	48%	16%	59%	68%	66%	40%	13%	77%	84%	86%	56%	11%
	Grade 5	74%	64%	77%	63%	4%	66%	51%	71%	49%	8%	80%	78%	83%	76%	4%
School B	Grade 3	80%	80%	76%	56%	-5%	77%	67%	72%	51%	-7%	82%	91%	80%	61%	-2%
	Grade 4	71%	80%	91%	60%	28%	58%	79%	88%	45%	52%	82%	82%	94%	77%	15%
	Grade 5	73%	86%	79%	69%	8%	67%	86%	72%	55%	8%	82%	86%	89%	85%	9%
School C	Grade 3		81%	82%	69%	1%		63%	65%	53%	4%		90%	90%	75%	1%
	Grade 4		82%	82%	59%	0%		79%	63%	36%	-20%		94%	92%	72%	-2%
	Grade 5		87%	81%	68%	-7%		81%	73%	40%	-9%		91%	85%	79%	-7%
School D	Grade 3	84%	87%	82%	76%	-2%	88%	86%	77%	69%	-12%	84%	88%	84%	77%	0%
	Grade 4	87%	80%	89%	65%	2%	80%	88%	83%	60%	3%	88%	79%	90%	66%	2%
	Grade 5	89%	93%	85%	78%	-4%	85%	87%	84%	69%	-2%	90%	94%	85%	80%	-5%

% Change represents % Magnitude of Change from 2010 Proficiency Rate to 2012 Proficiency Rate

The % magnitude of change in proficiency $= \dfrac{\%\ proficient\ in\ 2012 - \%\ proficient\ in\ 2010}{\%\ proficient\ in\ 2010} \times 100$

In 2013 a new State Comprehensive Assessment was administered to reflect the Common Core Standards. Thus, the magnitude of change was measured using the change from 2010 to 2012.

Table O2. Percent Proficient for All Students, Students Receiving SpEd Services and Students Not Receiving SpEd Services on the State Comprehensive Assessment (SCA) - Reading

SCA Reading		All					SpEd					Non-SpEd				
		2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change
District	Grade 3	77%	80%	80%	61%	5%	46%	52%	52%	35%	13%	81%	84%	85%	64%	5%
	Grade 4	75%	79%	80%	58%	6%	46%	46%	48%	34%	6%	79%	85%	85%	63%	7%
	Grade 5	79%	83%	84%	68%	6%	50%	54%	57%	39%	14%	84%	88%	88%	73%	5%
School A	Grade 3	64%	73%	67%	51%	4%	14%	33%	40%	17%	180%	70%	78%	71%	54%	2%
	Grade 4	66%	76%	76%	48%	16%	69%	33%	31%	17%	-56%	65%	82%	84%	53%	30%
	Grade 5	74%	64%	77%	63%	4%	44%	40%	60%	33%	35%	84%	70%	80%	67%	-5%
School B	Grade 3	80%	80%	76%	56%	-5%	44%	83%	47%	36%	7%	92%	80%	81%	59%	-12%
	Grade 4	71%	80%	91%	60%	28%	44%	38%	67%	7%	52%	79%	94%	92%	67%	18%
	Grade 5	73%	86%	79%	69%	8%	33%	47%	35%	75%	5%	91%	94%	93%	68%	2%
School C	Grade 3		81%	82%	69%	1%		50%	53%	33%	6%		85%	86%	75%	1%
	Grade 4		82%	82%	59%	0%		44%	65%	36%	48%		88%	85%	64%	-3%
	Grade 5		87%	81%	68%	-7%		36%	50%	33%	37%		92%	86%	76%	-7%
School D	Grade 3	84%	87%	82%	76%	-2%	45%	72%	52%	70%	16%	89%	90%	88%	76%	-2%
	Grade 4	87%	80%	89%	65%	2%	53%	46%	65%	33%	23%	90%	86%	93%	70%	3%
	Grade 5	89%	93%	85%	78%	-4%	65%	65%	54%	46%	-17%	95%	96%	90%	83%	-5%

% Change represents % Magnitude of Change from 2010 Proficiency Rate to 2012 Proficiency Rate

The % magnitude of change in proficiency = $\frac{\% \, proficient \, in \, 2012 - \% \, proficient \, in \, 2010}{\% \, proficient \, in \, 2010} \times 100$

In 2013 a new State Comprehensive Assessment was administered to reflect the Common Core Standards. Thus, the magnitude of change was measured using the change from 2010 to 2012.

Table O3. Percent Proficient for All Students, Students Identified for ESL Services and Students Not Identified for ESL Services on the State Comprehensive Assessment (SCA) - Reading

SCA Reading		All					ESL					Non-ESL				
		2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change
District	Grade 3	77%	80%	80%	61%	5%	57%	59%	60%	33%	5%	79%	82%	83%	65%	5%
	Grade 4	75%	79%	80%	58%	6%	46%	58%	55%	30%	21%	78%	82%	82%	62%	6%
	Grade 5	79%	83%	84%	68%	6%	47%	61%	58%	33%	23%	81%	85%	86%	71%	6%
School A	Grade 3	64%	73%	67%	51%	4%	47%	90%	63%	50%	34%	69%	70%	68%	51%	-1%
	Grade 4	66%	76%	76%	48%	16%	62%	63%	80%	31%	30%	67%	78%	75%	51%	13%
	Grade 5	74%	64%	77%	63%	4%	50%	67%	50%	50%	0%	78%	64%	79%	65%	1%
School B	Grade 3	80%	80%	76%	56%	-5%	67%	60%	62%	41%	-8%	82%	82%	78%	59%	-5%
	Grade 4	71%	80%	91%	60%	28%	20%	80%	82%	42%	309%	75%	80%	92%	62%	23%
	Grade 5	73%	86%	79%	69%	8%	75%	63%	56%	50%	-26%	73%	88%	82%	71%	12%
School C	Grade 3		81%	82%	69%	1%		71%	52%	29%	-27%		82%	87%	71%	5%
	Grade 4		82%	82%	59%	0%		65%	42%	19%	-36%		86%	86%	66%	0%
	Grade 5		87%	81%	68%	-7%		53%	47%	8%	-11%		92%	86%	74%	-6%
School D	Grade 3	84%	87%	82%	76%	-2%						84%	87%	82%	76%	-2%
	Grade 4	87%	80%	89%	65%	2%						87%	80%	89%	65%	2%
	Grade 5	89%	93%	85%	78%	-4%						89%	93%	85%	78%	-5%

% Change represents % Magnitude of Change from 2010 Proficiency Rate to 2012 Proficiency Rate

The % magnitude of change in proficiency = $\frac{\% \ proficient \ in \ 2012 - \% \ proficient \ in \ 2010}{\% \ proficient \ in \ 2010}$ x 100

In 2013 a new State Comprehensive Assessment was administered to reflect the Common Core Standards. Thus, the magnitude of change was measured using the change from 2010 to 2012.

Table O4. Summary of Percent Magnitude of Change in SCA Proficiency Rate from 2010 to 2012 – Reading

SCA Reading		% Change from 2010 Proficiency Rate to 2012 Proficiency Rate						
		All	F/R	Non-F/R	SpEd	Non-SpEd	ESL	Non-ESL
District	Grade 3	5%	8%	4%	13%	5%	5%	5%
	Grade 4	6%	12%	5%	6%	7%	21%	6%
	Grade 5	6%	9%	6%	14%	5%	23%	6%
School A	Grade 3	4%	43%	-12%	180%	2%	34%	-1%
	Grade 4	16%	13%	11%	-56%	30%	30%	13%
	Grade 5	4%	8%	4%	35%	-5%	0%	1%
School B	Grade 3	-5%	-7%	-2%	7%	-12%	-8%	-5%
	Grade 4	28%	52%	15%	52%	18%	309%	23%
	Grade 5	8%	8%	9%	5%	2%	-26%	12%
School C*	Grade 3	1%	4%	1%	6%	1%	-27%	5%
	Grade 4	0%	-20%	-2%	48%	-3%	-36%	0%
	Grade 5	-7%	-9%	-7%	37%	-7%	-11%	-6%
School D	Grade 3	-2%	-12%	0%	16%	-2%		-2%
	Grade 4	2%	3%	2%	23%	3%		2%
	Grade 5	-4%	-2%	-5%	-17%	-5%		-5%

The percentage change for School C was calculated using proficiency rates from 2011 and 2012. School C did not exist as a school in 2010, therefore there is no proficiency data for 2010.

% Change represents % Magnitude of Change from 2010 Proficiency Rate to 2012 Proficiency Rate

The % magnitude of change in proficiency = $\frac{\% \text{ proficient in } 2012 - \% \text{ proficient in } 2010}{\% \text{ proficient in } 2010}$ x 100

In 2013 a new State Comprehensive Assessment was administered to reflect the Common Core Standards. Thus, the magnitude of change was measured using the change from 2010 to 2012.

Table O5. Magnitude of Change in Proficiency Gap from 2010 – 2012 on SCA II – Reading

School	Grade 3			Grade 4			Grade 5		
	N		% Change	N		%	N		%
	2010	2012		2010	2012		2010	2012	
Free & Reduced									
District	970	994	-8%	935	978	-12%	923	965	-7%
School A	34	39	-64%	41	41	+8%	29	34	-15%
School B	31	61	+79%	33	48	-73%	33	50	+16%
School C*	43*	49	-7%	42*	49	+84%	41*	45	+11%
School D	Not included in Pilot			25	29	-10%	34	31	-74%
SpEd									
District	351	392	-5%	349	362	+9%	422	425	-7%
School A	7	10	-44%	13	13	+1316%	18	10	-49%
School B	16	17	-29%	16	6	-26%	18	20	+1%
School C*	16*	17	-7%	16*	20	-55%	11*	20	-35%
School D	Not included in Pilot			15	26	-25%	34	28	+23%
ESL									
District	210	315	+5%	234	259	-16%	210	238	-18%
School A	10	16	-75%	13	10	-190%	10	4	+3%
School B	4	13	+6%	5	11	-81%	4	9	+1572%
School C	14*	21	+216%	20*	12	+114%	15*	19	+1%
School D	Not included in Pilot			0	0	NA**	3	0	NA**

A negative value indicates a decrease in the proficiency gap.

*Data from 2011 was used to provide student counts and calculate % change for School C.   School C opened Fall 2010 so earlier school data is not available.
**NA = School D did not have any students in this student group for the entire pilot.
- Grade three at School D did not participate in the pilot.
- The proficiency gap equals the proficiency level of students not included in a particular student subgroup minus the proficiency level of students identified for the student subgroup.
- For example, students not qualifying for F/R minus the proficiency level of students qualifying for F/R services
    Proficiency Gap = Non-F/R % Proficient – F/R % Proficient.

- Proficiency Gap % Change = $\frac{\text{2012 Proficiency Gap} - \text{2010 Proficiency Gap}}{\text{2010 Proficiency Gap}}$ x100
- The 2013 proficiency rates for SCA III in reading were not included in these calculations, the SCA III administered in 2013 was aligned to new state standards in reading (aligned to the Common Core)

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Appendix P: Measures of Academic Progress (MAP) Percent of Students Meeting Reading Growth Targets Fall to Fall

Table P1. Percent of All Students, Students Qualifying for Free or Reduced (F/R) Lunch and Students Not Qualifying for F/R Meeting Fall to Fall MAP Growth Targets for Reading

MAP Reading		All					F/R					Non-F/R				
		2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change
District	All	62%	63%	62%	65%	5%	59%	61%	58%	61%	5%	64%	65%	64%	67%	5%
	Grade 2	65%	64%	61%	67%	4%	58%	59%	54%	62%	6%	68%	66%	65%	70%	3%
	Grade 3	59%	60%	62%	68%	16%	56%	54%	56%	62%	11%	60%	63%	66%	71%	18%
	Grade 4	62%	67%	64%	64%	3%	59%	68%	63%	62%	4%	64%	67%	65%	65%	2%
	Grade 5	63%	63%	61%	62%	-1%	61%	64%	59%	59%	-2%	64%	62%	62%	64%	0%
School A	All	61%	61%	64%	68%	12%	57%	62%	62%	67%	18%	65%	60%	66%	69%	7%
	Grade 2	58%	57%	64%	80%	38%	48%	56%	56%	81%	67%	69%	59%	70%	80%	16%
	Grade 3	68%	64%	60%	63%	-7%	65%	57%	58%	69%	6%	72%	71%	61%	58%	-19%
	Grade 4	58%	63%	66%	63%	10%	66%	71%	69%	56%	-14%	46%	57%	63%	70%	51%
	Grade 5	57%	60%	66%	65%	14%	42%	65%	62%	63%	48%	67%	55%	68%	68%	1%
School B	All	68%	64%	64%	62%	-9%	64%	69%	60%	60%	-6%	72%	59%	69%	64%	-11%
	Grade 2	57%	65%	71%	86%	51%	35%	76%	70%	67%	89%	67%	52%	71%	100%	50%
	Grade 3	69%	63%	46%	58%	-16%	69%	63%	35%	50%	-28%	68%	63%	60%	64%	-6%
	Grade 4	66%	72%	70%	73%	10%	62%	77%	65%	77%	24%	70%	66%	75%	68%	-2%
	Grade 5	83%	58%	71%	54%	-35%	79%	60%	73%	51%	-35%	88%	56%	69%	57%	-35%
School C	All		67%	63%	67%	0%		64%	57%	62%	-3%		69%	65%	69%	1%
	Grade 2		67%	63%	65%	-3%		64%	55%	66%	3%		68%	66%	65%	-5%
	Grade 3		62%	59%	73%	17%		53%	48%	66%	24%		66%	64%	75%	14%
	Grade 4		76%	70%	62%	-18%		80%	68%	63%	-22%		74%	70%	62%	-17%
	Grade 5		64%	60%	70%	10%		58%	59%	56%	-3%		67%	60%	76%	13%
School D	All	62%	63%	63%	70%	12%	64%	67%	58%	68%	7%	62%	62%	64%	70%	14%
	Grade 2	65%	73%	59%	74%	13%	65%	79%	52%	68%	5%	65%	71%	60%	75%	14%
	Grade 3	53%	68%	60%	79%	49%	54%	70%	55%	82%	51%	53%	67%	61%	79%	48%
	Grade 4	65%	57%	73%	67%	4%	74%	53%	72%	63%	-15%	63%	57%	74%	68%	7%
	Grade 5	66%	57%	60%	59%	-11%	63%	67%	59%	54%	-13%	66%	56%	60%	59%	-11%

% Change represents percent Magnitude of Change when the percentage of students meeting MAP growth targets using Fall 2009 – Fall 2010 growth is compared to the percentage of students meeting MAP growth targets for Fall 2012 – Fall 2013 growth.

The % magnitude of change in Fall to Fall growth = $\dfrac{\% \text{ of students meeting growth targets in Fall } 2013 - \% \text{ of students meeting growth targets in Fall } 2010}{\% \text{ of students meeting growth targets in Fall } 2010} \times 100$

Table P2. Percent of All Students, Students Identified for SpEd Service and Students Not Identified for SpEd Service Meeting Fall to Fall MAP Growth Targets for Reading

MAP Reading		All					SpEd					Non-SpEd				
		2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change
District	All	62%	63%	62%	65%	5%	54%	53%	56%	58%	8%	63%	65%	63%	66%	5%
	Grade 2	65%	64%	61%	67%	4%	47%	46%	48%	53%	15%	67%	66%	63%	69%	3%
	Grade 3	59%	60%	62%	68%	16%	49%	47%	54%	61%	23%	60%	62%	64%	69%	14%
	Grade 4	62%	67%	64%	64%	3%	57%	61%	62%	61%	7%	63%	68%	64%	65%	3%
	Grade 5	63%	63%	61%	62%	-1%	59%	56%	58%	54%	-8%	64%	63%	61%	63%	0%
School A	All	61%	61%	64%	68%	12%	49%	52%	44%	61%	24%	63%	62%	66%	69%	9%
	Grade 2	58%	57%	64%	80%	38%	0%	38%	50%	67%	67%	67%	60%	65%	81%	22%
	Grade 3	68%	64%	60%	63%	-7%	78%	33%	33%	50%	-36%	67%	68%	63%	65%	-4%
	Grade 4	58%	63%	66%	63%	10%	43%	56%	44%	50%	17%	62%	64%	69%	66%	6%
	Grade 5	57%	60%	66%	65%	14%	60%	69%	50%	78%	30%	57%	57%	68%	64%	12%
School B	All	68%	64%	64%	62%	-9%	61%	53%	63%	57%	-6%	70%	66%	64%	62%	-11%
	Grade 2	57%	65%	71%	86%	51%	25%	27%	77%	50%	100%	59%	70%	70%	100%	69%
	Grade 3	69%	63%	46%	58%	-16%	42%	60%	33%	54%	29%	77%	63%	48%	58%	-24%
	Grade 4	66%	72%	70%	73%	10%	73%	54%	67%	62%	-15%	65%	79%	70%	74%	15%
	Grade 5	83%	58%	71%	54%	-35%	82%	67%	78%	57%	-30%	83%	56%	69%	53%	-36%
School C	All		67%	63%	67%	0%		60%	57%	50%	-17%		68%	64%	70%	3%
	Grade 2		67%	63%	65%	-3%		60%	65%	46%	-24%		68%	63%	67%	-1%
	Grade 3		62%	59%	73%	17%		50%	53%	47%	-5%		64%	60%	78%	21%
	Grade 4		76%	70%	62%	-18%		73%	63%	57%	-23%		76%	71%	63%	-17%
	Grade 5		64%	60%	70%	10%		55%	47%	48%	-12%		65%	62%	75%	16%
School D	All	62%	63%	63%	70%	12%	56%	53%	72%	60%	7%	63%	64%	61%	71%	13%
	Grade 2	65%	73%	59%	74%	13%	62%	59%	58%	53%	-14%	66%	74%	59%	76%	16%
	Grade 3	53%	68%	60%	79%	49%	35%	69%	62%	67%	91%	56%	67%	59%	81%	45%
	Grade 4	65%	57%	73%	67%	4%	77%	46%	89%	72%	-6%	64%	58%	71%	66%	4%
	Grade 5	66%	57%	60%	59%	-11%	60%	44%	81%	47%	-22%	67%	59%	57%	60%	-10%

% Change represents percent Magnitude of Change when the percentage of students meeting MAP growth targets using Fall 2009 – Fall 2010 growth is compared to the percentage of students meeting MAP growth targets for Fall 2012 – Fall 2013 growth.

The % magnitude of change in Fall to Fall growth = $\frac{\% \text{ of students meeting growth targets in Fall } 2013 - \% \text{ of students meeting growth targets in Fall } 2010}{\% \text{ of students meeting growth targets in Fall } 2010} \times 100$

Table P3. Percent of All Students, Students Identified for ESL Service and Students Not Identified for ESL Service Meeting Fall to Fall MAP Growth Targets for Reading

MAP Reading		All					ESL					Non-ESL				
		2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change
District	All	62%	63%	62%	65%	5%	59%	60%	57%	63%	8%	62%	64%	63%	65%	5%
	Grade 2	65%	64%	61%	67%	4%	63%	59%	55%	67%	6%	65%	64%	62%	67%	3%
	Grade 3	59%	60%	62%	68%	16%	58%	50%	55%	60%	3%	59%	61%	63%	69%	16%
	Grade 4	62%	67%	64%	64%	3%	54%	67%	63%	60%	11%	63%	67%	64%	64%	2%
	Grade 5	63%	63%	61%	62%	-1%	61%	67%	55%	67%	9%	63%	62%	61%	62%	-1%
School A	All	61%	61%	64%	68%	12%	67%	71%	58%	67%	0%	60%	59%	65%	68%	14%
	Grade 2	58%	57%	64%	80%	38%	75%	73%	25%	70%	-7%	55%	53%	69%	82%	48%
	Grade 3	68%	64%	60%	63%	-7%	69%	70%	67%	67%	-3%	68%	63%	58%	63%	-8%
	Grade 4	58%	63%	66%	63%	10%	70%	43%	78%	50%	-29%	56%	65%	65%	65%	16%
	Grade 5	57%	60%	66%	65%	14%	50%	89%	50%	100%	100%	58%	56%	67%	64%	10%
School B	All	68%	64%	64%	62%	-9%	62%	74%	52%	56%	-9%	69%	63%	65%	62%	-10%
	Grade 2	57%	65%	71%	86%	51%	50%	60%	53%		7%	57%	66%	74%	86%	50%
	Grade 3	69%	63%	46%	58%	-16%	67%	80%	27%	43%	-36%	69%	61%	49%	59%	-15%
	Grade 4	66%	72%	70%	73%	10%	50%	89%	57%	67%	33%	67%	70%	71%	73%	10%
	Grade 5	83%	58%	71%	54%	-35%	100%	67%	86%	67%	-33%	82%	57%	69%	53%	-35%
School C	All		67%	63%	67%	0%		68%	43%	62%	-8%		67%	65%	68%	1%
	Grade 2		67%	63%	65%	-3%		75%	40%	79%	5%		66%	64%	64%	-3%
	Grade 3		62%	59%	73%	17%		36%	33%	100%	175%		65%	64%	73%	12%
	Grade 4		76%	70%	62%	-18%		83%	70%	33%	-60%		75%	70%	64%	-14%
	Grade 5		64%	60%	70%	10%		64%	40%	50%	-22%		64%	63%	71%	11%
School D	All	62%	63%	63%	70%	12%						62%	63%	63%	70%	12%
	Grade 2	65%	73%	59%	74%	13%						65%	72%	59%	74%	13%
	Grade 3	53%	68%	60%	79%	49%						53%	68%	60%	79%	49%
	Grade 4	65%	57%	73%	67%	4%						65%	56%	73%	67%	4%
	Grade 5	66%	57%	60%	59%	-11%						66%	57%	60%	59%	-11%

% Change represents percent Magnitude of Change when the percentage of students meeting MAP growth targets using Fall 2009 – Fall 2010 growth is compared to the percentage of students meeting MAP growth targets for Fall 2012 – Fall 2013 growth.

The % magnitude of change in Fall to Fall growth = $\underline{\% \text{ of students meeting growth targets in Fall } 2013 - \% \text{ of students meeting growth targets in Fall } 2010}$ x 100
$\% \text{ of students meeting growth targets in Fall } 2010$

Table P4. Summary of Percentage Change in Percent of Students Meeting Fall 2009 – Fall 2010 Growth Targets compared to the Percent of Students Meeting Fall 2012 – Fall 2013 Growth Targets – MAP Reading

MAP Reading		% Change from Fall 09 - Fall 10 Percent of Students Meeting Growth to Fall 12 - Fall 13 Percent of Students Meeting Growth*						
		All	F/R	Non-F/R	SpEd	Non-SpEd	ESL	Non-ESL
District	All	5%	5%	5%	8%	5%	8%	5%
	Grade 2	4%	6%	3%	15%	3%	6%	3%
	Grade 3	16%	11%	18%	23%	14%	3%	16%
	Grade 4	3%	4%	2%	7%	3%	11%	2%
	Grade 5	-1%	-2%	0%	-8%	0%	9%	-1%
School A	All	12%	18%	7%	24%	9%	0%	14%
	Grade 2	38%	67%	16%		22%	-7%	48%
	Grade 3	-7%	6%	-19%	-36%	-4%	-3%	-8%
	Grade 4	10%	-14%	51%	17%	6%	-29%	16%
	Grade 5	14%	48%	1%	30%	12%	100%	10%
School B	All	-9%	-97%	-11%	-6%	-11%	-9%	-10%
	Grade 2	51%	89%	50%	100%	69%	-100%	50%
	Grade 3	-16%	-28%	-6%	29%	-24%	-36%	-15%
	Grade 4	10%	24%	-2%	-15%	15%	33%	10%
	Grade 5	-35%	-99%	-35%	-30%	-36%	-33%	-35%
School C*	All	0%	-3%	1%	-17%	3%	-8%	1%
	Grade 2	-3%	3%	-5%	-24%	-1%	5%	-3%
	Grade 3	17%	24%	14%	-5%	21%	175%	12%
	Grade 4	-18%	-22%	-17%	-23%	-17%	-60%	-14%
	Grade 5	10%	-3%	13%	-12%	16%	-22%	11%
School D	All	12%	7%	14%	7%	13%		12%
	Grade 2	13%	5%	14%	-14%	16%		13%
	Grade 3	49%	51%	48%	91%	45%		49%
	Grade 4	4%	-15%	7%	-6%	4%		4%
	Grade 5	-11%	-13%	-11%	-22%	-10%		-11%

*Percent change for School C was calculated using percent of students meeting growth targets from Fall 2010 to Fall 2011 compared to Fall 2012 to Fall 2013. School C opened in Fall 2010.

Appendix Q: State Comprehensive Assessment - Math Percent Proficient

Table Q1. Percent Proficient for All Students, Students Qualifying for Free or Reduced (F/R) Lunch and Students Not Qualifying for F/R on the State Comprehensive Assessment (SCA) - Math

SCA Math		All					F/R					Non-F/R				
		2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change
District	Grade 3	84%	73%	79%	78%	8%	74%	56%	66%	66%	18%	90%	82%	87%	85%	4%
	Grade 4	79%	72%	79%	77%	7%	63%	57%	65%	64%	11%	87%	79%	87%	85%	8%
	Grade 5	73%	59%	69%	69%	18%	57%	40%	53%	50%	25%	80%	68%	78%	79%	17%
School A	Grade 3	77%	75%	70%	68%	-10%	64%	67%	67%	55%	-17%	90%	86%	73%	81%	-6%
	Grade 4	72%	62%	76%	66%	7%	61%	54%	69%	63%	16%	89%	68%	83%	70%	2%
	Grade 5	72%	38%	65%	64%	70%	66%	21%	53%	62%	203%	76%	56%	76%	65%	16%
School B	Grade 3	86%	77%	76%	79%	4%	84%	62%	65%	75%	20%	88%	89%	90%	84%	-5%
	Grade 4	72%	57%	86%	75%	30%	58%	47%	76%	63%	33%	85%	72%	96%	88%	23%
	Grade 5	57%	52%	64%	69%	32%	49%	45%	56%	53%	18%	67%	59%	76%	87%	48%
School C	Grade 3		80%	79%	85%	6%		70%	62%	74%	7%		84%	87%	88%	5%
	Grade 4		84%	89%	75%	-10%		71%	78%	57%	-20%		90%	96%	85%	-6%
	Grade 5		64%	72%	71%	11%		51%	58%	45%	-12%		71%	78%	82%	16%
School D	Grade 3	88%	82%	83%	82%	1%	92%	73%	80%	77%	6%	88%	83%	84%	84%	1%
	Grade 4	93%	76%	90%	86%	13%	84%	81%	86%	74%	-9%	94%	75%	91%	90%	19%
	Grade 5	84%	78%	75%	83%	6%	77%	61%	73%	69%	13%	86%	82%	76%	85%	5%

% Change represents % Magnitude of Change from 2011 Proficiency Rate to 2013 Proficiency Rate

The % magnitude of change in proficiency = $\dfrac{\% \, proficient \, in \, 2013 - \% \, proficient \, in \, 2011}{\% \, proficient \, in \, 2011} \times 100$

In 2011 the State Comprehensive Assessment was changed to reflect new state standards. Test administration in 2012 allowed students to take the assessment three times and report the highest score. In 2013 students took the SCA once without the option of retaking the exam.

Table Q2. Percent Proficient for All Students, Students Receiving SpEd Services and Students Not Receiving SpEd Services on the State Comprehensive Assessment (SCA) - Math

SCA Math		All					SpEd					Non-SpEd				
		2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change
District	Grade 3	84%	73%	79%	78%	8%	61%	47%	54%	53%	12%	87%	76%	84%	82%	7%
	Grade 4	79%	72%	79%	77%	7%	51%	42%	53%	51%	24%	83%	77%	83%	82%	7%
	Grade 5	73%	59%	69%	69%	18%	44%	27%	73%	39%	46%	78%	63%	74%	74%	17%
School A	Grade 3	77%	75%	70%	68%	-10%	25%	44%	40%	17%	-62%	84%	79%	74%	73%	-8%
	Grade 4	72%	62%	76%	66%	7%	69%	22%	31%	17%	-25%	72%	67%	85%	74%	11%
	Grade 5	72%	38%	65%	64%	70%	39%	29%	40%	11%	-62%	82%	40%	69%	70%	77%
School B	Grade 3	86%	77%	76%	79%	4%	63%	67%	41%	53%	-20%	94%	77%	82%	83%	8%
	Grade 4	72%	57%	86%	75%	30%	50%	29%	50%	36%	22%	79%	67%	88%	80%	20%
	Grade 5	57%	52%	64%	69%	32%	11%	18%	40%	38%	113%	76%	59%	72%	71%	21%
School C	Grade 3		80%	79%	85%	6%		44%	59%	52%	20%		84%	81%	90%	7%
	Grade 4		84%	89%	75%	-10%		50%	70%	56%	12%		89%	92%	79%	-11%
	Grade 5		64%	72%	71%	11%		27%	50%	33%	22%		68%	75%	81%	19%
School D	Grade 3	88%	82%	83%	82%	1%	55%	64%	54%	70%	9%	92%	85%	88%	84%	-1%
	Grade 4	93%	76%	90%	86%	13%	87%	39%	70%	58%	48%	94%	83%	94%	91%	10%
	Grade 5	84%	78%	75%	83%	6%	62%	45%	34%	46%	3%	89%	82%	83%	89%	8%

% Change represents % Magnitude of Change from 2011 Proficiency Rate to 2013 Proficiency Rate

The % magnitude of change in proficiency = $\dfrac{\% \ proficient \ in \ 2013 - \% \ proficient \ in \ 2011}{\% \ proficient \ in \ 2011} \times 100$

In 2011 the State Comprehensive Assessment was changed to reflect new state standards. Test administration in 2012 allowed students to take the assessment three times and report the highest score. In 2013 students took the SCA once without the option of retaking the exam.

Table Q3. Percent Proficient for All Students, Students Identified for ESL Services and Students Not Receiving ESL Services on the State Comprehensive Assessment (SCA) - Math

SCA Math		All					ESL					Non-ESL				
		2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change
District	Grade 3	84%	73%	79%	78%	8%	72%	45%	58%	60%	32%	86%	76%	82%	81%	6%
	Grade 4	79%	72%	79%	77%	7%	55%	48%	52%	57%	19%	81%	74%	82%	80%	7%
	Grade 5	73%	59%	69%	69%	18%	39%	26%	39%	39%	50%	76%	61%	72%	72%	18%
School A	Grade 3	77%	75%	70%	68%	-10%	75%	90%	63%	60%	-33%	78%	73%	72%	69%	-5%
	Grade 4	72%	62%	76%	66%	7%	69%	50%	80%	63%	25%	72%	63%	76%	67%	7%
	Grade 5	72%	38%	65%	64%	70%	30%	9%	50%	50%	449%	78%	42%	66%	66%	57%
School B	Grade 3	86%	77%	76%	79%	4%	78%	70%	85%	56%	-21%	87%	77%	75%	84%	8%
	Grade 4	72%	57%	86%	75%	30%	40%	50%	73%	54%	8%	75%	58%	88%	77%	33%
	Grade 5	57%	52%	64%	69%	32%	50%	38%	44%	60%	60%	57%	53%	67%	70%	31%
School C	Grade 3		80%	79%	85%	6%		43%	50%	71%	66%		84%	84%	85%	2%
	Grade 4		84%	89%	75%	-10%		55%	62%	52%	-5%		89%	92%	79%	-12%
	Grade 5		64%	72%	71%	11%		27%	53%	31%	15%		69%	75%	76%	9%
School D	Grade 3	88%	82%	83%	82%	1%						88%	83%	83%	83%	0%
	Grade 4	93%	76%	90%	86%	13%						93%	76%	90%	86%	13%
	Grade 5	84%	78%	75%	83%	6%						84%	78%	75%	83%	6%

% Change represents % Magnitude of Change from 2011 Proficiency Rate to 2013 Proficiency Rate

The % magnitude of change in proficiency = $\frac{\% \ proficient \ in \ 2013 - \% \ proficient \ in \ 2011}{\% \ proficient \ in \ 2011} \times 100$

In 2011 the State Comprehensive Assessment was changed to reflect new state standards. Test administration in 2012 allowed students to take the assessment three times and report the highest score. In 2013 students took the SCA once without the option of retaking the exam.

Table Q4. Summary of Percent Magnitude of Change in SCA Proficiency Rate from 2011 to 2013 – Math

SCA Math		% Change from 2011 Proficiency Rate to 2013 Proficiency Rate						
		All	F/R	Non-F/R	SpEd	Non-SpEd	ESL	Non-ESL
District	Grade 3	8%	18%	4%	12%	7%	32%	6%
	Grade 4	7%	11%	8%	24%	7%	19%	7%
	Grade 5	18%	25%	17%	46%	17%	50%	18%
School A	Grade 3	-10%	-17%	-6%	-62%	-8%	-33%	-5%
	Grade 4	7%	16%	2%	-25%	11%	25%	7%
	Grade 5	70%	203%	16%	-62%	77%	449%	57%
School B	Grade 3	4%	20%	-5%	-20%	8%	-21%	8%
	Grade 4	30%	33%	23%	22%	20%	8%	33%
	Grade 5	32%	18%	48%	113%	21%	60%	31%
School C	Grade 3	6%	7%	5%	20%	7%	66%	2%
	Grade 4	-10%	-20%	-6%	12%	-11%	-5%	-12%
	Grade 5	11%	-12%	16%	22%	19%	15%	9%
School D	Grade 3	1%	6%	1%	9%	-1%		0%
	Grade 4	13%	-9%	19%	48%	10%		13%
	Grade 5	6%	13%	5%	3%	8%		6%

% Change represents % Magnitude of Change from 2011 Proficiency Rate to 2013 Proficiency Rate

The % magnitude of change in proficiency = $\dfrac{\% \text{ proficient in } 2013 - \% \text{ proficient in } 2011}{\% \text{ proficient in } 2011}$ x 100

In 2011 the State Comprehensive Assessment was changed to reflect new state standards. Test administration in 2012 allowed students to take the assessment three times and report the highest score. In 2013 students took the SCA once without the option of retaking the exam.

Table Q5. Magnitude of Change in Proficiency Gap from 2011 – 2013 on SCA III – Math

School	Grade 3			Grade 4			Grade 5		
	N		%	N		%	N		%
	2011	2013		2011	2013		2011	2013	
Free & Reduced									
District	832	808	-26%	818	813	0%	796	805	+5%
School A	42	35	+33%	34	39	-50%	36	32	-92%
School B	38	45	-65%	51	52	+4%	46	51	+147%
School C	35	30	-3%	35	43	+48%	40	36	+91%
School D	Not Included in Pilot			30	27	+353%	27	24	-20%
SpEd									
District	279	272	-1%	356	369	-13%	316	330	-5%
School A	9	6	+60%	9	12	+29%	15	9	+476%
School B	5	12	+183%	24	13	+17%	15	7	-18%
School C	14	19	-7%	15	22	-41%	11	23	+17%
School D	Not Included in Pilot			24	18	-25%	17	26	+15%
ESL									
District	235	149	-32%	234	101	-14%	163	71	-6%
School A	10	6	-155%	7	6	-65%	9	2	-52%
School B	10	7	+282%	9	6	+183%	5	3	-39%
School C	11	3	-66%	17	8	-23%	14	4	+5%
School D	Not Included in Pilot					NA			NA

A negative value indicates a decrease in the proficiency gap.
*NA = School D did not have any students in the ESL student group for the entire pilot.

- Grade three at School D did not participate in the pilot.
- The proficiency gap equals the proficiency level of students not included in a particular student subgroup minus the proficiency level of students identified for the student subgroup.
- For example, students not qualifying for F/R minus the proficiency level of students qualifying for F/R services
  Proficiency Gap = Non-F/R % Proficient – F/R % Proficient.

- Proficiency Gap % Change = $\frac{\text{2013 Proficiency Gap – 2011 Proficiency Gap}}{\text{2011 Proficiency Gap}}$ x100

- The 2010 proficiency rates for SCA in math were not included in these calculations, the SCA administered in 2010 was aligned to the previous state standards in mathematics. A new assessment, aligned to the current standards, was administered from 2011 – 2013.

Appendix R: Measures of Academic Progress (MAP) Percent of Students Meeting Math Growth Targets Fall to Fall

Table R1. Percent of All Students, Students Qualifying for Free or Reduced (F/R) Lunch and Students Not Qualifying for F/R Meeting Fall to Fall MAP Growth Targets for Math

MAP Math		All					F/R					Non-F/R				
		2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change
District	All	63%	64%	64%	61%	-2%	59%	59%	60%	58%	-1%	64%	67%	66%	63%	-2%
	Grade 2	65%	64%	68%	66%	1%	59%	56%	58%	60%	2%	69%	68%	74%	69%	0%
	Grade 3	55%	58%	59%	61%	12%	52%	52%	57%	56%	9%	56%	60%	60%	63%	13%
	Grade 4	61%	69%	69%	70%	14%	59%	65%	66%	66%	12%	62%	71%	71%	72%	15%
	Grade 5	69%	66%	58%	49%	-29%	66%	64%	58%	49%	-25%	71%	67%	58%	49%	-31%
School A	All	62%	59%	66%	52%	-16%	61%	57%	68%	58%	-5%	63%	61%	65%	46%	-27%
	Grade 2	77%	47%	75%	76%	-1%	74%	53%	75%	73%	-1%	81%	41%	76%	80%	-1%
	Grade 3	43%	52%	51%	32%	-24%	41%	50%	56%	37%	-10%	44%	54%	46%	28%	-37%
	Grade 4	60%	65%	76%	56%	-6%	69%	56%	75%	64%	-7%	46%	71%	76%	49%	6%
	Grade 5	72%	73%	65%	40%	-44%	62%	72%	68%	53%	-14%	79%	74%	63%	30%	-62%
School B	All	71%	61%	62%	66%	-8%	64%	55%	59%	64%	0%	78%	67%	66%	68%	-13%
	Grade 2	76%	61%	73%	74%	-3%	59%	54%	72%	71%	21%	83%	68%	73%	75%	-10%
	Grade 3	62%	66%	59%	66%	6%	56%	58%	58%	62%	11%	68%	73%	60%	69%	1%
	Grade 4	71%	58%	62%	79%	11%	62%	53%	58%	71%	15%	79%	66%	66%	87%	10%
	Grade 5	77%	58%	51%	46%	-40%	75%	54%	44%	53%	-29%	79%	62%	60%	39%	-51%
School C	All		68%	71%	60%	-12%		66%	66%	54%	-18%		69%	74%	62%	-10%
	Grade 2		64%	79%	67%	5%		64%	74%	53%	-18%		64%	80%	73%	15%
	Grade 3		64%	74%	68%	7%		63%	64%	77%	22%		64%	79%	65%	2%
	Grade 4		80%	77%	57%	-28%		72%	66%	47%	-35%		83%	81%	62%	-25%
	Grade 5		66%	55%	48%	-28%		65%	63%	47%	-27%		67%	53%	48%	-28%
School D	All	66%	70%	63%	67%	2%	69%	70%	57%	64%	-8%	65%	70%	65%	68%	4%
	Grade 2	73%	70%	71%	74%	2%	71%	68%	56%	64%	-10%	73%	71%	74%	76%	4%
	Grade 3	51%	61%	61%	68%	33%	58%	60%	73%	73%	25%	50%	61%	58%	66%	34%
	Grade 4	67%	78%	72%	78%	15%	78%	83%	64%	67%	-15%	66%	77%	74%	80%	22%
	Grade 5	73%	68%	50%	50%	-32%	71%	63%	33%	50%	-30%	74%	69%	53%	50%	-33%

% Change represents percent Magnitude of Change when the percentage of students meeting MAP growth targets using Fall 2009– Fall 2010 growth is compared to the percentage of students meeting MAP growth targets for Fall 2012 – Fall 2013 growth.

The % magnitude of change in Fall to Fall growth = $\frac{\% \textit{ of students meeting growth targets in Fall } 2013 - \% \textit{ of students meeting growth targets in Fall } 2010}{\% \textit{ of students meeting growth targets in Fall } 2010} \times 100$

Table R2. Percent of All Students, Students Identified for SpEd Service and Students Not Identified for SpEd Service Meeting Fall to Fall MAP Growth Targets for Math

MAP Math		All					SpEd					Non-SpEd				
		2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change
District	All	63%	64%	64%	61%	-2%	53%	51%	56%	52%	-3%	64%	66%	65%	63%	-2%
	Grade 2	65%	64%	68%	66%	1%	56%	47%	61%	53%	-5%	66%	66%	69%	67%	1%
	Grade 3	55%	58%	59%	61%	12%	50%	42%	52%	52%	4%	55%	60%	60%	62%	12%
	Grade 4	61%	69%	69%	70%	14%	52%	57%	59%	60%	16%	63%	71%	70%	71%	14%
	Grade 5	69%	66%	58%	49%	-29%	57%	55%	54%	42%	-26%	71%	68%	59%	50%	-29%
School A	All	62%	59%	66%	52%	-16%	51%	39%	59%	36%	-29%	64%	62%	67%	54%	-16%
	Grade 2	77%	47%	75%	76%	-1%	71%	25%	33%	0%	-100%	78%	49%	79%	83%	6%
	Grade 3	43%	52%	51%	32%	-24%	56%	11%	56%	33%	-40%	41%	57%	50%	32%	-21%
	Grade 4	60%	65%	76%	56%	-6%	43%	33%	78%	25%	-42%	65%	69%	75%	61%	-5%
	Grade 5	72%	73%	65%	40%	-44%	47%	67%	63%	78%	67%	79%	75%	65%	35%	-56%
School B	All	71%	61%	62%	66%	-8%	50%	38%	46%	58%	16%	76%	65%	65%	67%	-12%
	Grade 2	76%	61%	73%	74%	-3%	50%	18%	54%	69%	38%	78%	66%	75%	74%	-4%
	Grade 3	62%	66%	59%	66%	6%	42%	60%	40%	42%	0%	68%	67%	62%	69%	1%
	Grade 4	71%	58%	62%	79%	11%	55%	46%	50%	69%	27%	75%	63%	63%	80%	7%
	Grade 5	77%	58%	51%	46%	-40%	55%	33%	44%	43%	-21%	83%	63%	53%	47%	-44%
School C	All		68%	71%	60%	-12%		56%	59%	52%	-8%		70%	73%	61%	-12%
	Grade 2		64%	79%	67%	5%		40%	82%	46%	14%		66%	78%	69%	5%
	Grade 3		64%	74%	68%	7%		50%	53%	47%	-5%		65%	77%	71%	9%
	Grade 4		80%	77%	57%	-28%		80%	68%	55%	-32%		80%	78%	58%	-27%
	Grade 5		66%	55%	48%	-28%		46%	27%	55%	21%		68%	59%	46%	-33%
School D	All	66%	70%	63%	67%	2%	61%	60%	57%	63%	3%	66%	71%	64%	68%	2%
	Grade 2	73%	70%	71%	74%	2%	69%	72%	58%	65%	-7%	73%	70%	73%	75%	3%
	Grade 3	51%	61%	61%	68%	33%	60%	63%	52%	80%	33%	50%	61%	63%	67%	34%
	Grade 4	67%	78%	72%	78%	15%	77%	50%	67%	67%	-13%	66%	83%	73%	79%	19%
	Grade 5	73%	68%	50%	50%	-32%	50%	59%	52%	40%	-20%	77%	69%	49%	51%	-34%

% Change represents percent Magnitude of Change when the percentage of students meeting MAP growth targets using Fall 2009 – Fall 2010 growth is compared to the percentage of students meeting MAP growth targets for Fall 2012 – Fall 2013 growth.

The % magnitude of change in Fall to Fall growth = $\frac{\% \text{ of students meeting growth targets in Fall } 2013 - \% \text{ of students meeting growth targets in Fall } 2010}{\% \text{ of students meeting growth targets in Fall } 2010} \times 100$

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Table R3. Percent of All Students, Students Identified for ESL Service and Students Not Identified for ESL Service Meeting Fall to Fall MAP Growth Targets for Math

MAP Math		All					ESL					Non-ESL				
		2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change	2009-10	2010-11	2011-12	2012-13	% change
District	All	63%	64%	64%	61%	-2%	60%	61%	60%	54%	-11%	63%	65%	64%	62%	-1%
	Grade 2	65%	64%	68%	66%	1%	60%	58%	56%	57%	-4%	66%	65%	70%	67%	1%
	Grade 3	55%	58%	59%	61%	12%	61%	52%	57%	52%	-14%	54%	58%	60%	62%	14%
	Grade 4	61%	69%	69%	70%	14%	55%	68%	72%	55%	1%	62%	69%	69%	70%	14%
	Grade 5	69%	66%	58%	49%	-29%	68%	69%	58%	42%	-38%	69%	66%	58%	49%	-29%
School A	All	62%	59%	66%	52%	-16%	53%	56%	61%	46%	-14%	64%	60%	67%	52%	-18%
	Grade 2	77%	47%	75%	76%	-1%	70%	60%	75%	60%	-14%	79%	43%	75%	79%	0%
	Grade 3	43%	52%	51%	32%	-24%	31%	40%	60%	17%	-46%	46%	54%	48%	34%	-26%
	Grade 4	60%	65%	76%	56%	-6%	73%	71%	67%	50%	-31%	57%	64%	77%	57%	-1%
	Grade 5	72%	73%	65%	40%	-44%	50%	56%	25%	50%	0%	75%	76%	67%	40%	-47%
School B	All	71%	61%	62%	66%	-8%	62%	71%	55%	62%	1%	72%	60%	63%	66%	-8%
	Grade 2	76%	61%	73%	74%	-3%	50%	60%	53%	77%	54%	78%	61%	76%	73%	-6%
	Grade 3	62%	66%	59%	66%	6%	50%	80%	55%	29%	-43%	64%	65%	59%	69%	8%
	Grade 4	71%	58%	62%	79%	11%	100%	67%	71%	67%	-33%	70%	57%	61%	79%	13%
	Grade 5	77%	58%	51%	46%	-40%	100%	80%	43%	67%	-33%	77%	57%	53%	46%	-40%
School C	All		68%	71%	60%	-12%		66%	63%	62%	-5%		69%	72%	60%	-13%
	Grade 2		64%	79%	67%	5%		63%	80%	71%	14%		64%	79%	67%	4%
	Grade 3		64%	74%	68%	7%		64%	71%	100%	57%		64%	75%	67%	5%
	Grade 4		80%	77%	57%	-28%		65%	70%	38%	-42%		82%	77%	59%	-29%
	Grade 5		66%	55%	48%	-28%		71%	40%	50%	-30%		66%	57%	48%	-27%
School D	All	66%	70%	63%	67%	2%						66%	70%	63%	67%	2%
	Grade 2	73%	70%	71%	74%	2%						73%	70%	71%	74%	2%
	Grade 3	51%	61%	61%	68%	33%						51%	61%	61%	67%	32%
	Grade 4	67%	78%	72%	78%	15%						67%	78%	72%	78%	15%
	Grade 5	73%	68%	50%	50%	-32%						73%	68%	50%	50%	-32%

% Change represents percent Magnitude of Change when the percentage of students meeting MAP growth targets using Fall 2009 – Fall 2010 growth is compared to the percentage of students meeting MAP growth targets for Fall 2012 – Fall 2013 growth.

The % magnitude of change in Fall to Fall growth = $\frac{\% \text{ of students meeting growth targets in Fall } 2013 - \% \text{ of students meeting growth targets in Fall } 2010}{\% \text{ of students meeting growth targets in Fall } 2010} \times 100$

Table R4. Summary of Percentage Change in Percent of Students Meeting Fall 2009 – Fall 2010 Growth Targets Compared to the Percent of Students Meeting Fall 2012 – Fall 2013 Growth Targets – MAP Math

MAP Math		% Change from Fall 09 - Fall 10 Percent of Students Meeting Growth to Fall 12 - Fall 13 Percent of Students Meeting Growth*						
		All	F/R	Non-F/R	SpEd	Non-SpEd	ESL	Non-ESL
District	All	-2%	-1%	-2%	-3%	-2%	-11%	-1%
	Grade 2	1%	2%	0%	-5%	1%	-4%	1%
	Grade 3	12%	9%	13%	4%	12%	-14%	14%
	Grade 4	14%	12%	15%	16%	14%	1%	14%
	Grade 5	-29%	-25%	-31%	-26%	-29%	-38%	-29%
School A	All	-16%	-5%	-27%	-29%	-16%	-14%	-18%
	Grade 2	-1%	-1%	-1%	-100%	6%	-14%	0%
	Grade 3	-24%	-10%	-37%	-40%	-21%	-46%	-26%
	Grade 4	-6%	-7%	6%	-42%	-5%	-31%	-1%
	Grade 5	-44%	-14%	-62%	67%	-56%	0%	-47%
SchoolB	All	-8%	0%	-13%	16%	-12%	1%	-8%
	Grade 2	-3%	21%	-10%	38%	-4%	54%	-6%
	Grade 3	6%	11%	1%	0%	1%	-43%	8%
	Grade 4	11%	15%	10%	27%	7%	-33%	13%
	Grade 5	-40%	-29%	-51%	-21%	-44%	-33%	-40%
School C*	All	-12%	-18%	-10%	-8%	-12%	-5%	-13%
	Grade 2	5%	-18%	15%	14%	5%	14%	4%
	Grade 3	7%	22%	2%	-5%	9%	57%	5%
	Grade 4	-28%	-35%	-25%	-32%	-27%	-42%	-29%
	Grade 5	-28%	-27%	-28%	21%	-33%	-30%	-27%
School D	All	2%	-8%	4%	3%	2%		2%
	Grade 2	2%	-10%	4%	-7%	3%		2%
	Grade 3	33%	25%	34%	33%	34%		32%
	Grade 4	15%	-15%	22%	-13%	19%		15%
	Grade 5	-32%	-30%	-33%	-20%	-34%		-32%

*Percent change for School C was calculated using percent of students meeting growth targets from Fall 2010 to Fall 2011 compared to Fall 2012 to Fall 2013. School C opened in Fall 2010.

Appendix S: Literature Review

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
Anita, S., 1999 The roles of special educators and classroom teachers in an inclusive school. *Journal of Deaf Studies and Deaf Education* 4(3), 203-214.	Exploratory "To examine the roles, responsibili-ties, and relationships of classroom teachers and special educators working in a school where inclusion of children who were D/HH was being attended" (p. 204).	To examine the process of inclusion in a "best-case scenario."	Case study Data Source: • Primarily interviews with -3 GE teachers -2 SE teachers -3 interpreters - principal -SE coordinator • Total of 27 interviews -1 to 3 hours in length -audio-taped • Live observation field notes -once per month during year 1 -3 to 6 days a semester in years 2 & 3 • Videotapes	The school provided an inclusive setting in which: • D/HH students and hearing students had frequent, cooperative interactions • D/HH students were an integral part of the classroom social structure • School administrators and the school community supported the goal and process of inclusion • One D/HH students from grades K-2 • One K	**SE Teacher Responsibilities** • Direct teaching (preview or review of concepts) • Adapting teaching strategies and materials (day-to-day planning made this difficult) • Coordinating instructional planning (GE delivers the instruction) • Record keeping (made observations, developed recording tools for GE teacher) • Scheduling and directing SE aides • Promoting peer relations • Teaching sign language to hearing students • Interpreting • Parent communication **GE Teacher Responsibilities** • Adapting objectives • Use of visual materials and strategies • Planning with SE teachers and interpreters • Monitoring children's progress • Collaboration with the interpreter • Using sign language	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			-each student 3 times per semester 3 years of data	classroom with a D/HH student each of three years • Rural elementary school SW U.S.A. • Full inclusion – with occasional pull-out	**Communication & Relationships** • Identified as very important • Time to meet is difficult • Informal meetings preferred to formal meetings • By year 3 all participants were volunteers • GE teachers took ownership for D/HH students • SE were perceived as problem solvers and experts with responsibility for -adapting curriculum -communicating with parents -preparing IEPs -resource for classroom teacher **Concerns** • SE caseload • SE teachers were unable to spend enough time in the classroom to understand the context-resulting in "visitor status" • Pull-out SE teachers felt there should be some, GE did not • Adaptations were not always seem as appropriate by GE teacher	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					SE teachers should be providing service to the GE teacher in addition to direct instruction. Collaboration skills are essential Classroom teachers felt comfortable making adaptations that supported the entire class Collaborative culture many be more important than common planning time.	
Austin, L. 2001 Teachers' beliefs about	Descriptive To determine the "essential elements needed to equip collaborative teachers" for	• How do co-teachers perceive their current experience in the classroom? • What teaching practices do collaborative	Survey: Part 1 – demographic information Part 2 – • Co-teacher perceptions of current	• Nine public school districts in northern New Jersey • 139 K -12 collaborative teachers • Inclusion had already	Co-teacher perceptions of current experience • Believed the GE teacher did the most in the classroom • Co-teaching was a worthwhile experience • Contributed to improved teaching Recommended Collaborative Practices • In theory thought they should co-	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
co-teaching. *Remedial and Special Education 22,* 245-255. doi: 10.1177/ 074193250102200408	co-teaching by examining the perceptions of teachers engaged in co-teaching.	educators find effective? • What kind of teacher preparation do co-teachers recommend? • According to collaborative practitioners, what school-based supports facilitate collaborative teaching? • Are students in inclusive classrooms being adequately prepared both academically and socially, and do they like learning in such an environment? How is this determined? • Who does	experience • Recommended collaborative practices • Teacher preparation for collaborative teaching • School Based supports that facilitate collaborative teaching Data Analysis • 1-5 response scale • Analyzed with SPSS, significance level = 0.05 • Wilcoxon's matched pair signed-ranks test was used to analyze responses of paired co-	been established in these districts • Middle income districts • SE teachers -40 LD -4 EBD -2 MMH	plan every day, those who did disagree about the effectiveness of daily planning • Valued shared classroom management but did not practice it • Indicated that there should be specific areas of responsibility for each teacher, but did not practice this Teacher preparation for collaborative teaching • 91.3% SE teachers indicated that students teachers should have a collaborative teaching experience; 70.5% of GE teachers felt this would be helpful School-based supports that facilitate collaborative teaching • Most teachers valued mutual planning time but in practice did not find it to be very helpful Interview findings: • Small groups and cooperative learning to be effective instructional techniques • Co-teaching contributed to teachers professional development	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
		more in the collaborative partnership- the special educator or the general educator? • What does this say about the model of collaboration used and the need for curricular changes in teacher preparation programs?	teachers in two categories, "value" and "participate'" (p. 248). Semi-structured interviews with 12 survey respondents (6 SE and 6 GE)		-GE teachers learned new skills in classroom management and curriculum adaptation -SE teachers cited an increase in content knowledge • Pleased with co-teaching but needed more support • More planning time needed • Collaborative strategies were effective in teaching all learners • Inclusive education benefited students with and without disabilities by promoting tolerance for differences and acceptance • Some concern was expressed about negatively impacting the academic performance of students without disabilities • Mild to moderate disabilities served • SE teachers were primarily responsible for modification of lessons and remediation • GE teachers were primarily responsible for lesson planning and instruction Majority of co-teachers interviews believed co-teaching contributed	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					positively to students' academic development	
					Majority of co-teachers believed inclusion contributed positively to the social development of their students	
					Students were generally amenable to co-teaching	
Bessette, H.

2008

Using students' drawings to elicit general and special educators perceptions of co- | Explanatory

To trigger deep deliberation on how co-teaching can be improved to maximize students learning. | 1. "How do elementary and middle-grade students conceptualize co-teaching in drawings?
2. How do students perceive the roles of each co-teacher and the level of instructional support they | Student drawings were used as a method of data collection.

Data sources:

• Elementary students' drawings
• Middle grades (MG) students' drawings | • 85 elementary and MS students
• Middle-class school district
• Three elementary schools & two middle | Characteristics common to most drawings:

• made of recent events
• High level of detail (i.e. time on the clock, facial expressions, dress, and seating arrangements)
• Authentic depictions of the classroom-drawings were believable
• Common features
-Organization of the room pronounced

-Agendas on the board | Co-teaching reflects shared:

• Goal-setting
• Pedagogy
• Planning
• Assessment
Between general and special educators |

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
teaching. *Science Direct, 24*, 1376-1396. doi:10.1016/ Jtate.2007.06. 007		receive in the classroom as conveyed in drawings/ 3. What patterns or themes do co-teachers see in the drawings and how might this affect their practice? 4. What can educators do to make co-teaching a more effective service delivery option for all students" (p. 1378).	• Elementary (EL) GE and SE co-teachers' interviews • Middle school GE and SE co-teachers' interviews MG students were gathered in the cafeteria and Elementary students gather in the media center and asked to "Draw what it looks like in your classroom when both of your teachers are working" (p. 1380). • Students recorded their gender, grade level, and the first 3 letters of their teachers	schools • Southeaste rn US • Heterogen eous sample • Elementar y students • 45 students • 8-11 years old in grades 3-5 • 8 students (17%) had mild to moderate learning disabilities • none with severe disabilities • no ESL learners • 76% white • 22% African	-Classroom management: EL good = 58%; MG good = 45% -Students portrayed their teachers as respecting students: EL = 90%; MG = 71% • Differences between EL and MG student drawings -Academic difficulty MG students were 5 times more likely to draw themselves experiencing academic difficulty that EL students -Motivation EL students were 3 times more likely to draw themselves as motivated MG students (hand raised, frequent student teacher eye contact, students working alongside each other) -Teacher disposition -EL students were 3 times more likely to depict their teachers as friendly, optimistic, and inviting -75% of EL student drawings indicated that teachers enjoyed their work compared to 47% of MG	Popular service delivery model for increasing equity of instruction for SE students in heterogeneous settings (p. 1376) "As Murawski and Dieker (2004) assert, the goal within co-teaching is for general and special educators to 'help one another by providing different areas of expertise that when fused together correctly, can result in enhanced instruction for all students' (p.53)"

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			name on the back of the drawing • Field notes were made of the brief descriptions students provided of their drawings • Coding schemes for the pictures included: **Emergent analytic coding** -a checklist was developed -two raters coded each drawing -more formal descriptions were developed **Trait coding** Rated drawings according to the extent a trait was	Am. • 2% mixed race **Elementary teachers** • 12 GE teachers • 6 SE teachers • 6 elementary schools • Ave. of 6 years of experience • 2 years of co-teaching was the greatest amount **Middle school students** • 40 students • 12-15 years old in grades 6-8 • 14 students (35%) had	students -Instructional settings one teach, one observe EL = 33%, MG = 74% one teach, one drift EL = 10%, MG = 68% GE as instructor, SE as helper EL = 35%, MG = 69% Teacher data • SE interpreted the drawings with greater intensity • Co-teaching tensions surfaced with MG SE GE Elementary Teachers • Focused on classroom structure • Ranked attitude highly • Importance placed on student perceptions of the teacher (behind her desk) • Concerned that students saw the SE	(p. 1377) "Having a common goal for students and working toward that goals form a belief system that is based on commonality of purpose and teaching philosophy are critical features of co-teaching (p. 1377). Other important dimensions: • Mutual respect • Free exchange of ideas • Shared authority • Collaborative

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			present **Holistic coding** Traits with high levels of agreement were evaluated to determine the overall aspect of the situation depicted **Holistic review** Groups of co-teachers were asked to respond to three questions regarding their students' drawings 1. What patterns do you see in the drawings? 2. Why do you think you are seeing these patterns? 3. What do you think might be done differently	mild to moderate learning disabilities • 1 Down syndrome student • No ESL students • 48% white • 43% African American • 7% Asian American • 1% unknown race/ethnicity **Middle school teachers** • 8 GE teachers • 5 SE teachers • 2 middle schools • Ave. of 13	as the helper GE Middle Grades Teachers • Very interested in the drawings and the interpretation process • Concerned about images related to classroom management, instruction, curriculum, and proof of students learning • Comments indicating that they needed to more attuned to their student instructional needs and feelings • 50% indicated that more group work was needed SE Elementary Teachers • Lack of time for co-planning leads to less cohesive instruction • Co-teaching with multiple partners is difficult • Like co-teaching but the above concerns must be addressed before doing this again	processes • Personal interdependence • Interpersonal skills Policy issues and administrator support must be addressed before co-teaching beings.

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			in your class as a result of what you see? Audiotapes and field notes were made of co-teachers responses. The comments made by teachers corresponded by the features documented in the coding of the drawings.	years of teaching experience • 1.5 years of co-teaching was the greatest amount	SE Middle Grades Teachers • Often under-utilized; feel like an aide • Time constraints, lack of planning time, and lack of administrative support • SE teacher more likely depicted as helping students while the GE teacher The students' drawings provided teachers with important information on student perceptions that served as a catalyst for changes in instructional practices. • SE teachers often feel underutilized in the co-teaching model. This is due to the dominant role usually assumed by the classroom teacher. • The highly qualified requirements of NCLB have contributed the role of SE teacher as a "helper." This is especially true at the secondary level.	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					Differentiation of teacher roles and interpretations: • Four co-teaching approaches were observed -One teach, one observe -One teach, one drift -Alternative teaching -Team teaching • SE teacher roles changed frequently • MG SE teachers seldom found themselves in the "drivers seat" • Lack of shared planning time is a major contributor to a more equitable distribution of instructional authority in the classroom **Proactive Approach** The results of this study suggest that perhaps the most important question to be considered before co-teaching is implemented is "how can instructional roles be distributed so that co-teachers are able to alternately engage in the 'the dual roles of teacher and learner, expert and novice, and giver and recipient of knowledge or skills (Villa et al.,	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					2004, p.4)"	
					Supportive Structures	
					Teachers should be provided with information about co-teaching before it is put in place.	
					Principals should be a visible support of the co-teaching process.	
					Reference is made to the questions suggested by Friend and Cook (2003) to be discussed by teaching partners prior to co-teaching.	
					Developing a trusting relationship between co-teaching partners "may be the most critical issue of all" (p. p. 1394).	
					Understanding how collaborative	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					relationships, central to co-teaching, develop is necessary if we are going to encourage the development of these relationships (p. 1394). Limitations • Small sample size limits generalizability • Fidelity of the co-teaching models depicted by students • Interpretations of student drawings can be influenced by assumptions and beliefs based in the experiences of the person analyzing the work	
Bouck, E. 2007 Co-Teaching... Not just a textbook term: Implications	Descriptive To describe the co-teaching relationship between a GE and SpEd teacher	• What did co-teaching look like in this case? • What factors of co-teaching were illustrated in this case? • What can be learned about co-teaching from this case	Case study Data collection: • Informal teacher interviews • Classroom observations – field notes	Urban school in Michigan Co-taught 8th grade United States history classrooms	Supported literature on successful co-teaching classrooms Common planning time was important to the SpEd teacher who was less familiar with the content. When co-planning time was not available students perceived the SpEd teacher in an aide role	• Shared a common planning time was important

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
for practice. *Preventing School Failure: Alternative Education for Children and Youth, 51*(2), 46-51.		that can add to the pedagogical literature?	Analysis: Identification of themes followed by organization of data by theme		Identified eight roles available to either teacher in the co-teaching relationship. These roles need to be discussed Teachers must consider how they will share and divide the: • Physical • Instructional • Management & • Discipline "spaces" Both teachers must be open to sharing large group and small group instruction	
Cramer, E., & Nevin, A. 2006	Explanatory To study the relationship	"To determine whether there was a relationship between general	Mixed Methods • Quantitative data analysis • Grounded	• 46 co-teachers • 22 schools -5 high schools -1 middle	• Compatibility scale- ratings of confidence as educators were positively correlated with years of experience.	"The proportion of students with disabilities with primary placements in

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
A mixed methodology analysis of co-teacher assessments. *Teacher Education and Special Education* 29(4), 261–274. doi: 10.1177/ 0888406406 02900406	between general and special educators who were co-teaching.	and special educator ratings of their compatibility on (a) relationships (b) coteacher actions and behaviors, and (c) actual classroom practices" (p. 263).	theory • Qualitative methodology Survey Instruments: • *Co-Teacher Relationship Scale* (Noonan et al., 2003) • *Are We Really Co-Teachers Scale* (Villa et al., 2004)	schools -2 alternative education -14 elem. schools • Muticultural, urban district • SE U.S.A. • Demographic -10% white -58% Hispanic -20% Black -2% Asian/ multicultural • 61.7% of all students F & R • 71.1% of elementary students F & R • Co-teachers from 2 HS & 2 elem. schools	• Noonan et al. (2003) scale indicated a statistically significant correlation between confidence as an educators and years of co-teaching experience • Villa et al. (2004) scale approached significance for years of co-teaching experience and -we share responsibility for deciding what to teach -we share responsibility for how students learning is assessed • No significant differences were found between elementary and secondary teachers • Responses on the *Co-Teacher Relationship Scale* *Most similarity* -interest in learning new things -dedication to teaching -confidence as an educator -ability to be supportive of colleagues -beliefs about inclusion *Least similarity* -how to structure learning activities -how to adapt and individualize activities -how to manage inappropriate behavior • Responses on *Are We Really Co-Teachers?*	general education increased from 33% in 1992 to 46.7% in 2001" (p. 261). This necessitates an increase in collaborative planning and teaching. Future research: • The extent to which elementary and secondary co-teachers differ due to their settings • "could pose testable hypotheses regarding the identification of

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					Most frequent actions -flexible and make changes -feedback to one another -fun with standards and co-teaching -we model collaboration & teamwork *Least frequent actions* -include others who could provide expertise -mentor others interested in co-teaching -explanation of benefits of co-teaching to students and families • Special and general educators shared roles and responsibilities as content experts • Teacher education programs should place more emphasis on co-teaching by providing both instruction and practical experiences • "Co-teachers may go through several developmental stages as they continue to refine their working relationships" (p. 272).	administrative and professional development supports to establish and maintain co-teaching teams as well as the assessment of instructional modules to prepare teachers to take on co-teaching roles" (p. 272).
Dove, M. & Honigsfeld, A.	Explanatory	How can co-teaching models be effectively adapted to inclusive ESL	Case vignettes Literature review		Collaboration reduces role differentiation between the classroom teacher and teacher specialists resulting in shared expertise (p. 11)	

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
2010 ESL co-teaching and collaboration opportunities to develop teacher leadership and enhance student learning. *TESOL Journal 1* (1), 3-22.		instruction.			Collaborative practices reduce isolation. Adapted and expanded Vaughn, Schumm, and Arguelle's (1997) coteaching models to the ESL context. • In three of the models the two teachers work with the students in whole group instruction -"One lead teacher and another teacher teaching on purpose (p. 7) -"Two teachers teach the same lesson at the same time" (p. 7) One provides linguistic support during the lesson. -"One teacher teachers, one assesses" (p. 7). One assesses "targeted students through observations, checklists and anecdotal records" (p. 7). • In three models the students are group homogeneously, each teacher teaches a group – parallel teaching -"Two teachers teach the same content" (p. 7) using differentiated	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					strategies.	
					-"One teacher pre-teaches, one teachers alternative information" (p.7) Addresses the prior knowledge gap.	
					-"One teacher re-teaches, one teaches alternative information" (p. 7). Flexible groups by ability level.	
					• Seventh model: Multiple student groups. "Two teachers monitor and teach" (p. 7). Centers or stations set up to meet specific student learning needs.	
					Students receiving fragmented service lose group.	
					Davidson (2006)	
					Five stages of increasing effectiveness of teacher collaboration	
					1. Pseudocompliance or passive resistance 2. Compliance 3. Accommodation	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					4. Convergence 5. Creative co-construction Challenges • Communication and instructional organization must be addressed. • Roles regarding decision making • Lack of funding, contractual and union issues may make collaboration difficult. Support • Ongoing, embedded PD, PLCs • Subject specific & Collaborative • Administrative support Recommendations (p. 19): • Start small • Have realistic expectations for yourself and your colleagues • Look for "found time" for planning, or explore electronic means of communication • Over time, expand joint planning and parallel teaching to more	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					extensive collaborative initiatives. • Advocate for establishing collaborative teacher practice as an accepted form of professional development.	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
Gerber, P. J. & Popp, P. A. 2000 Making collaborative teaching more effective for academically able students: Recommend-ations for implementa-tion and training.	"To proffer a set of recommend-ations to improve collabora-tion teaching based on an in-depth investigation of that service delivery model" (p. 230).	• How can collaborative teaching be improved?	• Individual interviews wit administrators • Focus groups interviews with the other participants in the spring • Themes were identified through data reduction	• Seven school districts of the Metropolitan Educational Research Consortium in Virginia • Urban, suburban, and rural schools -4 elementary schools -4 middle schools -2 high schools • All had implemented collaborative teaching for at least two years; average years	Delivery of Services • Defining collaboration -Set a minimum criteria for instruction to qualify as collaboration • Establishing limits -Determine the number of students with disabilities that can have their needs met in a classroom -Determination is made based on severity of disability and staffing resources, not a percentage • Maintain multiple service delivery options • Ensuring program continuation Administrative Issues • Strategic scheduling -Put the student first -SE should be scheduled in the classroom on a regular basis	.

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments

Learning Disability Quarterly, 23(3), 229-236.				of collaboration =3.89
				• Data was collected from
				-administra-tors
				-SE and GE teachers who worked in collaborative classrooms
				-Parents of students with & without disabilities
				-Students with & without disabilities
					• Planning time
					  -Regular planning
					  -Preplanning
					  -Team building
					  -Long-range planning
					  -Problem solving
					• Voluntary participation
					• Program evaluation
					
					Communication
					
					• Informing parents
					  -Provide information on the program to both parents of students receiving service and GE students
					• Report success to multiple audiences
					  -Counters resistance to change
					  -Nurtures a collaborative community
					
					Training Recommendations
					• New Personnel
					  -Collaborative teachers should understand the complex instructional and interpersonal skills required
					  -Administrators are critical for success; they need understanding of the many facets of co-teaching and time to collaborate with other administrators using this practice	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					• Indirectly Involved Personnel -General educators, all GE not involved in co-teaching should have an understanding of the goals and progress of the work -Guidance counselors should know the goals and objectives of co-teaching • Parents should have the opportunity to participate in a series of workshops • Universities should provide training in collaborative teaching for pre-service teachers	

Hang, Q., & Rabren, K.
 	
2009
 	
An examination of co-teaching: Perspectives and efficacy indicators.
 	
Remedial and Special
		Identify the perspectives on co-teaching of teachers and students with disabilities.
		
		Determine the effectiveness of co-teaching using students' academic and
			Data sources:
			
			Records analysis
			
			Surveys
			
			• Teacher's Perspective Survey
			  o Components of co-teaching
			  o Teachers'
				Seven SE U.S. public schools:
				
				4 elementary
				
				1 middle school
				
				1 junior high
				
				1 high school
				
				31 General Ed
					Limitations:
					
					• Lack of a control group
					• Included only students with disabilities who were co-taught – results are limited to this group
					• Wide range of grade levels affects generalization
					• Results limited to math and reading
					• No longitudinal data on co-teaching
					
					Teacher and student perceptions:
						Co-teaching is defined as "two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single physical space" (Cook & Friend, 1995, p. 2)

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
Education 30(5), 259-268. doi: 10.1177/ 0741932508321018		behavior records.	roles and responsibilities o Teachers' expectations o Planning schedule • Student Perspective Survey o Difference between resource classroom and co-taught classroom o Students' expectations o Challenges o Advantages/ disadvantages • 5 point Liker-type scale **Observations** Co-teaching	Teachers 14 Special Ed Teachers First year of co-teaching 82% of teachers using co-teaching in the district English, language arts, mathematics, science and social studies 58 students with disabilities 52% of co-taught students Comparable	• Positive both teachers and students o Learned more o Sufficient support (SET felt the strongest) o Higher academic performance o Teachers reported improved behavior • Weekly planning during the school day was important for success • Both SET & GET viewed themselves as having more responsibility for behavior than the other. **Student Outcomes:** • Student absences increased • Student discipline referral increased (could be due to confusion between teachers regarding discipline) o Possibly different standards for behavior in the GE and resource classroom o Need for more co-teacher planning o Impact of GE peer role models on the behavior of students with disabilities • SE students had significantly higher math and reading SAT NCEs after one year of co-teaching • No statistically significant difference	"Student satisfaction has been considered as one way to measure social validity of instructional approaches" (p. 259). Due to the varied findings of co-teaching research, more research is needed. Lack of planning time may have impacted the impressions of teachers regarding responsibility for

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			dimensions: • Teaching roles • Student group distribution • Teachers' location **Records** • SAT scores: -SAT National Percentile Ranks were converted to National Curve Equivalents -Paired sample t-tests used to analyze achievement • Discipline referral: 2004-2005 referral data were compared to 2003-2004 data	demographics to all students with disabilities	in academic achievement between student participants and all students at the same grade level • Co-teaching provides students with disabilities adequate support for achievement on standardized tests.	behavior. Future research: • Investigate co-teaching efficacy with experimental and control groups • Use more individualized assessments • Investigation of the cause for the increase in behavior referrals & absences • How many GE teachers can a SE teacher effectively co-teacher with? • What is the amount and degree of

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			• Tardy and absence records for 2004-2005 were compared with records from 2003-2004			support that SE students receive in co-teaching compared with other intervention models? • Effectiveness of the co-teaching models being implemented
Huber, K., Rosenfeld, J., & Fiorello, C. 2001 The differential impact of inclusion and inclusive practices on high, average,	Predictive	What is the effect of inclusive practices on general education students' reading and math achievement within a school restructured for inclusion? Secondary focus:	Two comparisons were made: 1. Incremental changes in GE students' achievement scores for high, middle and low achievers over three years of inclusion and inclusion practices 2. Incremental	District-wide inclusion initiative In-service in student support teams, cooperative learning, team teaching. New curriculum	In both math and reading students with lower academic skills benefited academically from inclusion, students with higher skills decreased in academic performance. The changes in achievement were smaller in year two than in year one. Microeconomic theory suggests that including SE students in the GE classroom increases the variance of	IDEA and court decisions have supported more inclusive settings for students with disabilities. The number of students with mild disabilities being placed in separate classes has increased (p.

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments

and low achieving general education students.
 	
Psychology in the Schools, 38(6), 497-504.
		what is the effect of having students with disabilities as classmates on GE students' achievement?
		
		Are higher performing students affected differently than average and below-average students?
			changes in GE students' achievement scores as a function of the number of SE students in the classroom.
			
			Achievement measures:
			
			Years 1 & 2
			
			Normal Curve Equivalent scores - total math and reading- Metropolitan Achievement Test 6th Edition
			
			Year 3
			
			Stanford Achievement Test 8th edition
				was added:
				
				Math Their Way
				
				Whole – language reading instruction
				
				Literature based reading
				
				477 (1992-1993) randomly selected GE students
				
				410 GE students (1994/1995) due to attrition
				
				Grades 1-5
				
				Three Eastern Pennsylvania elementary
					student needs outside the tolerance range. Students outside the tolerance range will underachieve.
					
					Limitations:
					
					• Test change – is the decrease in achievement real or does it reflect a test-curriculum mismatch?
					• Could the drop in reading be due to a lesser focus on phonics in whole language?
					• Is the increase in math achievement due to the "hands-on" math curriculum?
					• Study did not address:
					  ○ teacher attitudes
					  ○ teacher experience
					  ○ curriculum components
					  ○ support
					  ○ severity of SE student's needs
					
					The number of SE students in the classroom does not seem to have an effect on GE students' reading achievement.
						497).
						
						Generally two types of studies:
						
						1. GE students are compared within one school, where GE attend classrooms with or without students identified for SE. (No mention is made of the use of nonuse of inclusionary practices.)
						2. "Student comparisons are made across inclusive and traditional/

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			May testing in the classroom. Computer scoring	schools Working class students 50% F&R 72% white, 27% African American, 1% Asian. No previous district experience with inclusion. SE students mainstreamed prior to the intervention were able to participate in the GE curriculum with minimal	The impact on GE students' math achievement was varied. Some classes did will with a large number of SE students and others did not. "Tolerance theory posits that this differential learning effect is expected when resources are not increased" (p. 503). Therefore, schools must decide if they will increase the support available to teachers when the inclusion model is used.	com-parison school" (p. 498). In both of these research models inclusion was shown not to negatively impact GE students or that GE student's achievement increased at least in one academic area. "It is presently unclear form the inclusion literature which [structures and interventions] ones are essential to

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
				support. SE students were identified as mainly LD (83.5% of SE students) others included EBD, EMH, and other health issues.		making inclusion work or which ones clearly contribute to positive student outcomes. Concern that the inclusion of SE students will decrease the ability to meet the needs of high achievers. Teachers have difficulty meeting the needs of a wide range of learners.

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
Idol, L. 2006 Toward inclusion of special education students in general education: A program evaluation in eight schools. *Remedial and Special Education,* 27, 77-94. doi: 10.1177/ 07419325060 270020601	Descriptive "To examine and describe how special education services were provided in four elementary and 4 secondary schools (two middle schools and two high schools) in a large metropolitan school district in a southwestern city" (p. 77)		Qualitative and quantitative data • Structured interviews with most staff -responses were categorized as: -district policies -inclusion -modifications, -SpEd teachers -instructional assistants, -students' behaviors -statewide test scores • Statewide test data	4 elementary schools **School A:** • no plan for inclusion • one sped teachers who served multiple sped roles • 6 sped classrooms **School B:** • No inclusion plan • sped programs included resource room and co-teaching in preschool and K.	Elementary schools: All but one administrator supported inclusion as the best delivery model. All felt their should be extra adults should be provided to work with all students in these classrooms. Mixed responses regarding principal as instructional leaders or administrative leader. Teachers found their principals very supportive of them as professionals. At schools A -42%, B, & C (second most frequent response) educators found themselves very skilled at working with sped and at risk students. School D with the greatest inclusion indicated the greatest need for practice with both student groups.	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
				School C: • Inclusion for 4 years, not a part of improvement plan • SpEd services included consulting, co-teaching, content mastery, 2 self-contained EBD rooms, 2 life skills classes; • school used multiple forms of teaming including vertical teams.	Teachers at School D reported the greatest skill at making curricular adaptations. Teacher attitudes: • School D more in favor of inclusion • Positive ratings for collaboration • Only 2 teachers felt students are best served in a non-inclusion model • Impact of inclusion on GE student 36% GE students improved, 32% GE student performance remained about the same, 6% reported adverse effects • 36% reported and increase in state test scores, 33% reported no change • Increase in test scores over the four years (except grade 3 in School D) was the most striking finding • Overall teachers liked inclusion, did not like pullout programs • Need more PD on inclusion • Need to visit other schools who were further along in offering inclusion • Provide more support to classroom	

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
				School D: • SpEd an integral part of school improvement plan, no pullout programs with the exception of speech and language therapy. • Fewest number of students with significant disabilities • High F&R Referrals for SpEd services in all schools was about 2-3%	teacher • Align SpEd assessments with classroom instruction • Provide better training for instructional assistants • Catch reading problems • Mainstream rather than inclusion for students with serious emotional problems. General Findings: • Administrators were supportive of inclusion and lead the change process • Teachers found inclusion to be the most preferable choice for sped students. Self-contained sped classrooms were least preferred. • Inclusion had a favorable impact on GE students • Co-teaching was positively received, not financially possible in all schools • Instructional assistance not maximized • Should explore other viable models that support inclusion • SpEd students and students at-risk often benefit from the same	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					instructional strategies • PD on inclusion needed: -making instructional and curricular modifications -more information on how to effectively support teachers in inclusion classrooms -visiting other schools -developing cooperative heterogeneous learning groups • No adverse effect on statewide test scores for GE students • Examine how speech-language services are offered	
Klingner, J. & Vaughn, S. 2002 The changing roles and responsibilities of an LD	Descriptive To clarify the role of a SE teacher as an inclusion teacher	• To describe the activities of an inclusion teacher • Relate her perceptions to her role • Explain how her role differed in the resource and inclusion setting over	Case study Three individual interviews with each participant. 1. To develop context for understanding	K-6 urban elementary school Large southeastern school district in Florida	Four themes emerged: • Assessment • Teaching • Consultation • Interpersonal Skills Assessment • Evaluations were much more tied to the GE curriculum as they have been in the past	Co-planning and co-teaching necessitate: • "Communicating frequently and effectively with another professional • Sharing power and control over

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
specialist. *Learning Disability Quarterly, 25*(1), pp. 19-31.		years	the teacher's or administrator's view on inclusion 2. To describe current experiences related to SE students 3. Reflection on the meaning of their experiences Interviews were tape-recorded and transcribed Focus group interviews with SE and GE teachers; the inclusion SE teacher and her co-teachers	• 1,000 students • 94% Hispanic • 77% of the 94% F & R • 40 LD students • 3 full-time SpEd teachers • Became an inclusion school (1 SpeEd teacher) in 93-94	• Better able to develop criterion-referenced, curriculum based, and authentic assessments that matched the GE curriculum • Evaluation of student progress much more tied to GE curriculum • Collaborative evaluations were much easier when collaboration time was provided during the school day Teaching • Resource room was more autonomous, instruction not connected to instruction in the GE classrooms • In inclusion you can help a greater number of students • Co-teaching was a great adjustment • Expectations varied from classroom to classroom and was dependent on the personalities of the co-teacher and needs of the students • "Giving up" her kids and her classroom was hard • Adequate space in the GE classroom was not provided • Continued to provide explicit phonics instruction after the spelling	assessment and instructional decision • Being flexible" (p. 29) Professional Development needs: • Inclusion teachers need a strong understanding of intensive, individualized instruction • LD teacher needs: -Expertise in teaching LD students -Knowledge of GE curriculum & skills in adapting this curriculum

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			Teacher meetings: 2 to 3 time per month. Tape-recorded and transcribed SE inclusion teacher's journal and plans Think alouds of the SE inclusion teachers reflection on the data		test • Noticed changes in the way GE teachers provided instruction to LD, more positive, accepting, and encouraging • Changes over time included -more time away from the classroom due to other meetings (not necessarily related to co-teaching) -high-stakes achievement testing increased pressure to do well on tests did not fit well with co-teaching • The curriculum and goals of the GE classroom drove instructional decision making Consultation • As a resource teacher no time was spent co-planning • Mutual planning time once a week was important • Once per week teachers discussed IEP goals and objectives & completed a collaborative consultation form for each LD student • GE teachers were much more aware of LD students IEP goals • SE teacher shared strategies for LD students with the GE teachers	-Instructional approaches for heterogeneous instruction and how to implement them in co-teaching -Varied teaching strategies -Consultation and communication with other professionals • GE teacher needs: -In-service about LD -Expertise in the GE curriculum -Expertise in varied teaching strategies Limitations:

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
						Sample limited to one teacher
Mastropieri, M., Scruggs, T., Graetz, J., Norland, J., Gardizi, W., & McDuffie, K. 2005 Case studies in co-teaching in the content areas: Successes, failures, and challenges.	To examine effective teaching practices for including students with disabilities within upper elementary, middle, and high school content-area classes.	What general conclusions can be drawn regarding the practice of co-teaching from case studies at each level of instruction?	Case studies Observation data was collected over a period of time ranging from 1 semester to 2 years. Data sources included: • Observations • Field notes • Videotapes of classes • Interviews of teachers and	**Case 1** Grade 4 & Grade 7 science classrooms Co-teaching partners were a GE teacher and SE teacher Hands on ecosystems unit, no high-stakes testing associated with instruction	**Case 1** Many similarities between the grade 4 and grade 7 team including: • *Outstanding working relationships* - trust and respect for partners • *Strengths as motivators* -ownership of all students • *Time for co-planning* –teachers made time for co-planning • *A good curriculum* -hands-on curriculum facilitated shared responsibility and differentiation • *Effective instructional skills* • *Exceptional disability-specific teaching adaptations* • *Expertise in the content area*	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
Intervention in School and Clinic, 40(5), 260-270. doi: 10.1177/ 10534512050 400050201			students • Artifacts Findings across all case studies were analyzed using analytic induction and the constant comparative method to identify major themes	**Case 2** Grade 8 social studies Co-teaching partners were a GE teacher and SE teacher 30 students, 8 EBD **Cases 3 & 4** High School World History and High School Chemistry 22 – 27 students EBD, Autism, hearing, and LD	**Case 2** • *Co-planning* occurred at the beginning of the year but tensions escalated over the course of the year. One teaching partner felt his co-teaching partner was putting too little effort into planning. This contributed to frustration about co-teaching for the other teacher. • Students responded well to *different teaching styles* however, these differences contributed to conflict between the teachers. • *Behavior and classroom management* were unstructured and ineffective contributing to the stress between teachers. **Cases 3 & 4** • *Roles and Responsibilities* were distinct. GE teacher was the curriculum expert, SE teacher was the adapter of assignments, the assistant and extra help teacher. When supporting individual and small group instruction the teachers' roles were indistinguishable. • *Differentiated Instruction* included peer tutoring and shared small group responsibilities. Texts with high	

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					reading levels, new vocabulary, and abstract concepts made differentiation difficult. • *High-stakes testing emphasis* made modifying the pace of instruction a challenge. Mediating variables include: • Teachers academic content knowledge -strong content knowledge by the SE teacher facilitated co-teaching, the partnership was more equal -the idea of and equal partnership with the GE teacher providing content knowledge and the SE contributing pedagogical knowledge was not upheld • High-stakes testing -made it difficult to modify the pace of instruction -exerted a strong influence on how content was covered and how co-teacher collaborated • Co-teacher compatibility -"The relationship between the co-teachers is a major critical component influencing the success or failure of the inclusion of students	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments

					with disabilities" (p. 268).
					 -relationship is built on mutual trust and respect for one another's expertise
					 -years of teaching experience was not a factor
					 -most success when teachers used effective teaching behaviors
					    structure
					    clarity
					    enthusiasm
					    maximizing student engagement
					 -compatible perspectives on effective teaching
					 -volunteering to co-teach was not a factor	

McSheehan, M., Sonnenmeier, R. M., Jorgensen, C. M., & Turner, K. 2006	Explanatory	How does the redesigned Beyond Access model impact: teaming practices, presumed competence, student performance, and reasons for	2 day orientation on assumptions and practices of the BA model Comprehensive Assessment of Student and Team Supports (CASTS) – "a	4th year of a pilot 6 months • Years 1-3 field testing • Year 4 redesign & replication	**Impact on teaming practices:** • effective and efficient meetings were necessary to support the team • skilled outside meeting facilitator provided structure • PD on collaborative teaming practices as helpful in determining & implementing meeting structures and strategies • Communication: working through differences of opinion	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
Beyond communication access: Promotion learning of the general education curriculum by students with significant disabilities. *Top Language Disorders,* *26*, (3), 266-290.		impact on educational practices and student performance. Beyond Access (BA) model was designed to promote "learning of GE curriculum by students with significant disabilities in the context of GE classrooms through a student and team planning process grounded in high-quality professional development. The BA model organizes best practices for students an their teams into a	process for gather information about the perspectives of each of the team members that serves as a basis for implementing the BA model" (p. 273). BA faculty synthesized information, summarized themes and discrepancies, identified examples of student and team performance. Team members approved the findings using a consensus	All sped directors in New Hampshire received an invitation to the information session. 8 responded and attended the workshop Two schools were selected because they showed commitment "(a) to educating students with the most significant disabilities in GE classrooms; (b) to provide administrative support for staff	• Shared understanding • Positive intentions resulted in better communication between family members and school members • Classroom teachers had a better sense of their leadership role **Impact of presumed competence:** Appears to have had a positive impact on team members' perceptions of student outcomes. Teams expected students to be present in class and collaborated to develop lesson plans that would facilitate the engagement of sped students in GE curriculum. Teachers reported sped student learning of the GE curriculum that was unexpected. Themes: • Membership • Participation-instruction-curriculum • Planning • Supports • Demonstration of learning (p. 279) **Impact on student performance**	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
		coherent, reiterative, and manageable process of assessment, implementation, evaluation, reflection, and revision, promoting continuous program improvement" (p. 267).	process. **Best practice workshops** • 3 days • effective team meeting structures • using AAC and AT to promote participation and learning • literacy Impact survey was used. Each team member completed a survey for each team of which they were a member. 30 team members	to implement to BA model, attend workshops, and weekly team meetings, and complete data collection protocols; and (c) to form an administrative team that would monitor the implementation of the BA model and work on systems for sustainability" (p. 269). **School district A** • 12,000 residents • Had 10 years of experience with part-time	• Four of five student teams indicated a significant increase in student participation to 60% - 80% • Teams created more opportunities for the students' participation in and learning of the GE curriculum • Improvements in student communication reflect changes in team members' practices Themes: • Opportunity to communicate • Supports for communication • Means of communication • Communication about curriculum **Reasons for Impact on** **Team practices:** • Changes in expectations (presumed competence in planning lessons & IEPs) • Shared understandings and facilitated meetings – increased collaboration • Reflective practice approaches **Students' performance** • High expectations of team members regarding the students' abilities	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			38 surveys completed

Mean, mode and standard deviation was determined for each Liker-scale item using a Microsoft Access database.

Open-ended responses were analyzed to identify themes using an iterative process for coding based on inductive analysis methods.

Two researches coded the responses independently. | inclusion
• Existing PD for staff and strong admin support for inclusive education practices
• Id as a needs improvement school
School district B

• 10,000 residents
• Strong admin support
• New to inclusion of students with significant disabilities in the GE classroom
• History of due process and mediation initiated by | • Students' membership and supports in the GE classroom
• Team collaboration and planning – reflective practice
• High quality PD workshops and on-site coaching

Results showed:

BA orientation, CASTS process, and workshops increased

• Team effectiveness
• Expectations for students' membership, participation and learning of the GE curriculum
• Supports provided to students
• Students' membership, participation, and learning of the GE curriculum content.

Implications
• Focus on student assets, high expectations – not sufficient alone but the first step
• Focus should be on providing a context for the student to be successful in the GE classroom
• Evaluate student learning and teams | |

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			Any coding differences were resolved through discussion. A third research independently coded the previous results. Any differences were again resolved through discussion.	parents • Id as a needs improvement school **Students** (5) School A – 2 School B- 3 • Eligible for New Hampshire alt. assessment • Significant disabilities • Benefit from AAC and/or AT to support learning • 50% of day in GE classes for at least two core subjects **Team members**	effectiveness in providing an accommodating learning environment • Provide curriculum AAC supports related to the GE curriculum prior to the student learning the curriculum • PD should include exploration of creative and innovative strategies to improve students with significant disabilities access to, participation in, and learning of the GE curriculum. • Job embedded PD including, workshops, needs assessment, instructional planning, teaching, and reflective practice • Expand assessment practices to be more contextual	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
				35 total • Parents/guardians • General educators special educators • Related service providers • Administrator • Range of experience		
Murawski, W.,& Swanson, L. 2001 A meta-analysis of co-teaching research: Where are the data?		To quantify the co-teaching literature in terms of the magnitude of treatment outcomes and address two specific questions: "1. Does the magnitude of co-teaching outcomes vary as	Meta-analysis Comprehensive literature search using three methods: 1. ERIC, PsychLit, and EdInfo databases were searched for co-teaching	Three criteria were used to identify which of the 37 articles could be included in the meta-analysis: 1. The study included sufficient quantitative data that would enable the researcher to	Study Characteristics: • Publication dates 1991-1998 • Took place over 1 academic year • None reported measures of treatment integrity • Random assignment of participants to instructions conditions occurred in one study Sample Characteristics • Three studies provided information on both general and special education students	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
Remedial and Special Education, 22, 258-267. doi:10.1177/ 0741932501 02200501		a function of grade, gender, length of study, or severity or type of disability" (p. 259)? "2. Do studies that produce the largest effect size vary from other studies as a function of the type of dependent measure of focus (e.g., grades, social outcomes, achievement)" (p. 259)?	with general educators and special educators 2. Hand search was done on all articles cited in review articles 3. *Exceptional Children, Teacher Education and Special Education,* and *Remedial and Special Education* from1991-2001 were hand searched. 89 articles were identified – 37 had significant quantitative data for analysis	calculate effect sizes for the intervention. 2. The study included four characteristics that identify the intervention as a form of co-teaching general ed. teachers and special service providers… were working together; (b) the intervention was occurring in the same physical space…; (c) an element of co-planning was included…; and (d) the interven-tion involved delivering instruction to a heterogeneous	• Three implemented co-teaching with a full-time special and general education teacher in the same room • Four implemented consultation/collaboration where the special educator was in the classroom part-time. • Grade levels: K-3, 3-6, and high school • All used the general education classroom as the setting for co-teaching • Co-planning and co-instructing of a heterogeneous group of students occurred in the same physical space. • In three studies teachers volunteered to participate in co-teaching • Not enough specific data to allow for analysis of effects of the intervention by type or severity of disability Effect Size • Reading and language arts achievement ES = 1.59 (incorporates four effect sizes from three studies) • Math achievement ES = 0.45 (incorporates four effect sizes from three studies) • Grades ES = 0.32 (derived from three effect sizes from two studies)	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			Each of the six studies was coded for • Study characteristics • Sample characteristics • Outcome measures • Effect sizes	group of students, with and without disabilities. 3. The co-teaching treatment condition lasted for more than a 2-week period, not including pretesting and post-testing. Six of the 37 studies met the criteria for inclusion in the authors' quantitative meta-analysis	• Social and attitudinal ES = 0.08 for students with disabilities (derived from eight measures in one study) "For co-teaching to be considered a viable service delivery option for students with disabilities within general education, statistical information disaggregating the effects of students served in co-teaching situations from those served in control situations (usually on a consulting or pull-out basis) is critical" (p. 263). This information was not available in these studies. Pre and post-test data was available in some studies the effect sizes in reading were statistically significant, mathematics was found to have a more limited effect size. By grade level: • K-3, 2 measures, effect size 0.95 • 3-6 (Vaughn et al., 1998) 8	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					measures, effect size 0.08 • 3-6 (Klingner et al., 1009) 3 measures, effect size 0.50 Overall for elementary ES = 0.19 Overall for HS ES = 0.30 Overall for all students ES = 0.40 Limitation: only three studies included ES related to students with disabilities. General Findings: • Differentiation of the effect of the intervention by ability was not generally possible. • Large effect sizes were found in one K-3 study and one HS study • The relationship between effect sizes and dependent measure could not be answered due to variability of the studies • Limited data shows a positive impact on academic achievement	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					• Reading and language arts ES = 1.59 • Mathematics ES = 0.45 • Reduction of referrals = 0.43 • Social measures (one study) no effect Effect sizes for individual studies varied greatly (0.08 – 0.95), suggesting that co-teaching is moderately successful.	
Nevin, A., Cramer, E., Voight, J., & Salazar, L. 2008 Instructional modifica-tions, adaptations, and accommo-dations of co-teachers who	Descriptive	"The main objective of this study was to describe how the co-teachers implemented the fourth-grade curriculum as well as the specifications of IEPs for students with disabilities, the Academic Improvement Plans (AIPs) for general education	**Semi-structured interviews** with the co-teachers, guidance counselor, and the para-professional Interviews were transcribed verbatim and analyzing using the constant comparative method	• Urban multi-cultural school in Florida • One grade four classroom • 54 % of students qualified for free & reduced lunch • 12% African-American • 88% Hispanic • 63% of	• Strong evidence for adaptations, accommodations, and strategies in response to lessons on a consistent basis as described on the IEP, AIP, or LEP plans • All SE students showed improvement in their developmental scores for reading on the FCAT • All but one SE student showed improvement in math on the FACT • 8 of 10 GE students made gains in math • 9 of 10 GE students made gains in reading • 6 of 8 SE students made AYP in math	Co-teaching can help with early identification of student needs, decrease SE referrals Strategies used for SE, LEP and students on AIP plans were very similar.

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
loop: A descriptive case study. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children, 31*, 283-297. doi: 10.1177/ 0888406408330648.		students who had not made adequate progress and were at risk for school failure, and the Limited English Proficiency (LEP) plans for students learning English as a second language.	**Standardized achievement test scores:** Mathematics and reading achievement data from the Florida Comprehensive Achievement Test (FCAT) Comparison between 3rd and 4th grade performance The performance of GE students was compared to other 4th graders **Document review** provided information on accommodations	students looped in the co-taught classroom the previous year • 33% received SE services • 28% had AIPs (not SE services • 12% LEP • 54% participated in an expressive arts program Educators • SE teacher • GE teacher • 3rd year of co-teaching together • Para-professional with three years of experience • Guidance	• 8 of 8 SE students made AYP in reading • 13 of 15 students without IEPs made AYP in math • 14 of 15 students without IEPs AYP in reading • GE students progress similar to that in other 4th grade classrooms Interviews indicated five themes: • Flexibility: adaptations, accommodations and specific strategies were made to the state curriculum to meet IEP, AIP< and LEP plans • Collaboration: Our students, our ideas, divided planning by subject but co-taught • Appreciation: administrative support, common planning time, training, classroom assistants, and guidance support - finding time for planning a consistent problem -cooperative learning and tiered	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			and modifications for SE students **Observations of teacher lessons** Sept. to March Coded by two researchers according to teaching strategies, accommodations, or adaptations	Counselor	instruction facilitated differentiation -balanced range of student abilities • Benefits of co-teaching and looping: feel more competent • Coequal relationship	
Pugach, M. C., & Wesson, C. L. 1995 Teachers' and students'	"To solicit students' perceptions of their yearlong experiences in two team-taught classrooms" (p. 281).	• How do students perceive their experiences in a team-taught classroom? • What are teachers' perceptions of team-teaching?	• Interviews of nine GE and nine learning disabled (LD) students • 20-45 minutes, audio-taped and transcribed • Two hour teacher interviews	• Mid-sized, Midwestern, Urban district • K-5 school with 580 students • Demographics -30% African American -10% Hispanic	Classroom Social Climate *Attitudes* • GE and SE students felt good about themselves, their teachers, and their peers • GE and SE students perceived themselves as doing better academically • Increased sense of pride and	Weekly planning and discussion of student needs. Team functioned as a small group with members having equal status. No

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
views of team teaching of general education and learning-disabled students in two fifth-grade classes.

The Elementary School Journal, 95(3), 279-295. | To solicit teachers perceptions of their collabora-tive work and its effect on students. | | focused on perceptions of:
-Program successes and limitations
-Performance of LD students
-Teacher interactions & the ability to meet the needs of all students
• Data was analyzed using content analysis
• Exploration and discovery were used to determine categories
• Three broad categories and 10 related subthemes emerged | -60% White
• GE and SE teacher volunteers for team teach
• A team of 3 teachers who serviced two fifth-grade classrooms
• 55 students of which 13 were LD
• Two half-day planning meetings in the summer | responsibility for schoolwork
• Felt challenged yet successful
Giving and receiving help
• The norm
• Everyone needs help from time to time
• Two teachers reduced teacher response time
• Students valued cooperative learning
• All students helped others
Relationships

• "Kids got nicer" (p. 286)
• LD students were teased less than in previous years
• "We feel like on family or something" (p. 286).
• Students expressed a desire to go to school, this was a change for some from the past

Instruction and Its Effects

• Varied instruction
-Hands on and small group instruction
• Small group assistance
-Skill based instruction | formal team leader

Teachers need to be flexible and capable of changing.

Allows for the transformation of the curriculum |

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					-Flexible groups -Students did not like being pulled out of the classroom Teachers' Roles and Tasks *Various roles of teachers* • Students perceived the two classroom teachers as subject experts and the SE as having fewer traditional responsibilities • The SE was the one who helped them individually • The SE help was not seem as limited to a specific group • SE teacher seen as the organizer of small group work *Coordination of work and instruction* • Students perceived the teachers as "good workers" who planned together • When students received math support from the different teachers it was sometimes confusing General Benefits of Collaborative	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					Team Teaching	
					• Students felt their academic and social needs were better met	
					• Having an SE teacher in the classroom created a more supportive environment	
					• Teachers felt they were better able to meet the needs of high achieving students	
					• Students became more collaborative	
					• Provides LD students with stability	
					• Increased alignment of lessons due to being in the same classroom	
Salend, S. J., Johansen, M., Mumper, J., Chase, A. S., Pike, K. M., & Dorney, J. A. 1997	To further examine the impact of cooperative teaching by sharing the experiences, and evolution of a cooperative teaching relationship between a	• In what ways does the relationship between teachers involved in cooperative teaching change and evolve over time? • What	Case study Open-ended, non-directed teacher journals Interviews with: • Teachers	• General education kindergarten classroom • K-6 elementary school • Rural school district • New York State • 24 students	• Concerns about cooperative teaching -Classroom ownership and space initially -Concerns about role delineation, teaching styles, and philosophical differences • Respecting skill differences and recognizing mutual strengths developed by Thanksgiving time • Teachers experienced a renewed enjoyment and excitement • Learned to address differences in	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
Cooperative teaching: The voices of two teachers. *Remedial and Special Education, 18*(3), 3-11. doi: 10.1177/ 74193259701 800103	special and general educator educating students with disabilities in the general education classroom.	concerns do teachers have about cooperative teaching and how do they express and resolve these concerns? • What factors contribute to the development of a success cooperative teaching effort?	• Principal Teacher journals	• 7 SE students -1 cerebral palsy -2 LD -2 speech -1 selective mute -1 traumatic brain injury -self contained classroom	instruction directly, teacher journals were a helpful tool in this process • Increased sense of community in the classroom among staff and students • Shared responsibility was evident in the journal writing as teacher language changed from "I to we" in their entries • Teachers and principals report that students with disabilities are functioning at a higher level and that students' academic and social skills improved Findings were consistent with the literature • Cooperative teaching was rewarding and encouraged teachers to change and take risks • Helped to decrease the isolation teachers feel • Teachers gradually evolved into a cooperative team based on shared responsibility, accountability, and decision making • Journal served as an intervention that facilitated communication concerning various aspects of the classroom and collaborative	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					experience • Collaboration of teachers spilled over into increased sensitivity of students toward their peers • Administrative support through -dialogue -provision for planning time -opportunities to observe other programs • Training: -interpersonal communication -listening -conflict resolution -problem-solving skills & strategies	
Scruggs, T. E., Mastroppieri, M. A., & McDuffie, K. A. 2007 Co-Teaching in inclusive classrooms: A metasynthe-	"To systematic-ally summarize and integrate the findings of all available qualitative research reports into one integrative review" (p.		Qualitative Metasynthesis sometimes referred to as "meta-ethnography, meta-synthesis, or metastudy" (p. 394)	32 original reports of qualitative research on co-teaching Participants • 454 co-teachers • 42 administrators	**Benefits of co-teaching** Teachers: • Contributed to their professional development • SpEd teachers increased content knowledge • General ed teachers inc. classroom management and curriculum adaptation • Compatibility of teachers was a factor	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
sis of qualitative research. *Council for Exceptional Children, 73* (4), 392-416.	394).		"The purpose [of qualitative metasynthesis] is to integrate themes and insights gained into a higher-order synthesis that promotes broad understandings of the entire body of research, while still respecting the integrity of the individual reports" (p. 395). • Each research report was treated as an "individual informant" • "Metasynthesis was created across all-individual	• 42 students • 26 parents • 5 support personnel Geographic distribution • Northeast US • Mid-Atlantic US • Southeast US • Midwest US • Southwest US • West coast US • Canada • Australia Grade levels: • 15 primary, preschool, or elementary classrooms • 14 MS, Jr. high, or high school classrooms	Students without disabilities: • Increased cooperation among students • Academic benefits through extra teacher attention • Collaboration of teachers provided positive modeling for students • Social benefits discussed more than academic benefits Students with disabilities: • Only a few students failed to succeed • Were willing to work harder • Received additional attention • Felt their academic and social needs were better met than in a classroom with a single teacher Students skill level • Strong concerns about including students in co-taught classroom with minimum academic and behavioral skill level • Be cautious about forcing teachers to	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			research reports" (p. 395). • Then the information was integrated. "In the present investigation, we determined to treat each identified research report as an individual "informant," and create a metasynthesis across all individual research reports, using procedures familiar to qualitative researchers" (p. 396). NVivo was used to organize the	• 3 both elementary and high school Locations: • 8 urban • 9 suburban • 4 rural • 5 combination • 6 not reported Selection of studies: • Employed qualitative research methods as a primary methodology • Qualitative interviews conducted following a quantitative surveys,	co-teach **Expressed needs of co-teachers** Administrative support: • The principal is instrumental in the support of co-teaching • District level support was also perceived as important • Linked to other issues Volunteerism: • Teachers should choose to co-teach • Choose their own partners • Some felt it should be forces so that all teachers were involved, training and support would be needed Planning time: • Regular collaboration time between sped teacher and general ed teacher was noted in all studies • Framed in the context of administrative support	

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			data into general themes. Coded for setting and demographic variables including: • Geographical region • Grade level • Urban/rural/sub urban setting • Predominant co-teaching model • Number of participants -Administrators -SpEd & GE teachers -Students -Other participants • Types of	analyzed using qualitative methods were included • Specific reference to co-teaching • Reported in journals, dissertations, and master's research reports • Dissertations and theses met quality standards employed in the synthesis • Searches included: -Co-teaching -Inclusion -Mainstreaming -Cooperative teaching • Ancestry search and	Training • Knowledge of disabilities • Flexible thinking • Strategies and practical skill development • Co-teaching models • Use of technology • Group interpersonal skills • Communicating effectively Compatibility • Several rated this as the most critical variable for success • Mutual trust and respect • Appropriate attitudes Marriage • Many investigations referred to co-teaching as similar to marriage • Flexibility and compromise are required for success • Consistent use of the metaphor provides evidence for conformity of thought	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			disabilities • School socioeconomic status • Subjects taught • Voluntary nature of participation (Y/N) All reports were retrieved or converted to a digital format. Data were coding using open coding in an inclusive, recursive process resulting in 69 categories. Four superordinate categories were created: • Expressed benefits of co-teaching • Expressed	descendant search of cited research • No time limits were set First qualitative studies of co-teaching were in the mid-1990s Studies used met "credibility or trustworthiness" as defined by Bratlinger et al. (2005) (p. 398) • Triangulation • Disconfirming evidence • Prolonged field engagement	**Teacher roles** Models of co-teaching • Most common: One teach/one assist Subordinate role & turf • SpEd teacher often has to fit into the "general education teacher's classroom" • Not true in every classroom studied **Instructional delivery in co-taught classes** General Education Teacher: • Favor strategies that can be applied to whole group instruction i.e. visual strategies • Some GE teachers are reluctant to individualize instruction Special Education Teacher	

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			needs for success in co-teaching • Special and general education teacher roles in co-teaching • How instruction is delivered in co-taught classes Axial coding was used to determine relationships between and among codes. Data analysis was inductive Avoided an actuarial approach to data analysis rather phenomena were evaluated	• Detailed description • Member check and peer debriefing (p. 398) Additional considerations • Systematic and appropriate data collection • Appropriate representation of data (p. 398) • Peer review • Credibility of data -Original data -Specific and general conclusions	• Some planned and taught the entire lesson • Most played a supporting role to the general education teacher • Special ed teachers provided less specialized instruction Special education and behavior management • The SpEd teacher is often expected to handle behavior problems **Peer Mediation** • Sometimes used in the form of peer tutoring or cooperative learning • Expected techniques, rarely observed -principles of effective instruction -differentiated instruction -appropriate curriculum -mnemonic instruction -effective student grouping -strategy instruction **Conclusions** • Metasynthesis allowed for a precise summary of individual data rather than on a summary report	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			with respect to: • Recurrence • Corroboration • Presence or absence of disconfirming instances This was more faithful to the data analysis procedures in the original studies (p. 389).		• Allowed for the review of a large data sample • Facilitated examination data across multiple variables • Administrators, teachers, and students perceive the model of co-teaching to be generally beneficial to general education students and to at least some special education students both in social and academic domains. Additionally it is beneficial to teachers' professional development • Conditions needed for co-teaching to succeed -sufficient planning time -compatibility of co-teachers -training -appropriate student skill level • Dominant teaching model "one teach, one assist" (SpEd teacher often plays a subordinate role due to content knowledge and turf issues.) • General education teachers generally use whole group instruction models with little differentiation. SpEd teachers usually teach small groups in support of the general ed. classroom.	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					• Consistency of conclusions across grade level, subject matter, geographical location, specific setting, and student characteristics indicates that these issues are pervasive. • The goal of "true collaboration between two equal partners-focused on curriculum needs, innovative practice, and appropriate individualization has largely not been met" (p. 412). • The co-teaching model is being implemented far less effectively than is possible. • Results suggest that special education students are getting a good general education but not a "special education." • Many present examples of co-teaching represent "contrived collaboration" Hardgraves. • A true co-teaching model is unlikely to develop when the classroom teacher is in the dominant role. This puts the teachers on unequal "footing." • This cannot be considered a random sample. Therefore, the relationship between the sample and the whole of	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					teachers is unknown. The study probably reflects a more favorable picture of co-teaching than exists. • "Future research should address the means by which individual schools are able to develop truly collaborative or genuine partnership, and the specific gains that can be realize by such practices" (p. 412). • Further efforts should be made to synthesize qualitative research to bring out the individual voices of students, teachers, and administrators.	
Sharpe, M., York, J., Knight, J. 1994 Effects of inclusion on the academic performance of classmates without	Predictive	1. "Given measures of academic performance (i.e., standardized achievement test scores, report card grades and behavior (i.e., conduct and effort denotations)	Quasi-experimental pre-test, post-test design using archival data Achievement test and archival data were retrieved 2 years after the inclusion pilot began.	• Elementary school • K-6 • 640 students • Class sizes of approximately 30 • Rural east central MN • 96% European American • 4% minority primarily	Analysis of SRA and teacher report card data in the year prior to the inclusion pilot indicated no statistically significant difference between the inclusion and comparison groups of students. After one year of the inclusion pilot there were no statistically significant differences between academic performance of the GE students in the inclusion and comparison groups as measures on SRA Assessment Surveys,	Opposition to inclusion is often based on loss of specialized instructional expertise for students with disabilities. Inclusion is also challenged because of potential

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disabilities: A preliminary study. *Remedial and Special Education, 15*(5), 281-287. doi: 10.1177/ 074193259401500503		currently employed in a school, what are the effects of an inclusive environment on general education classroom" (p. 282). 2. "Are classroom teachers more likely to see increased behavioral problems when students are educated in an inclusive environment" (p. 282)?	Data: 1. NCE scores of Science Research Associates (SRA, 1975) Assessment Survey in reading, language arts, and math. The composite score was also used 2. Reading level as determined by Houghton Mifflin (1982) reading series 3. Academic performance – grades 4. General performance-conduct and effort denotations of report cards.	Native American • 20% poverty • 5 primary-age students with moderate to severe disabilities • 35 students without disabilities in inclusive classrooms • 108 GE students not in inclusive classrooms • Participation by GE teachers was optional • Staff development was provided to GE and SE teachers in the inclusive classrooms by special	the composite scores, or teacher post-inclusion ratings on students report cards. No decline in the academic or behavior performance of classmates educated in the inclusive classroom was found. Limitations • One elementary school in a rural context • Limited sample of students with disabilities • May not be transferable to secondary settings	learning risks to the majority (p. 282).

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			SRA scores were analyzed using ANOVA procedures on SRA pre- and post-test, mean NCE scores.	education coordinators that support an 8 county region • 3 formal training sessions -Rationale for inclusion -Developing individual-ized programs -Promoting peer support -Clarifying roles and responsibiliti es of teachers and paraprofessio nals. • SE coordinators received periodic support from U of MN staff as a part		

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
				of the pilot • The SE students were distributed among 4 classrooms		
Signor-Buhl, S., LeBlanc, M., & McDougal, J. 2006 Conducting district-wide evaluations of special education services: A case example. *Psychology in the Schools, 43*(1), 109-	Predictive	To evaluate the academic outcomes of children served in self-contained versus inclusive models of special education programming in a specific school district. "By using the data available to the district, can the academic progress of students served in self-contained and inclusion programs be	Quasi-experiment	Midsize urban school district Upstate New York 4th grade inclusion classrooms Comparison group: • Students from self-contained classrooms in	"After controlling for IQ, the ANCOVA results indicated that students in inclusive classrooms performed significantly better on individual measures of reading achievement than students in self-contained classrooms….The children in the inclusion setting performed approximately .6 *SD*s better on measures of reading achievement, producing a moderate effect" (p. 112). "After controlling for IQ, students who participated in an inclusive classroom performed [in mathematics] at a comparable rate to students who were in self-contained classes….A small, but positive, effect (*SD*s = .18) was found for children in inclusive settings" (p. 112).	"Because program evaluation focuses on a specific program rather than more broadly based theoretical constructs typically evaluated in more classically based research, school district can get answers to relevant questions about their specific programs" (p. 110).

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
115.		compared" (p. 111)? "If so, what results would be generated" (p. 111)?		the same district • Students had participated in the current program for at least 2 years prior to the study • Students with significant disciplinary difficulties were excluded to avoid confounding variables • Intelligence tests were used to control for variables between the two groups Primarily the WISC-III • Achievement measures	ELA assessment: Students in the self-contained group performed within the lowest performance level. Students in the inclusion group fell one performance level higher.	Limitations: • Sole use of archival school data (no pre/post-test data) IQ scores minimized the impact

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
				were to used to measure academic outcomes: ELA state mandated high-stakes grade 4 skills test and individual achievement tests p. 111 • Descriptive statistics were used to investigate the demographics of the two groups including: age, gender, ethnicity, Full Scale IQ, F&R, average time spent in inclusive or self-contained settings.		

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
				Analysis of covariance (ANCOVA) was used to determine whether there were significant differences in achievement between the two groups.		
Sindelar, P. T., Shearer, D. K., Yendol-Hoppey, D., Liebert, T. W. 2006 The	Explanatory To address the "gap in knowledge about factors leading to the sustain-ability of a schoolwide special education reform" (p. 319).	• Would inclusive reform be sustained beyond the life of the initial university-school collaboration? • What factors influenced sustainability?	Case study Methods: • Bronfenbrenner's ecological framework was used for analysis • Rewriting • Coding • Constant comparative method	Large middle school in a large urban/ suburban district in southeast Florida • Increasing diversity • 14.5% F&R • 10.0 %	"Changes in school leadership may affect schoolwide reform in different ways, depending upon the principal's affinity for and commitment to an established schoolwide reform agenda" (p. 329). Large teacher turnover without attention to their affinity for inclusion about inclusion, or their commitment to co-teaching resulted in a loss of focus on inclusion.	Background Three factors were found in the research literature to be related to sustainability of classroom reforms: • District and state policy Negative factors

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
sustainability of inclusive school reform.

Exceptional Children, 72(3), 317-331. | | | Data collection:

• Individual interviews
-95 teachers
-16 administrators | disabilities | Competing agendas at the state level, new accountability measures such as the Florida Comprehension Achievement Test (FACT), decreased the focus on inclusion by increased focus and support for low performing students not receiving SpEd services.

"Findings suggest that high-stakes assessment also proved to be a poor context for inclusion, a schoolwide reform" (p. 329).

Teachers spent less time communicating and teaming as testing expectations increased.

"Redefining success on the basis of academic test performance obscured the benefits of inclusion, particularly for students with disabilities and other students with learning difficulties, and thus undermined the sustainability of | -lack of commitment
-focus on high stakes-testing
• Leadership
-principal devotes time to innovation

-maintaining principal assignments

• Teaching/class room factors
-Teachers' acceptance of the practice

-Innovation is consistent with teacher beliefs or teaching style

-Noticeable benefits for students |

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					the reform" (p. 330). Three major factors contributed to the demise of the inclusion program: • Changes in leadership • Shifting district/state policy • Teacher turnover This led to diminished commitment: • Financial • Philosophical • Lack of resources Critical factors schoolwide reform: • Strong principal leadership • Professional development • Adequate resources	Factors in schoolwide reform: • District policy • Principal leadership • School culture -Shared vision -Shared decision making -culture of communication -teacher mobility • Teacher leaders invested in the innovation and its use • Innovations that are smaller in scope and require less change are more successful

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
						"Districts that show strong commitment to a reform recognize schools for adopting new practices and take measures to ensure that principals follow through" (p. 318).
Theoharis, G. & Causton-Theoharis, C.

2008

Oppressors or emancipator: Critical dispositions | Explanatory

"To build a greater understanding of how to prepare leaders to develop and maintain inclusive services for | 1. What are the critical dispositions for inclusive leadership?
2. What curriculum and pedagogy are used to foster these dispositions? | Positioned subject approach.

Purposeful and snowball sampling

Data collection

• In-depth | "Experts in the field who specifically prepare administrators to hold the critical dispositions to be inclusive leaders" (p. 232). | Critical Dispositions:

1. Taking a global theoretical perspective
-Inclusive education is not just about special education students, it is about social justice (Villa)
-Leading inclusive schools requires understanding how in the past and present we have marginalized large numbers of students
-There is no middle ground, there is no neutral
2. Possessing a bold, imaginative | Future research:

Much to be learned and shared from University faculty about how to create and lead inclusive schools |

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for preparing inclusive school leaders. *Equity and Excellence in Education, 41*(2), 230-246.	all students by starting with the dispositions of school leaders" (p. 231).		interviews • Review of documents/ materials • Detailed field log Constant comparative method of data analysis using inductive and deductive components	Experts were from three domains: 1. Educational leadership preparation –permanent faculty member in an administrative program that focus on inclusion 2. School leadership PD around inclusive schooling 3. Preparation /PD centered on issues of diversity and curriculum. Geographic	vision -Think globally (social justice disposition), act locally (vision for their school) -Believe that all kids and adults can learn 3. Embracing a sense of agency -they need to believe they can make it happen -the need to see that they have the ability to change things -need to be approachable in order to do the work -leaders need to be compelled to take action These three dispositions build upon each other Fostering critical dispositions: It is not straightforward. "This process was complex, multifaceted, personal, and non-linear Critical Disposition 1: -Watch and discuss *Color of Fear* -Draw a picture of current educational services in your district -Video: *Rediscovering the Right to Belong* followed by reflection and discussion.	Implications: 1. Have future and current leaders discuss the beliefs underpinning inclusion 2. See the broader context of marginalization 3. Help individuals see themselves as change agents.

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				diversity	Critical Disposition 2: -Show them inclusive schools -Surround principals with others who are in the process of becoming inclusive -Field trips, guest speakers, video etc. -Use a systematic planning process to develop a vision Critical Disposition 3: -Outline a plan with specific steps to move their school to a more inclusive culture	
Tobin, R. 2005 Co-teaching in language arts: Supporting students with learning	Exploratory	"In what ways did we, as co-teachers, support students with learning disabilities in an inclusive grade-6 language arts classroom" (p. 785)? "How did three students	Case study Portraiture (Hoffman Davis – 1997) method Qualitative research techniques to understand how	Middle class, middle school grades 6-8 850 students in the school Small city in British Columbia,	**Ways of supporting LD students** • Learning support within the co-teaching structures o Help board (ideas & instructions; editing) o Traffic patterns (teacher responsibility for supporting specific students o Compromise on how to access help during seatwork-delay intervention until students have had time to think about what they were asked to do. • Explicit teacher-instigated literacy	Classroom routines were a contributing factor in successful co-teaching. Planning and collaboration time is critical to parity and developing support

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disabilities.
 	
Canadian Journal of Education 28(4), 784-801.
		identified with LD access help in an inclusive setting" (p. 785)?	and why.
			
			Data sources:
			
			• Tape recordings of participant observations (40 hrs.)
			• Planning meeting field notes (8 hrs.)
			• Taped semi-structured individual student interviews (3 hrs)
			• Classroom teacher interviews (2 hrs)
			
			Data was coded and themes were identified from the data sets.
			
			Author served as
				Canada
				
				Four month (1 semester) pilot
				
				All LD students were given the opportunity to participate in the study.
				
				• The six LD participants-assigned to clusters of 3 in two classrooms
				
				One 6th grade classroom
				
				• 29 students
				• 5 with IEPs
				  o 3 severe LD
				  o 1 hearing
					support
					  o SE teacher prepared prompt sheets for LD students to scaffold instruction for mini-lesson activities
					  o Provide more time for LD students to brainstorm and preplan for writing activities
					• Interactional inclusion
					  o Individual dialogues to support LD students in generating ideas while the SE teacher scribed or created a graphic organizer
					
					How did students access help?
					
					• Students were very reflective
					• First they considered the difficulty level of the work for other students- if it is hard enough for the rest of the class I will ask
					• Helping board – ask a neighbor first
					• Find an equally confused partner and ask for help at the same time.
					
					In the future it would be helpful to adopt a differentiated approach for all
						structures for students.

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			researcher Co-taught 3-50 minute blocks per week (2.5 hours for 16 weeks)	impairment ○ 1 gifted • 5 reluctant readers and writers GE teacher volunteered, 8 years of experience in 6th grade. Prior to pilot initiation the researcher conducted • 2 interviews with each student while still in 5th grade • interviews with grade 5 teachers • Interviews with students'	students. This would facilitate shared decision making of the teachers and recognize LD students as more a part of the group.	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
				parents		
Walther-Thomas, C.

1997

Co-teaching experiences: The benefits and problems that teachers and principals report over time.

Journal of Learning Disabilities, 30, 395-407.

doi: 10.1177/0022 21949703000 | Descriptive

"To investigate the emerging benefits and persistent problems that 23 school teams encountered as they implemented inclusive special education models" (p. 396). | | Three year study

Classroom Observations

• Classrooms observed once per year
• Pairs of graduate student observers
• Records of various:
  -Instructional procedures

  -Co-teaching procedures

  -Disability codes

  -Classroom characteristics | • Eight Virginia school districts
• 32 school based teams
  -18 elementary

  -7 middle schools

• Teams
  -Five members

  -Principal or AP responsible for SE students

  -One or more GE teachers

  -One or more SE teachers | There was a high degree of convergence on the lasing benefits and persistent problems related to co-teaching.

Three year time period allowed co-teaching to evolve providing participants opportunities for reflection.

Identification of variables to a specific site was identifiable.

The themes identified reflect broad-based support from both teachers and administrators.

Benefits

Students with Disabilities

• Self-confidence and self-esteem | "Co-teaching provides classroom teachers with assistance in the development, deliver, and evaluation of effective instructional programs. It provides specialists with critical information about classroom setting demands, teacher expectations, and current student performance levels" (p. 396). |

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
406			**Semi-structured Interviews** • Every participant in the spring • 45-90 minutes • Audio-taped • Teachers -Co-teaching process -Planning -Student scheduling -Staff development -Support -Observed changes -Benefits -Problems • Administrators	-119 teachers -24 administrators Criteria for selecting school teams • Recommended by district-level administrators • Observation -Inclusive service delivery models were in place -Daily co-teaching was a key component • All team members	-"A number of teachers notes that many students with disabilities "lost" their labels when the special education service delivery format was changed" (p. 399). -"Teachers indicated that the identified students paid more attention to their schoolwork, physical appearance, and many showed increased school attendance" (p. 399). • Academic performance -Very few students failed to succeed in appropriately mainstream settings -Students described as "blossoming, or taking off" (p. 399). -To facilitate inclusion, teachers responded to the questions of non-identified students first at the beginning of the year • Social skills performance -Exhibited more inappropriate behaviors in the resource classroom than in the GE classroom • Peer Relationships	Co-teaching is different from other forms of collaboration because the teachers are working together in the classroom. Co-teachers are actively involved in the classroom on an ongoing basis. Future research: • To determine the relative importance of the benefits and problems identified • Establishment of minimum criteria for

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			-Facilitator role -Benefits -Problems **School Documents** • Documents mentioned during interviews • Documents in use during observations **Informal Contacts** • No formal data collected • Teacher requests	were willing to participate in the study Students • All federally funded disabilities were included • Variety of functioning levels	-Adjusted well socially -Visited peers homes -Played with peers at recess *General Education Students* • Improved academic performance, especially with low achieving students • Teacher time and attention increased -Active learning -More time on task -Students found it harder to get away with things • Strategies and study skills instruction, increased focus on developing these skills • Social skills development • Classroom communities, classrooms felt more inclusive *General and special education teachers* • Increased professional satisfaction • Professional growth due to working closely with another professional • Personal support – share the good times and the struggles with their co-	inclusive classrooms

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					teacher • Increased collaboration among faculty members **Persistent Problems for Participants** Most participants noted every one of the problem themes in one or more interviews • Scheduled planning time -More of a problem at the elementary level than the middle level -More problems in year 3 due to increased desire for co-teaching -Became more efficient as they developed routines and SE teachers became more familiar with GE curriculum • Student scheduling -Principal's role is critical -Too many academically or behaviorally needy children in one classroom is problematic -Large special educator caseloads	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					make scheduling challenging	
					• Special education caseload concerns • Administrative, district and school level is a critical factor in successful implementation • Additional staff development needed -Scheduling students -Co-planning and co-teaching skills -Writing IEPs for mainstream settings -Communication to facilitate teamwork & collaboration In schools with successful implementation: • Teachers, principals, and district-level administrators spoke the same language about inclusion and learning opportunities for students with disabilities • Schools and school systems provided teacher with moral support, recognition, and resources • Often experience the same barriers	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					during implementation • Student focused	
Wood, M. 1998 Whose job is it anyway? Educational roles in inclusion. *Exceptional Children,* 64(2), 181-195.	Descriptive	Research goals and focus of the inquiry: "(a) to document teachers' feelings of obligation, responsibility, and commitment to specific educational goals for children with sever disabilities included in general education classroom; and (b) to describe the barriers and facilitators of collaboration between the professionals as perceived by the team members" (p. 183).	Semi-structured interviews focused on: • Collaboration • Communication • Team-building Data collected and analyzed by the researcher: • Reviewed and validated by participants • Peer debriefing • Inquiry audits • Triangulation of data Two interviews were conducted with each teacher in the first two months of the	• Central CA • Inclusive classrooms in an K-6 elementary school • School district 5,500 students • 50% middle-class Caucasian • 40% Latino • 5% Asian-Pacific Islanders • 3% African-American • 29% Federal Poverty level • District did not have a long history of inclusion	Initially the roles or the GE and SE teacher were very distinct. On all three teams the SE teacher was responsible for: • Providing individualized instruction in math and reading • Model effective instructional methods for other team members • Develop behavior plans with appropriate consequences • Oversee para-educator GE teachers were seen as supporting • Social goals • Classroom functioning • Did not assume academic responsibility for the SE student Blurring of roles occurred over time as the SE students progressed in social development.	Findings aligned with group process theory (Johnson & Johnson, 1991; Matthews 1992) in that teachers initially oscillated between "opening and closing" their boundaries to others. "The process of change is unique to the individuals in the group and their ability to accommodate the necessary behavior and attitudinal changes for

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			school year. An additional interview was conducted four months later.	of students with severe disabilities in GE classrooms • Voluntary participation by GE teachers • Director of SE and Student Services selected information-rich, experienced and willing teacher participants for interviews • Three teaching teams • Students -early to mid-elementary -moderate to	GE teacher assumed increased responsibility for SE students' academic development. As role ambiguity increased classroom teachers began to see pull-outs by the SE teacher as disruptive. "Accepting the students with disabilities in their classroom was deemed appropriate and worth-while by these [GE] teachers, but accepting other adults who came with didactic suggestions to restructure their classrooms was not" (p. 191). SE teachers felt their role was misunderstood and devalued. Role clarification is essential to implementation and maintenance of	collaboration" (p. 192). Barriers to collaboration include: • Professional development • Time to consult • Funding issues • Large case-loads of special educators Effective indirect service delivery requires: • "The responsibilities of the consultants should be clearly

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				severe disabilities, self-care and academic needs -no significant transitional service delivery complication	inclusion programs.	articulated • Training on the various fields' assumptions, practices, and terminology should be provided • Those in the field who have developed solutions should share them with their colleagues.
York-Barr, J., Sommerness, J., Duke, K., & Ghere, G. 2005	Explanatory	• "What is the nature of the work of special educators who support students with low incidence disabilities in inclusive	Focus groups using a reflective inquiry process Focus group convened for two full days	Elementary and secondary special education teachers, from different school districts and sites. These teachers had one of two	***Nature of the work of special educators in inclusive education settings*** *Finding 1: Extensive and overlapping roles and responsibilities.* Organized around four major roles:	Special educators must be able to see both the big picture and tend to the details. Directing the work of

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
Special educators in inclusive education programmes: Reframing their work as teacher leadership. *International Journal of Inclusive Education* *9*(2), 193-215.		educational settings? • What supports and constrains the work of these special educators? • How might the conditions of practice for special educators in inclusive settings be improved" (p. 194)? For each question participants constructed their answer individually on the response sheets formatted for each question. Various structures	Each session was scheduled two weeks apart Two members of the research team facilitated the focus group while the other two served as observers and recorders.	roles: site-based direct service special educators; or lead or support special educators who support teachers. Seven to ten participants per focus group Three different school districts with quality inclusive programs. "Specific individuals were identified who had extensive direct or indirect responsibility for inclusive	-Developing IEPs -Coordinating programme implementation for all students -Designing and providing instruction to students -Directing the work and skill development of paraprofessionals These overlapping roles are necessary to weave together the supports and services required to meet student needs. *Finding 2: Complex and dynamic patterns of daily work.* On average a 9-hour day is spent at school which included: -Direction instruction with students -Communication with other staff -Working with paraprofessionals -Preparation of curricular and	paraprofessionals is time consuming.

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			were used to have participants share their answers with one another. Focus group questions: • How would you describe the range of roles and responsibilities required of you, as a special educator, to function effectively in inclusive educational settings? • How is your time spent during a typical day or week? • What activities or responsibilities are addressed on an annual cycle? How often and	education programmes in which students with disabilities were: educated in general education settings for most of the school day; had low incidence disabilities; required some degree of paraprofessional support throughout the school day; and had IEPs which addressed educational needs that extend across most, if not all, of the school day and extend across academic and non-academic areas" (p. 195).	instructional materials -Unscheduled of unexpected issues -General school duties (bus, lunchroom) -Non-instructional paperwork, and lunch Elementary educators spent more time instructing Secondary educators spent more time communicating with other educators. *Finding 3: Predictable annual cycles of work with peak times not well accommodated.* Cyclical responsibilities are not put additional pressure on special educators because teachers' schedules are not adjusted to accommodate them. Thus resulting in less time spent with students and more time spent on management, communication, and	

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			when do these activities occur? • What are the facilitators and challenges in creating and sustaining inclusive models of educational service provision for students with disabilities? • What actions do or would support special educators and improve their working conditions and effectiveness in inclusive educational settings? Four sources of data: -Notes written by individual participants	Eight educators were selected. One secondary educator form a large urban school district; one secondary special educator and one district-wide low-incidence support teachers from a different large urban school district; and two elementary special educators, one secondary special educator, and a district-wide, low-incidence support teacher from a medium sized school district. The six direct service	planning responsibilities. ***Special educators demonstrating leadership functions*** *Finding 4: Vision and relationships as the foundation for effective practice.* Vision-providing direction for collaborative work. Grounded in: all students having access to learning in the general education context with appropriate support (high expectations for all learners, collaboration among staff, and the use of best practices.) "Relationships, especially those with general educators, were viewed as a way to stay continuously updated about	

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Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			-Key points of conversation recorded on poster paper and then word-processed -Notes made by observers -Project team synthesis of overarching themes, findings, and examples related to each question. Each researcher analyzed participant responses to the focus questions. The team compared findings.	teachers had an average caseload of ten students. The two lead teachers supported direct service teachers across 11 schools in the medium sized district and up to 103 school sites in the urban districts. All were female none supported EBD students.	the access resources and support." Special educators see themselves as bridge builders. *Finding 5: High levels of professional competence in the instructional, communication, and management domains.* Three specific areas in which sped teachers need high levels of competence were identified: -Instructional and assessment expertise -Interpersonal communication and; -Leadership and management skills. ***Differentiated support realized from others***	

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			A preliminary draft of findings was shared with participants for critical review to ensure that the summary, analysis, and interpretation of data were accurate.		*Finding 6: Site and central office administrative understanding and support.* Special educators value the support of administrators, it makes a huge difference by reducing resistance to inclusion. When students value students with disabilities as members of the community it sets an inclusive tone for the building. Understanding of the complexity of the special educators role can be demonstrated by developing a flexible and accommodating schedule. Providing additional support during high workload periods was also appreciated. "Active administrative support mattered a great deal to the sense of support and empowerment felt by the	

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					general educators, as well as the integrity of the inclusive student programmes" (p. 209).	
					Finding 7: Collaborative partnerships for programme implementation and support.	
					Special educators benefit from "real" teamwork and collaboration.	
					Finding 8: Resources that enable special educators to leverage time and expertise.	
					One of the greatest needs identified was time for reflection and collaboration at a regularly scheduled time.	
					Others needs included:	

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					-Support for paperwork, scheduling, and communication tasks -Adequate instructional and work space -Appropriate equipment and curricular materials -Computer support **Implications:** "In an inclusive and decentralized model, personnel, materials and other resources must move 'out there' with the students into a variety of locations that are largely controlled by other professionals" (p. 210). **Conclusion:** Special educator as air traffic controller.	

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					"The nature of the work of special educators in inclusive settings further portrays dimensions of informal leadership, meaning that the special educators are leading through horizontal channels of influence and relationship, as opposed to the vertical channels of hierarchy and positional power" (p. 211). Inclusive practices are fragile and largely sustained by the commitment of special educators. Support of colleagues and administrators is essential to successful inclusive education programmes.	
York-Barr, J., Ghere, G., & Sommerness, J. 2007 Collaborative		• How did the collaborative instructional teams develop? • What did the collaborative instructional	Case Study Data included: Questions 1&2 • Field notes	-Midwestern urban elementary school, one of 53 in the district -600 students	Literature and policy suggest three central tenets for program design for sped and ELLs. -Inclusion and access to general education, -Program coherence, and	Inclusion offers diverse students access to the core curriculum and opportunities to learn sociocultural routines and

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teaching to increase ELL student learning: A three-year urban elementary case study. *Journal of Education for Students Placed At Risk, 12*(3), 301-335.		models look like? • How did collaborative team members view the process and outcomes? • What were outcomes for students? • What are implications for practice?	from site-visits, workshops, and class observations • Supporting documents i.e. handouts & agendas Questions 3 - 5 -Perceptual data from Gr. 1 & Gr.2 teachers Structured group interviews • Mid-year • By grade level • Years 1 & 2 • ½ day in length • Off-site • Written responses 1st followed by group sharing • Focus: benefits, questions, and challenges for students and	Grades K-6 -Neighborhood school with some students from other parts of the district -Large Hmong population -75-80% students of color -Over 2/3 qualified for free or reduced lunch -40-53% ELL -13% qualified for SpEd -District assessments showed static performance -Statewide tests showed a	-Instructionally focused collaboration among teachers. Common elements across classroom literacy block models: • Shared reading • Guided reading • Strategic student groups • Teachers worked with a variety of children • Teachers rotated the groups with which they worked • 90 minute literacy block **Teacher Outcomes** Key factors attributed to successful instructional collaboration: • *Pre-existing dissonance* with present practice (i.e. teacher isolation and competition) contributed to a desire for change • *Administrative mandates combined with early support* for collaborative instruction resulting in additional staffing and time for collaborative	expectations. For ELLs context for language instruction is very important. (a) "Exposed throughout the day to good models of English and (b) Afforded opportunities to learn implicit and explicit sociocultural expectations" (p. 304) Creates cultural capital

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			staff re. the inclusive and collaborative models. Individual interviews • Year-end • Semi-structured • Off-site • 45 min. – 2hrs. ave. 90 minutes • Focus: process, implementation planning sessions, teacher learning, team and student outcomes Analysis: Comparative method used to id. • Themes • Discrepancies • Illustrative	decline in performance -Prior to the study ELL students were separated from other students -53 licensed and 28 unlicensed personnel (includes full and part-time employees) -Stable teaching staff most teachers had been at the school 10+ years -Focused on grades one and two with 150-160 students • 50-55% ELL • 5% SpEd • 65-70% F&R	planning • ***Small group instruction made possible by co-teaching:*** • Allowed for greater differentiation and alignment of instruction • Shared knowledge about what was taught in whole group fostered alignment with small group instruction • Common teaching experiences increased knowledge about student engagement • Higher and more consistent expectations for students • ***Collaborative planning*** was identified as essential • Teaching teams focused on instruction for specific students allowing reflection on instructional practice • Grade level teams focused on planning, scheduling, instruction etc. • ***Multiple and varied instructional models*** Organization of literacy block time was determined by the teaching team in response to student needs **Student Outcomes** -Students were highly advantaged	

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
			examples Five levels of analysis • Within each individual interview • Across individual interviews by grade level – year one • Across individual interviews by grade level – year two • Within each grade level yr. one & two • Across both grade levels, both years -MAT 7 was also used to measure student outcomes • 3 years of student data	-Grade 1 & 2 teachers • 4 FT classroom • 2 FT ELL • 1 FT itinerate general ed teacher • Gr. 2- 1PT ELL • 1 FT SpEd -Support staff • 1 PT ELL Educ. Assistant • 3 PT SpEd Paraprofessionals -3 University Partners	academically, socially, and in terms of classroom participation. -Increased sense of community -Demonstrated cumulative academic gains MAT-7 Normal Curve Equivalent Gains: • Reading gains: +4.17 to +8.12 • Math gains: +13.99 to +20.86 (a new math curriculum was also introduced) • In intermediate grades without collaborative instructional models the gains decreased significantly **Implications for Practice** The learning conversations during collaboration are key to success. -Build knowledge that supports instructional collaboration. This knowledge includes knowledge of: • Individual students • The curriculum, instruction, and, assessment	

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			• Scores prior to implementation were compared through Year 3 for 2 cohorts of students • Test results were analyzed using a cohort-static method • Trend data was reported using Normal Curve Equivalents		• The environment • Team members -Strategically allocate instruction personnel (perhaps using a schoolwide view) -Take a whole-school inventory of instructional resources and needs -Assign specific instructional personnel to teams that support specific groups of students -Create a schedule to maximize instructional support at high-needs times -Provide ongoing opportunities for collaborative learning and development -Build in regular time for collaboration -Actively support co-teaching -Embed ongoing student assessment -Intentionally design flexible student groups -Commit to individual and team development	

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Zindler, R. 2009 Trouble in paradise: A study of who is included in an inclusion classroom. *Teacher College Record, 111*(8), 1971-1996.	To analyze the inclusivity of a second grade classroom in year 1 of a cooperative teaching experience (p. 1971). To determine how successful the teacher was in facilitating meaningful relationships between special education students from all backgrounds, and their peers (p.	How did providing social skills instruction and structured interaction between GE students and SE students impact the classroom interactions between GE students and SE students?	Action research Data Collection: • Interviews • Sociograms • Observations • Other anecdotal methods	Second grade classroom in New York City. Researcher was the second grade general education teacher. 24 students in the classroom • GE students from White and Asian upper-middle-class families • Five SE students were bused in from less affluent	"It is clear that the special education children had gained recognition and were more desirable as friends, but it was also clear that they had formed their own social network within the margins of the class. Rather than being fully integrated into the group activities and social circles in the class, they had formed their own clique" (p. 1988). "Almost all special education students who came from outside the neighborhood-from lower socioeconomic backgrounds-and who were children of color were not fully included in the social realm of the class as their classmates. In fact, they formed their own separate social grouping" (p. 1991). GE students became more open-minded, flexible, and accepting of SpEd students	The collaborating teachers shared a belief that students must feel "valued, respected, and secure" (p. 1973) in their learning environment to achieve academically. Collaborating teachers set aside time to teach social skills and build community. Collaborating teachers set aside time to reflect together and plan for both social

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	1971). To determine if the special education students could be included to a degree such that "their general education peers would value and include them in their activities and social life" (p. 1971).			neighborhoods • Five SE students from low SES families of African American or Latin American descent. Disabilities included: • Developmental delays • Physical disabilities • Social/emotional issues	These findings were attributed to: • Expressive and receptive language delays • SpEd students did not live in the "school neighborhood" and thus did not interact informally with their school peers outside of school • Family work schedules and other variables limited SpEd students' participation in formal after-school and family activities Implications: Time and Teacher Training • Time for community-building activities is important • Team teachers need reflection and planning time • Team teachers need time to plan with specialists • PD for GE teachers about social needs of students with language delays	and academic activities.

Study	Study Purpose (Marshall & Rossman)	Research Question(s)	Research Strategy/Methods	Setting/Sample	Key Findings	Notes/Comments
					• PD on creating cooperative learning opportunities for all children Instruction: • Cooperative learning should be used as a strategy • Students must be taught social skills through modeling, discussion, read-alouds, and games • Specialists should push-in to the classroom and support students in the classroom context • Smaller caseloads for specialist teachers Outreach • Increase the number of inclusive schools so students can attend in their neighborhood • Provide opportunities for SpEd students to participate in after-school activities through subsidizing their participation • Translate materials for ESL families • Increase participation in schoolwide events by providing transportation	