ABSTRACT

Title of Document:	A QUALITATIVE INVESTIGATION OF COLLABORATION BETWEEN GENERAL EDUCATION AND INSTRUCTIONAL SUPPORT TEACHERS
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General education students often receive instruction from multiple school staff, such as reading specialists and English Speakers of Other Languages (ESOL) teachers. This study's purpose was to explore how instructional support teachers and general education teachers collaborate in order to align instruction, and employed grounded theory methodology to code and analyze teacher interviews in a public school system. Research questions included perceptions of how these two types of school professionals work together, along with perceptions about school level collaboration and administrative support. Results show that factors from the district to the intrapersonal level, along with different modes of communication, cumulatively affect the interactions between these two types of school professionals. Subsequently, the nature of these interactions has an effect on both teachers and students. This study has implications for school interventions, professional development, and future research on collaboration in schools.

A QUALITATIVE INVESTIGATION OF COLLABORATION BETWEEN
GENERAL EDUCATION AND INSTRUCTIONAL SUPPORT TEACHERS

By

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When people ask about our work, my team and I often explain, "We had to

collaborate in order to study collaboration." Reflecting on the years it has taken to

get to this point, these words ring truer than ever.

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Chapter 1: Introduction

The instructional environment for students is vastly different than decades past. The Individuals with Disabilities Education Act (Public Law 94-142, 1975) and its subsequent reauthorizations (IDEA, 1990; IDEAIA, 2004) have enabled special education students to enter the general education classroom. Many schools try to uphold the least restrictive environment (LRE) clause of the legislation by offering varying degrees of support for students. In order to adhere to the LRE clause and reduce inappropriate referrals to special education, an early intervention approach is often employed to support general education teachers and students (Carter & Sugai, 1989). Therefore, numerous students who do not fall under the purview of special education law currently receive instructional support by one or more school professionals other than their classroom, or general education, teacher (Valli, Croninger, & Walters, 2007). Two such school instructional professionals are ESOL teachers and reading teachers. The purpose of this study is to examine the relationship between these instructional specialists and general education teachers who are sharing the same students.

English for Speakers of Other Language (ESOL) teachers are integral school staff members who support ELL communication, reading, and writing. They support a sizable and growing population of English Language Learners (ELL). By 2008 in schools in the US, 21 % of children ages 5-17 spoke a language other than English at home (U.S. Department of Education, 2010). Additionally, many low achieving students are assigned to work with professionals such as reading specialists. In some school districts, these services are guaranteed under the No Child Left Behind Act's (2001) Title 1, which aims to close the achievement gap for low-income students. Although many support staff work

together to address student needs, ESOL teachers and reading specialists offer support that parallels classroom teachers' instruction.

The reality in elementary schools is that many students without special education status are receiving instructional support from an adult other than their classroom teacher. Valli, Croninger, and Walters (2007) found that it is common for three or four professionals to instruct one student. Despite the support for co-teaching and other "push-in" models, instructional support staff members, such as reading specialists and ESOL teachers, often deliver their services through a pull-out model. Regardless of service model, however, instructional best practices may not be honored when such instructional designs are in place. While the RtI (Response to Intervention) model seeks to create a continuum of support services for students, it offers no guidelines on the coordination between classroom teachers and the variety of specialists who also instruct students. Most importantly, it does not speak to the interactions between the professionals who provide instruction.

While schools aim to support their students, teachers and professionals other than special educators struggle to work together when multiple types of services exist within a school. This issue is magnified by the fact that students outside special education have no Individualized Educational Program (IEP) that requires adults to meet with one another and plan student's instruction. For these students it is especially important to find out how teachers and other instructional support teachers align their services.

Therefore, it is important to investigate how these school professionals collaborate. Many educators and researchers agree that collaboration is an essential ingredient in creating inclusive and effective schools, but there is less agreement about overarching

models to describe the phenomenon. While collaboration between classroom teachers or within school teams has been studied, there is a larger knowledge gap about the relationships between classroom teachers and instructional support teachers such as ESOL teachers and reading specialists, and how they work together on the students they share.

Service Delivery Models

A variety of service delivery structures dictate how students receive instructional support. The resource room model, also known as "pullout," stresses that student's benefit from a combination of general education instruction and intervention services outside of the classroom. Wiederholt and Chamberlain (1989) defined the "resource room" model as one where special education students received the majority of their education in a general education classroom, but left their class on a regular schedule to receive targeted instruction from another professional (p. 15). This model is also commonly used by reading specialists and ESOL teachers (Bean, Cassidy, Grumet, Shelton, & Wallis, 2002; Van Loenen & Haley, 1994).

Many schools have replaced the pullout structure with alternative models. The inclusion movement has influenced this change by arguing that services for struggling students are best provided within the general education setting (Idol, 1997). Some schools employ full inclusion, while others use mixed models that include services both within and outside the classroom. For example, Bean et al. (2002) found that many reading specialists in a national survey used both pullout and push-in (inside the classroom) services. There are a variety of ways that service providers work within the general education classroom and co-teaching is an increasingly popular model.

Although research is limited, co-teaching is associated not only with improved student achievement, but also with lower special education referrals, discipline problems, and paperwork (Villa, Thousand, & Nevin, 2008). Friend and Cook (2009) identify five types of co-teaching: 1) One Teaching, One Assisting, 2) Station Teaching, 3) Parallel Teaching, 4) Alternative Teaching, and 5) Team Teaching. Each successive type indicates more joint work between teachers. Although co-teaching is usually associated with special education, ESOL teachers and reading specialists have also begun to use this model (Dole, 2004; Dove & Honigsfeld, 2010; McClure & Cahnman-Taylor, 2010; Shaw, Smith, Chester, & Romeo, 2005; York-Barr, Ghere, & Sommerness, 2007).

School professionals endorse different service delivery models due to their beliefs about how ~~that~~ they can best serve students' needs. However, Kavale and Forness' (1999) meta-analysis of special education studies highlights that there are often equivocal findings about which delivery model leads to higher student achievement. One possible explanation for such varied results is that collaboration between teachers working with the same students is an unmeasured and confounding variable. Considering the parallel models of service delivery used by reading specialists and ESOL teachers, this concern may also be relevant for their instruction, as well.

Response to Intervention

The Response to Intervention (RtI) model provides a new set of issues on how this question of collaboration is addressed in schools. The reauthorized IDEIA (2004) emphasizes early intervention, and students may now receive instructional support without first going through a formal assessment process for determining if they have a handicapping condition. The RTI model is based on increasing levels of intervention that

begins at the general education classroom level. Educators must first provide effective and research-based general education instruction before considering additional supports (Fuchs, Mock, Morgan, & Young, 2005). The classroom teacher works at the universal, or Tier 1, level. Universal screening and progress monitoring determines if students need more targeted instruction at the Tier 2 level, the level at which many reading specialists and ESOL teachers provide services. Ideally, a pre-referral problem-solving process within a team structure helps staff identify concerns and develop appropriate interventions at the Tier 2 level of intervention, after assuring that Tier 1 was effective as well.

Regardless of the type of team model used, RTI decisions about students are based on their response to the intervention. In findings from a longitudinal study on Tier 2 reading interventions, Fuchs, Compton, Fuchs, Bryant, and Davis (2008) measured response to intervention with only student measures. There is an underlying assumption behind RTI that "non-responding" in a student is due to internal deficits, which can be remedied by more intensive interventions. However, students receiving services from reading specialists or ESOL teachers may also demonstrate "non-responding" because of other variables. First, RTI assessment for ELL might not appropriately measure culturally and linguistically diverse students' progress (Klingner & Edwards, 2006). Secondly, students may not demonstrate improved outcomes if classroom teachers and specialists at the Tier 1 and Tier 2 levels of support do not coordinate their instruction. Students without special education status are not protected under legislation that requires staff to meet and develop an Individualized Education Plan (IEP). Although many schools have problem-solving or teacher assistance teams, there is no guarantee that teachers who

share instructional responsibilities meet regularly. A key factor that may determine students' progress is the collaboration between their general education teacher and instructional support teacher.

Collaboration in Education

Drawing from its Latin roots, *com* and *laborare*, the shortest definition of collaboration is, "to work together". In educational circles, it is broadly considered an integral component of educational reform that benefits both school professionals and students (Friend & Cook, 1990Fullan, 1993; Pugach & Johnson, 1995). There is growing recognition that community and group work creates outcomes not possible through individual efforts (Friend & Cook, 2009). However, the term collaboration has become a popular buzzword to describe pedagogical philosophies, team structures, relationships, instructional designs, and professional development initiatives. Cook and Friend (2009) explain that activities such as consultation or team meetings may or may not be collaborative in nature. Although many profess to believe in and practice collaboration, the term remains difficult to define or measure (John-Steiner, Weber, & Minnis, 1998).

What we do know is that the individual interactions between school professionals exist within a larger context. Various school cultures develop over time, and collaborative schools are characterized by norms of trust, openness, and sharing (Fullan & Hargreaves, 1991). These schools simultaneously value individual and group work. Fullan and Hargreaves (1991) stress principals' power to set a collaborative tone in their schools by promoting shared leadership, decision-making, and professional development opportunities. A collaborative school culture led by supportive administration may influence the individual collaboration between classroom and instructional support

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teachers.

Collaboration is particularly relevant for educators faced with teaching diverse student populations. The push for inclusion and for an RTI framework has charged classroom teachers to not only instruct a wide variety of students, but to also interact with many school professionals. Additionally, more teachers are being encouraged to co-teach (Scruggs, Mastropieri, & McDuffie, 2007). In this environment, collaboration can play a significant role in professional development. Ashton and Webb (1986) point to its effects on teaching efficacy and Little (1987) describes how collaboration promotes risk taking in the classroom. When teachers engage in "joint work" they have the opportunity to talk and think about instructional practice, which is at the heart of their professional craft (Little, 1990, 2002). Research on professional learning communities and professional development also emphasizes how sharing expertise and engaging in the intellectual process of teaching expands teachers' professional practice (Gusky, 2002; Hindin, Morocco, Mott, & Aguilar, 2007).

Impact of Lack of Collaboration. A lack of collaboration can negatively affect both teachers and students. First it may reinforce experiences of marginalization (Creese, 2002), isolation (Lortie, 1975; Rosenholtz, 1989), and being unprepared to work with diverse students (Schumm & Vaughn, 1992). Teachers who do not effectively collaborate may also struggle to align their instruction, thereby affecting students' ability to learn.

Alignment of instruction through collaboration. A number of universal and research-based principles of instructional best practices highlight how collaboration may lead to improved practice (Silva, Hook, & Sheppard, 2005), although there are some

challenges to their implementation. These principles include: academic engaged time, working memory, instructional level, and data-based decision making.

Academic engaged time. Learning is greatly affected by the amount of academic engaged time spent cognitively and emotionally connected to instruction (Ysseldyke & Christenson, 1993). In the case of students working with more than one adult, the transitions of pull-out instruction may interrupt academic engaged time necessary for learning to take place.

Working memory. Working memory is another core principle. Children develop increasing ability to retain chunks of information, and developmentally based limits must be honored for new information to be stored in long term memory (Siegler & Alibali, 2005). For example, a student may not make expected gains if the classroom teacher and reading specialist give separate vocabulary words to master.

Instructional level. A student's instructional level may not be considered when multiple adults work with the same student. According to Gravois and Gickling (2002), a student is at instructional level when he or she has the skills to complete a given task and can benefit maximally from instruction. The instructional level must be established with each teacher. For ELL students, these principles are magnified because teachers must also merge academic content and English-language development (Gersten & Baker, 2000).

Data-based decision making. Data-based decision making ensures effective instructional plans and changes. By systematically administering student assessments, teachers monitor student progress and tailor instruction to students' needs. When a student receives instruction from more than one adult, shared data-based decision making based is not guaranteed. It is also possible that two teachers use different sets of data to

inform their instructional decisions.

In sum, these best practices require individual classroom teachers to carefully create instructional environments that nurture learning. It is already challenging to individually honor these principles, but even more so when two or more adults instruct the same student. The level of collaboration between a classroom and instructional support teacher may be the glue that helps them honor essential instructional principles.

Research on collaboration. Paucity of empirical research on teacher collaboration has led to a gap in knowledge about its role in student achievement. However, Goddard, Goddard, and Tschannen-Moran (2007) addressed this gap, using hierarchical linear modeling (HLM) to examine whether naturally occurring teacher collaboration predicted high-stakes assessment scores in fourth graders. They found that schools identified through surveys as collaborative had higher scores in both mathematics and reading. Although this study analyzed data at the school level, it supports the stance that collaborative cultures have an effect on students. Goddard et al. (2007) posit that collaboration indirectly benefits students by improving teachers' instructional practice.

Literature that limits itself to solely examining general education and instructional collaboration is particularly underdeveloped. Walp and Walmsley (1989) developed the term congruence to describe how reading specialists and classroom teachers coordinate their instruction, but do not address features of the collaborative relationship. The communication between reading specialists and teachers, however, may be negatively affected by different expectations about roles and responsibilities (Al Otaiba, Hosp, Smartt, & Dole, 2008; Jones, Barksdale, Triplett, Potts, Lalik, & Smith, 2010). Literature in fields such as social work (Bronstein, 2003) and healthcare (D'Amour, Sicotte, &

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Levy, 1999) stress that interprofessional collaboration carries specific challenges for colleagues trained for different roles.

A number of international studies (Arkoudis, 2003; Creese, 2006; Davison, 2006) used qualitative methods to understand ESOL and classroom teacher collaboration, and found that these colleagues also struggled with communicating as equal partners. This is an important finding considering how collaboration is theorized to be a partnership based on parity and commitment to sharing expertise (Friend & Cook, 2009). Davison's (2006) model for ESOL and classroom teachers, similar to one developed for teachers and librarians (Montiel-Overall, 2005), recognizes that collaboration is a developmental process that takes time to emerge.

Statement of Purpose and Research Questions

The purpose of this study is to explore the collaborative efforts between general education and instructional support teachers who instruct one or more of the same students. This collaboration may be an important component of aligning Tier I and Tier II services. An investigation of these unique relationships can enrich collaboration literature that focuses on colleagues with different professional roles. The following research questions guide this study:

- o How do general education teachers and instructional support teachers (reading specialists and ESOL teachers) collaborate with one another to align their instruction for the benefit of students' success? Specifically,
    - What factors affect this collaboration?
    - Is there congruence between teachers' beliefs about collaboration and their actual practices?

- What do teachers collaborate about and what does the collaborative process look like?

Definition of Terms

Instructional support teacher. An instructional support teacher includes professionals other than classroom teachers who provide instruction to general education students. The following professionals fall under the definition of an instructional support teacher: reading specialist, math specialist, ESOL teacher, and Title 1 teacher. In this study, participants included only reading specialists and ESOL teachers. For the purposes of this study they do not include special education teachers and other professionals such as speech language pathologists. They also do not include paraeducators or instructional aides.

ESOL teacher. English for Speakers of Other Languages (ESOL) teachers instruct students whose language backgrounds are not English. These students are often identified as English Language Learners (ELL). Each state has different certification and training requirements, but most teachers have specialized training in language development, linguistics, cultural issues pertaining to students, and ELL evaluation. ESOL teachers may work solely within self-contained classrooms, part-time within a general education classroom, or full-time within a general education classroom. They also may work part-time or full-time within a school, and this decision is often made by determining the number of ELLs who require services.

Reading specialist. Reading specialists provide specialized reading and literacy support to students. Historically, they were often funded through Title 1 of the Elementary and Secondary Education Act (1965). Educational requirements for reading

specialists vary by state, but most require a degree in reading and literacy. According to the International Reading Association (IRA), reading specialists engage in instruction, assessment, and leadership activities that allow them to provide direct student services and to serve as resources to other school staff and parents (IRA, 2000). Reading specialists may work within a variety of different instructional designs, such as co-teaching with general education teachers or within their own self-contained classrooms.

General education teacher. For the purposes of this study, general education teachers are school professionals who provide instruction to grade level classrooms of students. They are trained to instruct students using the general education curriculum, and may teach students with disabilities. Their instruction covers subjects such as reading, mathematics, science, and social studies.

Alignment. Alignment is a term used in education to describe how curricular, instructional, and assessment practices are matched and complementary to one another in order to facilitate student learning (Niebling, Roach, & Rahn-Blakeslee, 2008). Alignment can occur between these three activities within one teacher. However, for the purposes of this study, the term refers to how general education teachers and instructional support teachers align their services. Alignment may refer to matched content, cognitive demand, and performance expectations across teachers (Gamoran, Porter, Smithson, & White, 1997).

Collaboration. Friend and Cook (2009) write: "what the term collaboration conveys is how the activity is occurring, that is, the nature of the interpersonal relationship occurring during the interaction and the ways in which individuals communicate with one another" (p.6). They identify a number of defining

characteristics: voluntary, based on equality, mutual goals, shared responsibility for participation and key decisions, shared accountability for outcomes, and shared resources (time, expertise, space, equipment). Collaboration must develop over time in order for colleagues to also believe in this style of communication, trust, and respect.

Practices. Practices is defined as the "the actual application or use of an idea, belief, or method, as opposed to theories relating to it" (Oxford Dictionaries, 2012). Teacher practices refer to daily activities such as: lesson planning, instruction, curriculum development, assessment, classroom management, and conversations with colleagues.

Beliefs. Beliefs are defined as "something one accepts as true or real; a firmly held opinion or conviction" (Oxford Dictionaries, 2012). According to Borg (2001), a belief is a "proposition which may be consciously or unconsciously held, is evaluative in that it is accepted as true by the individual, and is therefore imbued with emotive commitment; further, it serves as a guide to thought and behavior" (p. 186). Calderhead (1995) explains that teachers' beliefs specifically revolve around ideas about teaching, subject matter, learning, students, and teacher roles.

Chapter 2: Literature Review

According to John-Steiner, Weber, and Minnis (1998), "the disciplinary diversity of researchers addressing collaboration and the varied sources for theoretical analyses of the process make writing any article on the subject daunting" (p.774). This chapter will first provide an overview of collaboration literature to explore common themes across disciplines, and then explore collaboration within education. The chapter will then consider school, interpersonal, and individual factors related to collaboration between instructional support and classroom teachers. Barriers to collaboration will also be examined.

Definitions and Models of Collaboration

The construct of collaboration is challenging to define given that so many fields point to its importance in strengthening relationships and predicting a variety of outcomes. John-Steiner et al. (1998) recognize that collaboration is context sensitive, but that it is important to identify common features and activities. For the purposes of this literature review, theories of collaboration from a variety of disciplines will be examined, including organizational psychology, healthcare, and social work.

Vygotsky. Vygotsky (1978) may be viewed as one of the first theorists to write about collaboration. He theorized that learning occurs through the social construction of knowledge. Peers with varied knowledge expertise develop a shared vision of a problem, and through their interactions they solve problems that would otherwise be too difficult for individuals. In more recent years, Vygotsky's social constructivist framework has been used to also understand adult learning (John-Steiner & Mahn, 1996). Tudge and Hogan (1997) acknowledge that a Vygotskian framework for collaboration must involve

the coordination of intrapersonal, interpersonal, and socio-cultural factors. Context-specific collaboration models address these factors in a variety of ways, and offer particular features of the construct.

Collaboration in organizations. Organizational research (Gray, 1985; Gray, 1989; Gray & Wood, 1991; Huxham, 1996; Huxham & Vangen, 2000; Wood & Gray, 1991) has long attempted to understand collaboration between large groups. Gray (1989) defines collaboration as, "a process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible" (p. 5). Collaboration can help stakeholders pool resources, increase revenues, and nurture innovation. According to Gray (1985; 1989), stakeholders engage in a sequential process of problem setting, direction setting, and structuring. Stakeholders first create a shared definition of the problem, commit to working together, and decide what resources they need through the problem-setting phase. Direction-setting includes setting ground rules, creating an agenda, developing any necessary sub-groups, information seeking, and agreeing on future actions. Structuring, or implementation, consists of dealing with constituents, gathering support, creating implementation structures, and developing a progress monitoring system.

Within this process, Gray (1996) describes four types of collaboration that have different outcomes: dialogues, appreciative planning, negotiated settlements, and collective strategies. Organizations engage in dialogues in order to speak openly about a problem, whereas appreciative planning goes one step further by establishing some kind of common ground. Negotiated settlements requires parties to decide on a course of

action in order to resolve a dispute. Collective strategies, however, are the most intensive form of collaboration because they are the only type that requires joint action. Regardless of the type, stakeholders continually negotiate during this emerging process (Gray, 2000; Huxham, 1996).

Although Gray's (1985; 1989) definition and model of collaboration has been cited in many disciplines, it was theoretically derived from a review of *"organization theory, policy analysis, and organization development" (Gray, 1985, p. 911)*. Realizing that collaboration was a burgeoning field of inquiry, Wood and Gray (1991) also searched empirical studies for a comprehensive theory. In addition to previous theoretical work, they drew from nine case studies to create their own definition: "Collaboration occurs when a group of autonomous stakeholders of a problem domain engage in an interactive process, using shared rules, norms, and structures, to act or decide on issues related to that domain (Wood & Gray, 1991, p. 146). Compared to Gray's (1985) earlier writing, this definition takes cultural norms and environmental factors into account. However, it is very vague in terms of how stakeholders interact, and what kinds of norms or structures are specific to collaboration.

Thomson, Perry, and Miller (2007) elaborated on this definition by describing collaboration as:

> A process in which autonomous or semi-autonomous actors interact through formal and informal negotiation, jointly creating rules and structures governing their relationships and ways to act or decide on the issues that brought them together; it is a process involving shared norms and mutually beneficial interactions (p.25).

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Thomson et al.'s (2007) definition indicates five dimensions of collaboration: 1) Governance refers to the shared nature of rules and decision-making; 2) Administration is how partners act with one another, such as information dissemination, implementing interventions, monitoring others' activities, or clarifying roles; 3) Mutuality refers to stakeholders' dependence on each other; 4) Norms include reciprocity and trust; and 5) Organizational autonomy refers to the independence that organizations experience within their interdependent partnerships.

Thomson et al. (2007) tested the validity of this model with a questionnaire given to 1382 directors of organizations. The researchers developed 56 Likert-scale items based on their five-dimension model of collaboration. Using higher order confirmatory factor analysis, they found support for this five dimensional model of collaboration. Thomson et al.'s (2007) study strengthens collaboration literature through its empirical approach, but it is important to recognize that it was developed to explain inter-organizational relationships. The survey items were also created to survey directors' general perceptions, rather than capture individuals' direct experiences.

Collaboration in healthcare. Healthcare is another arena where collaboration has been extensively studied. Education's focus on student success parallels medicine's emphasis on patient well-being and care as a collaboration outcome (Baggs & Schmitt, 1999; Zwarenstein, Reeves, & Perrier, 2005). A number of research teams have created models of interprofessional collaboration (D'Amour, 1997; D'Amour, Goulet, Pineault, & Labadie, 2004; D'Amour, Sicotte & Levy, 1999; Sicotte, D'Amour, & Moreault, 2003; West, Borrill & Unsworth,1998). Within health care, the term ìinterprofessionalî refers to the work between health professionals such as nurses and physicians. These colleagues

must transcend training and role differences in order to provide the best care for their patients.

D'Amour, Sicotte, and Levy (1999) conducted a case study of three health center teams by using interviews, observations, and documentation analysis. They discovered four dimensions of collaboration through a grounded theory approach: sense of belonging (mutual acquaintanceship, trust), delegation of authority (centrality, leadership, expertise, connectivity), formalization (agreements/rules, information infrastructure), and finalization (allegiances, goals/objectives). D'Amour, Goulet, Pineault, and Labadie (2004) found further support for the model when they conducted a case study of professionals from different health organizations working together to improve perinatal care. Similar to organizational literature's stance (Gray, 1985; 1989; Thomson, Perry, & Miller, 2007; Wood & Gray, 1991), the researchers envision collaboration as a process that takes time to develop. Specifically, it can be described as "in inertia," "under construction,î or ìin action.î The latter level occurs when colleagues have clear consensus about actions and principles regarding patient health care. Using Tudge and Hogan's (1997) framework for understanding collaboration, this model focuses more on systemic and interpersonal factors than intrapersonal ones, such as beliefs about group work. What makes this model particularly promising, however, is that it is addresses interprofessional issues and is supported by a number of case studies in the healthcare field (D'Amour, Ferrada-Videla, San Martin Rodriguez, & Beaulieu, 2005). Whether the model can carry over into education has not been tested yet.

D'Amour, Ferrada-Videla, San Martin Rodriguez, and Beaulieu (2005) conducted a literature review to explore whether a common theoretical framework existed for

interprofessional collaboration. Drawing from both empirical and theoretical literature, they found four common concepts: sharing, partnership, interdependency, and power. D'Amour et al. (2005) also found that collaboration is considered an emerging process. This growing collaboration literature in healthcare is contextually relevant for education models that focus on partnerships within small teams or between individuals. Additionally, its focus on patient outcomes and interprofessional relationships mirrors schools' dependence on multiple professionals to support students.

Collaboration in social work. Social work is another field that requires interprofessional communication. Practitioners usually work through organizations, such as schools and hospitals, represented by multiple professions. Bronstein (2003) reviewed ecological systems theory, role theory, and services integration to develop a model of interdisciplinary collaboration for social workers. Similar to Gray (1989), she defines interdisciplinary collaboration as, "an effective interpersonal process that facilitates the achievement of goals that cannot be reached when individual professionals act on their own" (p.299). Colleagues first develop newly created professional activities, which are specific programs or structures that bring individuals together. Teams are often created for this purpose. Interdependence is nuanced in this model because individuals must understand others' particular roles. Bronstein (2003) also explains that flexibility is essential because professionals must compromise and alter their original roles in order to achieve a goal. Tied to flexibility is sharing power to reduce hierarchical relationships. Collective ownership of goals is the fourth component of Bronstein's (2003) model, and refers to how professionals share agreed-upon goals while taking responsibility for their individual tasks. Finally, reflection on process involves thinking and talking about the

process with one another to improve future collaborative efforts.

Bronstein's (2003) work may prove useful for informing how collaboration operates in K-12 education because her model specifically addresses interprofessional issues such as power struggles. Unlike other models, she also adds reflection as a key component of collaboration. However, it remains to be seen whether empirical evidence supports this model, and whether it can be applied to collaboration outside social work.

Summary. Various disciplines' attempt to define collaboration and develop models shows that it is a multidimensional construct, and can occur between organizations, groups, or individuals. Collaboration is considered at both the process and structural level to inform how people work together for the benefit of solving problems and achieving goals. An assumption behind all of these models is that outcomes, such as patient care, are best achieved through joint work. The following table highlights the various similarities and differences between different collaboration models.

Table 1

Overview of Collaboration Models

Model	Empirically or Theoretically Derived	Components	Unique Properties	Emerging Process
Gray (1985; 1989; 1996)	Theoretical	Commitment to working together; Shared vision, planning, resources, decision making, action developing a progress monitoring system; Problem solving	Stage-based: Problem setting, Direction setting, Structuring	✓

Wood & Gray (1991)	Theoretical and Empirical (case studies)	Autonomous stakeholders coming together; Shared rules, norms, structures, work, decisions; Problem solving	Autonomy of stakeholders	✓
Thomson, Perry, & Miller (2007)	Theoretically derived; empirically supported (confirmatory factor analysis)	Governance, Administration, Mutuality, Norms of reciprocity and trust, Organizational autonomy	Rules of communication	✓
D'Amour, Sicotte, & Levy (1999); D'Amour, Goulet, Pineault, & Labadie (2004)	Empirical (Case study, Grounded Theory)	Sense of belonging (mutual acquaintanceship, trust), Delegation of authority (centrality, leadership, expertise, connectivity), Formalization (agreements/ rules, information infrastructure), & Finalization (allegiances, goals/objectives)	Terms for emergence: "in inertia," "under construction," "in action" Interpersonal relationships (i.e. acquaintanceship, allegiances)	✓
Bronstein (2003)	Theoretical	Newly created professional activities, Interdependence, Flexibility, Sharing power, Collective ownership of	Reflection on the process, flexibility	✓

A picture emerges from these models that collaboration is a complex

interpersonal process that emerges over time. An initial commitment to collaboration

leads to structures (e.g., team meetings) that facilitate this style of joint work. Norms of

equality, trust, and respect help colleagues work together to share goals, decision-making,

and action. Collaboration requires individuals to give up a certain level of autonomy to

become interdependent. Additionally, interprofessional collaboration asks colleagues to

navigate through differences in expertise, roles, and power. Although there is

considerable overlap between different discipline's models of collaboration, John-Steiner,

Weber, and Minnis (1998) explain that it is important to "build a theory of collaboration

that specifies multiple definitions and multiple models of collaboration" (p. 782).

An implication that arises from these models is that research should include more

empirical inquiry, and that qualitative methods can provide rich data to develop theory.

The next section of this chapter will examine theoretical and empirical literature on

collaboration in K-12 education.

Definitions and Models of Collaboration in Education

There has historically been more misunderstanding than agreement in schools

over what collaboration looks like (Erchul, 1992; Fullan, 1993). Despite educators' and

administrators' varied use of the word, educational literature offers some definitional

parameters. Hord (1986) considered collaboration a sharing process. West's (1990)

definition is more specific: "interactive planning or problem solving process involving

two or more team members" (p.29). Collaboration is also characterized by, "mutual

respect, trust, and open communication; consideration of each issue or problem from an ecological perspective; consensual decision-making; pooling of personal resources and expertise; and joint ownership of the issue or problem being addressed" (West, 1990, p.29). Welch and Sheridan (1995) offer a similar definition: "a dynamic framework for efforts which endorses interdependence and parity during interactive exchange of resources between at least two partners who work together in a decision making process that is influenced by cultural and systemic factors to achieve common goals" (p.11). These definitions all use terms commonly found in previously discussed collaboration literature, and are broad enough to include any kind of structure through which collaboration can occur.

Little (1990; 1991) was one of the first educational researchers to describe collaborative teacher behaviors. She found that colleagues often engaged in activities that first appeared collaborative, but did not require giving up a certain degree of autonomy to gain interdependence. For example, "storytelling" about students' progress is collegial, but keeps teachers in separate instructional spheres. Asking for aid and assistance is more involved, but establishes a dynamic where one person is the expert and the other lacking in some skill or resource. Sharing ideas or resources goes one step further, but the school-wide interactions that signify true collaboration are those classified as "joint work." Little (1990) describes this type of work as "shared responsibility for the work of teaching" (p.519). She recognizes that although collaboration has its benefits, such as improved instructional practice, many classroom teachers do not experience strong external or internal pressures to engage with each other.

Friend and Cook (2009) have also written extensively about teacher collaboration.

They write, "what the term collaboration conveys is how the activity is occurring, that is, the nature of the interpersonal relationship occurring during the interaction and the ways in which individuals communicate with one another" (p.6). Collaboration is a "style" of interaction that contains the following characteristics: voluntary, based on equality, mutual goals, shared responsibility for participation and key decisions, shared accountability for outcomes, and shared resources (time, expertise, space, equipment). Over time, collaboration is also marked by belief in this style of communication, trust, and respect. Similar to models outside of education, Friend and Cook (2010) use an ecological systems approach to understanding collaboration. They describe five collaboration components: personal commitment, communication skills, interaction processes, programs or services, and context or overall environment. This framework is useful in identifying what component of collaboration is being studied or addressed.

Whereas collaboration between classroom teachers may have a positive effect on their practice and on students' achievement, the fact remains that they can teach independently of one another. In her study of 78 elementary schools, Rosenholtz (1989) discovered a strong norm of isolation amongst teachers. Alternately, colleagues in more collaborative schools were more willing to ask for help, discuss instructional techniques, and commit to professional development opportunities. Fullan and Hargreaves (1991) also describe the challenge of developing collaborative relationships. Even teachers who branch out to work with each other may do so in a way that creates balkanized groups, still isolated from other colleagues. Fullan and Hargreaves (1991) envision teacher collaboration to be characterized by an environment of trust and support where colleagues can share, learn new techniques, plan, and make decisions together. Engaging

in collaborative relationships challenges colleagues to push against balkanization and the norm of isolation. The positive outcomes of these relationships, however, can play a pivotal role in helping teachers align student services.

Curricular, Instructional, and Assessment Alignment

The collaboration between classroom and instructional support teachers is particularly important because of their shared instructional responsibility for students. The construct of curricular, instructional, and assessment (CIA) alignment relates to this unique relationship. In recent years, alignment has gained traction due to the No Child Left Behind Act's (NCLB) focus on state-mandated testing for all students (Martone & Sireci, 2009). In order to keep up with state standards, schools evaluate the extent to which curriculum and instruction is matched to state assessments (Martone & Sireci, 2009).

However, the term alignment was originally used to describe the classroom. Tyler (1949) described instructional alignment as the match between a teacher's assessments, instruction, and objectives. Additionally, curricular alignment was envisioned as the way each grade built upon each other. In recent years, vertical alignment refers to the match between different parts of the educational system, whether it is between teachers and state standards, or between teachers in one school (Niebling, Roach, & Rahn-Blakeslee, 2008). Alignment research has focused primarily on the practice of classroom teachers, largely leaving out school staff such as ESOL teachers or reading specialists.

The concept of alignment may prove fruitful for further understanding the context-specific collaboration between classroom and instructional support teachers.

According to Gamoran, Porter, Smithson, and White (1997), alignment includes both match of content knowledge and cognitive demand on students. Additionally, schools may focus on cognitive complexity (Kratchwohl, 2002) or performance expectations (Porter, 2002). Niebling, Roach, and Rahn-Blakeslee (2008) distinguish between instructional content, which is what teachers actually teach, and instructional practice, which is how they deliver content. Assessing alignment between a classroom and instructional support teacher may highlight the differences between the two. For example, a student may receive the same instructional content from each teacher, but different strategies and delivery of content. Students who are already struggling academically may not have the working memory capacity, for example, to master two kinds of reading strategies. It remains to be seen how this construct of alignment can help educators develop a nuanced model of collaboration between different types of school professionals.

Collaboration Between General Educators and Instructional Support Teachers

The imperative for collaboration between classroom and instructional support teachers is marked by their shared instructional responsibility for the same students. Models of collaboration that are based on interprofessional relationships (Bronstein, 2003; D'Amour, Goulet, Pineault, & Labadie, 2004; D'Amour, Sicotte, & Levy, 1999) may be able to highlight the unique interactions between classroom and instructional support teachers. For example, how do professional roles and power fit into a model of collaboration for these two types of teachers? Additionally, is there shared accountability for student outcomes (Valli, Croninger, & Walters, 2007)? Following are examples of the literature on classroom teachers collaborating with other instructional specialists.

General education and librarian collaboration. Classroom teachers and

librarians are two types of school professionals who share the task of preparing students

to critically engage with information. Hence, their collaboration may parallel the

partnerships that develop between classroom teachers and instructional support teachers

(reading specialists and ESOL teachers). Montiel-Overall (2005) developed four models

of collaborative efforts between teachers and librarians. Similar to other frameworks that

view collaboration as an emerging process, each successive model describes a deeper

level of partnership. The first model, *Coordination*, involves little communication

between individuals, and focuses on coordinating superficial activities and events.

Cooperation is more intensive because it addresses students' learning. For example,

teachers and librarians may engage in different tasks to produce a grade level unit.

Cooperation, however, does not assume teachers and librarians communicate about

merging their expertise or developing objectives together. The last two models of

collaboration are characterized by trust, norms of sharing, and reciprocity, all of which

are mentioned in other collaboration models. *Integrated Instruction* is highlighted by

joint work: thinking about instruction together, planning lessons, and taking into account

each other's expertise. Professionals who engage in this level of collaboration consider

how they can connect their instruction and expertise in a meaningful sequence for

students. Finally, *Integrated Curriculum* consists of teachers and librarians engaging in

school-wide thinking, planning, implementation, and evaluation together. This model is

defined by a high degree of equality between school professionals, and requires both

administrative support and resources such as funding, training, and time.

Montiel-Overall (2005) developed these models through a review of Loertscher's taxonomy (1982, 1988, 2000) and collaboration literature. It is unclear whether empirical research supports these specific models and whether they transcend different types of school partnerships. However, Montiel-Overall's (2005) focus on interprofessional relationships and educational context adds a nuanced dimension to collaboration literature.

General education and ESOL teacher collaboration. Although ESOL teachers' experience with collaboration has not been extensively explored, (Arkoudis, 2006), a few studies have begun to examine the unique interactions between classroom and ESOL teachers. Collaboration between these two professionals is particularly important because ELL require merging academic and English-language development content (Gersten & Baker, 2000). August and Hakuta (1997) also stress that multiple opportunities to practice are essential when ELL have little prior knowledge to anchor new content. Hence, optimal learning takes place when educators can "coordinate and articulate" their instructional programs (August & Hakuta, 1997).

Davison (2006) developed a preliminary framework of ESOL collaboration by conducting an ethnographic case study of conversations between ESL and general educators. An international school in Taiwan asked for guidance in improving the ESL/Language Arts program developed for the multicultural faculty and students. One of the school goals was to replace pullout instruction with more co-teaching and co-planning between teachers. In addition to the instructional design changes, faculty also engaged in intensive professional development. At the end of the school year, Davison (2006) conducted semi-structured, observations, and an open-ended questionnaire with

12 teachers and five ESOL teachers. He approached the rich qualitative data with a grounded theory approach, and particularly focused on teachers' interactions.

All together, the data suggested a developmental model of collaboration. The five stages include: pseudocompliance (passive resistance), compliance, accommodation, convergence, and creative co-construction. Each level corresponds to successively greater commitment to collaboration in the following areas: attitudes, effort, perceived outcomes, and expectations of support. An assumption behind this model, like others, is that practices are informed by colleagues' attitudes. Davison's (2006) model is relevant for two reasons. First, it was created to specifically address ESOL and classroom teacher collaboration. Secondly, Davison (2006) embedded himself in a school for an entire year using grounded theory methodology. Rather than impose a model of collaboration on his participants, Davison (2006) allowed the model to emerge from the data. This approach allowed Davison (2006) to develop a model of collaboration specific to his participants' experience.

Positioning theory (Harré & van Langenhove, 1999) and appraisal theory (Martin, 2000) can also elucidate the nuances of ESOL collaboration (Arkoudis, 2006). As professionals who have different training and often hold different teaching beliefs, ESOL and classroom teachers engage in conversations that position themselves and each other in different power relations. For example, colleagues use linguistic resources to show deference for another's opinion. Arkoudis (2006) argues that the interprofessional nature of ESOL and classroom teacher collaboration requires such continual repositioning of power because each teacher is an "expert" in his or her own domain.

General education and reading specialist collaboration. Similar to ESOL literature, there is a paucity of research or models that directly address classroom teacher and reading specialist collaboration. However, Walp and Walmsley (1989) developed the term congruence to describe coordination between reading specialists and classroom teachers that benefits student learning. Procedural congruence refers to issues such as deciding when a specialist will pull a student, and when both teachers will meet to share student data. This level of communication is similar to the coordination model of collaboration between teachers and librarians (Montiel-Overall, 2005). On a deeper level, instructional congruence refers to how reading specialists and classroom teachers coordinate both content and instruction, with a higher degree of shared activities. Finally, philosophical congruence refers to whether these professionals have complementary beliefs about students, learning, and teaching. For example, teachers who hold different beliefs about reading instruction may not agree about phonics instruction. Like other developmental models of collaboration, instructional and philosophical congruence must develop over time.

Walp and Walmsley's (1989) model, however, is unclear about how school professionals navigate this congruence, which may be where previously discussed collaboration frameworks can fill the gaps. For example, teachers and reading specialists may need to develop a degree of trust, parity, and interdependence before they can effectively develop congruent instructional practices. Davison's (2006) developmental model, which addresses these issues, may also apply to reading specialists. Similar to ESOL teachers, they also hold supportive roles to classroom teachers and have expertise in a particular type of instruction.

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Effects of Service Delivery Models on Collaboration

As a dynamic style of interaction, collaboration can occur within various service delivery models. However, some structures may be more conducive to collaboration than others. Classroom teachers, special educators, and remedial reading teachers in a qualitative interview study expressed advantages and disadvantages of pullout programs (Meyers, Gelzheiser, Yelich, & Gallagher, 1990). While most of the interviews focused on student effects, the researchers discovered that teachers wanted to improve these programs by developing more congruent curriculum and becoming more collaborative. However, they didn't delve more closely into what collaboration meant or would look like for these colleagues.

Drawing from the previous study, Meyers, Gelzheiser, and Yelich (1991) interviewed classroom teachers using different service delivery models about collaboration. They found that teachers using pull-in, rather than pull-out instruction, reported higher frequency of meetings, greater communication about instruction, and greater learning of instructional techniques. Gelzheiser and Meyer (1996) further explored this phenomenon by focusing on teacher beliefs. They found that classroom teachers already assigned to pull-in structures were more positive about this service delivery model than those teachers using a pull-out structure. These pull-in teachers also related the success of pull-in to variables such as qualities of teachers and appropriate planning. Alternately, teachers using pull-out services attributed the success of pull-in to student characteristics, such as keeping up with the curriculum.

This study demonstrates how placement in a particular service delivery model might change teachers' views about working together, and personal commitment is a key

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component to collaboration (Friend & Cook, 2009). It is important to consider, however, that these last two studies only explored classroom teachers' practices and attitudes. One factor that may predict effective collaboration between general educators and specialists is how they move towards a common attitude about working together.

Similar to special educators, reading specialists also provide services in a variety of models. Despite support for more push-in, many reading specialists still provide only pull-out instruction (Bean, Cassidy, Grumet, Shelton, & Wallis, 2002). There is some evidence that students experience a disconnect between materials when they are placed in pull-out programs. Bean, Cooley, Eichelberger, Lazar, and Zigmond (1991) found that "materials and selection of skills seemed unrelated to the reading instruction received in the regular classroom" (p. 458). In these cases the reading specialists often used their own materials instead of using the basal readers from the general education reading program. Although this study did not focus on interactions between different types of teachers, the different materials may highlight a lack of co-planning.

Bean, Trovato, and Hamilton (1992) interviewed reading specialists, classroom teachers, and principals to discover their attitudes about services. They found that pull-out is deemed beneficial because it offers individualized instruction and makes students feel supported. Despite these positive attributes, however, pullout instruction is also considered detrimental to students' class achievement and cooperative planning.

There is scant literature on the effects of ELL service delivery models on collaboration. Push-in and co-teaching has been encouraged because of the belief that classroom settings can optimize ELL language development (August & Hakuta, 1997). Although there are few empirical studies, many schools have adopted these instructional

models (Pardini, 2006. Additionally, many teachers have been mandated to co-teach without being trained or asked about implementation challenges (McClure & Cahnmann-Taylor, 2010).

The Role of School Culture and Administrators

School culture is defined as an ongoing construction of "the guiding beliefs and expectations evident in the way a schools operates, particularly in reference to how people relate (or fail to related) to each other" (Fullan & Hargreaves, 1991, p.37). Various types of cultures develop over time and have been categorized as: toxic, fragmented, balkanized, contrived collegiality, comfortable collaboration, and collaborative (Deal & Peterson, 2009; Fullan & Hargreaves, 1991). Staff in collaborative schools work together on a voluntary basis, rather than engaging in mandated activities. Fullan and Hargreaves (1991) describe how principals can wield their power to set a collaborative tone in their schools. Promoting shared leadership, decision-making, and professional development opportunities are some markers of a principal committed to a collaborative culture. Some administrators dictate teams, meetings, and shared planning times. However, this is a form of contrived collegiality that is based on mandates, rather than voluntary work (Hargreaves, 1994). School professionals are acutely aware of the support they receive for collaboration and may sometimes feel that their administrators do not understand their unique roles and training needs (Bean, Trovato, & Hamilton, 1992; Roach, Shore, Gouleta, & de Obaldia Butkevich, 2003; Jones, Barksdale, Triplett, Potts, Lalik, & Smith, 2010; McClure & Cahnmann-Taylor, 2010). If school professionals do not receive the kind of leadership they perceive that they need, their potential collaborative efforts may not come to fruition.

One way that administrators can support collaborative efforts between reading specialists and classroom teachers is to clarify professional roles. Some classroom teachers may be more amenable to working with reading specialists, for example, when they are explicitly trained to see these professionals as both direct and indirect service providers (Al Otaiba, Hosp, Smartt, & Dole, 2008). Jones, Barksdale, Triplett, Potts, Lalik, and Smith (2011) used a phenomenological interview study to explore reading specialists' challenges, and found that role ambiguity developed when administrators "did not know best how to use them or who had a limited understanding of literacy instruction" (p.13). In addition to role clarification, reading specialists also indicated that they needed more logistical support. In another interview study, principals, reading specialists, and classroom teachers all agreed that administrators should actively create instructional and planning schedules that help teachers coordinate their programs (Bean, Trovato, & Hamilton, 1992).

The level of collaboration between classroom and ESOL teachers is also affected by administrative factors. As ESOL teachers are being asked to spend more time in classrooms, administrators are integral to acquiring appropriate materials and providing professional development opportunities (Dove & Honigsfeld, 2010). Staff who work with culturally and linguistically diverse students have reported, however, that they do not receive enough administrative support (Roach et al., 2003). In this survey study, school staff indicated that they would like more support in terms of time, flexible scheduling, and professional development.

Administrators can also set the tone for how staff treats each other. McClure and Cahnmann-Taylor (2010) developed performance-based focus groups to uncover the

challenges of co-teaching, and found that ESOL teachers sometimes feel that principals do not respect their roles as knowledgeable professionals. Alternately, York-Barr et al.'s (2007) case study offers a look into what works in terms of administrative support. The teachers involved in the collaborative project indicated that their success was partially due to administrators' ability to carve out time for planning and to provide extra staffing so that teachers could meet.

Effects of Collaboration on Student Achievement

Despite calls for more collaboration within education, few studies "test the prediction that teacher collaboration is associated with increased student achievement" (Goddard, Goddard, & Tschannen-Moran, 2007, p. 877). An assumption behind many professional development initiatives is that collaboration improves teacher practices, which in turn leads to deeper student learning. Teacher efficacy has been linked to increased student achievement, but these findings do not tease apart whether efficacy is developed through collaborative practices (Goddard, Hoy, & Woolfolk Hoy, 2000; Ross, 1992).

Goddard et al. (2007), however, have found an empirical link between achievement and collaboration. They surveyed over 400 teachers to explore whether school level collaboration was associated with fourth grade achievement on mandatory mathematics and reading state tests. Using hierarchical linear modeling (HLM) with 47 elementary schools, the authors discovered that teacher collaboration was a significant predictor even when controlling for students and other school factors. Although this study offers compelling evidence, it surveyed all teachers with only five broad questions. Hence, the authors did not focus on nuances of interprofessional interactions or on daily

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behaviors that comprise collaboration.

York-Barr, Ghere, and Sommerness (2007) narrowed their focus, and found that collaborative ELL instruction is associated with increased student achievement. In this three-year case study, the authors helped an elementary school develop co-teaching instructional models. Although no other schools were used for comparison, student cohorts in the collaborative instructional models showed significantly more academic growth in reading and math on the Metropolitan Achievement Test (MAT-7). While there is still much work to be done in establishing a strong empirical link between achievement and collaboration, preliminary findings are promising.

Effects of Collaboration on Teachers

Collaboration may indirectly improve student achievement through its role in transformative professional development. The construct has been associated with increased teacher efficacy (Ashton & Webb, 1986; Shachar & Shmuelevitz, 1997), instructional risk taking (Little, 1987), positive attitudes about teaching (Brownell, Yeager, Rennells, & Riley, 1997), and trust (Tschannen-Moran, 2001). Interprofessional collaboration between ESOL and classroom teachers has been linked to professional growth in areas of reflection, creativity, and even energy (Davison, 2006; York-Barr et al., 2007). Literature on teacher learning groups also highlights collaboration's importance. For example, Hindin, Morocco, Mott, and Aguilar (2007) facilitated a group that consisted of language-arts teachers, reading teachers and special educators. The researchers found that despite struggles and challenges to communicate effectively, the teachers had the opportunity to improve their teaching by sharing expertise, supporting each other's learning, and reflecting on their practice. This type of professional learning

group, however, does not necessitate that the teachers share students. The collaboration between different types of professionals who share instructional responsibilities may prove particularly challenging when they are not required to meet in a formal learning group.

Barriers to Collaboration

Although collaboration can lead to positive teacher and student outcomes, the process faces multiple barriers. Teaching has historically been considered a lonely and isolated profession (Fullan & Hargreaves, 1991; Lortie, 1975; Rosenholtz, 1989). Lortie's (1975) metaphor of the "egg crate" school where teachers instruct within their separate classrooms still holds true for many professionals' experience. Little (1990) highlighted the egalitarian norm, which dictates that everyone has equal status. Additionally, Ashton and Webb (1986) point out that teachers often hold onto ideals of autonomy and noninterference. The desire to improve one's own teaching practice may also be inhibited by teachers' fears that collaboration can lead to a loss of instructional control (Smylie, 1992). A combination of these norms and fears may lead to instructional practice that is devoid of meaningful communication about teaching.

Friend and Cook (2010) identify three barriers to effective school collaboration: school structure, professional socialization, and pragmatics. At the most basic level, school structures such as the set-up of classrooms can encourage isolated practice where teachers wield all of the power. Friend and Cook (2010) describe how directive approaches to students may carry over into how staff members interact with each other. Professional socialization is more entrenched because it starts at the pre-training level, where teachers are usually trained to work independently. Once they begin to work in

school settings, professionals encounter school cultures that also value self-reliance (Ashton & Webb, 1986; Little, 1990). Finally, pragmatic issues such as time, scheduling, and coordinating services also impact how well professionals can collaborate with one another. Lack of time is a particularly relevant issue for school settings (Leonard & Leonard, 2003; West, 1990). These pragmatic issues may be magnified when classroom and instructional support teachers must coordinate divergent schedules and time commitments.

Role ambiguity and power. In her model of interdisciplinary collaboration for social workers, Bronstein (2003) suggests that professional roles are particularly relevant when colleagues with different training work together. In addition to role ambiguity on administrators' parts, teachers have divergent views about themselves and each other. Confusion and frustration is more apparent now that school professionals are being asked to teach together and professions are redefining roles at the preservice level. Therefore, power hierarchies and role confusion may be particularly salient barriers for interprofessional collaboration.

Reading specialists were originally envisioned as literacy coaches, but over time they began providing more direct instruction to students through Title 1 programs (Bean, 2009). However, reading specialists have been asked in recent years to restructure their professional roles after Title 1 interventions, mainly consisting of pullout instruction, did not lead to expected student achievement gains (Allington & McGill-Franzen, 1989). The International Reading Association's position statement, for example, determined three reading specialist roles as assessment, leadership, and instruction (IRA, 2003). Additionally, the organization supports coaching as a form of indirect service delivery. In

sum, the profession is experiencing major identity changes.

A number of studies highlight the diversity of reading specialist roles. Bean, Trovato, and Hamilton (1995) found in focus groups of reading specialists, classroom teachers, and principals that all agreed classroom teachers were the "primary" instructors who made decisions about curriculum and content. However, when the researchers dug deeper, they found that specialists were unclear whether their role encompassed both direct service and consultation to teachers. Classroom teachers felt they needed the expertise of specialists to develop reading programs, but that they were the experts when it came to areas such as behavior.

In a more recent study, Bean, Cassidy, Grumet, Shelton, and Wallis (2002) surveyed reading specialists across the United States about their daily practice. Only 9% of respondents indicated that they based their instruction on classroom teacher requests, and 5% indicated that they reinforced or re-taught classroom instruction. However, 84% reported that they served as a resource to teachers, which calls into question what being a "resource" means. Additionally, the majority of reading specialists reported that their roles were changing as they were being asked to function more as resources and as professionals who planned alongside teachers.

In a case study based on one reading coach's experience, some classroom teachers with whom she worked were unclear whether she should provide indirect or direct services (Al Otaiba, Hosp, Smartt, & Dole, 2008). Jones, Barksdale, Triplett, Potts, Lalik, and Smith (2010) developed a phenomenological study to examine 12 reading specialists' working challenges. Many of these professionals felt that teachers expected them to independently solve student's problems, which does not fall in line with a

commitment to joint work (Little, 1990). Other teachers simply resisted working with them at all. Like Bean, Trovato, and Hamilton's (1995) participants, the reading specialists in this study often tried to be accommodating and expressed that the classroom teacher is always "right". This coping strategy highlights an imbalance of power. All together, these studies suggest that ambiguity of roles and issues of power may prove to be particular challenges for interprofessional collaboration.

Bean, Swan, and Knaub (2003) wanted to understand reading specialists' roles in schools recognized as having exemplary reading programs. They found through a 19-item survey of 111 schools that these principals recognized the leadership roles of reading specialists. The researchers focused their efforts by interviewing 12 reading specialists, and discovered five main roles: resource to teachers, school and community liaison, coordinator of reading program, contributor to assessment, and instructor. In these schools the reading specialist's expanded roles granted them a degree of power and leadership that may have an effect on the parity characteristic of collaborative relationships (Friend & Cook, 2010).

The role of an ESOL teacher is unique within schools because general educators often have no formal training to work with ELLs (Utley, Delquadri, Obiakor, & Mims, 2000). Hence, ESOL teachers often have specific expertise about their students' language development, learning, and culture. Similar to reading specialists, ESOL teachers have also been asked to redefine their professional roles in recent years. In particular, more ESOL teachers are being thrust into general education classrooms to provide individualized services or to co-teach (Dove & Honigsfeld, 2010). Therefore, expectations about how they work with adults and non-ELL have changed.

Roache, Shore, Gouleta, and de Obaldia Butkevich (2003) conducted a survey of 125 school professionals working with culturally and linguistically diverse (CLD) students to find out how they collaborated. A salient theme that emerged was that respondents (62.4%) were unclear about other colleagues' roles. Additionally, 82.4% of participants reported that they did not have the appropriate training to communicate with each other. The authors suggested that this lack of clarity and training helps explain why collaboration between professionals working with CLD students is so hard to achieve. It is important to note that participants also included professionals such as school psychologists, professionals who do not share instructional responsibilities.   Due to the researchers' survey method, respondents also did not elaborate on role ambiguity or discuss power hierarchies that can impede collaboration.

A number of studies have addressed the marginalized role that some ESOL teachers experience (Creese, 2002). Arkoudis (2003) used a case study method to explore the relationship between an ESOL and classroom teacher engaged in a co-teaching arrangement. As Arkoudis (2003) coded their conversations, she discovered that the ESOL teacher held a lower position because she was not the expert in grade level content. Despite her own expertise in language development, for example, the ESOL teacher's role was subservient to the classroom teacher's role. Arkoudis (2006) argues that true collaboration requires teachers to continually reposition their roles as the expert.

Creese (2006) also conducted a case study that explored the dynamics between classroom and English as an Additional Language Teachers (EALT) in Britain. By following each of the 12 EALTs for two weeks, Creese (2006) slowly amassed data from teachers' daily interactions. She also conducted interviews with classroom and EALTs.

Similar to Arkoudis (2003), Creese (2006) found that classroom teachers' words and ideas were more highly valued. She recognized that this power hierarchy developed from different professional roles. Whereas classroom teachers are under pressure to teach all students and cover the curriculum, EALTs must focus on individual students' learning and development. Although it is possible to merge these goals, Creese (2006) explains that this can only happen through negotiation. Bronstein's (2003) interdisciplinary model of collaboration echoes this sentiment by stressing the flexibility of roles.

Summary

Results from quantitative and qualitative studies suggest that collaboration may be an essential component to improved teacher practices and student achievement. Although varied models of collaboration across disciplines share common elements, John-Steiner, Weber, and Minnis (1998) write that the construct is context sensitive. Interprofessional models in healthcare, social work, and even library science can inform how general educators and instructional support teachers might collaborate, but do not address contextual issues such as instructional alignment or perceptions about teacher roles. Likewise, literature on reading specialist collaboration does not adequately address colleagues' communication (Walp & Walmley, 1989). Although research on ESOL teacher collaboration is more nuanced and draws from rich qualitative studies, it has largely been conducted overseas (Arkoudis, 2003, 2006; Creese, 2006; Davison, 2006). Research on collaboration between teachers who share instructional responsibilities within general education may have implications for its application to professional development and school reform efforts. Additionally, this research can add to the development of theory on a widely popular, but often misunderstood, construct.

Chapter 3: Method

The main purpose of this study is to explore how classroom and instructional support teachers collaborate in order to align their services. In this chapter I will first review the methodology for this study. I will then describe how this study developed through a larger initiative within a local school district, criteria for selection of the study participants, and data collection methods. Finally, I will describe the specific procedures that were used to analyze data.

Selection of Methodology

Qualitative approaches offer researchers unique data that can aid in theory development and offer rich descriptions of complex phenomena. This study lends itself to a qualitative approach because the interactions between instructional support teachers and classroom teachers have not been extensively studied. Additionally, researchers who do interprofessional collaboration could benefit from a study of how specific types of professionals within K-12 education collaborate with one another, as foundation for further research. Finally, research questions about the nature of interprofessional relationships lend themselves to a qualitative approach.

A variety of methodologies can be used to answer qualitative research questions, including phenomenology, grounded theory, case study, narratives, and ethnography. For the purposes of this study, the Grounded Theory (GT) methodology is appropriate (Charmaz, 2000, 2006; Glaser & Strauss, 1967; Strauss & Corbin, 1998). The aim of GT is to develop theory that is based, or grounded, in data. Compared to other methods, this approach is primarily inductive (Charmaz, 2006). A GT approach can examine the unique features of classroom and instructional support teacher collaboration without

being unduly influenced by previous theoretical and empirical literature on collaboration in education.

GT has splintered between a more prescribed method (Strauss & Corbin, 1998) and a more open-ended process (Glaser, 1992). This study uses Charmaz's (2000) approach, which encourages researchers to "use GT methods as flexible, heuristic strategies rather than as formulaic procedures" (p. 510). A number of features, however, identify a GT methodology. Data are analyzed through a constant comparative method, and through this iterative process data moves from individual concepts to themes related around a core category. Axial coding, the second level of coding, can be considered very prescriptive if it prevents the researcher from genuinely jumping into the data (Charmaz, 2006). However, it can be useful as a heuristic to guide researchers less familiar with qualitative methods. Nunes, Martins, Zhou, Alajamy, and Al-Mamari (2010) reviewed pilot studies of four grounded theory projects, and propose that these studies are important for informing future research and for training researchers in "interviewing, relating to interviewees, memoing, constant comparison, and coding" (p.73). This thesis project can also serve as a pilot study for later studies of the collaborative process.

Research Context

The next section of this chapter will describe the collaborative effort between university members and school district staff, the setting for this research. The context for this study is embedded in the Learning Disabilities/Attention Deficit Hyperactivity Disorder (LD/ADHD) Design Team, a long-term initiative developed by the school district's central office staff in a Mid-Atlantic public school system. Through the combined efforts of various committees, its mission is to support classroom teachers in

the delivery of best practices in instruction and behavioral intervention for students with learning and/or behavioral needs.

Membership of research committee. I was invited to join the Research Committee, one committee of the LD/ADHD Design Team, as a graduate student member, by the faculty member who was participating. The other members of this committee include: Coordinator of School Psychology and Instructional Intervention, Instructional Facilitator, Coordinator of the ESOL Program, Coordinator of Assessment, and Communications Facilitator (Speech and Language Services). The varied professions represented in the committee operationalizes our belief in interprofessional collaboration.

Charge of research committee. The Research Committee was charged with examining how support services outside of special education are aligned between adults responsible for instructing the same students. Our inquiry narrowed when we decided to focus just on reading specialists and ESOL teachers. These professionals were selected due to the fact that, next to classroom teachers, they have the greatest instructional responsibilities for students at risk.

Focus groups. The first project of the committee was to gather initial data on the collaborative relationships. To do this, four focus groups, two consisting of elementary classroom teachers and two comprised of other service providers (ESOL teachers and reading specialists), were conducted. The analysis of the focus groups' responses demonstrated that the term "alignment" was not clear. After discussing the participants' responses and referring back to the literature, the committee decided to examine further the question of how different professionals collaborate about the same students. An

interview study was selected to address specific questions about the nature of interprofessional collaboration, and was planned collaboratively by the Committee.

Interview Study

Approval of the study was obtained at both the school district and university levels. The University of Maryland IRB application was approved on April 5, 2011.

Participants. The participants are classroom teachers and instructional support teachers from two suburban public elementary schools in the same mid-Atlantic district. Sixty three percent of teachers hold a master's degree and the average level of experience is 12.9 years. The district has approximately 50,000 students, with over 2,000 participating in the English for Speakers of Other Languages (ESOL) Program. In the school district, the breakdown of race is as follows: White, 49.7%, African American 21.1%, Asian 17.9%, Hispanic 6.2%, and Native American 0.4%. These two schools were chosen as convenience samples. Although Patton (2002) warns of convenience sampling limitations, it allowed the Research Committee access to participants. As a doctoral student in the University of Maryland School Psychology program, I have worked in both schools as a practicum student. Additionally, members of the committee were familiar with the principals at these schools, who were approached to have their schools in this interview study.

The principals were asked to nominate two classroom teachers who teach one or more students receiving services from either the ESOL teacher or reading specialist. Thus, each of the classroom teachers shared a student with both instructional specialists. The principals also asked the ESOL teacher and reading specialist in their schools to participate. Of note, every teacher asked to participate agreed to be part of this study. In

total, eight participants were chosen, with two classroom teachers, one ESOL teacher, and one reading specialist from each school. All participants were Caucasian and the only male participant was a third grade teacher. Participants' ages and experience ranged from a recent graduate to a participant with over 20 years of experience. Creswell (2007) suggests 20 to 30 participants for GT studies, but it was important for the Research Committee first to conduct a feasible study with fewer participants.

Data sources and collection. According to Charmaz (2006), an open-ended protocol for interviews is useful for GT approaches. It keeps interviews consistent between interviewees, but allows the interviewer to pursue questions. I first conducted two pilot interviews with a kindergarten teacher and a reading specialist to develop questions and to give me an opportunity to practice my own interviewing skills. These two teachers were recruited by members of the Research Committee and were told that their participation was meant to help develop an interview study. I spoke with them after their interviews to receive their input about the order and wording of questions. After receiving this input, the Research Committee developed a semi-structured protocol that asked participants to talk about school level collaboration and individual collaboration between themselves and either classroom teachers or instructional support teachers:

1) How does collaboration work in your school?

2) How does the administration support collaboration between classroom teachers and instructional support teachers?

3) How would you describe collaboration between classroom teachers and instructional support teachers when they are working with the same student?

4) What is the structure for your communication with <u>Name(s)classroom teacher /instructional support teacher)</u>?

5) How are you able to schedule collaboration in your work?

6) Please describe what happens in a typical meeting with a <u>Name(s)classroom/instructional support teacher</u> in collaborating about the same student(s)?

7) Other than time, are there any barriers to doing this kind of collaboration well?

8) Is there anything else you'd like to add?

After receiving permission from the two schools' principals, nominated teachers were individually asked to participate, and were assured that declining to participate would not adversely affect them. In order to gain trust and ensure open communication, a detailed informed consent procedure was conducted (see Appendix B). Before the study began, I met individually with each teacher to speak about the project and answer questions. Workshop wages, which are funds assigned for professional development activities, were paid to five participants who decided to meet before or after school hours, and were at the district's usual rate.

All interviews were conducted over the course of one month. They were individually conducted in private classrooms and recorded with a digital recorder. Participants were debriefed about the importance of keeping what they said in this study confidential. Additionally, they were told that the researchers would not share their information with colleagues and administrators. The only people who have access to these data are the Research Committee of the HCPSS LD/ADHD Design Team. Audio files from a digital recorder were immediately transferred to a password protected

computer, and to a password protected online hard drive software program (www.dropbox.com). All interviews were transcribed verbatim, and identifying information was deleted or permutated so that no one can be identified. This includes information such as participants' and other staff members' names.

Data Analysis

A precursor to GT analysis is transcribing, which encourages full immersion with the data. Charmaz's (2006) work on GT analysis will be used, and the following levels of coding are described below. The iterative nature of GT will lead to a non-linear progression so that levels of coding are revisited and revised.

Open and focused coding. GT stresses the importance of fit and relevance (Charmaz, 2006). Line-by-line open coding is an extensive process that forces the reader to consider individual concepts present in each line of text. By approaching the transcripts line by line I reduced the possibility of imposing my own preconceived ideas about what the participants experience. As I coded line-by-line, I began to engage in more "focused" coding, which Charmaz (2006) identifies as "using the most significant and/or frequent earlier codes to sift through large amounts of data" (p.57). By constantly comparing interviews I started to develop conceptual labels and categories that subsumed initial line-by-line codes, and subsequently dropped certain codes that existed solely in one individual's interview or did not fit into any categories.

Axial coding. Strauss and Corbin (1998) identified axial coding as another level that focuses on relating categories to subcategories. Axial coding fleshes out the properties and dimensions of categories. Strauss and Corbin (1998) specify an organizing scheme for axial coding that focuses on: conditions that form the central phenomenon of

interest; participants' actions and interactions with regard to the phenomenon; and the

consequences or outcomes of participants' actions. Charmaz (2006) warns that formally

adhering to axial coding may superficially impose an inappropriate scheme to the data.

Although I kept Charmaz's (2006) warning in mind, axial coding proved to help me best

organize themes as they emerged.

Selective coding. As I developed categories and discovered their

properties/dimensions, I searched for the core category that all other categories revolved

around. The ultimate goal for this higher level of coding was to create a "story" about

collaboration between classroom and instructional support teachers.

Memoing. Throughout the coding process I weaved in memos, or notes, about the

emerging themes. Charmaz (2006) explains that, "memos catch your thoughts, capture

the comparisons and connections you make, and crystallize questions and directions for

you to consider" (p.72). I wrote memos in three ways. First, I wrote next to line-by-line

codes to document memos directly related to initial codes, which helped me engage in

focused coding. I also fleshed out memos in separate Word documents in order to further

explore my thought processes as I coded and conceptualized themes. As part of this

memo process I also took notes on how emerging categories relate back to literature on

collaboration and teachers working together. The following organizational layout

highlights how I systematically coded and memoed throughout the analysis:

Table 2.

Organizational Layout for Coding Transcripts

Line	Code	Notes/Reflections	Corresponding idea from literature

50

Interviews transcribed verbatim	Date different entries (reflect splits in coding)	Flesh out into memos in different document	Refer to literature throughout coding process

Another goal of memoing was to begin looking at differences between teachers' experiences of collaboration. Throughout the coding process I took notes on how participants' experiences differed 1) across schools, 2) between instructional support and classroom teachers, and 3) between ESOL teachers and reading specialists.

Trustworthiness

One goal in qualitative research is to attain trustworthiness, or be "*worth paying attention to, worth taking account of*" (Lincoln & Guba, 1985, p.290). Trustworthiness on my end started with a commitment to practicing my interviewing skills and making sure to clarify statements during the interviews when I was unclear. Additionally, I heeded to Patton's (2002) argument that no study is free from researcher bias by documenting myself through the memo process. This process not only aided analysis, but also allowed me to reflect and address on my own biases about the data. Finally, I sought out reliability checks with the Research Committee on coding transcripts and a research auditor to review my analysis as I developed codes and categories.

Chapter 4: Overview of Themes and Core Theme Analysis

In this chapter, core themes that emerged from the transcripts will be outlined in order to provide an overarching description of collaboration within the particular context of the two elementary schools sampled. This chapter will focus on how themes relate to one another. The core theme, *Levels of Teacher Interactions*, will be described in detail.

Core Themes

Data from this interview study illustrate how teachers struggle to collaborate with each other when they face multiple demands in a fast paced environment. Collaboration is a dynamic process that exists on a continuum, and all participants voiced a desire to engage in more meaningful work with each other. A commonality among all participants was that they were able to describe how a variety of factors affected their interactions with each other. Additionally, they expressed how collaboration had an effect on both teachers and students. One salient distinction that arose in these interviews is that collaborative practices and norms are different between the two schools. Additionally, each type of teacher (classroom, reading specialist, and ESOL) experienced collaboration quite differently, and professional roles had a large impact on these varied experiences. Finally, each individual offered a unique narrative of his and her current experiences.

Four main themes emerged from the data: *Levels of Teacher Interactions, Communication Continuum, Factors that Affect Teacher Interactions*, and *Effects of Teacher Interactions*. A coding appendix (Appendix B) offers a comprehensive breakdown of these themes. The following diagram illustrates a visual model of collaboration that emerged from the eight interviews.

Figure 1. Model of General Education and Instructional Support Teacher Collaboration
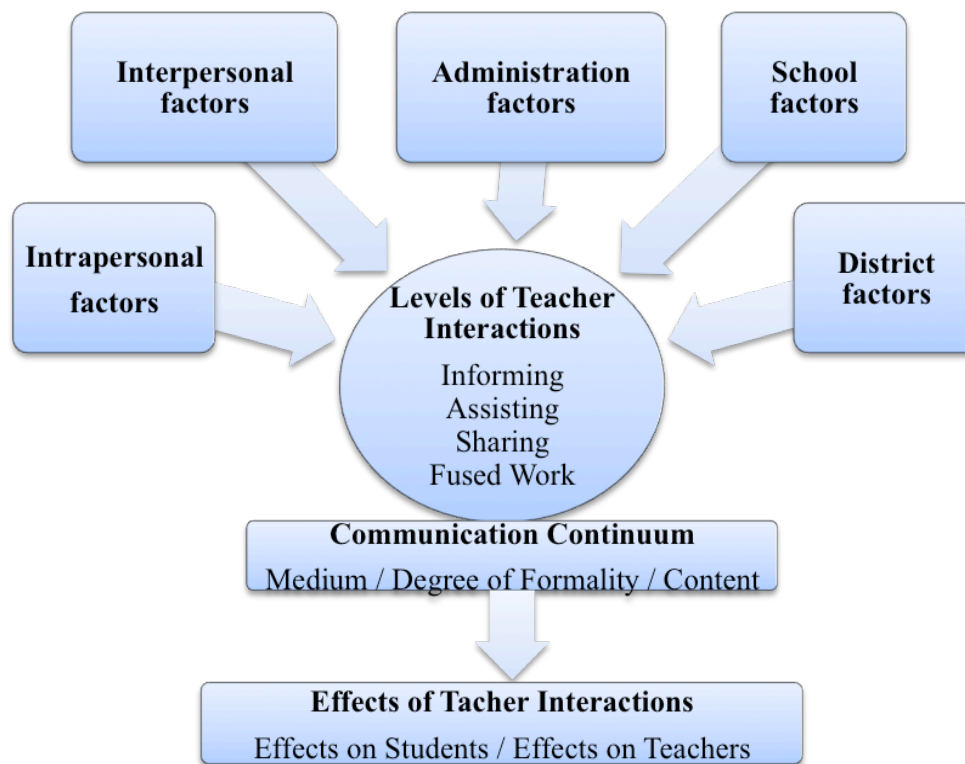
Levels of Teacher Interactions is the core theme that connects the other three themes to one another. It is the core theme because it describes what teachers actually do with one another on a daily basis. This theme includes four types of interactions that contribute to curricular and instructional alignment. However, some interactions, such as *fused work*, are more collaborative in practice. The *Communication Continuum* theme describes the structure and content of these interactions. In the second analysis chapter, a more nuanced description of this theme will demonstrate how certain types of communication (i.e. speaking in person, meeting at an agreed upon time) have an effect on the level of teacher interactions that colleagues engage in with one another. The third theme, *Factors that Affect Teacher Interactions*, is a broad theme that illustrates how a variety of factors,

from the intrapersonal to the district level, influence teacher interactions. The *Communication Continuum* and *Factors that Affect Teacher Interactions* themes both include problems identified by teachers as inhibitory to effective collaborative practice. The last theme, *Effects of Teacher Interactions*, looks at how both teachers and students are affected by the ways teachers interact with one another. It includes both positive and negative effects.

Levels of Teacher Interactions

Through axial and selective coding, a core theme emerged from the interview data. *Levels of Teacher Interactions* was the central process that tied all other categories and codes together. It describes what these two types of professionals actually do with each other. Within this core category, participants described four types of interactions: Informing, Assisting, Sharing, and Fused Work. Although each successive level of interaction indicates a deeper level of interacting, all four types of interactions play a role in helping teachers align their services. Hence, two colleagues may simultaneously engage in more than one type of interaction throughout the school year; that is, they are not mutually exclusive of one another.

Informing. At the most elemental level, colleagues engage in *informing*. These interactions involve dissemination of information, often regarding curriculum materials or logistics around scheduling. Teachers also tell each other about students' progress and voice concerns about learning or behavior. Finally, *informing* involves data dissemination, especially in regard to assessments that are specific to one type of teacher. For example, the two ESOL teachers inform teachers how well students scored on countywide ELL assessments.

Within this level of interacting, a common difference between the two types of teachers, classroom and instructional support, is the information content. For example, the four classroom teachers indicated that they offered various amounts of detail about their curriculum to the reading specialists and ESOL teachers. The reading specialist at school S, for example, is informed when a new subject unit is beginning or what books are being used in the classroom. Informing can range from being very broad or specific, as the first grade teacher at G school explains: "With ESOL....I'll just send a list of topics that we're working on or vocabulary words that we're working on." Alternately, the instructional support teachers don't have the same kind of curriculum based informing. Considering that their focus is on working with smaller groups of students, these teachers were more likely to inform classroom teachers about assessments specific to their services or about individual students' progress. Hence, *informing* looked substantially different depending on which type of teacher was speaking or writing.

One of the main goals for *informing* is to make sure that curriculum content between classroom and instructional support teachers is aligned. That is, the instructional support teachers can match up with what is being taught in the classroom with what they are doing in self-contained pullout classes. The other main goal for *informing* is to keep colleagues "in the know" about students' progress. This type of data dissemination may consist of quantitative data such as benchmark tests, but it might also consist of more qualitative observations about a student's progress in a class. In the case of these participants, *informing* is characterized more on curriculum content transmission than on disseminating information about instruction.

Assistance. Informing colleagues is an essential component of making sure that

services are aligned in regard to content and so that everyone has access to data about students and assessments. However, this level of interaction places little interpersonal or intrapersonal demands on teachers. Alternately, the second level of communication, *assistance,* highlights the unique nature of collaboration between classroom and instructional support teachers. In these interactions a teacher requests help from another, and in all examples from the interviews, the other person complies with the request. For example, one classroom teacher asked an ESOL teacher to work on an assigned book report with her students. According to this teacher, the ESOL teacher has proactively said, "Give me something that they need to finish or something that they need to correct." In this case the ESOL teacher is demonstrating her role as a support to the classroom. In some cases instructional support teachers voice that although they comply, assistance may be in conflict with their own plans. For example, another ESOL teacher explained:

> I mean, or I'll have a lesson planned, I'll have something going on and she'll say, "He really needs to finish this Martin Luther King paper." Okay, fine. Not a problem.

This quote highlights the teacher's resignation in having to choose classroom teacher demands over her own service goals.

Assistance is a particularly one sided level of interaction because it is the instructional support teachers who comply with classroom teacher requests. Coding throughout the interviews illustrated that classroom teachers have ownership of the curriculum, and therefore have the ability to dictate the pace and content of instructional support services. Subsequent sections on roles, interpersonal, and intrapersonal factors will further elaborate how *assistance* is indicative of the unique relationships between

classroom and instructional support teachers.

      Sharing. The third level of teacher interactions, *sharing*, is characterized by more parity between colleagues. Whereas *assistance* is marked by a dynamic in which classroom teachers ask for help, both classroom and instructional support teachers reported instances of sharing with each other. Colleagues share materials, instructional and behavioral strategies, and unique expertise with each other. Overall, the participants in this study reported that sharing was usually centered on materials. In some instances the materials may be neutral in that they are not specific to a type of teacher's training. For example, the ESOL teacher at School S shared a book with her classroom teachers that anyone can use with general education students. Alternately, the reading specialist at the same school offered another example of sharing materials that speaks to her expertise. She gave a teacher syllable picture cards that directly targeted phonemic awareness, a skill that reading specialists have expertise in teaching. In the other school the reading specialist also regularly shares materials when classroom teachers indicate concerns that call for expertise in areas such as spelling. The major way that *sharing* is different from *assistance* is that it usually involves help that requires another's expertise (rather than just assisting a teacher with covering classroom content) and it is openly offered outside of any request.

      The previous examples resemble unidirectional interactions where one person shares with another. However, the first grade teacher at School G works with the reading specialist to coordinate this sharing: "So, she would give me other resources she's used in the past that have been helpful or materials we can both use and not have too much overlap." In the same school the ESOL teacher shared information with the third grade

teacher about available ELL accommodations that could benefit a student and showed how they could be used. These examples highlight a deeper level of sharing because the teachers are also trying to ensure alignment of services when sharing takes place.

Another component of *sharing* throughout the interviews is possible enabling of teachers to expand their focus. One teacher admitted,

> It's not really shared, that's the thing. Teaching strategies haven't really been discussed that much this year. And for her, too, I would love for her to say for whatever we're doing, "Try this for these students," for ELL.

This quote illustrates participants' reflection that although sharing strategies doesn't always happen, they do value this type of interaction. Compared to simply sharing materials with each other, sharing expertise and strategies seems to require more time, a commonly cited barrier to effective collaboration.

Fused Work. The final level, *fused work*, is the deepest type of teacher interactions. These interactions require colleagues to work together in order to achieve a shared goal and they carry greater shared accountability. Colleagues fuse roles by planning curriculum, assessing, grading, problem solving, and sometimes even teaching together. This level of interaction is characterized by the greatest degree of time commitment and scheduling to meet in person. Participants reported that fused work was a more uncommon type of interaction. In fact, they sometimes described experiences with other colleagues (i.e. speech pathologist, media specialist, etc.) outside of the study in order to give examples of these deeper interactions.

Planning. Some teachers had the opportunity to plan curriculum and classes together. Overall, the ESOL teachers in both schools expressed significantly less

planning with classroom teachers than reading specialists. The reading specialist at School G, for example, meets weekly with a fifth grade teacher to talk about plans and goals for the entire class, not just her students. The first grade teacher and reading specialist in this school also used to plan weekly, and the classroom teacher considers the reading specialist as a source of curriculum support. In school S the reading specialist also reported instances of planning lessons and curriculum details with teachers, but only with those classroom teachers she either co-taught with or the ones on the grade team she was assigned for the year. While planning together occasionally happens, later sections in this chapter on school structures and schedules will highlight why fused planning in schools does not happen more often.

Grading. A unique feature of reading specialist and ESOL teacher roles is that although students receive instruction from these professionals, classroom teachers primarily provide grades. However, there is a continuum of input that instructional support teachers can have on report cards. In School S, for example, instructional support teachers used to be able to write more comments in a former software system and seemed to have more input. However, now there is little room for them to provide their own comments. Despite this change, the reading specialist in this school has had the opportunity in a co-teaching structure (not one of the teachers interviewed) to work with her colleague on deciding grades for students. In School G the ESOL teacher and reading specialist have the opportunity to provide comments on report cards, as well, but there is no system in place for them to communicate with teachers about grades. The third grade teacher even noted that she often does not see instructional support comments until after the report cards are distributed. Overall, fused grading occurs very rarely.

Assessing. Of the two types of instructional support teachers, only one reading specialist reported instances of joint assessing. Assessing is important because it allows colleagues to develop a shared understanding of a student and to plan future interventions. A significant difference between the two schools is that the reading specialist at School G is trained to conduct a particular kind of reading assessment that focuses on students' instructional level. This assessment can be just conducted by her, but she prefers to engage teachers in the process:

> You know, I'll say, "Why don't we do an IA together?" And they'll go, "Oh, that'll be great." And it's better for two of us to see what's going on with this child and be able to talk about it. Because my perspective and the teacher's perspective, we can come in with very different perspectives. And then when we get out of there, we've figured it out. Not totally, but we've got a better idea.

This quote highlights how assessing together can help teachers bring perspectives together in order to effectively identify problems and begin planning interventions.

Problem Solving. Although many teachers may not assess together, they still have the opportunity to problem solve. When teachers problem solve they are coming together to define a problem and then engage in steps to solve it together. Another example of joint problem solving that took place between the ESOL teacher and (male) third grade teacher in School S was about a student's behavior. They talked together to develop a shared understanding of his behavioral problems in both of their classes and then came up with strategies that would help this student focus on class work. Problem solving can target behavior, academics, or a combination of the two, but the common thread between examples provided by participants is that they worked to develop a shared understanding

of concerns. Compared to other types of fused work that occur less frequently, all of the participants were able to provide at least one example of problem solving with their colleagues.

Co-teaching. In both schools teachers indicated varying amounts and types of co-teaching. School G used to have funding and training that specifically targeted co-teaching, but instructional support teachers were not part of this initiative. In both schools there is no overall policy or program that matches instructional support and classroom teachers together, but some participants indicated that they co-taught.

Whereas the ESOL teacher at School G occasionally pushes in to provide services, the ESOL teacher at School S currently co-teaches with a kindergarten teacher who was not a participant in this study. In this latter set-up the two teachers plan each month together for Language Arts. The kindergarten teacher sets the pace for the curriculum being taught in the class, but they decide together which materials and activities to use. Additionally, the two teachers often work at the same table with students, and the ESOL teacher works with both her ELL and general education students. This type of co-teaching truly resembles fused work because the ESOL teacher's instructional responsibilities now include all of the students that the classroom teacher is also responsible for teaching. The shared responsibility and accountability qualitatively described differs from an ESOL teacher who provides individual and separate services within a classroom.

The reading specialists in both schools also described co-teaching experiences, and in theses cases they also described working with teachers not interviewed for the study. In School S the reading specialist described working with a fifth grade teacher.

They met each week to plan their lessons together and even discuss which roles they would take in the classroom. At one point the reading specialist even became the primary reading teacher in the classroom when her colleague went on maternity leave. The reading specialist at School G overall reported more time spent in general education classrooms than the reading specialist at School S. Each year she offers teachers options on how she can provide services. For example, this year she worked with a fifth grade teacher, and their co-teaching involved co-planning and taking turns working with the entire class. Just like with the ESOL teacher in school S, these two reading specialists take on more shared responsibilities and accountability with classroom teachers when a co-teaching is in place.

Summary

Levels of Teacher Interactions describes the continuum of practices that mark classroom and instructional support teachers working together. Although all four types of interactions play a role in helping teachers align their services, engaging in more fused work is a goal indicated by all eight interviewees. The next chapter will delve into the three other main themes by illustrating how a variety of factors have an effect on teachers' interactions, considering communication patterns' relationships to teacher interactions, and showing how both students and teachers are affected by different types of interactions. Additionally, problems associated with collaboration will be examined.

Chapter 5: Theme Analysis

Overview

In this chapter the three themes that radiate around the core theme, *Levels of Teacher Interactions*, will be discussed in depth. First, *Communication Continuum* will describe the structure and content of these interactions. *Factors that Affect Teacher Interactions* will then explore how a variety of factors support or impede classroom and instructional support teacher interactions. Within this discussion, barriers to collaboration will be specifically addressed. Finally, *Effects of Teacher Interactions* will illustrate the ways in which these teacher interactions have an effect on both teachers and students.

Communication Continuum

An overarching theme that describes the ways in which colleagues communicate is the *Communication Continuum*. This theme describes the properties and dimensions of the unique interactions that take place between instructional support and classroom teachers. Teachers' interactions are marked by a continuum of communication structure and content. The following sub-themes will be described: 1) communication medium, 2) degree of planning and formality, and 3) communication content. Within each of these sub-themes teachers expressed a spectrum of communication patterns that change not only between participants, but that also change within individuals.

Communication medium. The medium through which people communicate can have an impact on the quality of their interactions. At one end of the spectrum, teachers use email and the internet to communicate and at the other end of the spectrum they speak with each other in person.

Electronic communication. Email was most often used for the purpose of scheduling or disseminating curriculum information. Sometimes teachers relied on it more for keeping up with each other on a student's progress in order to make sure they were targeting the same objectives. One distinction between classroom and instructional support teachers is that classroom teachers generally have more information to disseminate since they are setting the pace for the general education curriculum in the classroom.

Concerns related to communication medium. Despite its ability to efficiently transmit information, a number of teachers voiced concerns that email can lead to miscommunication or is not sufficient for talking in depth. For example, one of the third grade teachers in S school explained,

> You can't just rely on email and minutes. It's not the same as personal communication and planning and sharing of materials. It's tough for them to understand. Like even if I type something in the minutes, they don't understand what does that actual paper look like. "What do you want from this draft that they're going to write?" That is the tough part.

Although teachers reported speaking together in person, all of the interviewees professed a desire to increase this "face to face" time with each other.

Communicating in person. Overall, communication in person appears to happen less often than the teachers would like. Within the interviews teachers often used terms such as face to face and "in person." There is a palpable sense amongst the teachers that they engage in more meaningful collaboration in person than through online communication mediums. For example, the third grade teacher at S school explained:

I feel like that would allow us to definitely be on the same page. See, like,

documents in front of each other…that this is what we're trying to work on, this is

what the final product might look like, this is what needs to be included in that,

and not just, not just…running down a list of things, that hopefully it works out.

While participants value this communication medium, a variety of factors preclude them

from engaging in more face time.

Communication medium differences between schools and participants. One

striking difference between the two schools is that S school requires classroom teachers

to post information from their grade meetings, such as meeting minutes and curriculum

objectives for the week, to an online server. G school does not have this system in place,

but grade teams generally make a planning sheet available to staff. Interestingly, an

online system does not ensure that more information is being disseminated in one school

over another. For example, S school's ESOL teacher explains that she still will ask

classroom teachers for information about actual lesson plans because the required online

postings do not provide enough detail. Overall, the difference between each school's

online presence does not dictate how different communication mediums (online vs. in

person) are actually used by individuals or how useful they actually are.

A trend among the participants in this sample is that the instructional support

teachers appear to influence how much in person communication takes place. For

example, the reading specialist at G School actively seeks out face time with teachers

more than the reading specialist at S School. Although ESOL teachers have fewer

opportunities to speak in person because of their part-time status, it appears that there is

not a significant difference between the two types of instructional support teachers.

Degree of planning and formality. Another communication continuum that

emerged from the interviews is the degree of planning and formality. On one end of the

spectrum colleagues engage in formal communication such as planned meetings, whereas

the other end of the spectrum is marked by informal communication that is more

spontaneous in nature.

Formal communication. Although a teacher's school day is mainly spent

instructing students, it is also marked by a plethora of meetings. All teachers reported

engaging in formal communication with colleagues across the school setting, which often

consists of a required meeting or one that they have volunteered to participate. When

asked to describe the logistics of communication between only classroom and

instructional support teachers, no school level differences became apparent.   Rather,

each participant had a different story to tell about meeting formally with colleagues.

Types and characteristics of formal communication. The formal type of

communication has two main characteristics: a) teachers dedicate time to communicate,

and b) they usually set an agenda for what they will discuss. Teachers usually find a

regular time to meet by either coordinating common planning periods (which can be

difficult) or finding time before or after school. The characteristics of formal

communication are clear-cut when teachers meet for an IEP (Individual Education

Program) or a school-level problem solving team meeting. However, only the reading

specialist at F has an ongoing commitment as a problem solving team member. All of the

other instructional support teachers come to these types of meetings as needed, meaning

that their presence is requested only if the meeting is about a particular student they work

with regularly. The other type of formal communication that occurs between all teachers

is the type that is set on a specific schedule. For example, ESOL teachers meet with classroom teachers to disseminate data from yearly language proficiency exams. These types of meetings are the most formal in that the meeting time and agenda are planned far in advance.

Another type of formal communication occurs between grade level teams and an instructional support teacher. Of the four instructional support teachers, however, only the reading specialist at elementary F reported participation in grade level meetings. Each year she and the administration decide which grade needs her services the most, and she then meets with these teachers on a weekly basis. One of the problems with this set-up is that only one grade level benefits from this weekly input. For example, the third grade teacher expressed that she missed having the reading specialist on her team:

> She knew everything that was going on from the planning stages on through
> implementation and delivery, you know, so that was a phenomenal year, and I
> think everybody benefited from that collaboration.

The reading specialist also opined that participating in the grade level meetings was an essential component of her collaborative work with teachers each year.

The last type of formal communication occurs one-on-one between a classroom and instructional support teacher. All of the participants indicated that there is no protocol or standard for these individual meetings. These types of dedicated meeting times usually happen as a result of a co-teaching structure. Some teachers agree to meet monthly to plan, whereas others dedicate a planning period each week to review their plans, objectives, and materials for the shared teaching load. The reading specialist at F was the only instructional support teacher who indicated that, when possible, she has met

regularly with classroom teachers (including the two teachers interviewed) outside of any co-teaching structure. One of the ways she has made these meetings possible over the years is setting up a day for planning:

> So what I would try to do is on that Friday try to meet with my teachers sometime. If I couldn't meet with them Friday I would pick another time during the week, and it would be a set scheduled time.

This adjustment of the reading specialist's schedule highlights the dedication of making time to meet in the busy school week. Overall, formal meetings between teachers and instructional support teachers are not required and there is no protocol for instructional support teacher participation in school-level or grade-level meetings in this school district. Planned one-on-one meetings are the least commonly reported, and co-teaching seems to drive the perceived need for this type of communication.

Preference for more formal communication. Although many teachers indicated low amounts of dedicated meeting times and agendas, participants indicated that they would like more formal communication between one another. One of the third grade teachers at S expressed, "Like if there's more planning, more structured planning period time, that might be more focused." His fellow third grade teacher elaborated:

> But meeting with them, we just have to find a better way to do this. Either we set aside one day a week before or after school, and we say we're only going to meet for half an hour… It's definitely something that needs to happen more.

Overall, the preference for more planned meetings comes from a desire to have more consistent communication about student progress, instruction, and curriculum alignment.

Informal communication. Both instructional support and classroom teachers reported that most of their communication with each other throughout the school year is informal. Unlike formal communication, it is marked by spontaneity. Phrases used such as "popping in," "on the fly," and "catch as catch can" illustrate how this type of communication takes place in short bursts and is unplanned.

Characteristics of informal communication. One of informal communication's characteristics is the lack of planning involved. For example, the ESOL teacher at S school explained that "there's no set pattern" for how she speaks informally with teachers. One of the main ways that these two types of school professionals speak informally is when instructional support teachers pick up or drop off students they are pulling for services. Additionally, informal communication is characterized by its brief nature. As the reading specialist from F explains, "I'll tell her what I've been working on, and then we'll move on. It's very fast."

Constraints of informal communication. Although teachers appreciate the communication that happens on the fly, they also feel that it has some constraints. First, its brief nature is frustrating. The third grade teacher from S school likes speaking with instructional support teachers when they drop off students, but remarked, "Obviously it would help to have more time." She also expressed that the lack of privacy was also a problem. Although informal communication happens on a more frequent basis than planned meetings and is considered a useful way for teachers to speak with each other, the teachers indicated that it simply does not provide the time, planning, and privacy necessary for deeper levels of communication.

Communication content. The last sub-theme of *Communication Continuum* focuses on what teachers actually talk about in order to align their instruction and curriculum. On one end of the continuum is student-focused communication and on the other end is teaching-focused communication. The combination of teaching and student-focused topics has an effect on the *Level of Teacher Interactions*. For example, when teachers are speaking not only about students, but also about their own teaching and curriculum, then they can move towards *Fused Work*.

Student-focused communication. While all teachers spend a large amount of time speaking about students, there is a variety of student-focused communication that has different goals. Student-focused communication between instructional support and classroom teachers consists of the following: assessment data, progress, and problems.

Assessment data. Communicating about assessment data is a necessary component of classroom and instructional support teacher interaction because it helps teachers see how students are achieving in relation to other peers and whether specific skills need to be targeted further.   One of the roles for ESOL teachers is administering statewide language proficiency exams and disseminating the data. Both teachers in this study, however, explained that they spoke in depth with teachers about these data only in cases of very low or very high performance. Meeting with teachers at the beginning of the year to share these data helps the ESOL teachers explain students' strengths and weaknesses to classrooms teachers. These two participants only communicate about benchmark assessments when a significant concern arises from the data. The reading specialists take a more active role with the benchmark assessments that measure reading and writing

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skills. The reading specialist at S school offered an example of how she works with teachers in this area:

> So I went to (Teacher) and made a copy of the assessment and said, "Here's what I saw, is this what you're seeing in class?" She said, yes, that's what she's seeing in class…. I made copies of the assessment for her and we talked about, we talked about the strengths and the needs of her, of those individual students.

This quote illustrates how speaking about assessments helps colleagues communicate about student strengths and support needs. In this example it also led to a joint intervention for the student both in reading group and in the classroom. The reading specialist at F also regularly uses assessments to communicate with teachers. She explains:

> I won't do the same assessment as the teacher does. I do it just different. But then we can come together and say, "Well, I saw that this child needs this and this."

Both reading specialists recognize that communicating about assessments with classroom teachers leads to a shared understanding of students' needs.

Progress. Though the two are similar, discussion of student progress is usually less informal than discussion of formal assessments. This communication may consist of how a child may be responding to an intervention, to curriculum materials, or to the classroom environment. Usually the conversation is short and focuses on student performance in class. For example, a teacher may start the following conversation:

> You know, "Guess what, breakthrough. Um, look at what she did in this assignment."
> "Wow, she's really getting the hang of this, but she's still having trouble with this."

When pullout services exist, an instructional support and classroom teacher rely on this type of communication in order to gain information about how a student is faring in different learning environments.

Problems. Another point of entry for communication between instructional support and classroom teachers is when staff perceives that a student is experiencing difficulty either academically or behaviorally. Sometimes this difficulty is perceived by an individual and brought up with a fellow colleague. At other times a student is targeted through a team or group in the school. The major difference between reading specialists and ESOL teachers in this study is that the latter address more behavioral and social concerns with classroom teachers, whereas the former address more academic concerns. Both ESOL teachers and the two classroom teachers in their respective schools gave examples of how these concerns came up throughout the year for ELL. For example, the first grade teacher and ESOL teacher at G school spoke about a student's difficulty with social skills within the context of his language development and recent diagnosis of autism. Over time, they decided that one way they could support this student was to have the ESOL teacher work with him in the classroom and focus on communication skills with other students.

Teaching-focused communication. Effective teacher interactions are marked not only by discussing students, but also by communicating about teaching. This type of communication content is essential for curricular and instructional alignment between instructional support and classroom teachers. Teaching-focused communication can be broken into two topics: curriculum content and instruction.

Curriculum content. A continual challenge for colleagues such as classroom and instructional support teachers is aligning curriculum content for students. Instructional support teachers are tasked with supporting student engagement with the general education curriculum and classroom teachers need to make sure that their colleagues know what is being covered in the classroom. Therefore, the bulk of teaching-focused communication is marked by curriculum content, which includes materials and objectives. Essentially, this communication is the "what" of teaching.

Instructional support teachers play a unique role in schools because they simultaneously cover the general education curriculum and provide their own instruction that taps into skills such as reading fluency. The first-grade teacher at G school described how the reading specialist helped them align instructional content:

So she would give me other resources she's used in the past that have been

helpful or materials we can both use and not have too much overlap.

All four of the instructional support teachers indicated that they attempted to match their content to what was being covered in the general education classroom. Hence, they relied heavily on *Informing* to "be in the know" about what texts or materials students needed to use. All four instructional support teachers also explained that at times they spoke with classroom teachers about their own materials used in their small classes, especially if these materials were used for specific purposes, such as supporting ELL language development.

Instruction. Whereas curriculum content is the "what" of teaching, instruction is the "how" of teaching. While the teachers gave myriad examples of communication about curriculum content and materials, they admitted that they spoke less with each

other about instruction. Communication about instruction is usually more present in *sharing* and *fused work* interactions.

In the case of classroom and instructional support teacher communication, talking about instruction often focuses around accommodations and modifications to the general education curriculum. The third grade teacher at G school gives an example:

> She could see right away what needed to be modified or what kind of accommodations would need to be set up in place for the next week. She could see the spelling list and see how it had to be changed to meet the needs of her individual kids.

Sometimes teachers recognize that they need to talk about a variety of instructional issues to help a student:

> She was able to be a really big part of that and actually look at the type of work that was given to student, how much time she was given for it, could we ask her questions in a different way, you know? She really did play a big part in that.

At other times teachers may talk more generally about strategies that they're using or might work well in another class. For example, the ESOL teacher at S school showed the third grade team a writing strategy heuristic she uses with students. Another area that instructional support teachers sometimes communicate about is their own field's expertise. For example, both reading specialists gave examples of times they spoke with classroom teachers about reading development. Alternately, the ESOL teachers gave more examples of communicating about language development and modeling social skills. A comparison of these two types of teachers indicates that the two ESOL teachers speak more about the impact of behavior and socialization on learning.

Factors that Affect Teacher Interactions

Collaboration between classroom and instructional support teachers does not naturally arise when two teachers are tasked with instructing the same students. Colleagues' interactions take place within multiple contexts, from internal belief systems to the external school environment. The theme, *Factors that Affect Teacher Interactions*, encompasses a multitude of factors within a school setting that have the ability to promote effective interactions or to create collaboration barriers.

District Level Factors. Although the participants in this study were asked to describe collaboration in their particular schools, they often spoke about district-level topics. Throughout the interviews they weaved in stories about how professional development opportunities, funding, and resources play a role in their individual interactions with each other.

Professional development opportunities.   Teachers provided examples of how professional development opportunities, such as workshops or ongoing training, had an impact on their work. One positive benefit of workshops at the district level is that they bring various types of school professionals together for a shared purpose. For example, the ESOL teacher at F explained how workshops helped her build relationships when she was new to the district. Other teachers appreciate being able to meet with staff from other schools that engage in similar work. Therefore, workshops can serve as spaces for professionals to forge relationships and set a precedent for working together in their schools. Workshops were also cited as sparking insight and ideas. The third grade teacher at T explained how a professional development workshop on special education push-in led him to consider bringing the ESOL teacher and reading specialist into his

class for the next school year.   There was no specific mention, however, of how these types of opportunities led to improved communication between classroom and instructional support teachers.

Targeted training for an entire school is another form of professional development. Both schools have received a grant to engage in co-teaching training that focuses on teacher and special education collaboration. However, funding for this training is no longer available at G school. Teachers explained that the training has led to more inclusionary practices and that this had an overarching effect on how staff works together when more than one teacher instructs the same student. Those teachers who were included in this training have direct support in learning co-teaching skills. However, funding for this training is not prioritized for staff such as ESOL teachers and reading specialists. Therefore, this particular professional development initiative left out key school personnel who also instruct students.

Funding. When teachers spoke about professional development opportunities they usually referred to funding issues, as well. In addition to funding for the co-teaching training, funds that pay for substitutes so that teachers can co-plan emerged as an important theme. Funding for substitutes is for classroom teachers, and these funds have been used for meeting with other classroom teachers or with staff such as special educators, ESOL teachers, and reading specialists. This funding is particularly important for different types of teachers who otherwise cannot meet due to scheduling conflicts. The third grade teacher at G school remembers when her school had a grant that secured these funds:

When we had the additional money, then we were given the opportunity to have

half-sub days, and that was phenomenal because we could do long-range planning.

Considering how much teachers reported that they just met informally, funds that pay for substitutes play an important role in whether teachers can meet in a more formal and planned manner. All together, this type of funding is highly valued across both schools and all types of teachers. However, it can be a struggle to engage in long-range planning with colleagues when funding has "dried up." Thus, this topic was often a source of contention for the participants.

   Resources. A district-level factor only brought up by specialists was the existence or lack of resources. Instructional support teachers indicate the importance of having materials that help them align their instruction with the general education curriculum. For example, the reading specialist at S school relies on having access to certain materials:

>   And so they were using the anthologies, and I would use the leveled reader that
>   went along with the story they were working on and I think there was a really
>   good alignment there.

When the district can supply these materials, instructional support teachers have the ability to support the general education curriculum appropriately. It's simply not enough to have the same materials used in the general education classroom because students may need materials that match their current needs. Instructional support teachers sometimes experience frustration when appropriate materials are not available to adequately collaborate with classroom teachers. The ESOL teacher at F explained that precious time is used trying to find content that aligns with class work. Another issue that affects

instructional support teachers is whether grades have enough materials to share across classrooms. When teachers swap materials across a grade, then instructional support teachers who serve more than one classroom must simultaneously focus on more than one subject with students if they are to align with each classroom teacher's sequencing.

School-level factors. Whereas district-level factors have an indirect effect on teacher interactions, individual school rules and structures have a more direct effect. Each school is a complex organization that provides parameters for how colleagues interact. In the interviews participants reported that school group structure, scheduling regularities, service delivery model, student numbers, part-time status, and physical space collectively have a large impact on how classroom and instructional support teachers interact throughout the year. Some school-level factors are based on regularities established over time by the school (e.g., scheduling) and other school-level factors (e.g., part-time status) are determined by student demographics.

Group structures. Each school day is marked by a plethora of group and team meetings of staff working together for a specific purpose. In both schools the participants mentioned the existence of the following groups: problem solving team, student support team, and grade level teams. Each group offers a different opportunity for staff to achieve shared goals.

One of the barriers to collaboration indirectly cited by both instructional support and classroom teachers is team membership. Grade teams are prioritized in both schools, meeting regularly to plan the curriculum, gather materials, and discuss instructional objectives. Exclusion is not an issue for classroom teachers because they automatically become members of grade teams.

However, all of the instructional support teachers spoke at some point about their lack of membership in a group. ESOL teachers and reading specialists often described themselves as unanchored staff that usually do not belong to a team. When discussing grade level teams the reading specialist at T succinctly said, "I mean, I'm an outsider on that." There is a difference in grade team membership between the two types of specialists, however. While none of the ESOL teachers have been members of grade teams, both reading specialists have had experience being assigned to a grade team. Team membership for specialists is not a uniform process in the district or even in schools. Those who become members or attend meetings do so through joint teacher and administration efforts, and these decisions are usually based on how many students they work with in a grade.

Another way that colleagues work together is through problem solving and student support teams. The difference between these two types of teams is that the former trains members in using problem solving skills with teachers using instructional consultation (Rosenfield, 2008). This membership gives instructional support teachers the opportunity to develop relationships with classroom teachers. Of the four instructional support teachers, only the reading specialist at F indicated that she was a regular member of a problem solving team at her school. She considers her membership an integral component of her collaborative work because the training has helped staff to become better communicators with each other. The first grade classroom teacher also indicated that being on this team allowed her to think about communication differently, "And I think that that paradigm shift of them now talking about coaching has made it a lot more collaborative." In this quote, "coaching" refers to the way the team focuses less on

advice giving, and more on helping teachers understand a problem and consider ways they can address it. Both ESOL teachers and the other reading specialist, though, explained that they only came to a problem solving or student support team if one of their students was going to be discussed. Thus, their presence was contingent on an as needed basis. The reading specialist who is on the problem solving team, in comparison, regularly takes on a consultative role with classroom teachers. Hence, group membership is an important way that instructional support teachers embed themselves into working with school staff on a regular basis.

Scheduling regularities. Team membership is tied to scheduling in both schools. Scheduling refers not only to teachers' schedules and planning periods, but also to how students are scheduled for instruction. Uncoordinated scheduling between classroom and instructional support teachers is a barrier to collaboration consistently mentioned across all participants. This means that these professionals often do not have similar planning periods and that instructional support teachers are sometimes unable to attend meetings when their presence would be warranted. The result is that all participants cited time as a large barrier to collaboration. Reading specialists' and ESOL teachers' schedules often do not have time carved out to officially meet with teachers, and these scheduling conflicts are associated with the catch as catch can informal approach to communication. Simply put, the school's overarching schedule makes it hard for teachers to find mutually convenient times to meet. When asked about meeting with teachers, the ESOL teacher at F explained that "the times that I have available are not the times that the teachers are necessarily available." Coupled with this lack of shared daily planning time is the fact that the instructional support teachers, especially ESOL teachers, also have less presence

at long-term planning meetings with classroom teachers.

Another scheduling factor that affects teacher interactions is how students are grouped. When students in the same grade meet with a reading specialist or ESOL teacher they may be spread across different classrooms. This poses as a barrier for collaboration because instructional support teachers must then coordinate meeting with more than one classroom teacher in each grade. Although classroom teachers often coordinate instruction across a grade, this is always not the case. For example, the ESOL teacher at G school reported that sometimes teachers "may take the science curriculum for these three weeks and then this teacher's going to do the social studies so that they can swap materials." When students are spread across different classrooms, then this scenario poses a challenge for instructional support teachers who aim to align pull-out instruction with what is being covered in the classroom.

Grouping students across more than one classroom is not required. At S school, however, an initiative led by the ESOL teacher has led to a new policy that will be implemented. She and the two third grade teachers interviewed asked the administration to group the ESOL students in one classroom. As the grade team leader explained, "It will be more beneficial because it's just the planning piece, it's so hard." Other teachers in G school also indicated that grouping students by reading groups or ELL status in as few classrooms as possible is preferred so that meeting with teachers is more streamlined.

Part-time status and student numbers. Part-time status places a particular constraint on time instructional support teachers have to meet with teachers. This is only an issue for the ESOL teachers, however. Part-time status can be a barrier when these teachers have less ability to schedule regular meeting times with classroom teachers. This

is even more salient when they cannot attend a meeting if it's scheduled on a day they are in another school. Hence, their part-time status makes it hard to become full members of school-level groups or teams.

Part-time status is directly associated with the small number of ELL students in these two particular schools. The ESOL teacher at G succinctly reported that "the smaller the ESOL program the harder it is" in regards to how students are grouped and the ability to meet with teachers. For example, both ESOL teachers explained that their small number of students was often spread across a few classrooms in each grade. This means that they had many classroom teachers to stay in contact with even though they only work part-time at the school. The proposed changes for ELL scheduling at S school mentioned earlier is an example of how teachers are trying to adapt to the unique challenges of having a part-time ESOL teacher.

Service delivery structure. A recurring theme that emerged from the interviews was that service delivery structure plays a large role in how teachers interact.

Pullout services. The pullout model is most commonly used in both schools, which is marked by pulling students out of the general education classroom to receive the majority of their language arts instruction. This structure is associated with the most amounts of _Informing_ interactions characterized by emails and informal discussions. In the little time that they have to interact, teachers focus more on student progress and keeping updated on curriculum materials. The reading specialist at S explained that in the pullout model one of her main goals is to "tailor our materials to support what was happening in the classroom." Pullout is viewed positively by teachers when they feel specific skills are targeted and students can get more support. However, one negative

effect of the pullout model is lost time. As one of the third grade teachers from S school explained, "So by the time they go down there, they get set up, she gets started, you've already lost five minutes, at least." Teachers also indicate frustration over the model because it can be hard to align instruction and students may become confused or overwhelmed.

Push-in services. The push-in service delivery model, which includes co-teaching, is associated with more formalized meetings based around lesson planning and sharing instructional ideas. Although none of the participants indicated that they currently co-teach together, they all have had experience with some kind of instructional support within the general education classroom. The most push-in services between two teachers interviewed are between the ESOL teacher and first grade teacher at G school. The two colleagues decided together that it would benefit one student if the ESOL teacher came into the classroom to individually support his language and social needs. All of the teachers indicated positive views towards co-teaching. For example, the reading specialist at T recalled a time when she co-taught with a teacher (who was not interviewed) with enthusiasm:

> The teacher would say, "You know, do you have any ideas for teaching this topic, I'm really, or teaching this skill? I'm really not sure how to approach it." And I'd say, "Oh, yes, you know I saw this great lesson and then why I don't go in and teach it." And I would go in her room and we would co-teach. I mean, it was like putting on a show. I mean, the kids loved it when we did the co-teaching.

The quote captures how co-teaching can be a positive, supportive, and learning experience for teachers. In this case the classroom teacher approached the reading

specialist for instructional help, and the reading specialist was able to use her expertise effectively so that they could deliver content together.

Desire for more push-in. Although pullout is the most common service delivery model, all of the teachers indicated a desire for more push-in or co-teaching. The ESOL teacher at F began to push-in with the one student she shared with the first grade teacher, and this classroom teacher explained that she would like this to happen more uniformly with other students she has in the future. She, along with other participants, indicated that keeping ELL students in the general education classroom is beneficial for improving social communication and peer interactions. The ESOL teacher and classroom teachers at T also indicated that co-teaching would be preferable to pullout. Reading specialists and the other classroom teachers also indicated a preference for more co-teaching or other push-in models. The reading specialist at S school explained, "I feel like, you know, having the power of two in a classroom would be worthwhile for them. And it would benefit other kids, too." Hence, another reason teachers would like to practice more push-in is that they think other students could benefit from the additional presence of an instructional support teacher. Considering this preference, none of the participants directly indicated what keeps them from engaging in more push-in services, including co-teaching. There is not a universal protocol or mandate for how instructional support teachers provide services in either school.

Physical space. A school-level factor that may often go unnoticed is the physical layout of the school and where teachers are situated in relation to one another. Physical space can be both a barrier to collaboration and an incentive to communicate.

Physical layout. Both elementary schools have a similar physical layout that is

marked by teaching pods. Each grade level has classrooms that radiate out into a common area.   The benefit of this layout is that there is a natural flow between classes in each grade level.   The grade level leader from S school explains, "I think that really supports collaboration because it's a lot easier, I think, being all together like this, rather than in a hallway separated." All of the instructional support teachers mentioned popping in and out of classrooms in pods to speak with teachers or pick up students for pullout services. One benefit of this layout in both schools is that adults can easily engage in these activities. Alternately, a downside of this layout is that teachers can informally speak with one another quite easily. Hence, the largely informal type of communication that occurs between teachers is encouraged by the physical layout.

Physical proximity. Physical proximity between classroom and instructional support teachers is another factor that affects teacher interactions. In the case of the reading specialist at S school, for example, having a classroom within the first grade pod helps her stay in the loop about what's happening in the classes in that grade. However, it is also common for teachers to spend little time with each other regardless of physical proximity. The instructional support teachers at both schools whose rooms are housed within grade level pods do not spend more time with classroom teachers than those whose rooms are in another area of the school. For example, the reading specialist at G school reports more time spent meeting with classroom teachers than her counterpart at S school, yet her room is located outside grade level pods.

Administrative-level factors. Administrators in schools can impede or facilitate a collaborative school culture. Each participant was asked to describe how their school-level administrators supported their collaborative work with each other. Verbal

encouragement, resources, decision-making, and knowledge all emerged as distinct sub-themes.

Verbal encouragement. All teachers indicated that their principals verbally encouraged staff to collaborate. The principal at F elementary is a member of the school-wide problem-solving team, which mirrors her verbal encouragement for teachers to collaborate. Hence, modeling is one way that collaboration is encouraged. The ESOL teacher at the same school explained that when she first interviewed to work at the school the administration explicitly asked about collaboration:

> There was a lot of talk at the interview about "How do you collaborate and what
>
> do you do?" There was a lot of encouragement. You could tell that they were
>
> really interested in that and wanting that to happen.

All of the teachers in S school also responded that administrators gave verbal encouragement to the entire staff and voiced that collaboration is valued. In particular, there is encouragement to engage in more co-teaching.

Resources. Although verbal encouragement is appreciated, what seemed to matter more to participants was offers of tangible resources. First, teachers responded to administrators' ability to carve out coordinated planning time. The third grade team leader at S school appreciated how her principal would ask whether she needed more time to plan with the reading specialist or ESOL teacher. This is a particularly salient sign of encouragement for the participants because they are aware that often "giving time" for planning requires funds for substitute teachers or rearranging schedules. Due to the constraints of many colleagues' schedules, finding substitutes is sometimes the only way that certain teachers can meet. At other times, administrators may work to provide an

adequate number of instructional assistants so that teachers can find time to meet.

Finally, administrators play a resource role in bringing colleagues together by organizing professional development opportunities or sending teachers to workshops outside of the school. In G school all four teachers indicated that administrators demonstrated their commitment to collaboration by ensuring that there is on-going training for the problem solving team. Alternately, the teachers in S school cited invitations to attend outside workshops. However, none of this type of administrative support directly addresses classroom and instructional support teacher collaboration.

Decision-making. Although teachers are encouraged to collaborate and are provided certain resources, neither school's administration dictates how classroom and instructional support teachers should engage in collaborative work or what goals they should meet together. When queried about making these kinds of decisions, the third grade teachers at S school succinctly replied, "They kind of leave it up to you at some point." Teachers appreciate the ability to make decisions and offer ideas to administrators. Specifically, participants in both schools cited administrative "openness to change" when teachers voiced concerns. For example, at S school the administration was open to new scheduling that grouped students more efficiently for alignment purposes, and at G school the principal was open to new ideas about how to secure planning periods when funds for substitutes were depleted. Overall, teachers in both schools indicated a high degree of autonomy granted by administrators in regard to instructional support and classroom teacher interactions. There is no specific mandate about classroom and instructional support teachers meeting on a regular basis in either school.

Knowledge. Knowing the issues that classroom and instructional support teachers face in trying to work together is another important factor in how well administrators support this particular type of collaboration. In some cases administrators may be "out of the loop." For example, at S school the administrators initially were unaware of how the scheduling placed ESOL students across a variety of classrooms in one grade. Both the ESOL and classroom teachers were frustrated with this set-up because it made it harder for the ESOL teacher to coordinate her services with general education. Luckily, the administration's "openness to change" allowed them to listen to teachers' complaints. Thus, lack of knowledge can act as a barrier if important issues are not brought to administrators' attention.

Interpersonal factors. Although participants spoke often about how district, administrative, and school level factors had an impact on *Levels of Teacher Interactions*, they usually spoke more passionately about the complex array of relationships in their schools. Interpersonal factors emerged as a salient theme throughout the interviews, which included sub-themes of communication skills, power, feelings towards others, sense of belonging, and congenial atmosphere.

Communication skills. Communication is at the core of how instructional support and classroom teachers can align their services. In the analysis of *Levels of Interactions* and *Communication Continuum*, communication skills emerged as its own theme. These skills include examples such as paraphrasing, asking, and listening. Throughout the interviews teachers included examples of how they used these skills to gain a shared understanding of students' difficulties or learn strategies from each other. In G school there has been a concerted effort over time to train teachers in instructional consultation

(Rosenfield, 2008). The reading specialist explained that this training has played a large

role in her everyday interactions:

> Because how to really use the language, too, to be better at communicating with
>
> each other. The paraphrasing, you know? We've had a lot of training on that just
>
> so that we become better communicators with each other.

The other classroom teachers, but not the ESOL teacher, have also been involved in this

training. They all spoke positively about how it has generally helped staff speak more

effectively using a problem-solving model. On the other hand, the teachers in S school

did not specifically mention any kind of communication skills training. Although

teachers in both schools positively view training that focuses on communication skills,

this endorsement does not ensure consistent application. For example, the third grade

teacher at G school admitted, "So I guess, in retrospect, honestly, we're kinda talking at

each other." Hence, training does not automatically lead to application of communication

skills within the context of classroom and instructional support teacher interactions.

   Congenial atmosphere. Collegiality emerged as an opening for teachers to

establish collaborative relationships. In both schools there is an overall polite and friendly

climate. Teachers who spend more time together begin to feel more comfortable working

together**.** The reading specialist at G school explains why she tries to eat lunch with

teachers:

> Then we're kind of talking as friends and then when we need to talk about
>
> children or about school or whatever there's an easier communication.

A congenial atmosphere does not always ensure that instructional support and classroom

teachers engage in regular communication about curriculum and instruction. For the part-

time ESOL teachers it is especially hard to develop relationships with teachers when they spend so little time in the school.

Feelings about others. The way teachers feel about fellow colleagues can shape relationships over time. In these interviews the sub-themes of appreciation and understanding demands refers to how teachers respect and recognize the hard work of their colleagues, and these feelings can lead to more flexibility around working together. Instructional support teachers recognize that classroom teachers have many students to teach and that they are beholden to a rigorous curriculum. Alternately, classroom teachers recognize that instructional support teachers must balance working with multiple grades. For example, the ESOL teacher at G school said of the classroom teachers, "They're also very understanding of sometimes I just can't get to that kid because something else is going on." While it is possible that more negative feelings about colleagues exist, the participants only voiced these positive feelings.

Sense of belonging. While these feelings about colleagues promote an open line of communication, participants also admitted that they didn't always feel like they belonged. Sense of belonging is a theme that only emerged among instructional support teachers. All four of these teachers indicated at some point in their interviews that despite positive feelings from and towards classroom teachers, sense of belonging was an ongoing impediment to collaboration. This theme encompasses codes such as feeling left out and feeling forgotten. For example, the ESOL teacher at G school gave the following answer when queried about barriers to collaboration, "I just think sometimes that it's not intentional but they just don't think about the ESOL teachers, they kind of forget about us." She, along with the other instructional support teachers, gave examples of times

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they had been left out of meetings or were not given pertinent information. The other ESOL teacher explained, "They don't do it on purpose, they just don't think about." According to the reading specialist at S school, "I feel like I'm underutilized." This quote succinctly captures how these school professionals can sometimes feel a lack of belonging in the school. Even the reading specialist at G school, who does not feel underutilized, can still feel left out:

> Because I'm that one person, the outlier, really. They all have their teams, they
> have the people they sit with and do things with.

Overall, these instructional support teachers feel that they're not embedded in daily school life in a way that matches classroom teachers' experience.

Power and roles. Tied to instructional support teachers' sense that they are often left out or forgotten is the unique hierarchy between classroom and instructional support teachers. In both schools there is a tangible sense that classroom teachers set the pace of what is taught and that their schedules are less flexible. They also have "ownership" of student grades even if a reading specialist or ESOL teacher provides the majority of language arts instruction. All instructional support teachers voiced that one of their roles was to be a source of support for classroom teachers, which meant that they had to align their instruction to the classroom. Hence, even though both types of professionals have unique expertise and roles in the school, there is an inherent hierarchy of power that colors all interactions. Meetings illustrate the power that classroom teachers wield. Throughout the interviews both ESOL and reading specialists gave examples of asking to attend or be invited to meetings held by classroom teachers. The reading specialist at S school explained:

So I find myself having to put myself out there and just show up at a grade level

meeting on a given Thursday morning and say, "Can I sit in today?"

Even the reading specialist at G school, who is a leader in her school, comes to classroom

teachers and asks them to decide how they'd like to work with her throughout the year.

Overall, this imbalance of power can act as a barrier to collaborative work when

instructional support teachers experience a lowered sense of belonging.

Intrapersonal-level factors. Although all teachers indicated that collaboration

was an important component of their teaching, they also expressed ambivalent thoughts

and feelings about the process of working with staff for the benefit of students. Along

with interpersonal factors, intrapersonal factors emerged as an emotionally salient theme.

Beliefs. A common theme brought up throughout the interviews was the belief

that collaboration is a worthwhile process. Often teachers indicated this belief by

expressing hope that they would collaborate more in the future and some even spoke

about actions taken to cause more effective communication (e.g., grouping kids in same

class). Despite each participant's expressed desire for more collaboration in one way or

another, teachers often described how they or other staff did not show an interest in

committing to collaboration. For example, the third grade team leader teacher peppered

her interview with admittances that she simply does not engage in collaborative work as

much as she'd like to. Another belief expressed by all teachers was that push-in services,

including co-teaching, are often preferable for both teachers and students. They

associated this service delivery model as inherently more collaborative.

Beliefs expressed by teachers also posed as potentially strong barriers to

instructional support and classroom teacher interactions. Specifically, participants often

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cited the values of non-interference and autonomy in a school setting. The instructional support teachers all explained that they didn't want to interfere with classroom teachers' heavy workload. The reading specialist at S school explained,

> I don't want to bother them. I don't want to make extra work for them. So if I know what they're working on, and I can align with it, rather than them adapting to what I say they need to do, you know?

Alternately, classroom teachers sometimes indicated that staff has the right to make individual professional judgments and decisions.

Feelings. The theme of feelings demonstrates the way that individuals emotionally respond to their unique working environment. The positive emotion that all teachers expressed was hope. This feeling was usually attached to hopes of working more collaboratively in the future. The most salient feeling that classroom teachers endorsed was the feeling of being overwhelmed by juggling multiple demands. This feeling is obvious to instructional support teachers, as well. Both types of teachers also indicated resignation or self-blame when they admitted they collaborated less than they'd like to with colleagues. Phrases such as "there's only so many hours in a day" illustrate this feeling.

Experience. Teachers' level of experience also has an effect on how they interact with colleagues. Teachers who are newer to a school do not have years of relationships that they can draw on in order to speak about instruction and student growth. For example, the reading specialist and first grade teacher at G school have worked with each other for many years and have developed a relationship that promotes open communication. Across all types of teachers, those who spent the longest time at their

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respective schools were most comfortable speaking with colleagues. This experience interacts with how long a teacher has been in the profession, as well. The third grade teacher at S school who was in his first year admitted that there was much he didn't know about working in the school or how certain decisions were made. Alternately, the ESOL teacher at G school appeared more at ease with speaking with teachers even though it was her first year at the school. Throughout the interview she drew on her previous experiences in another state to explain her beliefs and approach to working with classroom teachers. Overall, level of experience is associated with greater confidence in one's ability to collaborate with colleagues.

Effects of Teacher Interactions

As participants spoke about questions pertaining to collaboration they continually reflected on how working together had an effect on students and their own professional growth. These effects emerged as either positive or negative depending on whether teacher interactions were deemed collaborative in nature.

Effects on students. Throughout the interviews all teachers considered how students' needs are met when instruction is shared between at least two teachers. Teachers cited student learning, emotional, and behavioral functioning as areas that are all affected by colleague interactions.

Learning and alignment. The consensus between teachers was that alignment of content and instruction is an important result of effective communication between colleagues. When instruction is aligned, students learn more effectively because the same or complementary skills are being targeted more than once. For example, the third grade teacher at G school explains:

I think the more we can streamline and coordinate the instruction then they would

be getting a double dose and more reinforcement.

The reading specialist at S school also agrees that students benefit from aligned

curriculum between teachers:

And then they go to their reading group with their teacher and they're targeting

those same seven vocabulary words, then it gives them that repeated exposure that

they need.

The challenge for teachers who share instruction of the same student is to make sure that

their work complements each other, especially in light of the fact that a student receiving

services has unique needs in reading and language acquisition.

Teachers explain that materials do not have to be the same, but that student

learning is more effective when instructional support follows along with the general

education curriculum. The ESOL teacher at G school explains that she may even target

curriculum material before it's covered in the general education class because "then it's a

good introduction and it will prepare them to be more successful." Hence, the

overarching benefit that students experience from effective communication between

teachers is an optimal learning environment.

Serving additional students. Although instructional support teachers are tasked

with addressing specific students' needs, one unintended benefit of push-in services is

that other students also benefit from having teachers work together. In some cases a

classroom teacher may be able to focus more on a larger group while an instructional

support teachers facilitates one student's instructional and social needs. This has been the

case, for example, between the first grade teacher at F and the ESOL teacher. In other

cases an instructional support teacher may help the classroom teacher provide more targeted instruction within the classroom by providing in-class support to low-achieving students whose needs are similar to those in a reading group or who receive ESOL services. When instructional support teachers work within the classroom they can have a positive effect on the learning of all students.

Negative effects of multiple teachers. Although it is important for students to receive targeted language and reading support from specialists, the experience of having multiple teachers also negatively affects students. Many of the participants admitted that students could become overwhelmed and confused when instruction is not aligned. The third grade teacher at G school gave an example to illustrate this point:

When they're getting two different, complete organizational structures in text, nonfiction vs. fiction, they're like, "What's going on?" I think it's sometimes brain overload.

This concern reflected in the interviews was most apparent when teachers spoke about the pullout model of service delivery. Overall, teachers worried that students miss out on content and social contact through the pullout structure, and that the transition is a struggle. For example, the third grade teacher at S school observed that students sometimes missed out on key instruction when they were pulled for ESOL services. If he and the ESOL teacher did not have the opportunity to adequately align their instruction then, "It's kinda just throwing more on top of them instead of focusing on the curriculum and the objectives that they need to accomplish." In cases like this the students not only miss out on general education instruction, but they are also overburdened with work is not aligned with curricular goals.

Social effects. In addition to "missing out" academically, these students also miss out on key social experiences when they are pulled from the classroom. The two ESOL teachers spoke about how ELLs particularly need peer interactions to learn, and they both cited this benefit when they had a chance to work with students within the classroom. For example, the ESOL teacher at S explained that "we're really trying to work on social skills" when she was asked to describe a specific student she works with in third grade. By coming into the class and working with the student with his peers, the ESOL teacher has helped her colleague develop behavioral and social goals. When teachers interact effectively with one another they can have an impact on a student's social-emotional functioning, as well as academic achievement.

Effects on teachers. Although student learning and growth was usually brought up as the goal of collaboration, teachers also considered how working together has an impact on their own growth as professionals. They indicated that these relationships have helped them expand their knowledge of students and teaching.

Learning about students. Teachers who communicate regularly with each other can gain perspective about their students in ways they otherwise may not have the opportunity. Instructional support teachers find it is important to know about classroom peers' performance and class expectations in order to best provide services to ELL or student reading below grade level. The reading specialist at G school had previously worked with a student, but when she communicated with his classroom teacher, she learned "the difficulties, or his acting out, or stuff like that. And because of that, that was good for that child." The reading specialist went on to say that her collaboration with this teacher allowed her to see this student differently.

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Alternately, the classroom teachers explained that they had a better understanding of students' particular needs when they spoke with instructional support teachers. For example, they might better understand why an ELL struggles with organizing written work. Altogether, teachers can develop a more comprehensive understanding about their students when they communicate effectively. The ESOL teacher at S succinctly explained:

> A lot of treating the child as a whole. Not just treating the child as a child who's learning English as a second language. But as a whole child. The whole thing, the social thing is a big part, too. Social, emotional.

In this particular relationship the ESOL teacher was referring to how she and the third grade teacher worked together on helping a student achieve behavioral goals. Gaining a more holistic understanding of students in multiple contexts is perhaps one of the biggest gains achieved when these two types of teachers interact.

Professional growth. When teachers speak with each other about shared students, they also have the opportunity to grow as professionals. Participants spoke about learning how specific strategies, accommodations, and modifications had an impact on their teaching. However, it was primarily the classroom teachers who cited specific examples of how instructional support teachers added to their professional growth. For example, at G school the third grade teacher learned from the ESOL teacher about certain accommodations she could provide within the general education curriculum. In the same school the first grade teacher said of the reading specialist, "and she'll give me strategies and materials and other resources to help me, to help guide me." In S school the reading specialist has helped classroom teachers improve their instruction of discrete skills such

as phonemic awareness, and the ESOL teacher consistently shows teachers how they can modify students' work while still keeping in line with the curriculum. In particular, participants found that their craft of teaching is enriched by collaborative efforts when they co-plan or co-teach. The third grade teacher at G school would prefer to have instructional support teachers in the classroom with her at all times because "that's my ideal world, and bounce off each other. I love to teach that way." Bouncing ideas off of one another is the deepest level of professional development because it indicates reciprocal learning and support.

In summary, collaborative relationships promotes both teacher and student growth. Alternately, when teachers do not communicate well or coordinate services, students and teachers alike miss out on key learning experiences.

Summary

The themes described in this chapter illustrate that teacher interactions are dynamic. Internal and external factors, along with a variety of different types of communication, have a cumulative impact on what classroom and instructional support teacher collaboration looks like. Although some patterns emerged that point to differences between schools or between types of instructional support teachers, the greatest differences exist between classroom and instructional support teachers. This finding highlights the challenges of interprofessional collaboration in schools.

Chapter 6: Discussion

The previous analysis chapter described the nature of the collaboration, as found in the interviews presented here that exists between classroom and instructional support teachers for the purpose of alignment. In this chapter I will reflect on the initial research questions and how the themes that emerged compare with previously reviewed literature. This study's strengths and limitations will also be explored in light of similar research that studies collaboration qualitatively. Finally, I will discuss implications and avenues of future research.

Guiding Research Questions

This study's guiding research question asked how general education teachers and instructional support teachers, specifically reading specialists and ESOL teachers, collaborate with one another to align their instruction for the benefit of students' success. Within this larger question, three specific questions emerged: (1) What do teachers collaborate about and what does the collaborative process look like? (2) What factors affect this collaboration? And (3) Is there congruence between teachers' beliefs about collaboration and their actual practices?

The content and process of collaboration. A main goal of this study was to explore what collaboration between instructional support and classroom teachers looks like given the paucity of research on collaboration between these types of school professionals. Instructional support and classroom teachers have a unique connection because, while they have different professional roles, they also share the responsibility of instructing the same students. As such, the content of their collaboration revolves around this shared responsibility.

It may first appear that the central theme, *Levels of Teacher Interactions*, describes a purely hierarchical process. The following figure shows the progression of the four types of interactions described by the participants:

Informing
- Dissemination of information
- Keeping colleagues "in the know"

Assistance
- Requesting help and complying with requests

Sharing
- Sharing materials, expertise, instructional strategies

Fused Work
- Planning curriculum, teaching, assessing, grading, and problem solving together

Time, Scheduling, and Commitment
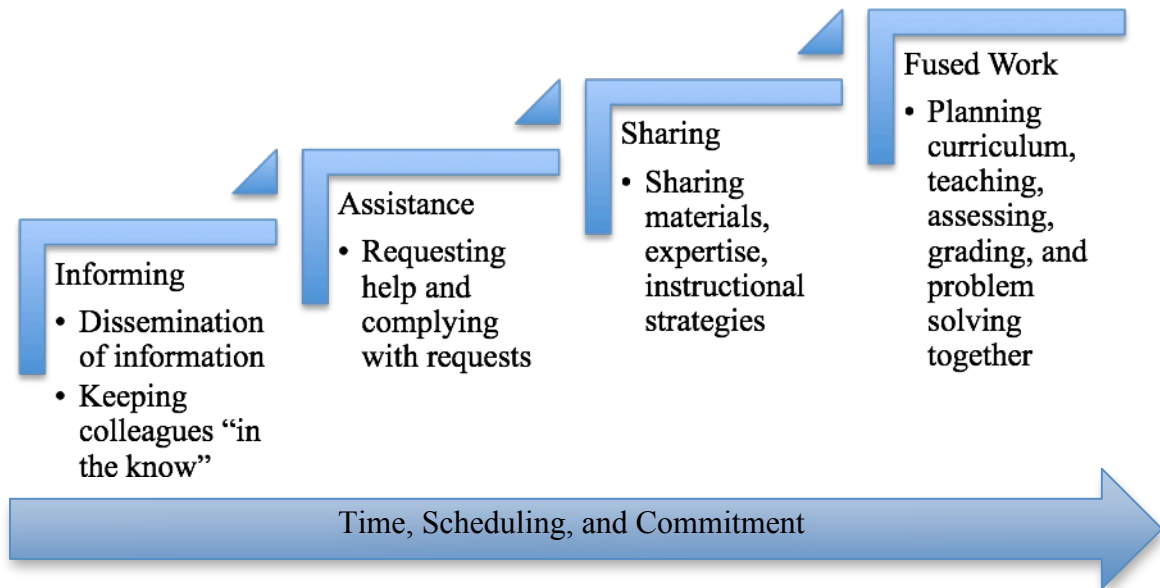
Figure 2. Levels of Teacher Interactions

In this figure *Fused Work* looks like the end point that all staff should strive towards. Deeper reflection on the data, however, reveals that a truly collaborative relationship requires colleagues to determine which type of interaction is appropriate for different contexts and issues that arise. For example, *Informing* serves as a foundation for instructional and curricular alignment; colleagues must first know what another teacher is doing before further discussion about coordination can occur. *Assistance* and *Sharing*, as well, are important interactions that allow teachers to support one another and help each other grow professionally. However, some teachers seem stuck in a dynamic where they have not moved onto engaging in *Fused Work,* which includes activities such as problem-solving, teaching, and assessing together. While external factors such as schedule

conflicts has an impact on time spent together, the participants' passionate discussion of interpersonal and intrapersonal challenges also illuminates why *Fused Work* occurs infrequently. Simply put, it is hard to engage in this kind of work; it takes time, commitment, skills, and a willingness to transcend roles ingrained in school cultures.

Although there was little difference between schools in how teachers engaged with one another, there was a distinction across the different types of school professionals. The most striking difference was that *Assistance* usually occurred in the form of classroom teachers asking for support. This trend corresponds with the finding that there is a perceptible power dynamic where classroom teachers have the authority to make such requests. Alternately, there was not a marked distinction between ESOL teachers and reading specialists. Instead, it seemed that external and internal factors had more of an influence than type of professional role on what kind of interactions they engaged in with classroom teachers. Each instructional support teacher described widely varied interactions with different classroom teachers, which underscores how much individual relationships predict teachers' interactions.

Communication continuum. The *Communication Continuum* that describes the "how" and "what" of the four types of teacher interactions consists of the communication medium, degree of planning and formality, and communication content.

Figure 3. Communication Continuum
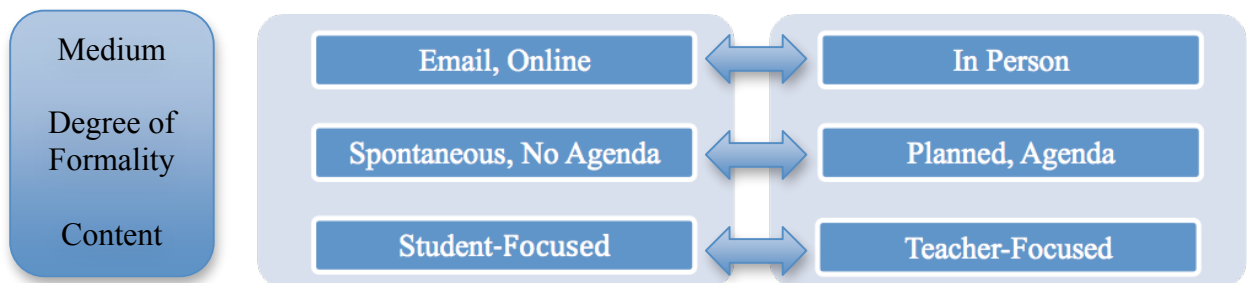
One way to understand this theme is to consider how communication sub-themes support or impede different levels of teacher interactions. Reflecting on all eight interviews, *Fused Work* appears to correlate highest with in-person communication that is planned (i.e. weekly meeting) and that focuses on teacher-focused topics as well as student-focused topics. While interactions such as *Informing* or *Assistance* can occur in planned meetings, for example, they were described more often as occurring in the context of emails or spontaneous communication in the hallway. Additionally, interactions that initially began as spontaneous communication about a student's progress could transform into *Fused Work* if teachers began to plan meetings for the purpose of developing an instructional or behavior plan together. Overall, all types of teachers indicated the most frustration about email, unplanned meetings, and lack of teacher-focused communication. Email can be fraught with miscommunication or too little information; unplanned interactions only allow for short bursts of communication; and focusing just on student data does not contribute to teachers' own professional growth. Upon reflection, it is unclear if certain types of communication inhibit deeper levels of interactions or whether they simply reflect teachers' present level of commitment to collaboration. For example, does email inhibit colleagues from speaking more in depth about instructional modifications, or is it often used so that those kinds of conversations do not even arise? Or, if teachers have the time to meet regularly with each other once a week, would they be any more likely to discuss instructional strategies for ELL? These what-if kinds of questions are not answered by the present study, but they open up the idea that taking away certain structural communication barriers may not be the only change that schools need to engage in if collaboration is to flourish.

Aligning services and speaking about students was often cited as the main purpose of communication between teachers. Although alignment refers to matched content, cognitive demand, instructional practice, or performance expectations (Gamoran, Porter, Smithson, &White 1997), the participants in this study admitted that curricular alignment was usually their main focus. The central theme revealed that *Informing* was a major source of interactions between teachers. Keeping colleagues in the loop about what books are being used, for example, requires little two-way communication, and perhaps that is one reason teachers rely heavily on online modes of communication for this type of interaction.

It is possible that teachers do not engage as much in other types of communication (i.e. speaking about instruction) for a number of reasons. When teachers already have so little time to see or speak with one another, informing colleagues about curriculum content appears to trump any other kind of communication. However, it may go deeper than just "lack of time." One reason why teachers may communicate more about curriculum content than on instruction is because the latter subject is fraught with tension. Although participants spoke positively about the broad concept of collaboration, communicating about instructional practice or comparing performance expectations was not a strong norm in either school. Additionally, teachers did not indicate that they received any direct training for collaboration between instructional support and classroom teacher. Norms of autonomy and non-interference can inhibit teachers from communicating freely about instruction if this communication is deemed to disrupt such norms. Additionally, focusing on curriculum content and student-focused topics is one way to keep the current status quo of power dynamics present in both schools. That is, in

the general education curriculum classroom teachers primarily dictate what is being taught, when it is being taught, and how it is taught.

Effects of teacher interactions. Another main theme that emerged from the interviews describes how teachers and students are affected by the different ways that colleagues interact. Teachers voiced that they collaborated in order to directly improve all students' learning environments, and were acutely aware that when they did not adequately align their services, students became confused, overwhelmed, and missed out on key instruction. In this study, the teachers seemed particularly concerned over how the pullout model of instruction and lack of communication impeded their students' academic and social growth. They also recognized that collaboration indirectly helps students through teacher change. Learning about new strategies, skills, materials, and information about students from each other promotes overall professional growth, which may be a more efficient way to create long-lasting and broad changes in learning environments. Given that there is a lack of congruence between teacher recognition of the importance of collaboration and its lack in practice, it is important to examine the factors that inhibit such work.

Unpacking factors that affect teacher interactions. When I first developed research questions for this study, I imagined that a variety of factors would affect teacher collaboration. The questions developed for the interview protocol reflect this assumption. For example, how do teachers feel their administration supports collaboration? When I began to code the interviews, therefore, it was not surprising that the distinct theme of *Factors that Affect Teacher Interactions* emerged. What I did not anticipate was the vast number of factors that inhibit or promote the kind of interactions

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that characterize effective collaboration.

One way to understand how these factors relate to one another is to envision a concentric circle:
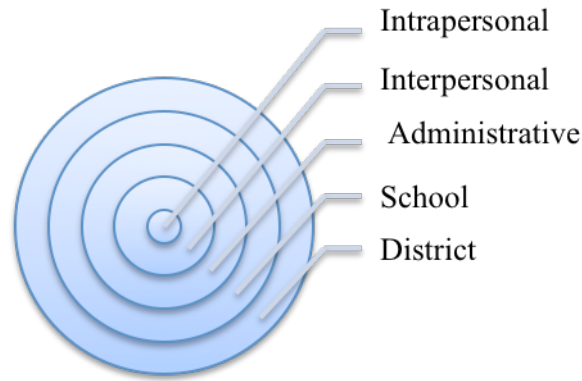

Figure 4. Factors that Affect Teacher Interactions

This visual representation of the theme illustrates how nested factors from the most individualized (i.e. beliefs about collaboration) to ones that more universally affect a wide range of people (i.e. funding for substitutes) operate together to influence teacher interactions.

Looking at this concentric circle, it starts to become apparent that each individual factor can have a bidirectional relationship with another. For example, funding for professional development (problem-solving team and co-teaching training, to be specific) at the district level has helped some teachers gain effective communication skills at the interpersonal level. Alternately, beliefs about teacher autonomy and non-interference may limit administrative expectations for collaboration and enforce the norm of uncoordinated schedules. Therefore, it is the cumulative interaction of these factors that all together have an effect on the daily lives of teachers who share the same students.

At the end of each interview teachers were asked to describe barriers to classroom and instructional support teacher collaboration, but throughout the interviews participants

openly spoke about their frustrations. Hence, the theme of *Factors that Affect Teacher*

Interactions incorporates both barriers and supports.

Table 3. Barriers and Supports to Collaboration

Type of Factor	Barriers	Supports
Intrapersonal	Feelings: resignation, overwhelmed, self-blame Beliefs: non-interference, autonomy Lack of experience	Feelings: hope Beliefs: collaboration and push-in considered positively Experience (with teaching, school, colleague)
Interpersonal	Lack of belonging Imbalance of power	Communication skills Appreciation/Understanding demands Congenial atmosphere
School	Pullout instruction Part-time ESOL teacher/Smaller population Uncoordinated schedules Lack of team membership Students spread across classrooms	Pull-in instruction (includes co-teaching) Full-time ESOL Dedicated meeting times Team membership Consolidating students in classes Physical proximity
Administrative	Lack of knowledge and expectations	Verbal encouragement Giving time and resources Openness to change
District	Lack of funds and resources	Professional development opportunities Targeted funding (i.e. for substitutes)

While this table can serve as an initial tool to assess barriers and supports in a school, it is

important to consider that certain factors may exist for one teacher, but not for another.

For example, membership on the problem-solving team at F school has played a

significant role in the reading specialist's *Fused Work* with classroom teachers. However,

the ESOL teacher is not a member of the team and has not asked for its support. Making

broad assumptions about barriers and supports does not take into account the

idiosyncratic experience of each teacher dyad.

   Comparing factors between different groups. In this study there were a number

of ways that all eight interviews could be compared. First, there is the question of

whether collaboration looks different across the two elementary schools. The discussion

of district level factors did not seem to vary much between schools except for the fact that they received professional development and funding at different times. One unique difference was that F school has a long running problem-solving team that regularly trains teachers in skills that are relevant to one-on-one instructional support and classroom teacher communication.

Another question is whether a difference exists between classroom and instructional support teachers. Overall, there is a marginalization of instructional support teachers at a variety of levels. These teachers have a harder time procuring resources, feeling like they belong, and embodying the kinds of professional roles they envision for themselves. Classroom teachers seem to have a greater sense of support and belonging among staff and within the groups they belong to, but they face other challenges. Overall, they feel overwhelmed by the breadth of tasks required of them, especially in light of the rigorous curriculum demands.

Finally, the main difference apparent between ESOL teachers and reading specialists is that both ESOL teachers work two days a week in their school. This part-time status affects their ability to attend meetings, join teams, and generally embed deeper into their schools, but it is not purely predictive. For example, part-time status has not stopped an ESOL and kindergarten teacher from co-teaching and planning. Therefore, it is important to consider each professional relationship on a case-by-case basis.

Ability to address barriers. These factors may also be understood by determining the extent to which teachers have the ability to alter barriers and create an environment more conducive to collaboration. For example, teachers cannot control the low numbers of ELL in their schools, which has led to ESOL teachers' part-time status and the

subsequent scheduling challenges. On the other hand, colleagues have the ability to directly address intrapersonal barriers such as norms of non-interference. While changing attitudes and norms is no small feat, colleagues and administrators can address these barriers if they choose.   Some barriers fall somewhere in the middle of teachers' ability to produce change. For example, many meetings are scheduled at times that are inconvenient for instructional support teachers and some teams do not automatically include these staff. Although this "behavioral regularity" (Sarason, 1972) currently exists, it is a barrier to communication that can be altered.   An encouraging example of how barriers can be lifted was illustrated when both the ESOL teacher and third grade team determined that it was inefficient to spread four ELL students across multiple classrooms, and asked administrators if they could consolidate students into fewer classrooms for the following year.   This example is particularly illustrative because it shows how a barrier to collaboration actually led teachers to collaborate in order to advocate for change.

Congruence between beliefs and actual practice. This study asked whether teachers' beliefs and actual behavior around collaboration were congruous. Generally, the teachers spoke positively about collaboration as a process that helps them align services and grow as professionals. Despite this general belief in collaboration, they admitted that their everyday interactions did not often match their ideals for working with colleagues. The teachers specifically expressed a desire to engage in more practices that fall under the activities of *Sharing* and *Fused Work*.

Although external barriers such as lack of coordinated schedules exist, at the heart of this lack of congruence are intrapersonal and interpersonal factors. Beliefs such as autonomy and non-interference, along with lack of experience and negative feelings,

affect the everyday behavior of colleagues. In many contexts these beliefs are appropriate and reflect colleagues' respect for one another. However, they can also impede teachers from engaging in activities that mark effective collaboration, such as talking about instruction and taking on shared responsibilities.

Additionally, imbalances of power and lack of belonging keep colleagues from engaging as equals in deeper levels of interactions. While the teachers have the shared responsibility of instructing the same students, parity can be hard to establish due to the different roles. The classroom teachers often spoke about the demands of the curriculum and making sure that they taught all students. On the other hand, instructional support teachers are responsible for ensuring that the individual students that they are charged with teaching gain specific skills. While there is room for each type of teacher to share expertise and support one another, in both schools there is deference for classroom teachers' needs. The reality is that classroom teachers have "ownership" of grades and they set the pace for the curriculum. Therefore, the inherent power imbalance that exists between the two types of teachers operates as a unique challenge to collaboration and helps to explain the incongruence between beliefs and practice.

An Emerging Model of General Education and Instructional Support Teacher Collaboration.

In this study, a model of collaboration began to emerge that influences how teachers interact, which in turn have substantial effects on both teachers and students (see Figure 1). This general model can be used to understand the individual experiences of collaboration described in each interview. Some teachers described transformative problem solving with colleagues that helped them grow professionally, while others

expressed resignation over relationships characterized by simply keeping one another in the loop about curriculum content. Additionally, each teacher indicated that their interactions varied greatly across and within relationships. What they all indicated, however, was that collaboration was an important component of their work that they wanted to engage in more deeply for the benefit of both their students and themselves.

Revisiting the Literature

A review of literature on collaboration revealed that this multidimensional construct of collaboration is a process that organizations, groups, or individuals engage in to solve problems and achieve goals. In this section I will consider how the themes that emerged from this study fit with previous research and theory.

The construct of collaboration. When conducting qualitative research that relies on interviews, it is easy to influence participants with prompts and wording of questions. In this study I made a conscious effort not to define collaboration for participants because I wanted to understand what that word meant to them. Subsequently, it sometimes seemed that simply interacting with a colleague in any kind of way merited the word, "collaboration." For example, collaboration could mean assessing a student together to understand where she needed reading support or it could just mean sitting together in the same meeting. When I first read through all eight interviews I felt a bit perplexed by such variety, but when I referred back to the literature the wide range of definitions for collaboration in the interviews made sense. Friend and Cook (2009) explain that in school settings, staff often misconstrues structures for communication or teaching as collaboration. For example, co-teaching may not necessarily be a collaborative effort between colleagues. Rather, collaboration is an interactive style (Friend & Cook, 2009)

that can encompass a number of activities.

A common thread that ties the literature on collaboration together is how it is envisioned as a developmental process that takes place over time. While some models overlap well with this study's findings, others do not adequately reflect the experiences reported by instructional support and classroom teachers. However, all shed light on the nuances of collaboration that emerged in this study. Gray's (1985; 1989; 1996) theory takes a stage-based approach that includes problem setting, direction setting, and structuring. In the case of school collaboration teachers reported little direct "problem setting" and "direction setting." That is, they often began working with the same students at the beginning of the year without first talking about this shared responsibility and agreeing on some ground rules for communication. In retrospect, perhaps teachers would have more congruence between their beliefs and behaviors if these kinds of actions were encouraged to take place at the beginning of each year.

D'Amour, Goulet, Pineault, and Labadie's (2004) model of collaboration from the field of healthcare organizes the process into three developmental stages: (1) in inertia, (2) under construction, and (3) in action. This model underscores the importance of reaching a point of consensus about responsibility-sharing so that the process is "immune to the whims and uncertainties of the health system." If one were to consider each of the eight interviews using this model, most teachers may fall somewhere in the category of "under construction." What this model lacks, however, is a fuller recognition of how intrapersonal issues such as beliefs and feelings play a role in the emerging process of collaboration.

Davison's (2006) grounded theory model of classroom and ESOL teacher

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collaboration does consider these issues by focusing on personal commitment to the process. Since it takes a variety of different interactions to effectively engage in collaboration, Davison's (2006) model may be a useful tool to understand the extent to which teachers use one type of interaction more than another. For example, if teachers are in the pseudocompliance stage (Davison, 2006), then *Informing* may be more common than any other type of interaction. However, teachers who fit in the creative co-construction stage will engage in more *Fused Work* because they are more comfortable with interchangeable roles. In this study, the sub-themes of intrapersonal and interpersonal factors mirror the struggles to engage deep collaborative practice that Davison (2006) also found. What Davison's (2006) model seems to lack, however, is inclusion of the more systemic factors that affect individual relationships. In summary, this current study's findings illustrate that a comprehensive model of collaboration includes both structural and relational components.

This study's central theme, *Levels of Teacher Interactions*, reflects literature that also examines the activities that comprise teacher collaboration. Little (1990) also found four types of classroom teacher work that classroom teachers engage in together, which range from "storytelling" to "joint work." Little (1990) acknowledges that "joint work" is hard to achieve because both internal and external pressures work against collaborative practice in schools. However, her model looks at different interactions as purely hierarchical. This study, on the other hand, finds that effective collaboration takes place when teachers can coordinate all four levels of interactions. Montiel-Overall's (2005) model of classroom teacher and librarian collaboration may be more relevant than Little's (1990) work because of its interprofessional nature. Drawing from this model, the

teachers in the current study reported activities that reflected mostly *Coordination* and *Cooperation*. *Integrated Instruction* most closely resembles *Fused Work,* as it is comprised of activities such as sharing expertise, problem-solving, and co-evaluating.

Alignment. This study arose because staff in the school district began asking questions about aligning services for students who need additional academic and behavioral support. Niebling, Roach, and Rahn-Blakeslee (2008) define alignment as curricular, instructional, and assessment practices that are matched and complementary to one another in order to facilitate student learning.   Alignment may not only refer to matched content, but also to cognitive demand and performance expectations (Gamoran, Porter, Smithson, & White, 1997). As was evident in this study, teachers' collaboration often revolved around curricular content alignment. What is evident from this study is that the teachers' definitions of alignment do not embody the more comprehensive definition that exists in the literature. Although teachers sometimes considered how well their instructional strategies complemented each other, they did not usually consider how different performance expectations or cognitive demands may also confuse and overwhelm students.

Teasing apart factors. When the main theme *Factors that Affect Teacher Interactions* began to emerge from the data, Tudge and Hogan's (1997) work first came to mind. They conceptualized collaboration as a coordination of intrapersonal, interpersonal, and socio-cultural factors, which reflects the way multiple factors in this study work cumulatively to affect teacher interactions. The collaboration components that Friend and Cook (2009) list compare with this study's factor sub-themes more specifically because they focus on teacher collaboration. The following Table 4 illustrates

how Friend and Cook (2009) compare with this study's findings:

Table 4.

Comparison between Factors that Affect Teacher Interactions and Friend and Cook's

(2009) Collaboration Components

Friend and Cook's (2009) Collaboration Components	*Factors that Affect Teacher Interactions*
Personal commitment	Intrapersonal factors
Communication skills	Interpersonal factors
Interaction processes	Interpersonal factors
Programs or services	School factors, Administration factors
Context or overall environment	School factors, Administration factors, District factors

School culture and administration's influence. Literature on school culture and

administrative support provides context for understanding how the *Factors* that emerged

from this study affect *Levels of Teacher Interactions*. Collaborative school cultures

develop over time under the leadership of administrators committed to fostering

relationships (Fullan & Hargreaves, 1991). In this study it became apparent that all types

of teachers experienced different school cultures. Specifically, classroom teachers

experience a high degree of collaborative work on grade-level teams, which does not

match the more "unanchored" experiences of the instructional support teachers. While

Hargreaves (1994) warns against administrative mandates, this study found that lack of

any explicit expectations might also not support collaboration. Across both schools there

are teams and structures set in place that promote collaboration between classroom

teachers or that focus on special educators, but there is not a unique focus on instructional

support and classroom teacher interactions. One reason this may be the case is because administrators may not fully understand instructional support teachers' unique roles and training needs (Bean, Trovato, & Hamilton, 1992; Jones, Barksdale, Triplett, Potts, Lalik, & Smith, 2010; McClure & Cahnmann-Taylor, 2010; Roach, Shore, Gouleta, & de Obaldia Butkevich, 2003).

The effect of service delivery model. One of the most prominent topics brought up in each interview was service delivery model. Although teachers expressed positive views towards pull-out instruction when it was deemed appropriate, they all expressed a desire for more pull-in instruction, which is an umbrella term for instructional support services provided within the general education curriculum. In particular, all participants expressed the most support for co-teaching. Their reasons for engaging in more pull-in services and experience doing so is reminiscent of studies that have discovered a connection between pull-in instruction and increased communication around teacher-focused topics that leads to more congruent instruction (Meyers, Gelzheise, Yelich, & Gallagher, 1990; Meyers, Gelzheiser, & Yelich, 1991).

Interpersonal and intrapersonal factors. The shift in how instructional support and classroom teachers are being asked to interact sheds light on the interpersonal and intrapersonal factors that affect collaboration. While teachers claim that they want to collaborate, isolationist (Rosenholtz, 1989) beliefs about teaching leads to behaviors marked by autonomy and noninterference (Ashton & Webb, 1986). Additionally, this study found that instructional support teachers often feel left out or forgotten. Research on interprofessional relationships (Bronstein, 2003; D'Amour, Goulet, Pineault, & Labadie, 2004; D'Amour, Sicotte, & Levy, 1999) is particularly relevant for exploring

this phenomenon. Bronstein's (2003) model of interdisciplinary collaboration stresses that colleagues experience interdependence when they understand each other's roles, flexibly change roles to achieve goals, and share power. These components of interdisciplinary collaboration highlight the difficulties teachers in this study face as a result of imbalanced power and rigid roles. Literature on ESOL and classroom teacher interactions has specifically explored the marginalized role of ESOL teachers when classroom teachers' expertise and needs are prioritized (Arkoudis, 2003; Creese, 2006).

In this study both reading specialists and ESOL teachers offered examples of how they either felt marginalized or deferred to teachers at the expense of their own preferences or needs. When these instructional support teachers described opportunities to engage in activities such as *Sharing* or *Fused Work,* they lit up because these interactions allow them to share expertise, which in turn leads to a more reciprocal relationship. Although working effectively with students brings many teachers joy, it is also important for school staff to feel that they are engaged in a professional setting that respects their work and where they are appreciated. This desire for mutual professional growth resonated throughout the interviews.

Changing roles of instructional support teachers. Defining professional roles for oneself and to others can be a difficult process. In this study the participants regularly spoke about role ambiguity.   These discussions reflect a shift in how instructional support teachers function in schools. The International Reading Association identified coaching and leadership roles for reading specialists (2003). Additionally, studies indicate that role ambiguity for reading specialists arises as they are asked to take on more indirect service delivery (Jones, Barksdale, Triplett, Potts, Lalik, & Smith, 2010).

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Even ESOL teachers are now being asked to engage in activities such as co-teaching, which counter the pullout model that many teachers are used to using (Dove & Honigsfeld, 2010).   In this study it became apparent that this shift towards more indirect and pull-in service delivery also has an effect on classroom teachers. They don't always know how to communicate with instructional support teachers and express what kind of support they need. Although this study did not explore the topic further, there are number of reasons why talking about professional roles may be hard and happen infrequently. First, teachers may not have the training or professional development that helps them to understand and define their professional roles. Furthermore, they may not have the training to communicate their roles to each other. For instructional support teachers, it may be especially hard to communicate with classroom teachers about their desire to embody roles as consultants and experts in their field. The difficulty with communication and collaboration that these eight participants reported highlights the need for training programs that support pre-service professionals working together before they graduate.

Effects of collaboration. One of the most relevant questions for any researcher or school professional interested in collaboration is whether it has any effect on student achievement. Currently, the small amount of empirical research that asks this question has found a correlation between achievement and collaboration (Goddard, Goddard, & Tschannen-Moran, 2007, York-Barr, Ghere, & Sommerness, 2007). This study raises the possibility that alignment of services is a mediator between collaboration and achievement; when teachers communicate in order to align services, working memory demands on students (Siegler & Alibali, 2005), academic engaged time (Ysseldyke &

Christenson, 1993), and the instructional match (Gravois & Gickling, 2002) are respected in ways that promote an environment conducive to learning. The teachers in this study gave myriad examples of how students become overwhelmed and confused when teachers are using different materials, instructional strategies, and learning objectives. Research on working memory shows that students have a limited capacity for learning new information and that they need repetition of new information in order for it to be stored meaningfully in long term memory. Instructional match is another area of concern for students taught by more than one teacher. While a student may have the requisite skills to complete a task with a reading specialist in a pullout group, a similar task given in the general education classroom may not be at this student's instructional level. Hence, progress in one setting may not correlate with another if teachers have not communicated and agreed upon what a student needs to benefit maximally from classroom instruction. Finally, academic engaged time is another area that worried teachers in this study. Specifically, they observed that students receiving pullout services had less instructional time than those who stayed in one classroom, and that the transitions between instructional settings upset students' ability to engage fully in class (Silva, Hook, & Sheppard, 2005).

This study also reflects literature that finds collaboration is associated with teacher change in the area of attitudes (Brownell, Yeager, Rennells, & Riley, 1997), efficacy (Ashton & Webb, 1986; Shachar & Shmuelevitz, 1997), and trust (Tschannen-Moran, 2001). Teacher change appears particularly relevant for interprofessional collaboration because meaningful communication can allow colleagues to see their students and instruction from another's vantage point.

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Limitations

      This study has a number of limitations. Although I actively reflected throughout the research process, my own bias must be acknowledged. As a doctoral student I worked in both elementary schools as a school psychology practicum student. I spent more time at F school and worked closely with the reading specialist and third grade teacher as an instructional consultation trainee. Additionally, my former experience as both an instructional support (academic resources) and general education teacher led me to develop a positive bias towards collaboration. In retrospect, however, this bias may also serve as a strength. My familiarity with staff and experience as a teacher helped me conduct interviews that put participants at ease with openly sharing their frustrations and hopes.

      A methodological limitation of this study is that I did not employ grounded theory's theoretical sampling (Strauss & Corbin, 1985). Morrow (2005) suggests that researchers collect data until there is saturation or redundancy, which increases the trustworthiness of research. However, I only used one set of interviews instead of developing additional questions after the first round of interviews or collecting different modes of data. It is possible that certain themes would be more nuanced or new ones would arise if I collected more data. I also did not have the chance to share my coding with the participants, which precluded a validity check with the participants as to whether my coding reflected their experiences. Due to the timing of this study I also did not capture more personal information about each participant that could have added to the final analysis of themes. Finally, this study had a small sample size. Since only two elementary schools were sampled, it is hard to say what instructional support and

classroom teacher collaboration looks like in different settings even within the same

school district. For example, in schools that have high ELL populations, issues

specifically surrounding part-time ESOL teacher status would not exist. As a master's

thesis, it was not feasible to conduct a study that more fully embodied grounded theory's

methodology.

Implications for Practice

The findings from this study may be considered relevant for school leaders and

teachers charged with ensuring that staff effectively aligns instruction. As Valli,

Croninger, and Walters (2007) point out, issues such as shared accountability arise when

more than one teacher is tasked with instructing the same student. Therefore, it is

imperative to consider the role that collaboration plays in schools where a variety of

professionals provide different services. This study specifically explored instructional

support and classroom teacher collaboration because there is no external structure such as

an IEP that requires these colleagues to meet and plan students' instructional

programming. This study's findings highlight ways that schools can begin the process of

exploring and improving collaboration between these professionals.

Assessment. This study found that collaboration is a developmental process that

faces a number of challenges. Schools concerned about collaboration may consider how

this study's model can operate as an assessment tool. Teachers and administrators may

first want to explore the types of interactions that colleagues currently engage in to start a

dialogue about collaboration. Is staff engaging in any *Fused Work* together? Coupled

with this, they can identify where teacher dyads fall along the Communication

Continuum's three sub-themes. Finally, a school can take an inventory of the barriers

and supports to collaboration that exist both school-wide and within individual relationships.

A model of collaboration is particularly relevant in light of RtI's increasing influence in schools. In this study, instruction at the Tier 1 and Tier 2 levels were explored. Currently, there is an assumption that students who do not "respond" to Tier 2 instruction require more intensive interventions, that is, there is an internal deficit that teachers must address. However, this study suggests that student learning is negatively affected when teachers have difficulty aligning Tier 1 and Tier 2 instruction. Taking an inventory of teachers' interactions may help colleagues decide whether a student requires more intensive intervention or improved collaboration between Tier 1 and Tier 2 teachers.

Collaboration interventions. Myriad concerns about external barriers to collaboration arose in this study that highlight issues schools and districts might want to address. Specifically, teachers expressed frustration over barriers such as uncoordinated schedules, little time built in the school day to meet, lack of team membership, lack of funding for substitutes, and students with particular instructional needs spread across classrooms. While teachers may be the first staff to recognize such concerns, usually administrators and other school leaders have the power to lift these barriers. For example, these results suggest that staff would like administrators to schedule common planning time for teachers who share the same students. Ameliorating some of these barriers, such as finding funds for substitutes, may not be easy. However, an initial needs assessment may point out which barriers can be addressed.

While removing external barriers to collaboration is an important step, lasting

change can only take place if schools also commit to targeted professional development. Teachers who arrive at the beginning of the school year with time built in the week to meet may not engage more deeply in collaborative practices if there is no training for how to do so. In this study teachers spoke positively about professional development that addresses communication skills, which is one important area to address. A comprehensive initiative that supports collaboration between colleagues must also focus on issues such as professional roles and power. This last component of professional development challenges teachers to address norms that impede collaboration. Although professional development in collaborative practice for all staff can help a school start the change process, this study highlights the need for individualized support. Each participant described professional relationships with colleagues marked by unique challenges and strengths. Perhaps the next step in collaboration training, therefore, would be ongoing coaching that helps two teachers forge effective collaboration.

Future Research

This study offers a snapshot of the nature of collaboration between classroom and instructional support teachers in two elementary schools. Even though this qualitative study included only eight participants, the interviews provided a rich amount of data that coalesced into a nascent theoretical model of collaboration. One next step for this study would be to engage in grounded theory's theoretical sampling. According to Strauss and Corbin, this might include "further interview questions or observations based on evolving theoretical analysis" (p. 85). The same participants could be interviewed again, but it is also possible that researchers with greater resources could interview additional participants. This approach would explore whether the themes in this small study are

also present in a wider range of schools with different staff and student populations. A particularly unique line of research would be the investigation of collaborative practices through observations. Audio and video recordings of teachers working together (i.e. planning a lesson together) may clarify some of issues brought up in the interviews. For example, how do teachers with different professional roles take turns assuming the role of the "expert" in conversations? Therefore, future research may revisit this model of collaboration by focusing on specific themes, such as the importance of professional roles or the impact of co-teaching on collaborative practices.

Whereas this study used a qualitative approach to understanding teachers' experience of collaboration in schools, future quantitative research could use themes that emerged from the data to develop surveys that question teachers about their beliefs and practices around collaboration. In this study a variety of factors operated together to have a cumulative impact on teacher interactions. Future research could develop measures of administrative support, personal commitment to collaboration, relationships, and external factors such as service delivery to see what variables most affect these interactions. Ultimately, quantitative research that has reliable and valid measures of teacher interactions should be used to explore how student achievement is linked to teacher collaboration.

Conclusion

A basic question that many educators ask is, "How can I promote student learning and growth?" This study grew out of a school district initiative that aims to provide optimal learning experiences for students who struggle academically and behaviorally. When my research group and I began investigating the alignment of services for these

students, it started to become clear that student growth is related to how well staff works together. This study explored the complex process of collaboration in the context of classroom and instructional support teachers charged with instructing the same students. Each teacher interviewed spoke honestly and passionately about their struggle to communicate, forge relationships, and align instruction. Currently, many school reform efforts fail to focus on these professional relationships. Before schools rush to buy another assessment tool, develop another test, or try a new intervention, a reasonable question to ask is whether staff has the tools to effectively collaborate. In order to retire the egg-crate (Lortie, 1975) model of instruction, teachers require collaboration training and support. The findings of this study reflect literature in fields as varied as medicine and business, which suggests that collaboration is a process that we all struggle to understand and engage in meaningfully.

Appendix A
Informed Consent Letter

Dear_____,

The mission of the _____ Public School System _____ Team is to support teachers in the delivery of best practices in instruction and behavioral intervention for students with learning and/or behavioral needs. As part of the _____ Team, the Research Committee is interesting in learning more about the communication between various school professionals as they work with these students. This study, entitled "Interprofessional Collaboration in Elementary Schools," is under the direction of Mrs. ____ and Dr. _____, _____ Office of Psychological Services, who oversee the _____ Team. In addition, under the supervision of Dr. Sylvia Rosenfield, the data collected for the Research Committee's study will also be used for Renee Jorisch's thesis at University of Maryland's School Psychology Program. Both Dr. Rosenfield and Renee Jorisch are members of the _____ Research Committee.

Purpose
We are inviting you to participate in this research project because you currently work with a student who receives instruction from more than one school professional. The purpose of this research project is to understand how classroom teachers and instructional support teachers, specifically reading specialists and ESOL teachers, view and experience collaboration with one another.

Procedures
Renee Jorisch will conduct an individual interview that will last approximately 45 minutes, and which asks questions about your views and current practices regarding collaboration. It will occur in your school during a convenient time for you. If before or after school is preferable, you will be provided workshop wages for your participation. Possible follow up activities may include observing a meeting or sharing materials, and these activities will be determined by both you and Renee Jorisch after the interview has been completed. In order to aid our analyses, we will audio record both the interview and any follow up meetings.

Confidentiality
We are committed to ensuring confidentiality to the maximum extent possible. Identifying information will only be available to the members of the research committee. If you inadvertently reveal any identifying information, it will be deleted from the research tape and not included in the transcripts. Additionally, all transcripts and recordings will be kept in a locked filing cabinet and password protected computer files. Renee Jorisch's thesis project will protect your identity by taking out any identifiable information in the analysis, such as names. This also includes any other kind of identifying details present in transcripts or shared materials. Your information may be

shared with representatives of the University of Maryland, College Park or governmental authorities if you or someone else is in danger or if we are required to do so by law.

Risks and Medical Treatment
All research studies involve risk, and this study may include minimal risks. There is a risk of emotional discomfort in talking about potentially uncomfortable subjects, such as speaking about barriers to collaboration. There is also a risk of disclosure of information and potential influence on your relationships with colleagues and administrators. If at any point in the interview you become uncomfortable or distressed, you may stop the interview at that time. We must also mention that the University of Maryland does not provide any medical, hospitalization or other insurance for participants in this research study, nor will the University of Maryland provide any medical treatment or compensation for any injury sustained as a result of participation in this research study, except as required by law.

Benefits
There is no direct and immediate benefit to you for participating in this study. We hope, however, that other people might benefit from this study through improved understanding of collaboration between the various professionals who work together for the benefit of students' success.

Right to Withdraw
Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

If you decide to stop taking part in the study, if you have questions, concerns, or complaints, or if you need to report an injury related to the research, please contact the investigators:
_____:_____, Instructional Facilitator, or _____, Coordinator, School Psychology and Instructional Intervention _____.
University of Maryland: Sylvia Rosenfield, Professor, Department of Counseling and Personnel Services
If you have questions about your rights as a research participant or wish to report a research-related injury, please contact:

University of Maryland College Park Institutional Review Board Office 0101 Lee Building College Park, Maryland, 20742 E-mail: irb@umd.edu Telephone: 301-405-0678	_____ Public School System Office of Psychological Services _____ _____ Telephone: _____

This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.
Your signature indicates that you are at least 18 years of age; you have read this consent form or have had it read to you; your questions have been answered to your satisfaction

and you voluntarily agree to participate in this research study. You will receive a copy of this signed consent form.

If you agree to participate, please sign your name below.

Name of Participant

Signature of Participant

Date

Appendix B

Coding Appendix

Conceptual Categories	Conceptual Sub-Categories	Conceptual Labels
Levels of Teacher Interactions	Informing	• *Disseminating information, expressing concerns, being "in the know," alignment goal*
	Assistance	• Requesting help: *classwork help, work completion request* • Responding to requests*: complying with requests, sublimating own curriculum*
	Sharing	• *Sharing materials, sharing expertise, sharing instructional strategies, sharing behavioral strategies*
	Fused Work	• Planning: *planning individual lessons, long-range objectives, planning materials* • Grading: *joint comments, input for grades* • Assessing: *conducting assessments,* • Problem solving: *defining problem, solving problem together, shared understanding of concern, developing strategy* • Co-teaching*: teaching together, sharing instruction ,co-teaching planning, taking turns*
Communication Continuum	Medium Email, Online vs. In Person	• Electronic communication: *using email, online information dissemination,* • Concerns related to communication medium: *miscommunication, lack of depth and detail*
		• In person communication: *speaking in person with colleague, preference for in-person communication, better shared understanding*
	Degree of Formality Unplanned vs. Planned	• Unplanned: *popping in, meeting as needed, informally talking, spontaneous communication, short meetings, informal issues*
		• Planned: *setting agenda, dedicated meeting time, respecting time, grade team meetings, one-on-one meetings, planning meeting, team meeting, preference for meetings*
	Content Student Focused vs.	Student-focused • Assessment data: *disseminating data, talking about data, communicating strengths and weaknesses*

	Teaching Focused	• Progress: *progress with curriculum, progress in class, intervention progress* • Problems: *student concerns, student struggles (both academic and behavioral)*
		Teaching-focused • Curriculum: *discussing materials, topics, curriculum sequence, class objectives* • Instruction: *discussing modifications, accommodations, instructional strategies, behavioral strategies, expertise in field*
Factors that Affect Teacher Interactions	District	• Professional development: *workshop learning, workshop relationship building, workshop ideas, school-wide training learning, school-wide training reach, school-wide training funding* • Funding: *substitute funding, training funding, lack of funding, funding needs* • Resources: *lack of resources (materials), access to resources (materials), appropriate materials, finding aligned materials*
	School	• Group structures: *grade team prioritization, grade team meeting regularity, grade team membership, problem solving team membership, relationships through teams, learning through teams, meeting as needed* • Scheduling regularities: *coordination of schedules, time to meet, students spread across classrooms, grouping students (preference)* • Part-time status and student numbers: *part-time difficulty, part-time less available, small population issues* • Service delivery structure: *pullout common, pullout and dissemination, tailoring pullout instruction, pullout targeting skills, pullout difficulty, push-in preference, meeting about push-in, push-in benefits* • Physical space: *flow between classes, open layout popping in, physical proximity closeness, physical distance issues*
	Administrative	• Verbal encouragement: *verbal encouragement, interest in collaboration* • Resources: *giving time, inquiring needs of staff, finding funds, offering professional development*

		• Decision-making: *giving autonomy, lack of mandates, openness to change* • Knowledge: *knowing staff needs, out of the loop*
	Interpersonal	• Communication skills: *using communication skills, learning communication skills, surface communication* • Congenial atmosphere: *friendly climate, spending time with colleagues, making overtures* • Feelings about others*: appreciating colleagues, understanding colleague demands, flexibility with colleagues* • Sense of belonging*: lack of belonging, unanchored staff, being forgotten, lack of invitations, feeling underutilized* • Power and roles: *classroom teacher ownership, classroom teacher curriculum demands, support role, dual role, one-sided power*
	Intrapersonal	• Beliefs: *collaboration positivity, push-in preference, staff autonomy, staff non-interference* • Feelings: *hope for future, overwhelmed, resignation, self-blame* • Experience: *relationship length, time in school, professional experience*
Effects of Teacher Interactions	Effects on Students	• Learning and alignment: *streamlined learning, targeting complementary skills, repetition and repeated exposure, complementing general education curriculum,* • Serving additional students: *reaching all students* • Negative effects of multiple teachers: *overwhelmed, overburdened, confusion, missing out on content, missing out socially* • Social effects: *peer interaction modeling, developing social/ behavioral goals*
	Effects on Teachers	• Learning about students: *gaining new perspective, learning peer expectations, learning peer performance, understanding student needs, holistic student understanding* • Professional growth*: learning strategies, learning accommodations, learning*

		modifications, improved teaching, shared responsibility

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