A Case Study of Grade-Level Meetings and Coaching Conversations

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Dissertation submitted to the faculty of

the Virginia Polytechnic Institute and State University

in partial fulfillment of the requirements for the degree of

Doctor of Education

in

Curriculum and Instruction

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May 7, 2012

Blacksburg, Virginia

A Case Study of Discourse among School Staff Members in Grade-level Meetings and Coaching Conversations

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(ABSTRACT)

The goal of this research project was to determine the content of the discourse occurring in grade-level meetings and coaching sessions and participants' perceptions of how the conversations in these two venues impacted learning and practice for individual teachers. *Learning Forward's Standard for Professional Learning* (2001) recommended that teachers organize into learning communities providing continuous learning opportunities to enhance adult learning and collaboration. Little (2003a) found that research was lacking that described the dynamics of communities of practice that promote teacher learning. It was in the content of the discourse that a proxy for evidence was found that the actions of the instructional coaches and grade-level meetings impact teacher growth. A case study was utilized to examine these structures and processes for job-embedded professional development at a school located in the eastern United States.

Research questions focused on the nature of the discourse among teachers and coaches in the grade-level meetings and in individual coaching conversations. Teachers reported what they felt that they learned in the grade-level meetings and the coaching discussions. Additionally, teachers stated what they did differently as a result of this method of professional learning occurring in grade-level meetings and coaching discussions. Finally, the school's improvement plans were compared with the conversations in the grade-level meetings and coaching sessions.

Verbatim transcriptions of recordings of grade-level meetings and coaching sessions provided data which revealed categories of content, coaching roles, and patterns of discourse. The goals of the meetings and coaching were to ensure communication about school district policies and to set expectations for teacher performance and student learning. Assertions generated provided patterns of discourse that identified roles of the principal, coaches, and teachers.

This investigation utilized a descriptive content discourse analysis and found support for the finding that the actions of this emerging community of practice were directed by federal, state, and local polices for teacher performance and student learning. Patterns of discourse revealed roles of administration, coaches, and teachers as they collaborated to negotiate meaning

through the building of a shared repertoire. Interview data revealed that these dynamics enhanced teacher growth in many cases; however, lack of teacher input may have limited some potential opportunities.

ACKNOWLEDGMENTS

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CHAPTER ONE
CONTEXT OF THE STUDY

Introduction

Since the publication of the document *Nation at Risk* (National Commission on Excellence in Education, 1983), reform has been at the forefront of public education. The educational literature describes a wide variety of approaches to reform with goals of school improvement and student achievement that focus on variables such as poverty, language of students, teachers, and educational programs. To study these variables, Darling-Hammond (2000) used data on public school teacher qualifications from the 1993-1994 *Schools and Staffing Surveys* (SASS) and assessments from the *National Assessment of Educational Progress* (NAEP) for a regression analysis of teacher quality indicators and other school inputs and their relationships to student achievement. The resulting data provided support for the assertion that teachers are the most important variable in the educational process even when compared to the influences of poverty, language background, and minority status.

Additionally, the *National Commission on Teaching and America's Future (NCTAF)* stated in the report, *What Matters Most: Teaching for America's Future* (1996), that teacher knowledge was the most important variable that affects student learning. The commission suggested that continued learning and retention of teachers fostered effective teaching and learning environments and thereby enabled student success. At the core of this action was professional learning that included collaboration, coaching, and connections to the actual tasks of teaching. The report continued to state that school problems should be approached collaboratively by teachers as they discussed instructional issues through "analyses of student work and new standards as the center of professional discourse" (p. 86). These groups could be departments within the school or grade-level teams who engaged in job-embedded and continuous learning experiences tied to actual school problems.

Since this 1996 report (NCTAF), models of professional development have been developed to build teacher and school instructional capacity; however, teachers still struggle to meet the continuous needs of students and to be prepared for new challenges that they face on a daily basis. Effective models of teacher professional development addressing these issues have been identified that provide continuous growth and sustainability for instructional programs and

contain many components that allow teachers to grow from pre-service to retirement (Feiman-Nemser, 2001). *Learning Forward's Standard for Professional Learning, Revised* (2001) provided twelve standards for teacher development in the areas of context, process, and content, and at the core of these standards exists the outcome of student achievement. These context standards suggested that teachers should be organized into learning groups and that districts should support these continuous learning opportunities by providing resources. As contrasted with more traditional methods of staff development, this professional learning paradigm promotes collaboration, which emphasizes job-embedded learning based on school needs (Little, 2006). Garmston (1997) stated that collaboration is defined as individuals working together to find solutions to problems. He believed that individuals learn more as they work together collaboratively and are supportive of each other's efforts.

In a seminal study, Lortie (1975) found that teachers worked in isolation and seldom communicated with their colleagues. He interviewed many teachers in the *Five Towns* research project and found that teachers worked individually more so than practitioners of other professions. In some cases, teachers taught what they wanted and were at no risk of social consequences, and student achievement was viewed as something that could not be affected by effective teaching. Many teachers taught the same lessons over the span of their professional careers that had been taught during their first years of teaching. When individual professional training was implemented for some classroom teachers, it was not usually shared with the school community at large. The professional development that these teachers received was more than likely presented in a venue that was separate from the school environment and delivered passively resulting in a lack of teacher input and connectivity to the needs of the school's instructional program.

In contrast to the structure of these schools that Lortie identified (1975), school-based collaborative groups promote individual growth through the sharing of ideas and observations. Individuals can grow continuously through a focus on the needs identified by data-driven conversations and professional learning designed to build teacher practice (Borthick, Jones, & Wakai, 2003). According to Brooks and Brooks' (1993) constructivist point of view, "each of us makes sense of our world by synthesizing new experiences into what we have previously come to understand" (p.4). Active professional learning connects new knowledge to prior knowledge

of pedagogy and experience and makes collaboration central to the process by providing feedback and information in order to transfer to new classroom situations.

Through learning groups, teachers may acquire the understandings needed to implement effective strategies based on information provided by student data, shared knowledge, and presentations. In contrast, implementation of effective strategies based on traditional methods of teacher learning such as the in-service model yields a lower rate of transfer (Showers & Joyce, 1996). *Teaching for America's Future* (1996) expanded upon this assertion by stating that effective teaching strategies are accessible to teachers although the implementation of these initiatives designed to foster student achievement is difficult. Reeves (2009) founder of *Leadership and Learning Center* suggested that implementation of quality teacher knowledge is the salient factor in obtaining positive student results. He pointed out that most schools and districts have school improvement plans in place but the "challenge is closing the implementation gap (p. 89)." Even after teacher groups develop and plan quality strategies, the challenge lies in their implementation in order to make the process of building school instructional capacity successful.

Effective models of teacher learning should provide continuous growth and sustainability for professional learning through discourse. Teacher collaborative groups provide the structure for these conversations to enable growth and capacity-building (Feiman-Nemser, 2001). Desired outcomes of this method of school improvement include teachers who are building their practices through their shared repertoires (Darling-Hammond, 1994; Little, 2006).

Goddard, Goddard, and Tschannen-Moran (2007) conducted a study to assess the relationship between teachers who collaborate for school improvement and student achievement. The results of this naturalistic research that involved over 452 teachers and 2,536 students in an urban district provided evidence that fourth-grade students have higher achievement rates in mathematics and reading when they attend schools whose professional learning structures include collaboration. Goddard et al. (2007) believed that their study was one of the first "linking teacher collaboration for school improvement to student achievement on high-stakes assessments" (p.892). Their contention was that the increase in student achievement was an indirect result of teachers working together to build their instructional practices. Teachers who worked in isolation such as those in the Lortie study (1975) did not benefit from the experiences of other teachers in regard to teaching and learning. Brown, Ash, Rutherford, Nakagawa,

Gordon, and Campione (1993) viewed distributed expertise as beneficial to communities of learners who share ideas and methods through shared discourse. Teachers who discuss important issues involving instruction with other teachers have access to their repertoires of strategies and skills (Goddard et al., 2007)

The report *Learning Teams: Creating What's Next,* the *National Commission of Teaching & America's Future (NCTAF)* (2009) provided information concerning the benefits of collaboration in schools. They suggested that learning teams comprised of veteran and beginning teachers could serve to share experiences that span generations of skills. Teams could include teachers, mentors, pre-service teachers, and university partners who collaborate to connect learning along a continuum of professional learning in order to sustain repertoires of learning from generations. In another report on collaboration, *NCTAF* (2010) underscored the benefits of collaboration and suggested that they provide mentoring and support and reduce isolation for new, struggling, and veteran teachers. These actions could enhance instruction, increase teacher retention, and affect student achievement (Goddard et al., 2007; Chokshi & Fernandez, 2005; Gallimore, Ermeling, Saunders & Goldenberg, 2009). Grossman, Wineburg, and Woolworth (2001) argued that professional communities offer the structure for teacher growth and change for the teaching environment. They believed that professional communities would help teachers stay current with the changing dynamics of the teaching profession. Grossman et al. (2001) believed that these teams or communities of learning should have a dual purpose; one is to focus on student learning, and the other is to provide a venue for teachers to learn more about the subjects they teach. This action connects both the learning environment where the act of teaching occurs and the professional learning of the teachers. Traditional models of professional development provided learning that was connected to core subjects; however, in most cases, the information was not connected to the actual learning environment (Grossman et al., 2001).

Grossman et al. (2001) analyzed transcripts of teacher conversations in order to determine whether or not the grade-level meetings that they observed grew into learning communities. They suggested that if the claim to be made was that the group did grow into a community of learners that it should be evident in the interactions of these individuals. They identified forms of discourse that indicated change such as individuals who commented that they were more honest with one another. Grossman et al. argued that teachers in community "recognize the interrelationship of teacher and student learning and are able to use their own

learning as a resource to delve more deeply into issues of student learning, curriculum, and teaching" (p. 989).

In an interview with Collier (2011), Darling-Hammond identified availability of time as an impediment to collaboration. However, when they do have time, she believed that communities of teachers can have positive impacts on school improvement as they work with curriculum and instruction. The main work of these collegial groups is to support professional growth designed to improve classroom practice. Little (2006) referred to these *learning-centered* schools as communities where student learning was enhanced by teacher continuous professional learning in order to stimulate professional growth. School goals were central to this process as educators worked to solve problems, attack weaknesses, and enhance the effectiveness of the school program. According to Darling-Hammond and Bransford (2005), one purpose of teacher education is to provide educators with tools that would help them to find answers to questions about content knowledge. In this process, educators are at individual knowledge levels and need to make connections to further learning. They become more knowledgeable as they examine the essential knowledge from subject areas collaboratively in order to share past learning experiences or to share their cognitive impressions of how to best relate content for student transfer. As this process unfolds, teachers share experiences which may demonstrate their strengths and weaknesses. For this process to unfold, instructional leadership needs to be present, and teachers, principals, supervisors, or coaches may serve as facilitators in this process in order to formulate agendas and protocols designed to promote and to sustain professional learning designed to build school improvement (Redding, 2006; Wei et al, 2009).

Coaching for Professional Learning

Facilitation of the process of building instructional practice through collaboration can be enhanced by various types of instructional leadership. *Learning Forward/NSDC Standard for Professional Learning* (2001) provides a context standard that states that "staff development that improves the learning of all students requires skillful school and district leaders who guide continuous instructional improvement" (p. 2). The *Learning Forward/NSDC* rationale for this leadership standard continues by affirming that instructional leaders should recognize the critical link between improved student learning and teacher professional learning and should provide advocacy for high quality professional development. This leadership can be supplied by

superintendents, supervisors, principals, assistant principals, teacher leaders, instructional coaches or a variety of other school instructional leaders.

Instructional coaches lead by assisting teachers as they implement practices into the classroom. They accomplish this by working with teachers to understand instructional goals and to develop plans for implementation. Coaches do this through communication and relationships while assisting teachers to build practices (Knight, 2007). Through distributed leadership, coaches and teachers work together to use their talents as they serve in groups such as school improvement committees and grade-level teams. Through this engagement, instructional repertoires can be built and made visible to others through communication and sharing. The research in this investigation provided data describing the content of the discourse among these participants as they engaged in collaborative and individual interactions to identify patterns of content and discourse to support assertions, findings, and conclusions describing the roles of coaches as they support teacher learning and practice.

The value of instructional coaching was demonstrated in a study by Knight (2007), who found that 85% of teachers who worked with instructional coaches in Topeka, Kansas implemented at least one strategy that they had learned during the summer. In another project conducted in the same city, teachers watched a coach model a lesson in order to understand how coaches assisted teachers. After the lesson, teachers reported that the modeled lesson had resulted in making them feel more confident in their abilities to implement the strategy effectively. As a result of the coach demonstrating the procedures, vicariously, they felt that they could replicate the same activity. As a result, the teachers had a greater sense of efficacy and desired to learn other best practices that could assist them as they built their instructional capacities (Knight, 2006). Joyce and Showers (2002) found that coaching increased the transfer rate of strategies, and they found that this may be because coached teachers practiced new strategies more frequently, used them more appropriately, retained knowledge of skills longer, and possessed concise cognitions about the purpose of the new strategies. These findings were revealed in interviews, lesson plans, and classroom performance.

Instructional coaches work to assist teachers in their classrooms as they implement the strategies learned from understandings constructed in the collaborative groups. Instructional coaches place themselves in the middle of professional learning as they facilitate or take part in leadership of the groups. Coaches participate to enhance learning in order to assist teachers with

implementation of these learning constructions; as a result, they take ownership of the process in partnership with the teacher. Elmore (2000) suggested that "if learning, individual and collective, is the central responsibility of leaders, then they must be able to model the learning they expect of others" (p.67). Coaches should model the learning that comes from the group and be critiqued along with the teachers as they put the learning into practice in the classrooms (Knight, 2007). When this is done, coaches become more aware of problems such as when being confronted by the incongruence of new strategies and student needs.

Instructional coaches assist teachers by providing services and resources that promote teacher growth. Tharp and Gallimore (1988) define *assisted performance* as "modeling, contingency managing, feeding back, [instruction], questioning, and cognitive structuring" (p. 44). These actions can be tools that coaches use to assist teachers at their level of knowledge. Tharp and Gallimore applied Vygotsky's concept of the *zone of proximal development (ZPD)* to assisted performance and provided steps that coaches may employ to assist teachers within their practice. Tharp and Gallimore's theory of teacher learning applies to the interactions of the teachers which include *affordances* defined as "multiple [learning] possibilities made available in and through talk, gestures, and material artifacts" (Little, 2003a, p. 920). Tharp and Gallimore claimed that "the absence of continuous training and skillful assistance not only frustrates and stunts the growth potential of teachers but precludes the introduction of new curriculum and instruction goals" (p. 188). Continuous learning places the coach as facilitator of the collaboration groups and mediator of teachers as they implement in the classroom. Content discourse is central to the concept of assisted learning as coaches provide support through feedback to teachers in the group and individually. According to Vygotsky (1978), discourse consisted of words that have meaning to the individual; and this can be developed furthermore by joining socially in groups of individuals as they interact together in activities to provide learning. *Assisted performance* in the context of this study describes the process of assisting and building understandings, implementing, and adjusting as teachers internalize methodologies of teaching that build instructional capacity. This process can be present at any point in the teaching continuum from pre-service teachers to veteran teachers (Feiman-Nemser, 2001).

Collaboration and coaching can provide structure for the interweaving of participation and reification through discourse in order to provide meaning to situations (Wenger, 1998). Wenger suggested that practice comes from the negotiation of the meaning of a situation, and

that patterns of interactions may be identified that reveal the participation of individuals involved in this process. Coupled with participation is reification, which is defined as making abstract concepts or entities into concrete objects. Participants in community interact through reifying documents, forms, points of focus, and other concepts or objects which assist them as they make their situations meaningful. The formation of a *Community of Practice (CoP)* (Wenger, 1998) can serve as a goal for individuals who collaborate and provide the context for understanding by teachers, and coaching can extend this action.

Statement of the Problem

Schools are beginning to implement teaming and coaching as an infrastructure for teacher communication and ongoing development. Research has been conducted investigating collaborative groups and coaching (Knight, 2007; Little, 2006; Tharp & Gallimore, 1998; Vescio, Ross, & Adams, 2008; Wenglinsky, 2000); however, little attention has been paid to the content of the discourse that takes place in settings such as grade-level meetings and teacher-coach interactions. Such data could provide detailed information as to how teachers perceive learning and practice to be either enhanced or limited in these two venues. Wenger (1998) suggested that "learning takes place through our engagement in actions and interactions" (p. 13). Daily activities that occur in contexts such as schools are viewed by Wenger as social situations where learning could occur to build practice and capacity. Wenger identified the dimensions of practice in community as mutual engagement, a joint enterprise, and a shared repertoire. As teachers attempt to negotiate the meaning of their school situations, their growth opportunities could become enhanced or limited.

This case study examined the content of the discourse by the members of group and coaching pairs and looked for patterns that might reveal how these interactions were perceived by the participants as enhancing or limiting learning and practice for individuals. Previously, little information had been provided in the literature on professional development as to the content of the discourse occurring in grade-level groups and coaching sessions.

Purpose of the Study

The purpose of this research project was to determine the content of the discourse occurring in grade-level meetings and coaching sessions and participants' perceptions of how the

conversations in these two venues impacted learning and practice for individual teachers. McDiarmid and Clevenger-Bright (2008) viewed continuous learning as collective activities that occurred in conversational interactions throughout the time frame of instructional activity. Patterns from this study were examined to provide insight into these interactions taking place during grade-level meetings and coaching sessions in order to reveal examples of how job-embedded professional learning might take place in an actual situation.

Schools are striving to build capacity to provide effective learning environments for students in order to meet the requirements set by state standards and the *No Child Left Behind* (NCLB) law (Redding, 2006). Additionally, new research on staff development has provided insight into methods that are reported to effectively build instructional capacity (Wei et al. 2009). Many schools are implementing collaborative structures and instructional coaching into their professional teacher learning environments in order to reform and to promote teacher and student growth (Knight, 2006; Staub, West, & Bickel, 2006). States and districts are providing funding and training in order to implement these components. Many schools are using both strategies and use them to promote continuous teacher learning (Killion & Harrison, 2006).

As a result, documentation of the content of discourse interactions in schools that use collaborative groups and instructional coaches who work toward building capacity might be useful to the body of knowledge that is being built on professional learning. Examination of the content and processes recorded from specific interactions at grade-level meetings and between teachers and coaches gives us initial insights into reasons that describe how and why these types of mechanisms are supportive in helping teachers become more effective with their students.

The scope of analyzing the effectiveness of professional learning from collaboration and coaching and a causal relationship to student achievement such as the study Goddard et al. (2007) conducted would be too broad to study in a work such as this, which focuses on one grade level in a school. Nevertheless, examination of the content of discourse was manageable and provided actual experiences that could offer lessons for schools, instructional coaches, and collaboration groups. This might provide insight into how these structures function and validation of others' professional learning or ideas for more effective implementation. One particular element of collaboration in school grade-level groups is the content of the discourse and the conversational interactions in the teacher-coach relationships and grade level meetings. It is in this content of the discourse and conversational interactions that we found proxy for

evidence that the actions of the instructional coaches and the processes within grade-level meetings impact teacher growth and capacity building.

Research Questions

The research questions for this investigation examined the content of the discourse in groups and teacher-coach interactions to provide insight into how the conversations in these two venues were perceived to impact learning and practice. These questions are:

1. What is the content of the discourse among teachers and the instructional coach in grade-level meetings?
2. What is the content of the discourse among teachers and the instructional coach during individual coaching sessions?
3. What did the instructional coach and teachers say they learned from the grade-level meetings and coaching discussions?
4. What did the teachers say that they would do differently in their classrooms based on their grade-level meetings and coaching discussions?
5. What did the teachers and the instructional coach say that they learned from the grade-level meetings and the coaching sessions and did differently in their classrooms that supported the goals of the *School Improvement Plan* and the *Twenty-Day Plan*?

Significance of the Study

The significance of this study is the focus on a systematic analysis of the content of the discourse that takes place in the venues that exemplify the job-embedded professional development strategy that has been infused in school across the country. From a policy perspective, the federal government's NCLB regulations require that schools that have not met *Adequate Yearly Progress (AYP)* goals work toward school improvement; likewise, states are requiring similar procedures for those who have not met state requirements. Consequently, many schools are using collaboration and coaching in their efforts to meet these requirements (Redding, 2006).

Specifically, instructional coaches who work toward school improvement on a daily basis may be interested in a descriptive discourse analysis of content and how groups and coaching work to build teacher practice. Other individuals such as central office staff and principals who

work with groups of teachers may benefit from understanding how an actual school uses teacher groups and coaching to build capacity. According to Knight (2009) the research on instructional coaching is very limited as far as examples of its implementation in school settings and effects on teacher practice. By examining a school that is using this component coupled with collaboration, the information from this study could provide details on how coaches operate in groups and with individuals and how teachers perceive these two venues as either enhancing or limiting their growth and practice.

Teachers are on the front line working with students and could benefit from methods of learning that may build their practices. These individuals could profit from this investigation and the insight it brings describing the role of collaboration on learning. This research is important because teachers give of their time and resources to follow through with the mandates that may be required of them to be implemented in their classrooms, and the examples of the ownership provided by this study could create an atmosphere of self-assurance and creativity.

Specifics of instructional coaching needed to be researched further because of the emphasis that is being placed on this professional learning structure for school improvement (Knight, 2006; Redding, 2006). The concept is beginning to have a body of research built around its effectiveness. Nonetheless, the roles of the coach seem to be somewhat ambiguous in regard to where and how the coaching occurs; however, the findings from this study could shed light on the methods that these individuals use in actual coaching situations which could be useful for future coaches and other individuals affected by their work. The findings from this study could direct more research into details of this process and connections to specific content areas and actual cases of student learning as recommended by Cornett & Knight (2009).

Importantly, future research should examine the direct effects that comprehensive professional development models have on student achievement. State objectives and assessment data could be examined in order to determine if the perceived learning from the teacher groups is aligned with the state essential knowledge and if the student assessment results provide connections to the content of the discourse in the meetings and in the coaching sessions.

Delimitations

As is characteristic of research, this study has delimitations to frame the investigation. This study examined the interactions of one school that uses grade-level meetings and coaching.

Certainly, not all schools would apply these components of job-embedded professional learning in the same manner. Schools may frame the context of the grade-level meetings differently. Some schools may use this time for unit planning and others may utilize the time for school announcements. In either situation, the content of the discourse may differ from the ones identified in this study.

The study examined the first quarter of the school year to determine the content of the discourse. By looking at the beginning of the year, emergent patterns of discourse might be observable, and the establishment of participant roles could be more evident. However, the study did not include how these occurrences continued or are discontinued over the year or over several years. Nonetheless, the work sheds light on the beginning formation of patterns that serve to identify roles and functions of concepts.

By identifying these delimitations at the beginning of the study, the work focused more specifically on describing the content of the discourse and how it transpired during this particular time of the year. Consequently, the information from this study might have provided data for future studies investigating longer periods of time and more schools.

Overview of the Dissertation

This dissertation utilized a case study approach to determine the participants' perceptions of how these conversations in these two venues impacted learning and practice for individual teachers. Patterns of content from the discourse were found that supported assertions and findings describing the occurrences in these venues. The work is presented in five chapters.

Chapter one contains the topic of the study and context, the statement of the problem, purpose of the study, research questions, and the significance of the study. In the second chapter, a review of the literature contains current work that relates to this study. Chapter three includes the methodology involved in the case study. Included in chapter four are the results of this work, and chapter five contains conclusions and implications for future work.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

This chapter provides a review of the literature that frames the current investigation. Specifically, this literature review centers on the research that informs us about the way that teams of teachers optimize teaching and learning using mechanisms such as grade-level meetings and coaching and ways in which the interactions that occur in these venues are perceived to either enhance or limit teacher learning opportunities. The review begins by examining the literature on the effects of teacher quality and instructional capacity on student achievement and the need for effective teacher learning environments. Then, studies that analyze collaborative groups and communities of practice are summarized. Next, current literature on coaching is presented to describe the specific roles and effects of this practice. Finally, the usage of a descriptive discourse analysis is examined as a method of understanding the power of interactions that occur in continuous learning schools.

Teacher Quality, Instructional Capacity, and Student Achievement

The Elementary and Secondary Education Act (a.k.a., No Child Left Behind Act - NCLB; Public Law No. 10-110, 115 Stat. 1425, 2002) and state regulations provided directives for school reform and serve as the guiding mechanisms for school change and accountability. Schools continue to search for solutions to build their instructional programs and to stimulate increased student achievement to meet these mandates. Many variables have been examined that may warrant attention for their effect on school improvement. These variables include socio-economic status, ethnicity, and teacher quality. Darling-Hammond (2000) compiled a regression analysis using data on public school teacher qualifications from the 1993-94 *Schools and Staffing Surveys (SASS)* and assessments from the *National Assessment of Educational Progress (NAEP).* The analysis revealed a significant positive relationship between teacher quality indicators and student achievement. This finding supported the notion that the quality of the teacher has a more powerful effect on students than any other indicator

The *National Commission on Teaching and America's Future* stated in a report, *Teaching for America's Future* (1996), that teacher knowledge is the most important variable that affects student learning. The commission suggested that preparation and retention of teachers create effective teaching and learning conditions that foster student success. Additionally, the report

stated that students have the right to a quality education in the United States and that schools must create learning environments by providing teachers with quality staff development. Major concerns listed in the report were inadequate teacher preparation and limited induction for new teachers. The report primarily asserted that these factors are characteristic of low-performing schools and suggested that mentoring programs should be provided for new teachers. Reform efforts have begun to place teacher development at the center of school improvement.

In a study on the relationship between teacher quality and student achievement, Nye, Konstantopoulos, and Hedge (2004) analyzed data from a four-year study to determine the effects of teachers on student achievement. In the *Project STAR (Student-Teacher Achievement Ratio)* study, teachers and students were randomly assigned to classes. The experiment involved 79 elementary schools in 42 districts in Tennessee where kindergarten through third grade students were included. Findings were that achievement gains for students who have a teacher in the 75th percentile (an effective teacher) is over one-third standard deviation (0.35) greater in reading and almost one-half standard deviation (0.48) greater in mathematics than students who have a teacher in the 25th percentile (not so effective). These results support the importance of teacher quality on student achievement. In addition, the study found that these effects where magnified in low socio-economic schools. *Project STAR* provided significant statistical data that places teacher preparation strategies above other variables such as socio-economic status when developing a plan for school capacity-building.

In an exploratory cross case analysis on the characteristics of teachers who produced high gains in student learning, Stronge, Ward, Tucker, and Hindman (2008) investigated to determine the specific actions by teachers that resulted in increased student achievement. They used a statistical regression analysis to identify teacher effectiveness and correlated this to student gains. Additionally, they identified practices of teachers who were in the top quartile. This was indicated by data that revealed that effective teachers had students that had assessment gains past what they had previously accomplished as contrasted to those teachers who were in the bottom quartile whose students did not have assessment gains. They looked specifically at instructional expertise including planning and teaching strategies, student assessment and differentiation, learning environment, and personal qualities such as caring, fairness, and respect. The participants included 1936 third grade students and their 83 teachers from an urban school district in Virginia and focused on the Standards of Learning assessment results. Key findings

were that effective teachers scored higher in the teaching dimensions of instruction, student assessment, classroom management, and personal qualities when compared to ineffective teachers. In the instruction domain, the effective teachers used more instructional strategies as compared to the few that the ineffective teachers used and provided resources that supported the curriculum that they were teaching. Regarding assessment, effective teachers used data to differentiate instruction more than the ineffective teachers. They had organized learning environments and higher expectations for students and showed more respect and fairness when dealing with their students.

Implications of this study (Strong et al., 2008) indicated that not only do teachers have an effect on student achievement, but specific teacher actions can have an effect on student achievement. Salient findings were that effective teachers differentiate instruction according to either summative or formative assessment resulting in students achieving higher gains. Also, teachers operated along taxonomical levels of learning as they attempted to ask higher order questions to students. Another important finding in this study was that students in these effective classrooms exhibited fewer behavior problems. Consequently, the study demonstrated the effectiveness of teachers, and these specific findings underscored the importance of enhancing teacher effectiveness.

Capacity Building in Schools

Corcoran and Goretz (1995) defined *capacity* as "the maximum production of a school" (p.27) and suggested that high-quality instruction is the product of a school. They identify key components of instructional capacity as intellectual ability, knowledge, teacher efficacy, and skills of teachers and staff; additionally, they believe that instructional culture is influenced by resources of the school which include time for instruction, class size, and other factors. Some of these resources have direct effects on building capacity and others such as technology have effects that are more indirect.

In a report for the *Consortium for Policy Research in Education* (CPRE), Cohen and Loewenberg-Ball (1999) provided a review on efforts made to enhance instructional capacity, and they stated that "few interventions have had detectable effects on instruction and that, when such effects are detected, they are rarely sustained over time" (p.1). They claimed that a reason for this may be that teachers are not provided with effective and sustained professional

development. Interventions for teachers are usually in the form of new resources, and when they are brought into the school, teachers are seldom given instructions on how to use them nor provided follow-up. These researchers suggested that focus should be on interactions "among teachers and students around educational material" (p.2) as contrasted with providing teachers with resources as the source of instruction only. They viewed capacity as the ability to produce learning and as a function of these three entities. This involves all of the components of good teaching pedagogy and repertoires of teaching strategies in order to build effective capacity-building teaching environments.

Cohen and Loewenberg-Ball (1999) believed that capacity is not a fixed entity because factors can influence capacity, such as teacher and student interactions determined by student experiences and skills and the method of assistance provided by the teacher. As teachers' knowledge increased, they noticed new areas ripe for improvement thereby affecting instructional capacity. As a result of this interplay among teachers, students, and materials, teacher learning situations should be in the context of the interactions among these three elements of capacity as contrasted with isolating individual components of instruction. For example, staff development for a new reading program would not only involve the teacher manuals and student books, it would include relationships that occur among teachers, students, and the resources such as connecting to prior knowledge, previewing text, or connecting to home culture.

Additionally, Cohen and Loewenberg-Ball (1999) believed that teaching pedagogy should be taught within the school environment as contrasted to an isolated setting away from the school where it may be disconnected from the curricular program. Professional learning for teachers should be embedded in their teaching environments in order to connect to the areas of need that can be identified from assessments and their observations. Effective capacity-building environments take into account professional teacher discourse, socialization, common goals, opportunities for learning, and norms of the community to support improvement, and these areas cannot be effectively manipulated in isolation (Cohen and Loewenberg-Ball, 1999).

Herbert and Hatch (2001) conducted an examination of the factors involved in building instructional capacity. They compared two schools in the San Francisco Bay Area that have had success with school improvement in order to analyze specific school conditions that are related to capacity-building. The researchers used a qualitative approach to collect data that included

interviews, observations, and document analysis. They found that the schools used collaboration groups extensively and had organizational identities that provided boundaries for their theories of instruction. In their learning communities, they had common values and purposes in order to work toward goal accomplishment. The individuals within the schools shared their knowledge and built relationships with one another. Professional development was part of their cultural school identity and assisted with improvement. The two schools had differing amounts of collaboration, but they both emphasized working together and reaching goals. Socialization was important as individuals shared beliefs about instruction, and new teachers were trained by faculty to assimilate into the approach. Herbert and Hatch (2001) found that the "common theme that [ran] through these socialization structures [was] that teachers learn about the schools through building relationships with other teachers" (p.23). This study served to build the rationale as part of this literature review for enhancing the quality of teachers in order to affect student achievement, and additionally, it added collaborative groups as a social structure for this purpose.

School improvement involves building instructional capacity in the context of the school in order to enhance the main goal of the school: student achievement. The studies reviewed in this section of this paper examine the current literature on professional development, best practices that are school-embedded, and actions that provide continuous learning opportunities for capacity-building.

Building Instructional Capacity through Job-Embedded Professional Learning

Darling-Hammond (1994) suggested effective professional development can serve to maintain capacity and sustain efforts for school improvement, and, accordingly, she suggested that federal and state policy should require a quality teaching staff because this is where learning opportunities for students occur. Additionally, she believed that resources and learning environments should be available and that support for continuous improvement should be in place to sustain these efforts. McDiarmid and Clevenger-Bright (2008) believed that teachers need to have continuous learning opportunities to reevaluate practice and to prepare them for new challenges based on student data, and to do this; they need time to collaborate with one another. Additionally, learning occasions are needed for teachers to analyze student data and to determine best practices for intervention and for pre-service and novice teachers to work with

veteran teachers to build from their experiences. These capacity-building elements involved discourse that connects learning from all members of the community in social settings.

Guidelines for Professional Learning

Professional development programs designed to maintain and to build teacher knowledge must be meaningful and provide teachers with resources needed in order to put these strategies into practice (Little, 2006). The U.S. Department of Education (1995) identified necessary components of successful teacher knowledge programs and suggested that they should reflect research-based teaching strategies that are implemented by a collaborative effort and provide time and resources to achieve school improvement goals.

As stated in chapter one of this dissertation, *Learning Forward/NSDC Standard for Professional Learning Development* (2001) recommended standards for professional development that identified teacher knowledge in areas of context, process, and content. These context standards suggested that teachers organize into learning communities and that districts provide continuous learning opportunities that include resources which enhance adult learning and collaboration. According to their process standards, teachers should be knowledgeable of data-analysis methods that monitor student progress in order to promote achievement. These individuals should be prepared to select and to implement research-based strategies designed to assist students in mastering learning standards. Additional process skills determined to be important for teachers include knowledge about human learning, change, and the ability to collaborate. Content standards called for educators to be prepared to show knowledge of diversity, provide safe and orderly learning environments, and to have high expectations for their students. Teachers should be knowledgeable of content areas of instruction and use effective strategies to teach students the essential knowledge and skills included in academic standards. They should be able to determine mastery of these standards by utilizing effective assessment and providing interpretation of the results. Teachers should know how to involve the community and family stakeholders in the school environment to facilitate success of students. In order for teachers to accomplish these directives from *Learning Forward*, continuous learning environments should be in place in schools that provide structure for collaboration by teachers to build and sustain growth.

Wenglinsky (2000) studied the relationship of professional development to student achievement by examining student data from the National Assessment of Educational Progress (NAEP) for eighth grade mathematics and science, teacher experience levels, classroom practices, and professional development. He did this by using multilevel structural equation modeling (MSEM) to isolate factors such as professional development, teacher classroom practice, and student achievement. When examining the effects of sustained professional development, he found that students whose teachers had received professional development in areas such as higher thinking skills, using "hands-on" activities, and working with students from different student populations outperformed the students of teachers who did not receive this learning. A related finding was that the implementation of effective strategies obtained from professional learning was connected to the extension of the learning over a period of time. According to Wenglinsky (2000), this study was one of the first to analyze professional development and the connection to student achievement and teacher practice. This research builds a case for teacher development that is linked to the specific context of the classroom and that is sustained over a period of time. Additionally, other factors such as socioeconomic levels of students and class size fell below the importance of teacher quality. Wenglinsky (2000) stated that "this study indicates that one aspect of schools, the quality of their teaching force, does have a major impact on student test scores" (p. 31), and this can be enhanced through quality professional learning for teachers.

Teacher Process of Learning

According to Wenger (1998), learning should occur within practice and in the context of school for teachers. Through social actions and interactions, learning can take place in real-life situations as individuals form relationships and share resources. Wenger stated that social learning theory gives place to "cultural systems, discourses, and history" (p. 12). Additionally, social patterns are utilized within this theory to explain individual intentions and agency and the way they react within their environments. Learning is viewed as social actions where individuals work to build their practices through a duality of both collective and individual interactions.

To facilitate this action, the processes that flow within the structure of collective professional learning must interact at the individual level of knowledge that teachers bring to the school community. Just as we assert with student learning, this teacher learning has to begin with

the instructional level of the teachers so that they can co-construct instructional strategies for student learning and to develop effective methods for implementation (Tharp & Gallimore, 1988).

The level of knowledge that teachers bring to the school learning community can have potential growth (Vygotsky, 1978). An individual's *zone of proximal development (ZPD)* refers to the distance between that person's ability and potential capacity. This level can be assisted "through problem solving under adult guidance or in collaboration with more capable peers" (p. 86). Vygotsky (1978) used this construct to refer to the learning of children; however, the *ZPD* can be applied to adult learning. According to Tharp and Gallimore (1988), "teachers, like their students, have *ZPDs*" (p. 190). As Lortie (1975) found, teachers have worked in isolation without the benefits of other individuals' experiences. As a result, they did not have access to the related experiences of others who may have provided collective assistance that may have narrowed the teachers' *ZPD.* However, collaboration may be one way to provide teachers with the prior learning experiences of other teachers. *Assisted performance* involves the constructs of "modeling, contingency managing, feeding back, [instruction], questioning, and cognitive structuring" (p. 44). These actions occur as teachers work together in communities to problem-solve and to construct knowledge that can be implemented in classrooms to build instructional capacity.

Tharp and Gallimore (1988) provided a detailed theory of the development of higher-order teaching skills. The *ZPD* stages for teachers begin with Stage I as the teacher learns basics from more capable instructors or peers, and this can be done collaboratively or individually. As the learning progresses, Stage II behaviors emerge as the teacher uses more self-directions and individual assistance. Self-assistance in this stage can include seeking feedback, acquiring additional cognitive structures, using self-talk, self-praise for *contingency* or self-questioning. *Meta-cognitive* events guide this stage as the teacher assumes more responsibility for learning. In Stage III, the teacher's self-directions disappear as new knowledge is internalized and integrated with other learning. The teacher demonstrates self-efficacy as the individual operates without assistance to execute the task. However, this stage is not permanent as demonstrated by Stage IV of this model. Disruptions can occur when new skills are interrupted by forces such as change or stress, but teachers can revert back to Stage II where they can provide self-directions to become proficient once again. Reflection becomes important as teachers think about problems and

strategies that they may have acquired previously that would provide solutions to current problems. Sometime, teachers may need to go back to Stage I where new training is needed in cases that present new situations or issues.

Vygotsky's theory of assisted performance and the *ZPD* provided a foundation for the process that takes place in teacher development that is facilitated by instructional coaching in strong professional learning communities. These mechanisms support conversation -- the linguistic means for instructing, questioning, and cognitive structuring. Groups must utilize these forms of assisted learning effectively and know when and how to apply them. *Cognitive structuring* can provide organization of ideas as it "evaluates, groups, and sequences perception, memory, and action" (Dunphy., 2003, p. 52), and interactions among the teacher and other individuals provide the process in which to use these types of assistance to individualize feedback and to differentiate according to the *ZPD* of the teacher. Teachers learn from each other as they develop a common purpose to build instructional capacity, and teacher talk plays a major role in these goals as they seek out methods in which to solve problems and the resources needed through ideas that emerge from past and present experiences from all members involved (Borthick, Jones, & Wakai, 2003).

Borthick, Jones, and Wakai (2003) used the community of practice as a tool for designing learning experiences that took into account individuals' *ZPD* in designing a master's course in information systems assurance. Their approach used a combination of cognitive and social processes within the context of collaboration to allow learners to internalize capabilities in order to perform them independently (Vygotsky, 1978). Wenger (1998) suggested that individuals learn as they work together for a common purpose to accomplish goals. The community of practice is one venue where individuals can collaborate within social practices. Borthick et al. (2003) designed their learning experience using learners' ZPDs and placed them in a community of practice. They based this action on Vygotsky's (1978) assertion that learning occurs faster when there is assistance provided. In an article that detailed their rationale for using this social learning approach for designing learning experiences (Borthick et al., 2003), they explained that "learners negotiate their own meanings in social contexts. Instead of simply absorbing others' ideas, the learners discuss, analyze, evaluate, and build their own understandings" (p. 124).

Tharp and Gallimore (1988) developed a program, the *Kamehameha Elementary Education Program (KEEP)* to improve the cognitive and academic development of children at

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an elementary school in Honolulu, Hawaii. Additionally, they worked with the teachers at this school to provide professional development in their own classrooms with the goal of affecting the development of the students. Coaches provided model lessons for teachers, and more competent peer teachers modeled lessons while the coach guided the teachers' observations of the lessons. These actions were designed to affect the ZPDs of the teachers as they internalized the concepts. In a related action, Tharp and Gallimore (1988) attempted to manipulate the number of positive reinforcements that teachers were providing for students. Specific actions that they used were didactic instruction, modeling and role-playing, feedback, and direct coaching. Of all of the methods, they found that feedback was the most effective in providing assisted performance. Results from their investigations indicated that teacher learning coupled with modeling, practice, and feedback builds teacher practice. As a result, Tharp and Gallimore (1988) designed a system of teacher assistance "that [allowed] self-assistance, peer assistance, and assistance from administrators, coaches, trainers, and specialists" (p. 196). In their model, coaching was utilized to provide observations and feedback, and they worked within teachers' *ZPD* to provide assisted performance.

The *KEEP* research included the project-team model of assisted performance that resembled the community of practice approach. Team members brought their skills to the group to provide assisted learning for all members present and to receive assistance from members of the group. It was found that this joint activity produced best results as the group worked together to problem-solve, and researchers benefited as they were guided to issues while they participated and offered possible solutions to problems. This reciprocal collaborative approach benefited both the researchers and the teachers in the group as a data source for research and assistance for building teacher practice.

An instructional coach who worked for *KEEP* for three years was assigned to work with a specific teacher in the program. To begin the relationship, the teacher was video-taped during a reading comprehension lesson which served as an entry point for a feedback conversation with the consultant. Previously, the teacher had completed workshop sessions that included the goals of the *KEEP* model and had begun showing progress through each of the consultant sessions. The coach's goal was to assist the teacher as she worked through her ZPD in regard to teaching deeper meanings of text to students. At first, the consultant provided direct information regarding the components of teaching comprehension. As the conversations continued, the teacher began to

develop a critical understanding of the concepts involved with comprehension. The coach assisted her with the ability to provide responsiveness to her students and to be able to provide interactions that were in turn assistive, to allow the children to make sense of the story rather than telling the story to them directly. Cognitive structuring by the coach allowed the teacher to work through her *ZPD* and become more autonomous. Additionally, she observed another teacher teaching a comprehension lesson, and through modeling, her learning was assisted again. The following statement of the teacher describing her progress provided evidence that revealed growth of the teacher as she voiced to the coach that previously she had dominated the teacher/student talk ratio:

> There's a conscious effort [on my part] to eliminate these simple yes/no questions. I mean, that is first of all in my mind. Or if I do ask a yes/no question, I always come up with "Why" and "How do you know?" Whereas in the past I would say "da, de, da, de, da," and they would say "yes," and I would say, "okay, let's go to the next…" So that's one thing that this [coaching process] has brought about - this awareness of trying to rephrase a question so that it's not a yes/no question (Tharp & Gallimore, p. 246)

The teacher expressed her satisfaction with the lesson and believed that she could continue to use this responsive method of teaching comprehension.

This case study demonstrated how collaborative groups and coaches can provide assisted performance for teachers regarding basic concepts through providing modeling experiences and feedback conversations. This approach utilized professional learning that considers the ZPDs of teachers and offers strategies to stimulate growth.

Communities of Practice

Wenger (1998) viewed learning as a social experience providing structure for the practice of individuals in organizations. When organizations have shared goals, focus their learning as a collective learning experience, and enable members to negotiate the meaning inherent in experience, Wenger termed these vibrant social milieu as *communities of practice* (CoP)" (p. 45). Development of collective meaning requires the participation of the individuals to reify the practices as the community maintains its life or develops into a new organization. These reified ideas can be in the form of artifacts, points of focus, documents, monuments, or instruments that

codify the meaning of situations. Participation and reification go together in these communities and create meaningful resources to provide significance for the task at hand.

Members of the CoP engage in learning to make meaning through three dimensions that connect community and practice: mutual engagement, joint enterprise, and a shared repertoire (Wenger, 1998). One characteristic of a community that is joined in practice is the mutual engagement of participants. Individuals are actively engaged in whatever assignment they need to accomplish as they interact with one another and have full inclusion in what matters to the group. This engagement creates relationships that connect individuals in ways that can be peaceful and harmonious but can also be disagreeable and conflictual. All of these descriptors can be forms of participation in the CoP since the methods of connection are complex and diverse. Secondly, communities that are connected to practice have common goals because of a joint enterprise, and they negotiate with each other while living with differences and coordinating their perspectives. The goal of groups may be to collaboratively make sense of the process needed to create proficiency and outcomes in order to make meaning of their situations. Their purpose statements are supported by accountability systems that include what does matter to the community and excludes what does not. The third characteristic of community coherence is a shared repertoire of resources in which to negotiate meaning. This could include "routines, words, tools, ways of doing things, stories, gestures, symbols, genres, actions, or concepts that the community has produced" (p.83). A repertoire provides linguistic and nonlinguistic resources that reveal a history of engagement and can be used in future interactions.

Mutual engagement in the CoP around a joint enterprise is conducive to learning (Wenger, 1998). Participation and reification become sources of remembering and forgetting as artifacts produce histories of engagement centered on enterprise. The CoP engages individuals with reified artifacts that reflect perspectives and methods of accomplishing tasks. Political processes may influence reification as documents and concepts are affected and shaped by policy formed by federal, state, and local educational leaders. For example, schools may use a particular reading program that has been adopted because of mandates or recommendations by boards and administrators (Wenger, 1998).

Learning in practice (Wenger, 1998) includes processes for communities that are involved. These groups progress as they find out ways of productive engagement through relationship-building. The outcomes of the community's work are framed by the community

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members' strengths and weaknesses providing resources of information from which to draw. Community members can hold each other accountable to their enterprise and work together to define the venture. This social engagement assists learning as individuals develop styles, discourses, and repertoires through producing or adopting programs, inventing new terms, telling stories, or creating routines. This type of learning is not only a mental process but the evolution of practice and the negotiation of meaning through social interactions.

Embedded professional development can be considered to be a process that serves as a catalyst for the development of professional learning communities (Wenger, 1998). Discourse serves as one of the key tools in the development of the community and reification of its culture, programs, and processes. Community participants work to problem-solve, develop skills, and work together with a common sense of purpose. They are driven by the task at hand and as they work together, individually they benefit and develop the necessary skills needed for the current difficulty. Collaborative groups that evolve into CoP's demonstrate the characteristics that Wenger (1998) identifies as follows:

1. sustained mutual relationships -- harmonious or conflictual;
2. shared ways of engaging in doing things together;
3. the rapid flow of information and propagation of innovation;
4. absence of introductory preambles, as if conversations and interactions were merely the continuation of an ongoing process;
5. very quick setup of a problem to be discussed;
6. substantial overlap in participants' descriptions of who belongs;
7. knowing what others know, what they can do, and how they can contribute to an enterprise;
8. mutually defining identities;
9. the ability to assess the appropriateness of actions and products;
10. specific tools, representations, and other artifacts;
11. local lore, shared stories, inside jokes, knowing laughter;
12. jargon and shortcuts to communication as well as the ease of producing new ones;
13. certain styles recognized as displaying membership;
14. a shared discourse reflecting a certain perspective on the world (p. 125-126).

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According to Wenger (1998), learning in these communities becomes an interaction between experience and competence as the members engage in an enterprise with a repertoire of resources. The members can be transformed as to who they are and what they do if these conditions are present in the community. The CoP becomes a positive context for "developing new understandings" (p. 215).

In these groups, individual cores of knowledge overlap the ZPD of other people thereby creating a situation where a more knowledgeable person with a particular concept can provide support through conversation and coaching to individuals who are less knowledgeable (Borthick et al., 2003). Vygotsky's premise (1978) concerning internalization of concepts is demonstrated by actions in the CoP as individuals provide assisted learning. Effective facilitators of these groups provide tasks that are obtainable within the collective ZPD of the group, and upon completion the members may obtain the needed performance levels as they assist each other. Assistance for the group can come from reading, professional consultants or coaches, or examples provided from other groups. Modeling, scaffolding, questioning, encouraging, managing interactions, and feedback are all activities of the group and the facilitator. Context must be set through agendas, protocols, and norms by the facilitator at the appropriate level of learning as the individual designs learning experiences that facilitate interaction among all learners and the leader of the group.

In the past, schools have lacked collaborative cultures necessary for supporting growth in teaching and learning, and as a result, teachers worked in isolation. Accordingly, many teachers were not prepared to teach every student and to provide effective instruction (Lortie, 1975). A CoP can provide opportunities for teachers to share ideas and to examine practice to determine how they can become more productive in their collective efforts (Wenger & Snyder, 2000). According to Morrissey (2000), administrators are instructional leaders, and they are part of the CoP; however, they do not dominate discussions as they work to share the responsibilities of the group. Shared values and mission are present to focus the efforts of the school, and norms are developed from these values to promote commitment to renewal and improvement. These communities collectively seek new methodologies and application strategies that are focused on problem solving and improvement and foster a culture of growth. This environment is supportive of individuals and promotes exploration of ideas and creativity, and a culture of mutual respect is provided in order to provide sharing of ideas and practice through collaboration and coaching.

Members of the team work toward committing themselves to school improvement and are invested in the learning process of all students (Morrissey, 2000).

The CoP is an operational vehicle that promotes continuous learning by the members of the school and is focused on the self-growth of individuals and collective growth of the learning community (Morrissey, 2000). This job-embedded venue promotes individual involvement through discourse, resulting in decisions focusing on student achievement of learning goals. In this culture of collaboration, all stakeholders connect to promote growth through planning, doing, checking, and acting according to learning results (Morrissey, 2000).

Morrissey (2000) further suggested that "external factors can serve as significant catalysts in the development of professional learning communities" (p. 40). One catalyst can be the instructional coach whose roles include becoming a facilitator supporting the collaboration. This mentor assists teachers directly by observing classroom practice, then brings teachers together to discuss methods of enhancing practice by strengthening current strategies and by studying and learning about new methodologies.

Communities of Practice in Action

Vescio, Ross, and Adams (2008) suggested that "a paradigm shift" (p. 80) has occurred, and they viewed the professional learning in community as central to this change. They reviewed the literature specifically for the "empirical studies that connect professional learning communities to changes in teaching practices and student learning" (Vescio et al. 2008, p. 88). They sought answers to the following questions:

> In what ways does teaching practice change as a result of participation in a PLC? And, what aspects of the PLCs support these changes?
>
> Does the literature support the assumption that student learning increases when teachers participate in a PLC? And, what aspects of the PLCs support student learning?

They found that participation impacts practice because teachers become more aware of the characteristics of their students. Additionally, these communities provide the structure for "collaboration, a focus on student learning, teacher authority and empowerment, and continuous learning" (p. 88). They found that over time, student achievement is impacted.

The learning in community concept is based on the assumption that knowledge exists in the daily and prior experiences of teachers and is understood through reflection with other

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teachers, and this action can enhance professional knowledge (Vescio, Ross, & Adams, 2008). Student learning becomes the focus, as contrasted to more traditional professional development structures which may be centered on learning new teaching strategies, which in practice are isolated from teacher experience. The goal for these groups is mastery of concepts by students, and this is represented by data and having continuing discussions about curriculum and instruction and its effects on student mastery. This action of the group is very public and requires that individuals share their practice, and essential to this process is the transparency of teacher practice as evidenced by student achievement. Classroom teaching strategies change according to the learning needs of the students; and the community of practice becomes the staging area for this action (Dufour, 2004). This structure of learning for teachers creates changes in the school culture as Vescio et al. (2008) found in their review of eleven studies. This significant review analyzing communities demonstrated a "shift in the habits of mind that teachers bring to their daily work in the classroom" (p. 84). This change in culture included collaborating with other teachers, focusing on student learning, creating teacher leaders, and continuous learning by teachers. Teachers interacted collectively by sharing lessons, using protocols, video-taping, and using note-taking as a method to share classroom practice. Additionally, they worked together to develop new ideas for practice and participated in collaborative literature circles This collegial atmosphere represents a shift from an isolationist culture to one of sharing to promote teacher growth through group activity.

Vescio et al. (2008) reported that the focus of teacher collaboration they observed was on student growth. Some groups focused on learning for underachieving students, and others focused on improving student literacy. Additionally, these researchers found that teacher leadership was an integral part of changing school culture as they defined teacher leadership or authority as "the ability of teachers to make decisions regarding both the processes of their learning communities and aspects of school governance" (p. 85). As these teachers became integrated into the process of community, they developed a sense of ownership of the curriculum which gave them a higher sense of control over what they believed was effective.

Additionally, changes in school culture may occur because of continuous teacher learning when the community continually monitors the needs of the teachers as they attempt to meet student learning goals. Eight of the eleven studies reviewed by Vescio et al. (2008) looked at student achievement and the existence of the community of practice and found that a significant

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correlation existed. A pattern existed among the studies that revealed that in each of the eight schools, collaborative efforts by teachers focused on student learning, thereby resulting in positive outcomes. Consequently, implementation of communities of practice helped to change their culture and demonstrated positive gains.

Building Instructional Capacity through Communities of Practice

Why are communities of learning helpful for teachers? What aspects of teaching and learning do studies point out that are enhanced by this concept? Teachers need to know how to transfer content knowledge by using methods that connect to students' prior knowledge in order to build understanding, skill, and competence as they engage in the act of transforming the epistemological content of subjects to the action of teaching. The following research reveals specific areas of influence that have been identified in schools that promote this concept.

Saxe, Gearhart, and Nasir (2001) studied specific methods of providing professional development for teachers who were implementing a unit on fractions, and the study placed teachers into three methods of support. The *Integrating Mathematics Assessment* (IMA) group attended a five-day institute to implement the unit, *Seeing Fractions*. Additionally, they attended meetings that were held every two weeks during the year that served as their community of practice. These groups were designed to enhance teacher understanding of mathematics concepts and methods of student thinking about fractions as they discussed usefulness of math, perceptions and self-efficacy in math, developing understanding, and other specific areas. *The Support Program* (SUPP) provided teachers with opportunities to reflect on the implementation of the unit; however, no help was offered with subject matter. A facilitator helped teachers stay on topic during nine sessions that were held during the year while teachers discussed instructional methods, assessments, and concerns. The third group (TRAD) used traditional mathematics textbooks and did not participate in any professional development program. An ANCOVA revealed overall means and standard deviations for the IMA, SUPP, and the TRAD groups were 6.17 (0.89), 4.73 (1.0), and 4.10 (0.68). These results provide support for using a content focus in collaboration groups such as exemplified in the IMA group. The researchers of this study believe that ongoing support for teachers is necessary when implementing curriculum. Results of this study support the conjecture that continuous collaborative communities with an

emphasis on content are needed for best practice. These results provide support for using a content focus in collaboration groups such as exemplified in the IMA group.

Desimone, Porter, Garet, Yoon, and Birman (2002) conducted a longitudinal study of 207 teachers and found six features of professional development that improved teacher practice. Structures such as study groups, mentoring relationships, and committees are more effective than workshops, courses, or conferences. Learning activities that are longer in duration and emphasize collective participation of teachers from the same school, department, or grade-level are helpful. Active learning and experiences that connect to current teacher goals and are aligned with standards and assessments were found to be useful. Also, it was found that a content focus was beneficial. The study did not use the terms community of practice or professional learning community; however, it did find that collaboration was a structure that provided benefits for teachers.

In addition to the characteristics found by Desimone et al. (2002), the activities in communities should include analyzing students' thinking. This requires knowledge of child development, culture, and language and the ability to connect these elements (Little, Gearhart, Curry, & Kafka, 2003). Little et al. (2003b) conducted a study of groups of teachers from four schools who examined student work and suggested that their purpose was to "foster teacher learning, support for professional community, and the pursuit of school reform" (p. 185). They worked with *Harvard Project Zero,* the *Coalition of Essential Schools,* and the *Academy for Educational Development* to identify practices of teachers who were working toward professional learning and building school capacity. These programs worked to foster student learning and creativity to promote teacher conversations and collaboration about teaching and learning. Teachers constructed learning goals that guided their analysis of student work along with using school improvement goals. They constructed portfolios of student work and compared these to student work from other schools. Additionally, they examined lesson plans and units of instruction, videotapes of lessons, and observations from coaches.

The primary agenda of these groups was to examine student work and to analyze it with regard to school structures and processes. Teachers identified areas of weakness and provided instruction (Little et al., 2003). These groups utilized a facilitator who made use of protocols to focus the conversations and remind teachers to describe what they saw and steer them from making judgments. The conversations did not follow a normal flow but were designed to include

comments from all individuals present in the group to elicit their stores of knowledge about the work. In one case, teachers were discussing persuasive essays and were examining several examples. One teacher was able to admit that she did not fully understand the concept and how to teach the writer of the example how to strengthen the work. Another teacher was able to explain how to develop a persuasive essay and to provide direction. All of this was done within the range of the protocol which provided a tool that enabled teachers to become more open and to accept advice from colleagues.

Little et al. (2003b) found that the facilitator of such groups must be skilled in order "to open up a question or to persist with a difficult point" (p. 190). This individual must invite feedback and be willing to approach difficult and controversial areas of discussion. These individuals met with teachers before the group meetings to help them decide on examples of student work to present and set the stage for open and critical discourse based on student artifacts. Constructive questioning, critiquing actions, and the ability to push ideas were characteristic of effective facilitators of such groups. Some of their observations were that teachers consider their students' work their personal work and efforts should be made by the facilitator to assure that individuals feel comfortable and that relationships are strong. They must be aware of the scarcity of teachers' time and stick to arrangements made concerning length of meetings. Also, the facilitator of the group should be able to present the context of the work such as the developmental stage of the student so that teachers can present correct expectations. Finally, the individual should keep in mind that there are larger goals that include building teacher knowledge, school capacity, and their relationship to the group.

Diversity of teachers and students should be at the forefront of professional development collaborative groups as they plan instruction, because schools and classrooms are complex environments (Little, 2006). Schools need to close achievement gaps that exist and determine how to connect to multiple cultures, because learning environments have differing cultures among American ethnic and social groups as well as students that are recent immigrants from various countries. These languages and cultures present challenges and opportunities for entry points into learning situations. These should be shared with members of the learning community in order to share differing bases of culture knowledge that may exist among cultures represented in the group (Little, 2006).

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Characteristics of Effective Teachers in the Community

In schools that emphasize continuous learning, teachers bring their experience and knowledge to the group and share with others (Desimone, 2002). Shulman and Shulman (2004) presented the responsibility of teachers in community when they suggested that "an accomplished teacher is a member of a professional community who is ready, willing, and able to teach and to learn from his or her teaching experience" (p.2). These researchers expand this definition by explaining that when a teacher is ready to teach, they have a vision of active learning that is based on the concept that students construct knowledge through interdisciplinary processes. This is developed by observing role models, interacting with peers, and reading cases of practice. Additionally, the teacher becomes willing when they have the motivation to change practice by taking the effort to collaborate through conversations with individuals. These skills develop over time as the teacher learns from experience through self and group reflection on practice. As the teacher discusses practice, the individual learns from their own and others' experiences.

Costa and Garmston (1994) describe individuals in community who "operate in the best interests of the whole while simultaneously attending to their own goals and needs" (p. 129) as *holonomous*. This construct characterizes individuals who are independent and at the same time interdependent on others in their communities. To explain this concept further, these researchers suggest that this energy source is derived from five states of mind and they list them as efficacy, flexibility, craftsmanship, consciousness, and interdependence. These attributes can be transitory for individuals and groups depending on familiarity, experience, knowledge, fatigue, and emotion, and they are transforming as they help to facilitate increases in performance. Also, they can be transformable as an individual can change a state of mind through meta-cognitive actions or another person can affect how a person's states of mind are determining performance.

Individuals who exhibit holonomy are efficacious because they reveal that they can develop a plan to change situations and can make a difference in their environments (Costa & Garmston, 1994). They do not think that luck or chance determines how they affect change, and they have a belief in their ability to cope with challenging situations. Without efficacy, individuals and groups tend to withdraw or feel helpless and blame situations on factors other than themselves. Importantly, efficacy has been identified as one of five states that relates to improved student learning. Also, holonomous individuals are flexible because they can recognize

different perspectives on issues, and they value craftsmanship as they attempt to improve performance and strive for clarity and refinement. These individuals are life-long learners and utilize their consciousness to monitor the thoughts, behaviors, and values that assist them as they attempt to achieve goals. Above all, interdependence is the guiding force of these habits of mind that serve as the basis for collective and collegial activity that is at the core of communities that build individually and collectively.

CoPs involve holonomous teachers who engage in decision-making processes because their efficacious belief systems allow them to realize that they can make changes (Costa & Garmston, 1994). They solve problems, analyze data, and determine the professional development that is needed to implement curriculum, and they experiment with new ideas and report findings as they build systems that promote growth. Communities with holonomous teachers are flexible, as the teachers honor strengths in individuals and use this prior knowledge and experience to plan instruction and assess student growth. They respect craftsmanship, and they have high expectations for students and staff. They monitor collective thoughts, behaviors, and values and become aware through reflection. Interdependence is seen as individuals work together against isolation to achieve consensus and to solve cognitive dissonance. All of these characteristics provide energy sources to members of the community of practice as they work to build capacity in schools. As teachers work collectively, efficacy, flexibility, consciousness, craftsmanship, and interdependence assist them as they attempt to be ready, willing, and able to teach and to learn.

Formation of Communities of Practice

Grossman, Wineburg, and Woolworth (2001) conducted a professional development project through a grant in an urban school that included 22 teachers and lasted over two and one-half years. The teachers worked together in meetings twice a month to create in interdisciplinary curriculum in the areas of social studies and English.

Grossman et al. (2001) viewed teachers in these communities as both educators and learners. In order to work together, the teachers had to know each other's characteristics in these roles. Their research revealed exchanges captured from a discourse analysis to demonstrate how the teachers attempted to have conversations about the creation of the interdisciplinary unit. These two high school departments showed difficulty in staying on topic and creating the unit.

However, Grossman et al. (2001) viewed this as a normal step in the process of forming community. In fact, they define groups that proceed as if they have similar values and beliefs but in reality do not possess these characteristics as *pseudo communities*. Individuals in these groups suppress conflict and behave as if they agree as they speak in general terms and give an illusion of consensus. These communities have a facilitator that controls the conversation but does not elicit the thoughts and underlying concerns of individuals. As long as everyone is playing a role and no conflict is present, everything runs smoothly, and information that may challenge this arrangement is seen as dangerous and is usually avoided at all cost.

However, conflict may be the signal that community is beginning to form, and skilled facilitators of authentic communities that are effective deal with group dynamics that may be challenging because of differences (Grossman, et al., 2001). Members begin to let down their pretense and become vulnerable as they see that conflict is allowed and honored. As individuals begin to work together to solve problems or to discuss readings on particular subjects, formations of community emerge as new intellectual pursuits and social work create interpersonal relationships. Collective wisdom begins to surpass the intellectual capacity of individuals as members feel open to share knowledge without retaliation, and members begin to take responsibility for the learning of other adults. Effective communities become sounding boards for new ideas and methods of perceiving situations, and these thoughts begin to be replicated in classrooms. As authentic community forms, individual members of the group begin to become facilitators and lead discussions. Facilitators and individuals adapt social and intellectual skills that allow them to argue productively, and vital to these interactions is the ability to navigate through conflict without creating hard feelings or shutdown (Grossman, et al., 2001).

Grossman et al. (2001) demonstrated through conversational exchanges in this discourse analysis how the group began to form community. In the first meetings, the teachers discussed the concept of judgment. The exchanges were very guarded and in several cases, sarcasm was used to protect a person's private feelings. However, over a period of time, the barriers of communication began to break down. The teachers conducted a book study of the memoirs of an individual that dealt with racial identity. More openness was demonstrated as members of the group became transparent when they discussed their personal experiences with the subject. The book afforded them the one-degree of freedom away from themselves to be able to open up about a sensitive subject.

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Formation of authentic community is evident in discourse when individuals begin to agree and disagree effectively, and with the formation of new ideas, they may begin to share resources to assist others in implementation. Evidence of true community comes in the documentation of interactions among its members as group norms emerge when individuals accept responsibility for behavior and how to address violations (Grossman, et al., 2001). Thusly, teachers in learning communities are able to transfer their own learning in the community to the classroom community where they interact with students as they adjust curriculum and learning situations. Authentic communities for teachers are places where they nourish themselves so that they can provide the same conditions of enrichment for their own students in their classrooms. Teachers work together to overcome conflict, and they take this new knowledge into the classroom to help their students begin to understand each other and work toward community (Grossman, et al., 2001).

Social negotiation takes place in the construction of community. As the community grows, different individuals take on the responsibility of facilitation of the work (Grossman, et al, 2001). Members of the group hold themselves accountable for the learning of others in the community. Individuals learn to navigate conflict effectively without creating hurt feelings and shutdown in others. This type of community work is similar to what teachers require of students when they ask them to work in groups to share ideas and to listen to others without becoming defensive. The formation of community becomes a social and situational venture as individuals learn to navigate meaning (Wenger, 1998).

Examples of Communities of Practice in Schools

Schools are beginning to utilize the community of practice structure to provide continuous learning for teachers in order to build teacher practice and school instructional capacity (Hipp, Huffman, Pankake & Oliver, 2008). Hipp et al (2008) provided an example of CoPs when they documented the development of two schools that implemented the concept. Data came from interviews with the principals and teachers, and the guiding question for the study was: "How does a school become a sustainable professional learning community?" (p. 175) Identified schools were Lake Elementary School (PreK-8) and Galena Park Middle School (6-8), and both schools were committed to restructuring to the community of practice format in order to foster school improvement. The study utilized qualitative and quantitative methods "to

document the ongoing development of these two schools in becoming professional learning communities" (p. 175). Fifty interviews were conducted with individuals and small groups, and surveys were administered that measured concepts such as collective efficacy, leadership, and perceptions. Hipp et al. (2008) used Dufour's (2004) "big ideas" of professional learning communities to provide dimensions that would be evident if such structures existed. Dufour (2004) identified major concepts of these groups as the following:

1. Ensuring That Students Learn
2. A Culture of Collaboration
3. A Focus on Results (p. 8)

The findings from this research revealed that the priority at Lake Elementary School was student learning. Also, the collaborative structures provided a structure for continuous teacher learning based on current issues of the school. Distributed leadership was evident as all members of the committee were included in the governance of the school. At Galena Park Middle School, the goal was student learning, and this was accomplished by departments and teams working together. The data revealed that the teachers at these schools had high expectations of the students, desired to experience professional growth, and that trustful relationships existed between administrators and teachers. Teachers shared leadership roles about teaching and learning, and individuals were allowed to express ideas through collective conversation and were respected.

Wood (2007) observed a mid-Atlantic urban school district that had as a goal to establish learning communities as an organizational structure for teacher learning, and she conducted interviews, visited classrooms, and conducted a case study of the districts' attempts. However, most of the schools were not successful in implementing this organizational structure. Nonetheless, *Lincoln Elementary* was a school in the district that continued with implementation and the case study documents efforts and results. Wood's study revealed that the principal of *Lincoln Elementary School* received community of practice training and wanted to implement the model in her school. She viewed this model as one that called for teachers using discourse to build knowledge. As a result, the principal implemented this concept into the grade-level teams that existed so that teachers in her building who had been successful could share their ideas through conversations. The school was in the lowest socio-economic section of Hillsboro,

consisted of 625 students in grades kindergarten through fifth, most of the students were African American and Hispanic, and many were English language learners. Historically, Lincoln had struggled with test scores and had been under scrutiny by the district and the state, however, data revealed that since implementing the community model, test scores had started to increase.

Wood (2007) found that the teams at Lincoln Elementary School used *protocols* which are defined as prescriptive agendas used for groups to remain focused when meeting to discuss or to examine an issue. For example, problems were presented with a time limit attached such as five minutes, then, the group may have five minutes to clarify the problem. Each member had to explain as to what they consider is the identified problem. Next, the group took fifteen minutes to ask questions about the problem, then; the group discussed what was heard. Finally, the group discussed the problem for about five minutes and allowed another five minutes for debriefing. By using this strict allocation of time, the group remained on task as individuals serving in a rotating facilitator role kept the group on task within the limits of the protocol. The principal explained that using the protocol was important "so that [they could] make efficient use of time" (p.288).

Wood (2007) utilized discourse exchanges from the meetings to demonstrate how the groups operated. This was done in the research data by providing larger quotations from the teachers in the groups in block format and by quoting shorter sentences spoken in the exchanges that occurred in groups. The facilitator of the group who was the principal of the school described the ground rules for the protocol and how each individual had ten minutes when they could say anything that they want or nothing at all as a beginning for the meeting. This activity allowed all members of the group to get to know each other and to contribute to the discourse. Additionally, there were norms that were posted on the wall that included such directives as "no side bars, remember air time, be honest, and be respectful" (p. 285). The meeting continued as the facilitator explained in a discourse vignette that they were going to view a teacher's classroom by using video. The individuals in the group role-played a pre-observation conversation. Afterwards, they discussed the video and offered observations, and remarks were provided in the research data.

Teachers at this school were able to question practice and to build understandings, and this was evident through a discourse analysis provided by Wood (2007). In one conversational vignette, a teacher presented a problem which concentrates on her students' sense of

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independence in regard to following directions. Quickly the other teachers acknowledged that they have had similar problems. The conversation continued as they specified the context of the situation, and finally, suggestions based on best practices were provided. The teacher left the conversation stating that "I have learned so much….[that's] exactly what I'm going to try" (p. 289) because of the suggestions offered by the other teachers. The teachers viewed themselves as agents of change as authentic practice was examined with suggestions for improvement in order to build instructional capacity. They reflected on what they knew to offer suggestions, and the protocol provided a tool to enable them to stay on task, and the community of practice model provided the avenue for continued growth at this school (Wood, 2007).

In another example of research concerning communities of practice, a research team from the University of North Carolina at Greensboro used a qualitative research case study method to investigate three elementary schools where students had achieved positive gains in achievement and utilized their grade-level meetings as a professional learning structure (Strahan, 2003). Data revealed that these schools used communities of practice to design engaging lessons for students, assess student progress, and provide job-embedded staff development. To conduct the case studies, the researchers conducted focus group interviews with 51 stakeholders, examined planning documents, read minutes from grade-level team meetings, and conducted a discourse analysis through coding transcripts from the interviews to determine how the teachers defined success, promoted success, collaborated with their fellow teachers to promote school improvement, and identified types of supports necessary for growth.

Strahan (2003) found that grade-level meetings provided the means for the communities that identified needs, developed strategies, and linked job-embedded staff development which in turn resulted in a high collective efficacy level. The teachers had developed instructional strategies such as guided reading, writing across the curriculum, word study, and independent reading, and additionally, they had implemented thinking maps, lexile levels, and other methods of promoting literacy. A framework for the dynamics of school reform was identified which included data and discourse as the primary vehicles of change. This procedure began with conversations about instructional strategies by the teachers and administrators. Next, target areas of needing improvement were identified and learning strategies were matched. Job-embedded professional learning was planned to provide information for teachers in the identified areas. The staff grew as a community as they continued to coordinate efforts to promote student

achievement. The momentum generated from their successes fueled successive actions that resulted in a highly efficacious community. The outcome of this action was school improvement as documented by student achievement data in all of the schools in this North Carolina case study (Strahan 2003).

Grossman et al. (2001) found that groups may demonstrate change over a period of time with regard to the degree that they have joined as a community. Hipp et al. (2008) observed two schools that were implementing communities of practice and through qualitative data analyzed their progress according to the concepts of these communities as identified by Dufour (2004). Wood (2007) provided discourse to document the way that a school was using a specific tool, protocols, to guide their meetings. Finally, Strahan (2003) provided specific strategies that teachers used in grade-level groups to build their instructional practice.

Discourse Content in Communities of Practice

The preceding studies provide characteristics of effective communities of practice and support for usage of this structure to build capacity and affect school improvement. However, according to Little (2003a), research is lacking concerning the "specific interactions and dynamics by which professional community constitutes a resource for teacher learning" (p. 914). She asserts that evidence that might demonstrate the effectiveness of the concept of communities of practice includes the interactions that teachers have with one another to demonstrate effectiveness of the concept of communities of practice, and that focus should include identity of teacher groups such as grade-level or department, the task or problems that need to be solved, and learning opportunities that are observable in collegial groups.

Little's (2003a) research was based upon observation, interviews, documents, and audio recordings of interactions of teachers in groups. She conducted a discourse analysis with special emphasis on conversations about teacher learning as she questioned the benefits of professional communities. A systemic approach was taken to observe categories that community members use to effect practice. Her goal was to examine "the specific interactions and dynamics by which professional communities constitute a resource for teacher learning and the formation of teaching practice" (p. 917). Little provided observational data of three teacher groups and their work to determine indicators of effective groups such as authenticity and transparency by analyzing interactions.

Little (2003a) took the heuristic concept of *affordance* from Gibson (cited in Little, 2003a) who used it to study animal perception. In the context of the school community, Little (2003a) extended the definition of affordance to describe the talk, gestures, and artifacts used to create possibilities for learning. This is a system for describing the components of classroom practice that become evident through interactions provided by discourse of teachers in describing practice. Little (2003a) asked "what facets of classroom practice are made visible in out-of-classroom talk and with what degree of transparency" (p. 920)? Additionally, she inquired "how does interaction open up or close down teachers' opportunity to learn" (p. 921)? This second question concerning affordances examined how easily teachers related classroom problems or concerns in order to affect learning opportunities for themselves and for others in the community.

The first case study involved the difficulty that members of the English Department at East High School had with writing and specifically with grammar. The group's discourse revealed two purposes of the department: 1) to develop consistency with grammar expectations and 2) to allow for the creativity of the teacher to help students develop the conventions of writing. Artifacts were presented in the group and thusly provided student focus for the group to interact and to affect their own learning. Although the group had routines and norms, evidence demonstrated that the group had difficulty working with affordances as they did not develop a plan for consistency of writing conventions. The second case study involved algebra teachers who discussed the meaning that they had attached to students which they described as fast kids or slow kids. The discourse analysis provided showed risk and strain that teachers experienced when they were talking to their peers. Authentic community interactions seem to be deflected as teachers changed topics and told jokes. The last group observed was the *Academic Literacy Group* whose goal was to develop a ninth-grade literacy course focusing on strategies for improving reading comprehension. The group's goal was to plan together and teach from the same lesson plans while developing its own professional learning. Interactions revealed that the groups had many problems with schedule, pace, and resources. However, as the group worked together, realistic expectations became apparent.

Little (2003a) described these teacher interactions as "decontextualized, disembodied accounts of the classroom" (p. 936). However, she believed that they are valuable to teacher practice in that they provide resources for the group. Teachers reflected and constructed

identities in the group and provided classroom practice accounts that solicited advice from others as student artifacts and lesson plans were made available. These interactions provided assisted learning conducive to development of teacher growth and capacity building as they demonstrated affordances within each group that either lead or halted opportunities for growth.

CoP show promise for providing structure for authentic teacher interactions that may enhance expansion of the individual's ZPD. However, more research is needed to document interactions and affordances to determine how they proceed from the community to the classroom which was something that the research done by Little (2003a) omits. The next section of this literature review examines the role of the instructional coach as a catalyst for strengthening affordance*s* and making the community more authentic.

Coaching and Building Capacity

Assisted learning can be provided for teachers through collaborative efforts. Instructional coaches can provide this independently, and it is in the classroom where this occurs. In this section, a review of the literature provides insight into the characteristics of instructional coaches and their work with individual teachers in the classroom that may shed light on the development of communities of practice and capacity-building for the teachers in those communities.

Need for Instructional Assistance in the Classroom

Reeves (2009) suggested that implementation of effective strategies by teachers is the salient factor in obtaining positive student outcomes. He continued to suggest that an *implementation gap* exists in most schools from strategies provided by traditional professional development and direct application. Bush (1984) conducted a five-year study in eighty schools about staff development. Findings were that teachers implement only 10% of new material to which they are exposed in traditional methods of staff development. However, when modeling, practice, and feedback were provided, the transfer rate increased from 16% to 19% to the classroom. When coaching was added, 95% of teachers implemented new strategies. Knight (2007) reported that additional barriers to implementation could be the number of initiatives that teachers are expected to put into practice on their own. Also, poor planning and lack of connection to the school instructional program could be another factor. It is difficult for teachers to change habits and to develop new routines that may be working for them; however, with the

help of instructional coaches, teachers have someone to help through conversational feedback, encouragement, and modeling, and possibly belief systems can be adjusted to promote more teacher efficacy (Knight, 2009).

In the next section of this literature review, a theoretical basis for this professional development concept will be provided. Research will be provided on the effects of coaching. Additionally, the roles of coaches will be examined with regard to the collective and individual assistance that they provide.

Efficacy and Coaching

According to Tschannen-Moran, Hoy, and Hoy (1998), teacher efficacy refers to "the teacher's belief in his or her capability to organize and execute courses of action required to accomplish successfully a specific learning task in a particular context" (p. 22). The role of the coach is to assist in these different contexts to find specific resources that may help the teacher to feel more confident in their ability to perform specific learning tasks. These ability beliefs affect how teachers construct lesson plans and activities that create mastery experiences for themselves and their students. Teachers with a high sense of efficacy think that they can teach difficult students and cut through the issues that they may bring to school. In contrast, teachers who have low feelings of efficacy believe that they cannot help students who are unmotivated and believe that this is due to factors that are created outside of the school (Bandura, 1997). These belief systems affect the ability of teachers to implement effective strategies into their classrooms that may be helpful with those students who are not traditionally successful and to expand the capacity of those who are successful.

Showers and Joyce (1996) began in the 1980's testing hypotheses concerning the effectiveness of instructional coaching and found that one dependent variable was the implementation of new methodologies. They found that this action seemed to increase with the conversational interactions of teachers and coaches and investigated the hypothesis that stated that coaching would improve implementation more than traditional in-services. They found support for their hypothesis; however, they did not determine what specific interactions affected the actual implementation of strategies by teachers. This study looked closer at these interactions to shed light concerning ones that could be specifically beneficial to implementation.

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Bandura (1997) identified four sources of building efficacy, and these are mastery experiences, physiological and emotional arousal, vicarious experience, and social persuasion. These sources enable teachers to determine their abilities to plan and to implement as they attend to specific information to build their own belief systems about strengths and weaknesses. Mastery experiences provide the most influential source of efficacy information because they are authentic evidence of the teacher's ability to be successful. They provide resiliency as the teacher overcomes obstacles once encountered and recognized become opportunities to learn. As a result, teachers take on more challenges as they know that they have what it takes to be successful. This involves "cognitive, behavioral, and self-regulatory tools" (p. 80) for multi-tasking situations that are present in teaching environments (Bandura, 1997).

Teacher competencies are built as complex skills are broken into sub-skills that are more easily mastered and coaches assist in these efforts (Bandura, 1997). Successes tend to raise efficacy and failures have the opposite effect especially when these instances occur early in the application of a new strategy or early in the career of a teacher. Factors such as difficulty of task, effort expended, and assistance from others determines how these teaching activities are constructed in memory. This self-schema of teacher efficacy serves as prior knowledge to establish what teachers look for in future circumstances in order to judge their abilities. These thought systems provide the motivation to implement and to change their practice as long as they are efficacious. Additionally, failures and setbacks are viewed as using the strategy incorrectly and not as inability to grow as a teacher. Therefore, implementation of strategies depends on the schemata of the teacher and possibly serves as a construct that instructional coaches affect when they are assisting teachers through feedback conversations (Bandura, 1997).

Vicarious experiences can affect teacher efficacy, and instructional coaches can provide these as they model strategies in classrooms (Bandura, 1997). Teachers' sense of efficacy can be enhanced as they observe models providing effective methods, and this may occur because they believe that if the model can execute the strategy that they may have similar success. Competent models demonstrate methods of controlling instructional environments that serves to relay messages that relate positive implications for teachers (Bandura, 1997).

Verbal persuasion can be used to assist teachers and enhance efficacy when instructional coaches work with teachers through feedback conversations to provide *cognitive structuring* for professional growth (Bandura, 1997). Teachers who receive accurate and constructive feedback

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attempt to try new strategies and to change their program in order to build instructional capacity. Appraisals of teaching and recommendations by the coach should be within the teacher's *ZPD* and congruent to their sense of efficacy to promote the execution of new strategies and programs (Bandura, 1997).

Bandura's (1997) four methods of building efficacy can be present in both the collective and individual settings where coaches assist. In the communities of practice, coaches navigate physiological and emotional arousal states as they skillfully work through cognitive dissonance to form authentic community. Persuasive efforts by the coach may be beneficial as members of the group begin to build new knowledge through discourse. As mediator, the coach works to persuade individuals that they have the ability to implement new strategies through pre-conference and post-conference feedback. They model these strategies and provide vicarious learning experiences to provide the procedural knowledge needed for implementation.

Studies Supporting Coaching

Cantrell and Hughes (2008) investigated the relationship between teacher efficacy and the implementation of a content literacy approach designed to enhance student achievement in all subject areas and the role that coaching played in this action. This study used a sequential mixed methods research design that utilized statistics from participants and from interviews. Data came from an analysis of a survey that determined changes in teacher efficacy and compared this to observational data concerning the implementation of the literacy strategies. The interview data explored the perceptions that the teachers had about the role that the new strategies played in the development of their ability to plan and to put these strategies in place. Twenty-two sixth and ninth-grade teachers from eight schools participated and these individuals received training in the execution of these strategies in all content areas. Coaching sessions were provided by individuals who had expertise in content literacy. They visited the teachers on a monthly basis for team meetings, planning sessions, modeled lessons, and provided support for teachers through conversational feedback as the teachers designed lessons to help students with challenging texts. Teachers used new strategies designed to engage students in before, during, and after reading techniques. Additionally, they were provided new vocabulary activities, writing activities, and reflective discussion strategies. Teachers were encouraged to develop a literacy culture in their classrooms in order to promote comprehension skills across all areas of study. Structure was

provided to assist teachers as they changed their classroom practice to include literacy within the culture of the entire school (Cantrell & Hughes, 2008).

Measures included a 65-item survey to determine teacher efficacy which was drawn from previous efficacy instruments. All items used a 6-point Likert-type format ranging from 1 to 6. The *Global Content Literacy Classroom Implementation* (GCLCI) was used as an observational protocol which determined how the teachers were using literacy in content areas, in the print displayed in their classrooms, and how they used literacy to assess. Teacher interviews determined the process of efficacy development, and they were used as a secondary source to explain data found in the surveys. The efficacy instruments were given on the first day of the year and the last day of the project. The observations were conducted on September 1, October 15, April 1, and May15. Teacher interviews were done at the end-of-year meeting (Cantrell & Hughes, 2008).

Results indicated a significant increase in efficacy for literacy teaching ($t(21) = -4.236$; $p < .001$) which focused on the effects of professional development on efficacy for literacy teaching. The second research question examined the relationship between teacher efficacy for literacy teaching and the implementation of new literacy strategies. Correlations with the observational data indicated that teacher efficacy was more important in terms of implementation at the first of the year. A *t*-test indicated that content literacy techniques increased over the course of the year ($t(21) = -2.093$; $p = <.05$) thereby providing causal significance for teacher efficacy and implementation. The third research question explored teachers' perceptions about their implementation of the strategies and how this affected their efficacy indicated that teachers associated their increased efficacy with their increased ability in literacy teaching and that coaching was an important factor in this process (Cantrell & Hughes, 2008).

Indications from this study revealed a significant connection between teacher efficacy and implementation of a specific literacy strategy. Data were examined quantitatively and qualitatively providing a thorough examination of the information. The interviews provided support for connections among teacher efficacy, implementation of strategies, and coaching.

Bruce and Ross (2008) examined the relationships between teacher efficacy and implementation with peer coaching. This form of coaching can enhance efficacy by utilizing the methods identified by Bandura (1997). They can provide social persuasive feedback to convince peers that they have the ability to accomplish a task; and through conversation, peer coaches can

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combat negative feelings and increase more positive ones. Also, they provide vicarious experiences through modeling lessons. These individuals in Bruce and Ross's (2008) study provided a professional development program that emphasized depth of processing by students which was based on ten dimensions of effective mathematics instruction and emphasized three which were: student to student interaction, facilitating student mathematical construction, and selecting effective mathematics tasks.

Four in-services were designed to enhance classroom practices and to increase the implementation of these strategies (Bruce & Ross, 2008). Participants included four pairs of third grade teachers and two pairs of sixth grade teachers. The teachers were observed at the beginning and at the end of the project with attention to the three dimensions of mathematics instruction. Five observers were trained in the use of the *Classroom Observation Guide* which provided instructions and rubrics for determining the effectiveness of meeting the three identified instructional dimensions. An online assessment was given at the beginning of the study. The teachers were observed by their peers three times. Interviews were conducted at the conclusion of the study of the pairs of teachers. The data were analyzed by addressing three questions about the implementation of the treatment, the effect on teacher practice, and the elements of the treatment that had an impact on teacher efficacy (Bruce & Ross, 2008).

First, the results revealed that teachers changed their methods and moved toward the accomplishment of the three dimensions identified. Secondly, teacher efficacy increased as a result of the professional development program which included peer coaching. Teachers reported a sense of validation as they found out that the peer coaches used similar practices as they used. Also, they received positive feedback that provided verbal persuasion and physiological and emotional support. Through their own efforts applied the new strategies that provided mastery experiences (Bruce & Ross, 2008). Two peer coach partners discussed how one was reluctant to implement a new mathematics strategy in the beginning of the study. She heard about it in one of the collaboration meetings; however, after observing the strategy in the partner's classroom, the individual decided to implement it. As a result, teachers' judgments concerning their ability to implement strategies demonstrated increases in efficacy thereby signifying a reciprocal relationship between efficacy and implementation.

Of particular importance to the present study are studies that exist which demonstrate the effectiveness of instructional coaches when providing assistance to teachers directly in the

classroom. In a study by the *Kansas University Center for Research on Learning* (Knight, 2007)*,* it was found that 85% of teachers who worked with instructional coaches in Topeka, Kansas were implementing at least one strategy that they had learned during the summer. In another research project conducted in Topeka, teachers watched a coach model a lesson to understand how coaches assisted teachers. After the lesson, teachers reported that the lesson made them believe that they could implement the strategy. The teachers felt more confident, and as a result, they wanted to learn even more new teaching strategies (Knight, 2006). According to Knight (2009), coaching increased teachers' attitudes toward their profession when compared to teachers who are not coached. This disposition helped to build a climate and culture of pride that was conducive to action. Both Knight (2007) and Joyce and Showers (2006) found that coaches utilized with groups and individuals increased transfer rate of strategies; however, Knight (2009) suggested that more research needs to be done to determine whether or not coaching "improves the specific teaching practices that increase student achievement" (p. 210) underscoring the fact that more research is needed examining coaching.

Many districts are demonstrating improved student scores after using instructional coaches (Killion & Harrison, 2006). Boston Public Schools district utilized the coaching model from 1998 to 2004 and reported that student scores increased on the *Massachusetts Comprehensive Assessment* (Killion & Harrison, 2006). South Carolina schools demonstrated student achievement gains as a result of using coaches in their school improvement efforts. Schools that used coaches were compared with schools without coaches in the South Carolina study. It was found that third graders showed more gains when compared to third graders who were in schools with no coaches where schools reported no achievement growth (Killion & Harrison, 2006).

Staub, West, and Bickel (2006) provided a model of coaching that included teachers collaborating to design and implement lessons and coaches providing assistance with the procedure. Also, the components of Costa and Garmston's (1999) *Cognitive Coaching* (i.e. pre-observation conference, observation, and a post-observation conference) were utilized in this particular design of professional learning. Coaching conversations were guided by two goals: student learning and professional learning by the teachers. The focus was on the curricular content and the way it was taught to ensure the students' grasp of meaning.

Roles of the Instructional Coach

Interventions can seem overwhelming to coaches and teachers when they are searching for research-based strategies to make instructional coaching effective (Knight, 2007). In order to streamline this process, researchers at the *University of Kansas Center for Research on Learning* have developed the *Big Four*. This is an organizational framework for coaches to place interventions in the areas of behavior, content knowledge, direct instruction, and formative assessment (Knight, 2007).

Effective instructional coaches assist teachers with behavior strategies that are some of the most challenging areas of instruction especially for beginning teachers (Knight, 2007). They become a major service to teachers as they help them find methods of management for their classrooms. When environments are chaotic, implementation of strategies becomes blocked, and teachers become discouraged and physically exhausted. Coaches model effective methods through the use of effective strategies and encourage teachers to attend to the type of behavior that they want their students to emit. Time on task is monitored in order to make teachers aware of situations that may be undermining their management styles of this particular area of the *Big Four* (Knight, 2007).

Coaches work with content to help teachers align their lesson plans to state standards by identifying essential knowledge, questions, and necessary vocabulary in order to reach objectives. When teachers have a well-managed classroom and know the content, they are able to focus on instruction in order to teach the content for mastery. In order to accomplish this, coaches assist teachers in the use of strategies such as advance organizers, high-level questions, and quality assignments in order to help them develop good instructional tools. Finally, coaches assist teachers with diagnostic, formative, and summative assessments in order to determine the mastery of concepts by their students (Knight, 2007). Knight's *Big Four* enables the coach to focus on these specific areas of classroom practice.

The Annenberg Institute for School Reform (*AISR*) (2004) collaborates with urban schools that are engaged in school improvement. AISR (2004) recommends the utilization of instructional coaching because this organization views this as an effective method of staff development. *AISR* (2004) believes that effective coaches should be knowledgeable of adult learning and change theories. Additionally, coaches should address issues such as equity in learning opportunities for students and teachers of disadvantaged schools. In general, *AISR* views

coaching as an opportunity for the district to enhance their professional development programs in order to improve classroom practice and student achievement. *AISR* (2004) has developed a set of concepts for coaching, and these involve collaboration, embedded staff development, focus on content, data analysis, and connected leadership across the district that promotes ownership of curriculum among all stakeholders in the system. *ASIR* (2004) has found that district goals and standards should be the driving force for all coaches to foster a cohesive approach to staff development that is equitable for all schools. Instructional coaches should serve as liaisons between teachers and administrators and should work between the school and the district, and they should have central office support with staff development to help implement district initiatives effectively. Coaches need constant professional learning to build the practices that they share with teachers. The coaching focus should be on content and teaching practice. AISR (2004) suggests that effective coaching will "include content learning, data analysis, and approaches to documenting ongoing work in ways that will create greater capacity" (p. 8).

Coach as Facilitator of the Community of Practice

Effective facilitators possess many key qualities to enable a community of practice (Garmston & Wellman, 1999). Facilitators should be flexible, be able to improvise, use reflection, and be competent professionals. As they work with groups, facilitators should understand the dynamics of meetings and provide structures and goals. Knowledge of strategies that keep the energy of the meeting flowing should be evident as they recognize emotional states, intentions, and educational beliefs.

Instructional Coach as Mediator for the Individual Teacher

As mediator, the instructional coach works directly with individual teachers to implement strategies and to promote professional growth. Costa and Garmston (1994) provided the basis in their *Cognitive Coaching* approach for many strategies that are being used to provide individual coaching. They suggest that *Cognitive Coaching* focuses on three major goals, and these are maintaining trust, mediating learning, and enhancing growth toward holonomy. Central to this process is teacher and coach learning as they move toward new behaviors and skills. *Cognitive Coaching* operates on the premise that learning by teachers results in student achievement and

asserts that educational innovations are not fully implemented without someone coaching the effort. These individuals define a mediator as one whom:

- diagnoses and envisions desired stages for others;
- constructs and uses clear and precise language in the facilitation of others' cognitive development;
- devises an overall strategy through which individuals will move themselves toward desired states;
- maintains faith in the potential for continued movement toward more autonomous states of mind and behavior; and
- possesses a belief in his/her own capacity to serve as an empowering catalyst of others' growth (Costa & Garmston, 1994, p. 17).

The roles of the instructional coach work collaboratively and individually to support continuous learning. As instructional coaches facilitate communities of practice and connect the knowledge built by this group to the classroom, they use experience and expertise to provide assisted learning (Costa & Garmston, 1994).

Teacher Discourse in Community and Classroom as Process for Learning

Communities of practice provide a place for teachers to collaborate and to discuss issues and problems that they confront on a daily basis which affect school reform and the process of building capacity (Horn & Little, 2010). However, the effectiveness of group interactions may be constrained by the difficulty to express classroom experiences to the groups. Also, privacy issues, differences of opinion, and the many tasks that teachers have to accomplish may complicate the authenticity of the group. Horn and Little (2010) examined the conversations of two communities to determine how these interactions affected learning. Their discourse analysis included conversational routines that referred to the patterns of talk such as the flow, the way members took turns talking, goals and tasks, and the constraints that may have prevented individuals from expressing themselves completely. They looked for patterns of talk that may have revealed affordances and growth that become evident through talk, gestures, and artifacts. This analysis used a subset of data from the earlier study reviewed in this work (Little, 2003). She proposed that classroom implementation of new strategies is unlikely without a method of interaction, support, and learning among teachers who teach in the same areas. The Horn and

Little (2010) analysis looked at two groups in the same high school to identify commonalities as contrasted with the Little (2003a) study that examined several high schools.

Discourse in Community

Horn and Little (2010) conducted a discourse analysis using the groups who taught different subjects, English and mathematics. They conducted interviews, observations, and audio-taped teacher meetings. However, the focus was on the audio-taped meetings in order to look at the dynamics to determine if there were opportunities for "teacher learning and improvements in teaching practice" (p. 188). Horn and Little (2010) looked specifically at conversational moments where problems were posed and identified them as indicators of knowledge construction. They wanted to determine the role of teaching and learning in teacher talk, the areas of teaching that teachers referred to, whether or not the talk was authentic, and how the group as a whole reacted to a particular problem. They mapped teacher talk by using transcripts, marked shifts in topic, and identified members of the group talking. This allowed them to identify specific problems to determine how or if they followed up with more conversation and if teachers asked for help. Routines were followed in the groups. The mathematics teachers used a method of "check-in" where each person reported on what was going on in that individual's classroom. This served them well as they worked on instruction and reacted to problems. The English group reviewed lesson plans to determine curriculum and activities, and they discussed problems of implementation.

The analysis revealed that the mathematics group was more likely than the English group to surface problems of practice, and in both groups, problems were expressed in the first part of the semester more than the end (Horn & Little, 2010). The researchers looked for similar conversational events for learning to determine how the groups processed the problems differently to make sense of teaching. They used a 17-minute episode to conduct a small comparative case study design to contribute "to theories of the conditions conducive to instructional improvement" (p. 192) as compared to making general claims about communities of practice."

In one example of *routines*, a mathematics teacher posed a problem that involved a classroom where she was using geoboards to teach geometric shapes. She felt that the lesson was not effective because of classroom management problems (Horn & Little, 2010). The teachers in

her group were quick to *normalize* as they assured that similar events had happened to them. Then, they began to *specify* the source of the problem by asking probing questions. Next, the problem was *revised* by the teacher and members of the group as they attempted to provide a deeper version of the problem that included specifics identified. In the final stage of discussing the problem, *generalizing* occurred as the individuals moved from accounts of teaching to general principles of teaching thereby constructing new learning. This construction of knowledge involved joining the individual teacher's ZPD that included accounts of classroom problems to new concepts of teaching.

  Normalizing, specifying, revising, and generalizing are steps of problem-solving that were found to be used by these communities (Horn & Little, 2010). This positioned the teacher as being in control of the situation as the individuals' intentional actions had a better chance of becoming a reality in the classroom as they constructed their own knowledge and understanding of solutions to problems. In the example of the geoboard lesson problem, teachers moved from the specifics of the situation to general principles of experience and best classroom practices. This allowed them to make the presenter of the problem feel more at ease and not to leave the individual in the situation but to pose solutions from methodology. Had they not moved to the general principles, the session would have become a gripe session. Likewise, if the teachers had not *normalized*, the person that presented would have had to made sense of the principles without reference to prior classroom knowledge.

  There are situations in community where conversation may not be as beneficial to the problem-poser (Horn & Little, 2010). In one example that occurred in the English group, a teacher provided a "walk-through" of a writing lesson with the prompt "My First Memories of Reading." A teacher made a negative remark suggesting that she had no memories at all. Another teacher tried to laugh it off, and the individual with the problem ignored the comment. However, the interrupting teacher continued to gain the floor to express disdain with the prompt and related that she had no memories of which to write. Eventually, the teacher who presented the problem came up with a solution but without much specificity and generalizing to general principles. This scenario that occurred in the English group contrasted to the mathematics group experience in that those individuals spent time specifying and revising so that the individual could revise, change, or accept possible solutions. In the English group, the normalizing procedure placed the individual in a unique position of having the problem, however, the

mathematics group normalized the problem as one that they had all experienced; therefore, learning was experienced by members of the entire group and was not made to become a personal problem but one that involved instructional capacity (Horn & Little, 2010). Additionally, the "walk-through" lesson procedure used by the English group was later critiqued as being focused on telling about part of the unit plan and not a collaborative effort of the group.

Both groups had goals for student achievement and school reform; however, their patterns of conversation made for differing experiences (Horn & Little, 2010). The mathematics group shared previous knowledge and possessed a network of resources to strengthen their abilities. Contrastingly, the English group had few resources to draw upon and did not have a common curriculum on which to construct. Horn and Little (2010) concluded that their "claim here is not that the Algebra Group's conversational routine can be taken up in isolation as a protocol for other teacher groups but rather that it is, in part, an outgrowth of engagement with a larger set of learning resources" (p. 211). Consequently, a common resource base should be present to assist teachers as they work to collaboratively construct knowledge, and affordances should be geared toward enhancing the teacher's sense of efficacy to promote learning and implementation in the classroom.

The mathematics and English groups differed with leadership (Horn & Little, 2010). The mathematics group had co-leaders who had reputations for building community and felt responsible for providing mathematical curricular resources for the group. They directed the group toward problem-solving. In contrast, the English group had did not have the support and guidance from the leaders of the group and did not provide needed resources. The conversation focused on describing units of instruction rather than collective construction of knowledge. There was only one instance where the department chair referred back to classroom experience to build knowledge (Horn & Little, 2010). Consequently, leadership was an important factor in the success of the groups.

Discourse in the Classroom

Conversational learning occurs in community; however, it does not stop there as it can continue into the classroom environment through the use of instructional coaches who use discourse to provide feedback for teachers (Helman, 2006). Previously in this review of the literature, the activities and characteristics of instructional coaches identified conversation as

being important in assisting pre-service, novice, and veteran teachers in order to provide continual learning.

Helman (2006) discussed coaching conversations and takes her work from Athanases, Abrams, Jack, Johnson, Kwock, McCurdy, and Totaro (2008). Athanases et al. (2008) conducted a study which investigated mentoring and coaching strategies with the goal of creating a curriculum for mentoring new teachers. A research team used six mentors over a two-year span to implement this study. They used data from four mentor-new teacher pairs. These coaching conversations were transcribed and analyzed to identify common themes in the actions of the mentors. In a focus group, participants in the study were asked to provide reflection on the activities. Field notes were used to identify needs and themes which were utilized in the formation of the mentor curriculum.

Helman (2006) found that coaching conversations were used to extend teacher thinking, to suggest a strategy, and to align lessons with standards. To extend teacher thinking, coaches used clarifying questions, they paraphrased, probed, made connections, and paused for teacher input. These interactions were designed to extend the teacher's ZPD by building upon prior learning experiences. The coach connects to knowledge that is built in the collaborative group and then provides further associations to specific classrooms to extend thinking. This can be accomplished through direct teaching such as providing information on a specific method, collaborating with the specific teacher to execute an activity, or facilitating through providing support as the teacher implements. Athanases et al. (2008) found that conversations between a coach and a teacher provided opportunities for reflective conversations and for teaching content. Additionally, Athanases et al. (2008) provided a curriculum model for mentors and coaches that include observational tools for reflection of activities that are used in pre-observation and post-observation conversations.

Summary

Darling-Hammond (2000) found a significant relationship between teacher quality and student achievement that was stronger than other variables that may affect school improvement. Reports by *Learning Forward* (2009) and *National Comprehensive Center for Teacher Quality* (2010) promoted learning models for educators that include components such as communities of practice and coaching that provide structure for continuous teacher learning.

Processes in the learning structures of collaboration and coaching are the conversations and explanations that occur among the community's participants. Little (2003a) and Horn and Little (2010) employed a discourse analysis to determine the way teachers work together in community and how conversation, gestures, and artifacts are used as entry points for knowledge construction in this structure. Instructional coaches provide an addition to professional learning in these communities as they offer assistance to teachers directly in the classroom (Helman, 2006). Ultimately, coaches serve as instructional leaders, as facilitators of communities of practice, and as assistors for individual teachers, to provide assisted learning for continuous growth and capacity-building in schools (Cantrell & Hughes, 2008).

Horn and Little (2010) provided a model for research to analyze discourse interactions in communities of practice. They used audio recordings and looked for patterns of discourse to determine the way teacher conversations can lead to understandings. These researchers identified patterns that provided significance for assertions concerning the methods that teachers utilize as they work together in community. However, little information is available concerning the actual interactions that take place in community and coaching conversations and the ways that this enhances or limits teacher learning. This lack of information leads to the questions that provided focus for this study. Chapter three provides methods of analyzing these interactions with the goal of providing insight into this paradigm of professional development.

CHAPTER THREE
METHODOLOGY

The purpose of this chapter is to describe the methodology used in this investigation. The goal of this research project was to determine the content of the discourse occurring in grade-level meetings and coaching sessions and participants' perceptions of how the conversations in these two venues impacted learning and practice for individual teachers. The content of the discourse that occurred during the meetings and coaching conversations was described to provide assertions and conclusions. Additionally, teachers and instructional coaches were questioned to determine the extent to which they perceived that the processes were beneficial to the classroom environment. This investigation used a case study format and field research which focused on the collaborative discourse, individual teacher discourse, and instructional coach discourse revealed in conversational routines in one grade-level group instantiated in one elementary school.

Research Questions

The goal of this research project was to determine the content of the discourse occurring in grade-level meetings and participants' perceptions of how the conversations in these two venues impacted learning and practice for individual teachers.

1. What is the content of the discourse among teachers and the instructional coach in grade-level meetings?
2. What is the content of the discourse among teachers and the instructional coach during individual coaching sessions?
3. What did the instructional coach and teachers say they learned from the grade-level meetings and coaching discussions?
4. What did the teachers say that they would do differently in their classrooms based on their grade-level meetings and coaching discussions?
5. What did the teachers and the instructional coach say that they learned from the grade-level meetings and the coaching sessions and did differently in their classrooms that supported the goals of the *School Improvement Plan* and the *Twenty-Day Plan*?

The sections of this chapter include (a) research design to be used for the study, (b) setting and participants, (c) data sources and collection procedures, (d) data analysis procedures, (e) validity/reliability of the research process, (f) and the method of results.

Research Design

This qualitative case study utilized a descriptive content analysis of the discourse that occurred in grade-level meetings and individual teacher-instructional coach sessions. The goal of this research project was to describe the content of the discourse occurring in grade-level meetings and coaching sessions and participants' perceptions of how the conversations in these two venues impacted learning and practice for individual teachers. Patterns of content identified in the discourse provided support for findings and assertions made about the data.

According to McDiarmid and Clevenger-Bright (2008), teachers work together in groups to determine how to implement curricular resources and methods of instruction. During this process, teachers share practice through interacting with each other in this "socially mediated and contextually situated" (p. 145) context of learning. It is in these conversational interactions that teachers develop an "understanding of their role, the purposes of schooling, and core educational concepts and skills" (p. 145). McDiarmid and Clevenger-Bright view continuous learning as collective activities that occur in conversational interactions throughout the timeframe of instructional activity. This study analyzed such interactions from grade-level meetings and the coaching sessions in order to provide empirical research data to shed more light the process of situational and job-embedded learning.

In order to describe the content of the discourse, the investigation utilized a *field research* approach. Bailey (2007) defined *field research* as "the systematic study of ordinary activities in the settings in which they occur" (p. 1). The goal is to investigate activities in which the individuals in the setting are participating and to determine how these actions impact the individuals. Field researchers collect data by "interacting with, listening to, and observing people during the course of their daily lives, usually in some self-contained setting, such as an elementary classroom, a street corner, a car dealership, or a public housing community" (p. 1). This is done to answer research questions and to provide data for projects to build theory or to conduct descriptive or exploratory research. This study utilized field research to observe people in an elementary school to provide data in order to describe the content of the discourse.

In the field research conducted in this study, a specific type of *discourse analysis* was utilized. According to Gee (2011), a *discourse analysis* "is the study of language-in-use" (p. 9). The research conducted in this ethnographic work utilized specifically a content discourse analysis that analyzed conversational interactions (McDiarmid & Clevenger-Bright, 2008) to

identify categories of content that were being discussed. According to Gee there are various methods of utilizing a discourse analysis and no two investigations of this type are the same. This analysis described the content of the grade-level meetings and the coaching conversations to find content categories of discourse that provided insight into the job-embedded learning occurring at this particular school.

Gee (2011) explained that there are two major approaches to conducting a discourse analysis: descriptive and critical. He defines the descriptive as describing language and the critical as looking for problems and social and political issues. Gee (2011) made the point that both approaches are needed because language is social and political and that an individual uses language to navigate these social and political issues. Gee stated that discourse analysts should study language to answer questions about the way individuals construct cultures and institutions. Gee's underlying theory is that "language has meaning only in and through social practices" (p. 12). This investigation analyzed specifically the content of the language and the educational context in which it was used in an analysis that emphasized a descriptive approach. Some critical observations that dealt with the distribution of social power were provided, and Gee stated that this "can illuminate issues about the distribution of social goods, who gets helped, and who gets harmed" (p. 10).

Gee (2011) has identified seven constructions that individuals use when they are speaking in order to make meaning of situations. The first construction has to do with the way individuals determine significance of what is being said in conversations and how this relates to the context of where the actions are taking place. Next, activities are provided in context of the conversation and how they are relevant to what is being said. Identities of individuals are considered and how they relate to the context of the conversation. Relationships that are built between and among individuals are important the context of what is being discussed. Politics comes into play as individuals consider social goods and how they are distributed and viewed as being distributed in the group. Connections are considered between individuals and things and how they connect to the context. Finally, "sign systems (languages and social languages) and forms of knowledge (ways of knowing)" (p. 102) are important in regard to how they are used and valued in the context of the conversations. Individuals "build on what is said and what [they] infer from the context" (p.102). Gee viewed these seven constructions as central to the work of making meaning in discourse. When looking for assertions from the data in this investigation,

significance, activities, relationships, politics, connections, and language were considered to provide a deeper description of the content.

Gee (2011) stated that "actual discourse analyses will rarely, if ever, fully realize the ideal model" (p. 149) and that there is not set method of conducting a discourse analysis. However, the data will provide patterns that assist the researcher in identifying specific assertions. This investigation did not use a specific analysis of language structures as many discourse analyses employ. Discourse was analyzed to detect content discussions that might provide descriptions of the teacher interactions that McDiarmid and Clevenger-Bright (2008) suggested that teachers use to "create learning opportunities" (p. 145).

In an example of a work that utilized a specific type of discourse analysis, Horn and Little (2010) provided an example of methods used to analyze conversational routines in groups of teachers, specifically grade-levels. In comparison, this current investigation utilized the field research format (Bailey, 2007) and conducted an analysis of the conversation interactions during grade-level meetings. Additionally, an analysis was made of the teachers' perceptions of how they implemented understandings with the assistance of the instructional coach in their classrooms. The research questions were designed to investigate the interactions specifically in the fifth-grade level at an elementary school. Additionally, the questions provide insight into the coaches' roles in the grade-level meetings and in the coaching conversations with individual teachers. The grade-level-coach study is similar to Horn and Little's (2010) study in that it involved actions in the grade-level meeting; however, in contrast, this current investigation went a step further to consider the roles that the coaches played in the process.

In addition to the content discourse analysis, teacher and instructional coach interviews were conducted to determine teachers' and coaches' perceptions of the effects of the professional learning on teacher growth and beliefs about their ability to implement understandings from the grade-level meetings. The interviews were conducted with the fifth grade-level teachers and the coaches. Teachers were asked about the actions that occurred in the grade-level meeting and the role of the instructional coach. Also, the teachers were asked what they did differently in the classroom as a result of their participation in the group. Coach interviews were conducted to determine their perspectives on what occurred in the grade-level meetings and during coaching. Additionally, two coaching sessions were taped to provide information concerning the perceived role of the instructional coach in the process. Two documents created at the participants' school

were analyzed, the *Twenty-Day Plan* and the *School Improvement Plan,* which described goals for the beginning of the school year and the entire year to help set the context for the year.

Participants

This study was conducted at an elementary school that is located in a school district in the eastern United States. The school is located in a high poverty neighborhood and draws its students from the local neighborhood as well as several subsidized housing projects. This school did not make *Adequate Yearly Progress* (*AYP*) for 2008-2009 and 2009-2010; however, for years 2010-2011 and 2011-2012, it made its AYP goals. All teachers at this school met the federal definition of being highly qualified. Out of the sixty-three teachers, sixty-three of their teachers hold a bachelor's degree and thirty-seven have earned master's degrees.

Because of its previous *AYP* status, the school was required to attend school improvement training and to submit an electronic school improvement plan with school objectives that details steps for achieving *AYP* benchmarks and state accreditation. As part of the school improvement efforts, the staff has worked with a private school improvement foundation (New Teacher Center) to provide local training to teachers regarding effective strategies for teacher and student learning. This training included methods of collaborating with each other and analyzing student data. Their efforts have included the utilization of two instructional coaches and the implementation of grade-level meetings. The school had demonstrated student gains in the past two years as documented by state assessments and local benchmarks. Additionally, district leaders had used this school as a model for other schools to observe with regard to how they conducted their grade-level meetings. For these reasons, the school was selected for this study to observe their grade-level meetings and the role that the instructional coach played in teacher growth.

In order to receive permission to study this school, a phone call was made to the principal who granted permission. The principal selected the fifth grade to study, and all of the teachers from this level were included in the study along with the assistant principal-instructional coach (AP/IC), the instructional coach, and the principal. Informed consent forms and letters (see Appendices C and D) were offered to and signed by each participant involved in the research before any work was started. No remuneration was provided for the participants.

Participants in the grade-level meeting were identified by a letter-number system to ensure confidentiality. Pseudonyms were used for each of the participants for reporting the results of the analysis. Table 1 provides the participant letter-number, years of experience, a description of their role, and the assigned pseudonym.

Table 1

Participants Numbers, Their Description, Years of Experience and the Pseudonyms Assigned

Participant Number	Description	Years of Experience	Pseudonyms
S1	Principal of the School	Twenty	Mike
S2	Instructional Coach and Assistant Principal (IC/AP)	Seventeen	Diane
S3	Mathematics Teacher	Six	Tina
S4	Grade-level Chair and Reading Teacher	Twenty-seven	Joyce
S6	Science Teacher	Three	Allie
S7	Reading Teacher	Three	Liz
S8	Instructional Coach	Thirteen	Michelle

Data Sources and Collection Procedures

This study used Bailey's (2007) definition of field research to observe settings where activities are located, and the goal of this investigation was to determine the content of the discourse occurring in the grade-level meetings and coaching sessions and the extent to which the participants' perceptions of the conversations in these two venues impacted learning and practice for individual teachers. As Horn and Little (2010) said concerning their research and this researcher concurs, this work is not to be generalized to other groups but to provide documentation of processes that may impact teacher growth opportunities. A digital audio recorder was used to record the grade-level meetings and conversations between the teacher and the coach. Interviews were conducted and recorded with teachers from the fifth grade-level and the coaches. The *School Improvement Plan* and the *Twenty-Day Plan* were analyzed along with field notes taken by the researcher.

Chronology of the Researcher and the Study

August 2004 - June 2009 - Team Leader at Roanoke Academy for Mathematics and Science, Roanoke, Virginia - Managed School Improvement Plan

August 2008 - Current - Instructional Coach/Mentor at Hurt Park Elementary School, Roanoke, Virginia - Process Manager for School Improvement Plan

August 2009 - June 2011 - Lead Coach for Roanoke City Public Schools

August 2009 - April 2012 - Mentor Training from *New Teacher Center*, Santa Cruz, CA

July 6 - 29, 2010: Pilot Study conducted to research the following question: Does instructional coaching enhance teacher efficacy in the areas of engagement, instruction, and management?

July 2010 - March 2011 - Participated in training from the Virginia Department of Education

August 3, 2011: Prospectus Examination - Receive permission to begin the study

August 10, 2011: Proposal to School District and Virginia Tech *Institutional Review Board (IRB)*

August 22, 2011: Consent Forms to Teachers and all involved at school

August 25, 2011: Forms Collected

September 6: Community of practice *Observation*

September 13: Community of practice *Recorded*

September 20: Community of practice *Observation*

September 27: Community of practice *Recorded*

October 4: Community of practice *Observation*

October 11: Community of practice *Recorded*

October 25: Community of practice *Observation*

November 1: Community of practice *Observation*

Table 2

Research Questions and Data Sources

Research Question	Data Sources	Timeline and Specifics
What is the content of the discourse among teachers and the instructional coach in grade-level meetings?	• Audio Tapes of the Groups • Field Notes • Interviews with teachers and instructional coaches	• Began Field Notes August 5, 2011 • Selected Grade-level • Recorded groups beginning on September 6, 2011and ending on November 1, 2011
What is the content of the discourse among teachers and the instructional coach during individual coaching sessions?	• Audio Tapes of the Coaching Sessions • Field Notes • Interviews with teachers and instructional coaches	• Recorded teacher and coach sessions that occurred with individuals from the grade-level meeting beginning the week of September 6
What did the instructional coach and teachers say they learned from the grade-level meetings and coaching discussions?	• Audio Tapes of the Coaching Sessions • Field Notes • Interviews with teachers and instructional coaches	• Conducted interviews by October 28, 2011
What did the teachers say that they would do differently in their classrooms based on their grade-level meetings and coaching discussions?	• Interviews with teachers and instructional coaches • Field Notes	• Began interviews with selected teachers on September 6, 2011.
What did the teachers and the instructional coach say that they learned from the grade-level meetings and the coaching sessions and did differently in their classrooms that supported the goals of the *School Improvement Plan* and the *Twenty Day Plan*?	• School Improvement Plan • *Twenty-Day Plan* • Interviews with teachers and instructional coaches • Field Notes	• Reviewed School Improvement Plan August 25, 2011 • Reviewed *Twenty-Day Plan* August 25, 2011 • Compared with group discourse content, coach discourse content, and interviews.

Grade-level Groups and Coaching Conversations

The grade-level meetings of the fifth grade team were audio recorded at this school beginning on September 6, 2011 and continued weekly through November 1, 2011. They began at 11:30 A.M. and continued until 12:10 P.M. This was done for nine consecutive weeks to record the actions occurring in conversations among the administrators, coaches, and teachers during this time period. This researcher attended eight of the nine meetings, and the instructional coach recorded one of the meetings. This time period covered the first nine weeks grading period

of the school year. This enabled this researcher to study a particular period of time to observe the actions of the teachers and the instructional coaches.

The meetings were approximately forty minutes long and were held during the teachers' planning blocks. The observation process was similar to Little's (2010) discourse analysis which utilized audio recordings to focus on conversational moments that revealed patterns of discourse. In contrast, this investigation emphasized the content of the discourse which is different from Little's analysis which detailed more of the language structures of the conversations. Nonetheless, Little's research provided an example using teacher collaborative groups to provide ethnographic data. This investigation extended the discourse analysis to the individual conversations of the instructional coach and the teacher to search for growth opportunities for teachers. In Horn and Little's (2010) analysis, segments of discourse in grade-level meetings provided indicators of content shifts. This work used a similar approach to code content segments of discourse in grade-level meetings to determine shifts in topics of content.

This researcher attended and recorded eight out of the nine fifth grade-level meetings through the use of a digital recorder, and one of the meetings was recorded using the same type of recording device by the instructional coach. Initially, this researcher felt that the instructional coach would record every other meeting. However, after attending the first meeting, it became evident that the researcher needed to attend as many meetings as possible in order to attend to other factors such as body language, room structure, and other occurrences that may affect the details of the grade-level meeting and include these in field notes. The researcher could not attend one meeting which was therefore recorded by the instructional coach.

The setting of the meetings occurred in the IC-AP's office that was located next to the main office area of the school. This room was the size of a small classroom and included a desk area for the instructional coach-assistant principal with a computer and a printer. The room had a large flannel board that was on wheels which was placed next to the desk area that was used for data on one side and could be turned around for a bulletin board. Four rectangular classroom tables had been placed together to construct a larger table that would be about the size of a conference table with classroom chairs. The IC-AP and the principal set at the end of the table next to the door and the projector. End side of the table had room for about three chairs and the far end of the table had room for two chairs. Usually, the teachers sat on the sides of the table across from the instructional coach-assistant principal and the principal. This researcher sat in the

back of the table to be as nonintrusive as possible. The room was very full of furniture and had little walk space. A computer and projector were used for presentations and to provide online data for discussions. A bulletin board was on a wall and included data from the *I Station* online reading program that the school utilized to supplement their literacy instruction. The walls of the room were usually covered with chart paper with information from the meetings. This could have been for the current meeting or for past meetings. Most of the charts followed a protocol that included a list of strategies that were working, strategies that were not working, and next steps.

Coach-Teacher Conversations

A digital recorder was purchased and provided to the coach to record conversations as they happened during the time for the study. There were two conversations that occurred during this nine weeks period that were approximately 40 minutes each and were recorded by the instructional coach. Plans for this research were to have more conversations recorded. However, during the interview process it became apparent that most of the conversations by the instructional coach and the instructional coach-assistant principal were informal and occurred spontaneously. Details of these conversations became apparent in the interviews with the two coaches and the four grade-level teachers.

Interviews

Interviews provided teachers' and coaches' perceptions as to whether or not they believed that the understandings from the grade-level meetings provided information that was used in their practices (see Appendix D). They were asked about the helpfulness of the coaching process and if they felt that these actions impacted their practice. Additionally questions inquired about their perceived professional growth and their sense of efficacy. The coaches were asked if they believed that the grade-level meetings were helpful and what specific actions were accomplished as a result. They were asked if they felt that their actions as a coach were helpful to the professional growth of the teachers. The interview data provided material to compare and contrast with information gathered from discourse recordings to help to identify patterns.

Bailey (2007) suggested that interviews are utilized in field research to supplement verbal data and field notes by allowing the researcher to ask questions related directly to the research.

There were specific questions asked of the teachers that were organized by topic and which were guided by the flow of the interview. The interviews were scheduled in advance, had a time designation, and were conducted in the teachers' rooms.

The researcher recorded individual interviews with the four grade-level teachers and the instructional coach. The IC-AP had formerly served for the last three years as instructional coach along with the current instructional coach. She was interviewed because she and the teachers felt that she continued to operate primarily as an instructional coach. She viewed her role as assistant principal as secondary to her main responsibility of assisting teachers. Therefore, her role was considered in this research because she played such an integral part in the instructional process and the capacity building that occurred at this school and was still considered an instructional coach and mentor by the teachers and staff. Her dual role as instructional coach-assistant principal was designed based on leadership concepts that she studied through academies based on the research of Athanases et al. (2008) which provided strategies designed to mentor teachers.

Documents that Focus on Instructional Practice

Two key documents that informed the school's work related to instruction were collected and analyzed in this study: the *School Improvement Plan* and the *Twenty-Day Plan. The School Improvement Plan* listed goals for the school for the entire year with activities that were designed to assist the school as they worked toward the goals. Dates of completion and persons responsible for each task were recorded. *The Twenty-Day Plan* detailed instructional events and procedures that were planned to take place during the first twenty days of school which began with the first student day of classes (August 29, 2011) and ended at the twentieth day (September 23, 2011). The purpose of this plan was to provide a map of strategies that assisted in setting the learning environment for the year. Both of these plans were created before the beginning of the school year.

To summarize, the data collection procedures included an analysis of grade-level meetings, coach-teacher conversations, interviews with fifth grade staff, and documents that focused on instructional planning. The goal of the research was to analyze the nature of the discourse that took place in these venues to determine how they impacted growth opportunities for teachers. Recording of meetings and coaching conversations provided verbatim discussions

that were compared with the field notes, interviews, and documents to reveal patterns that supported findings in this research.

Data Analysis Procedure

According to Bailey (2007), an analysis of qualitative research can be conducted much like a story-telling experience. This narrative analysis focuses on creating a story much like a fictional novel; however, this type of story analyzes nonfiction data as the storyteller crafts the narrative from events in the story. This narrative has plot, characters, settings, and events and uses induction to explain and to interpret the actions among all of the participants. Bailey (2007) suggested that when observing conversations to look at speech patterns to determine if slang, swear, or technical words are used. Attention should be paid to who controls conversations and who possesses the power to give directives and the extent the individual uses the control and power. Additionally, focus should be on whose suggestions are followed or rejected, what members of the group are rejected or ignored, who interrupts and who does not, and how these interactions denote power and status ranking in settings. In this study, these factors that may or may not influence learning were observed to determine the role of power in conversation.

Bailey continued to suggest that the tone of the conversation is important to determine if it is "polite, hostile, relaxed, instrumental, playful, or formal" (2007, p. 91). These factors affect meaning and the implication of what is being said. Audio recordings are the preferred way to document conversations; however, Bailey suggested that field notes be used to supplement implications of speech that may not be captured on tape. This could change the meaning of something that is transcribed but does not have meaning exactly the way it was said, and body language and intonation could shed light on the authenticity of the comment. In this study, field notes were used with recorded conversations to capture these characteristics of conversation.

In this investigation, verbatim sources provided data that identified specific actions involving concepts or ideas identified in the review of the literature associated with capacity building and teacher growth. A list of these concepts is provided in *Table 3*. Whether or not these instructional concepts and other concepts were present in the data was identified during the process of coding the transcriptions of the coaching and grade-level conversations and looking for categories of concepts made of similar codes grouped together (Creswell, 2005). As

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individuals build their practices, they reify concepts such as the ones listed in *Table 3* in order to make meaning of their everyday existences (Wenger 1998). Groups use and produce "tools, symbols, stories, terms, and concepts (p. 59) as they build practice. This research identified categories of content that demonstrate how this particular school provided learning experiences through connecting competence of more experienced individuals to the experience level or ZPD of other individuals as they worked together reifying concepts in order to make meaning and to build practices through collaboration.

Table 3

Identified Concepts Associated with Capacity-Building

Identified Concepts	Research
Problem Solving	(Horn and Little, 2010)
Building Relationships	(Herbert and Hatch, 2001)
Professional Learning Concerning Students From Diverse Populations	(Wenglinsky, 2000; Little, 2006)
Teacher Included in Decision Making	(Sergiovanni & Starratt, 2006)
Content Area Focus	(Saxe, Gearhart & Nasir, 2001)
Analysis of Student Artifacts	(Little, Gearhart, Curry & Katka, 2003)
Teachers Learning at Their Instructional Level	(Feiman-Nemser, 2001; Tharp & Gallimore, 1988; Vygotsky, 1978)
Team Assisted Performance	(Tharp & Gallimore, 1988)
Sharing of Prior Learning by Teachers	(Shulman & Shulman, 2004; Vescio, Ross, & Adams, 2008)
Holonomous Learners	(Costa & Garmston, 1994)
Authenticity of the Conversations	(Grossman, Wineburg & Woolworth, 2001)
High Expectations of Students	(Hipp, Huffman, Pankake & Oliver, 2008)
Use of Protocols and Agendas in Groups	(Wood, 2007)
Discussion of Specific Instructional Strategies	(Strahan, 2003)
Continuation of Learning from Groups to the Classroom with the Instructional Coach	(Knight, 2007)
Efficacy	(Bandura, 1997; Bruce & Ross, 2008; Tschannen-Moran, Hoy, & Hoy, 1998)
Implementation of Strategies	(Bruce & Ross, 2008; Cantrell & Hughes, 2008)
Content Area Coaching	(Knight, 2007)
Coach as Facilitator of Groups	(Garmston & Wellman, 1999)
Coach assisting with teacher learning.	(Helman, 2006)

Creswell (2005) suggested that the process of analyzing qualitative data begins with preparing and organizing the data that has been collected. According to Creswell (2005), the first step is to explore the data through several readings in a preliminary analysis to produce ideas and to determine whether or not the data is complete. Memos are written to document hunches, thoughts, and clues concerning a deeper observation. This investigation began with the transcription of conversations from meetings or interviews from recordings to text files that were formatted with two-inch margins that allowed for comments and analysis. This procedure was completed by the researcher to provide a firsthand experience with the data. Words were transcribed with pauses, laughter, and side bar conversations which could have indicated action that may affect the meaning or connotation of the discourse. This procedure was completed after each grade-level visit, coaching conversation, and interview. Then, the transcriptions were read several times to make connections and to see if more research was needed.

Creswell (2005) recommended that data should be coded by dividing the text into segments that have general descriptors of what has transpired, and this can describe setting and context, perspectives, processes, activities, strategies, or social structures. Afterwards, he stated that the codes should be analyzed for redundancy and narrowed down to a smaller number. Next, codes should be organized into five to seven themes or categories to form a major idea. Themes are major ideas in the data that can be inclusive of content or process ideas found by grouping the codes identified in transcriptions. From here, these themes are layered to provide a broad analysis and interrelated to connect categories that may enhance events described through the text.

The researcher used the observational data that was gathered from attending the grade-level meetings and recorded in field notes, the interviews that were conducted by the researcher, and the coaching conversations that were recorded by the instructional coach to begin the process of looking for similarities. Nine grade-level meetings were recorded and analyzed according to Creswell's (2005) process of coding and categorizing. The recordings were transferred to a flash drive from the audio recorder and then transcribed verbatim. The researcher wanted to experience the transcribing process in order to be able to look for nuances in the conversation. Pauses, laughter, and other occurrences were denoted in the transcriptions and body language and room décor was recorded in the field notes that were taken during each of the recordings.

First readings of the transcriptions were done to obtain a general feeling of what was included in the discourse. The transcriptions were reformatted to include two-inch margins in order to provide space for coding. Initially, there were seventy-nine codes that were found by grouping text according to concepts being discussed. These codes were analyzed for redundancy and finally subsumed into the following seven themes: pedagogical and curriculum issues, data-driven discussions, concerns and mandates, individual students, organization and routines, roles of the coach, and patterns of discourse. These seven themes were interrelated into two broad themes that were process and content. Next, the coded discourse segments were cut apart and taped on a chart according to the category in which they fell. This was done sequentially by month from September to November to provide a chronological map of the occurrences in the meetings. Then, the data was analyzed to look for discourse patterns occurring that revealed participation of the members of the staff and reification of the concepts present in discourse.

The research questions provided entry points for analysis in order to find patterns of discourse. The first two questions dealt with the content of the discourse in the grade-level meetings and the coaching conversations. The categories provided a structure for identifying the content that was discussed in these venues. The sequential monthly charts revealed whether or not the concepts that were reified were continued in subsequent meetings or dropped. Additionally, the data revealed sources of mandates and the roles played by individual members of the group.

Wenger (1998) provided specifics of CoPs that "indicate the three dimensions of a community of practice…a community of mutual engagement, a negotiated enterprise, and a repertoire of negotiable resources" (p. 126). The categories that were identified from the discourse segment codes were analyzed to determine the extent to which this school's grade-level meetings could be considered a CoP. According to Wenger, a CoP is "not a synonym for group, team, or network" (p. 74) but it "requires interactions" (p. 74) just as McDiarmid and Clevenger-Bright (2008) suggested should exist in schools that require continuous learning. A requirement for being mutually engaged is to be "included in what matters" (p. 74) in the interactions that are important to achieving the goals of the community. Wenger defined a join enterprise as "a collective process of negotiation that reflects the full complexity of mutual engagement" (p. 77). Additionally, a joint enterprise includes the participants' "negotiated response to their situation and thus belongs to them in a profound sense" (p.77). The third dimension of a CoP, which is a

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shared repertoire, should include "actions or concepts that the community has produced or adopted in the course of its existence" (p. 83). The data were analyzed to determine if these dimensions were present as evidenced by the characteristics of the learning situations at this school.

Gee (2011) stated that a discourse analysis can provide a method of looking at meaning through the information shared, the actions of the individuals, and the roles that they play in the group. This investigation organized the information shared into the content categories. The actions and the roles that individuals filled were analyzed through the process categories identified. The categories served to provide content and the social context in which it was used to identify patterns that may have supported assertions about the content of the discourse and how this was perceived to enhance or limit teacher learning and practice. This allowed the researcher to look for methods that coaches used to find the *ZPD* of the teacher in order to provide growth opportunities.

Gee (2011) identified seven constructions that individuals make in order to make meaning in social situations designed for learning. Significance, identity, relationships, politics, connections, and language provide clues for looking for patterns of discourse in the context of learning. Bailey (2007) supported the use of factors such as setting, patterns, tone, and power to find significance for speech. This analysis investigated the data to find evidence of these constructions in order to provide support for assertions concerning the growth opportunities for individual teachers in the context of this social learning situation.

The research questions provided the structure for analyzing the information collected. The grade-level transcriptions were presented sequentially in order to reveal the nature of the discourse that occurred. The coaching conversations were analyzed by looking at the transcriptions of the two meetings, and the interviews provided the data to determine what the teachers felt that they learned and what they did differently. The *School Improvement Plan* and the *Twenty-Day Plan* were analyzed to determine their significance. The roles of the coaches were investigated and the patterns of discourse were detailed to provide data. During the entire process of the analysis, discourse exchanges were interspersed to provide examples of actual conversations that may reveal patterns or significance in these social learning situations that might affect perceived learning opportunities for teachers.

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Validity/Reliability or Accuracy of the Data

In order to provide validity and reliability for this study, it is necessary to discuss the stance of the researcher because this individual works in a school as an instructional coach with similar demographics and professional development structure. This researcher has worked for twenty years as an educator, and assignments have included two schools. The individual has served in teacher leadership roles in both schools and as a leader in the instructional coach-mentor program for the same district where the research was conducted. As a result, this researcher was known to the participants as an instructional coach and veteran educator from a neighboring school whose culture is very similar.

The researcher brought a common experience and perspective to this particular case study school that may have provided background but could have additionally biased opinions. Interest lied in what happened in grade-level meetings and the role of the instructional coach in this collaborative effort with individual teachers and how these actions may enhance or limit growth opportunities. As an instructional coach and leader in this field, this educator wanted to know what particular actions in these meetings were useful to the implementation of effective strategies that may be helpful in building instructional and teacher growth opportunities. Training for the researcher was provided by the *Virginia Model for School Improvement* based on work by Redding (2006), and research by Athanases et al. (2008) that provided information, motivation, and experience that assisted with observation in this field study. Nonetheless, this information could have biased the opinions of the researcher toward the guidelines of these particular models of staff development. Additionally, having had similar experiences to those of the individuals at the school could have biased the opinion of what the teachers at this school were doing while being observed. The presence of a researcher could have affected the way that the individuals communicated in the group. However, awareness of these potential biases made the researcher cognizant of this effect, and conjectures concerning the data took this into consideration. Additionally, in each of the meetings observed, the researcher sat in the back of the room and attempted to remain distant from the actual conversation. Only in two cases did the educator join the actual conversation, and this was to provide information about particular programs and not to offer opinions or suggestions.

According to Bailey (2007), the researcher is the instrument in qualitative research, and with this in mind, validity and reliability are defined differently in this type of research when

compared to quantitative research. In the perspective of quantitative researchers, validity and reliability refers to research that is credible; however, with qualitative research "this depends on the ability and effort of the researcher" (Golafshani, 2003, p. 600). As an instructional coach with four years of experience, extensive training in the field by the *New Teacher Center,* and training focusing on school improvement by the Virginia Department of Education, this places the researcher in a unique position as the instrument in this research because of experience working with school reform and the credentials needed to evaluate programs that promote instructional capacity as an expert in the field. With experience and training, the researcher provided expertise in the field that served as the foundation for assertions concerning the actions observed that was based on credible prior knowledge.

In this investigation, conclusions were made concerning the data. Consequently, some researchers (Bailey, 2007) refer to validity and reliability as *trustworthiness* because the emphasis is placed on the method that the researcher arrived at the conclusion as contrasted to whether or not the reader of the research agrees with the findings. There are several ways to establish trustworthiness in field research. One is to keep extensive field notes to provide an audit trail that will provide data to show how decisions were made about analysis and what led to the conclusions. In this investigation, field notes and verbatim transcriptions provided data to demonstrate how assertions were made. Procedures must be detailed to provide exact timing and specifications of the steps taken during the actual process. This procedural information involves "credibility, transferability, dependability, and confirmability" (p. 181). Methods should be appropriate and the presentation of the results must demonstrate that the findings came from the data to achieve credibility. They should be transferable so that they can be generalized to larger and different populations. Interview questions or other methods of collecting data should demonstrate dependability, and researchers can do this in qualitative studies by creating audit trails to demonstrate congruence between the methods and conclusions. This work should be confirmed by providing reflections in the research that connect data and interpretations that are transparent to enable others to see why the direct connections were made. The analysis of the data in this investigation provided connections to the actual conversation exchanges in order to provide support for assertions.

Triangulation was evident as multiple methods of data collection provided sources of data that was compared and contrasted to provide support for the findings (Bailey, 2007). In this

study, field notes, recording transcriptions, and interviews provided information on which to build trustworthiness. Additionally, the details of the information provided enough specificity and rigor so that the study could be replicated and generalized to other settings (Golafshani, 2003). Finally, to establish trustworthiness, expert review began at the onset of the research (Bailey, 2007). A member of the dissertation committee read transcripts and provided suggestions concerning the analysis of the data.

After the data were coded and categorized, they were presented to the principal and the IC-AP. The transcribed data was printed and cut apart into the three major categories and the five subcategories of content by placing the discourse segments that reflected these categories and subcategories on wall charts. The researcher took these charts to the school and presented the research to the principal and the IC-AP. Both of these individuals were asked whether or not they felt that the data reflected the actual events of the grade-level meetings. The individuals responded that they did reflect the events and asked for a copy of the chart that is included in this dissertation with the categories, subcategories, and frequencies of the discourse segments for their future reference.

Reliability and validity or the trustworthiness of the data was established in this study by the methods discussed. This gives the work credibility and provides information for future researchers who may want to replicate or continue the work.

Presentation of Results

The results were presented as a narrative inquiry that Connelly and Clandinin (1990) explained as a relation between people and researchers and the way that the researchers tell the stories of individuals' experiences. This was done through synthesizing the data that was extracted from field notes, interviews, and transcripts of dialogues. In educational research, context and characters are involved and the inquiry relates the experiences that take place (Connelly and Clandinin, 1990). Nespor and Barylske (1991) used this approach to study teacher knowledge construction and utilized teacher narratives to examine the process.

This research used a narrative inquiry to present the analysis of the data. The literature review described concepts that promote instructional capacity of teachers, and this analysis describes categories of content to present the nature of what content was discussed in these social learning situations. Additionally, patterns of discourse and roles of individuals provided

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processes that were present. Bailey (2007) stated that analyzing data required "hard work, thinking, reflection, writing, talking, and immersing yourself in the setting" (p. 175). This investigation utilized all of these requirements, and the story-telling procedure of this narrative served to work through transcripts to identify patterns to support assertions.

Little (2003a) and Horn and Little (2010) utilized a narrative format and employed a discourse analysis to present the way teachers work together in community and how conversation, gestures, and artifacts are used as entry points for knowledge construction in this structure. Additionally, Gee (2011) provided examples of discourse analyses using a narrative format with conversational exchanges. This work follows closely the methods of these researchers and interweaves interactions that may be perceived as enhancing or limiting teacher practice to demonstrate the effectiveness of this particular type of situational and social professional learning.

CHAPTER FOUR
RESULTS

The purpose of this chapter is to present the findings of this investigation into the collaborative discourse that occurred in grade-level meetings and individual teacher-instructional coach sessions by examining the actual discourse that transpired and the data received from interviews and field notes. The goal of this research project was to determine the content of the discourse occurring in grade-level meetings and coaching sessions and participants' perceptions of how the conversations in these two venues impacted learning and practice for individual teachers. Also included is an analysis of the perceptions of the teachers concerning the relationship between discourses with the instructional coach and the instructional coach-assistant principal on instructional practice. The first section of this chapter is organized according to the research questions and contains events and actions that pertain to each research question. The second section contains a thematic analysis of the findings.

The research questions are:

1. What is the content of the discourse among teachers and the instructional coach in grade-level meetings?
2. What is the content of the discourse among teachers and the instructional coach during individual coaching sessions?
3. What did the instructional coach and teachers say they learned from the grade-level meetings and coaching discussions?
4. What did the teachers say that they would do differently in their classrooms based on their grade-level meetings and coaching discussions?
5. What did the teachers and the instructional coach say that they learned from the grade-level meetings and the coaching sessions and did differently in their classrooms that supported the goals of the *School Improvement Plan* and the *Twenty-Day Plan*

Findings

What is the content of the discourse among teachers and the instructional coach in grade-level meetings?

Data analysis resulted in the identification of three major categories of discourse extracted from the audio recordings of the grade-level meetings: roles of the instructional coach, content, and the patterns of discourse evident in the interactions. The roles of the instructional coach and the instructional coach-assistant principal (IC-AP) in the meetings provided a major category and included six roles with fourteen *discourse segments.* The content category included five subcategories: curriculum and pedagogical issues, testing/data, individual students, administrative concerns and mandates, and organizational routines. The third major category included the patterns of discourse. In this analysis, the discourse was segmented into sections to distinguish shifts in conversation that occurred and the focus on particular topics or occurrences. The term discourse segment in this work was defined as sections in the conversations that covered a particular topic or category or particular occurrences such as laughter, reflection, or sidebar conversations. Shifts in segments occurred when the topic changes or the agenda moved to another concept.

Table 4 provides the summary of the analysis of the topics of discussion in the grade-level meetings organized according to each of the categories and subcategories and their frequencies. The largest subcategory listed under the category of content identified was pedagogical and curriculum issues, which had thirty-two discourse segments. The next most frequent discussions occurred in the content category and included data-driven discussions with twenty-five discourse segments. Concerns and mandates had twenty-four, individual students had twelve, and organization and routines followed with seven. Both categories of the roles of the coach and patterns of discourse had fourteen discourse segments each.

Table 4

Categories of Discourse Segments Identified in Grade-level Meetings

Categories of Discourse Segments Identified in Grade-level Meetings					Roles of the Coach (14)	Patterns of Discourse (14)
Content						
Pedagogical and Curriculum Issues (32)	Data-Driven Discussions (25)	Concerns and Mandates (24)	Individual Students (12)	Organization And Routines (7)		
Reading Strategies (8)	*I Station* Data (4)	Mandates for Teachers (7)	Individual Testing Needs of Students (4)	Classroom Organization (4)	Resource Provider (6)	Discussion Strategies (2)
Team Time (8)	Testing Schedules (4)	Teacher Goals (6)	Special Student Groups (2)	Field Trips (2)	Advocate (2)	Reflection (2)
I Station (4)	Benchmarks (3)	Culture of the School (3)	Social Needs (2)	Student Routines (1)	Presenter (2)	Emerging Ideas (2)
After-School (4)	Testing Interferences with Regular Instruction (3)	*I Station* Interventions (2)	Academic Difficulty (2)		Change Agent (2)	Chain of Command (1)
Differentiation of Instruction (3)	Testing-Taking Strategies (3)	Parents (1)	Parents (1)		Providing Instruction (1)	Expansion of Ideas (1)
Professional Learning (2)	Data Wall (2)	Instructional Programs (1)	Remediation (1)		Next Steps (1)	Complaint (1)
Vocabulary (2)	Diagnostic Reading Assessments (1)	Student Motivation (1)	Test Talks (1)			Hesitancy (1)
Homework (2)		Student Safety (1)	Teachers' Roles (1)			Justification (1)
Young Scholars (2)		Attendance (1)				Ah-ha Moments (1)
Lesson Plans (1)		Central Office Mandates (1)				Connection (1)
Classroom Environment (1)		Classroom Management (1)				Interpretation of Ideas (1)
Objective (1)						

This section of this investigation provides an analysis of the subcategories of the content category concerning the nature of the discourse in the grade-level meetings. Grade-level meetings were, by and large, driven by the content; the roles of the coaches, teachers, and administrators shaped how the content was discussed. These five content subcategories are presented as the grade-level meetings occurred chronologically, and they reveal patterns of

discourse and the roles of that the instructional coach, the IC/AP, and the principal played in these events. Table 5 provides a chronological account of the grade-level meetings and the discourse segments covered in each.

Table 5

Agenda of Grade Level Meetings

Agenda of Grade Level Meetings								
Meeting One	**Meeting Two**	**Meeting Three**	**Meeting Four**	**Meeting Five**	**Meeting Six**	**Meeting Seven**	**Meeting Eight**	**Meeting Nine**
Classroom Organization	Classroom Organization	Goal Setting	*Team Time*	*Team Time*	Attendance	*Team Time*	*Young Scholars*	Data Wall for Fall Bench-marks
Reading Activities	Reading Activities	*Team Time*	Testing Concerns	Data Wall	*Young Scholars*	*AIMSweb*	Fall Bench-marks	Students
Book Study - Reflections	Teacher Goals	Alternative Assessments	Individual Students	*Tier I* Reading Strategies		Benchmark Testing Schedule	Field Trips	Test-Taking Strategies
Routines	*I Station*	*Team Time*	After-School	*Tier II* Reading Strategies		VGLA		Student *Test-Talks*
Objectives	Individual Students	Benchmark Assessments	Homework	*Tier III* Reading Strategies		VMAST		Strategies For Need
Lesson Plans	*I Station* Interventions		Culture of the School	Individual Students		Culture of the School		Student Personal Needs
Testing Safety Survey	*Team Time* *I Station* data			Parents *I Station* Alerts				
Culture of the School	Principal Mandates			Student Needs				
After-School	Goal Setting			Test-Taking Strategies				
Individual Students	Testing Mechanics			After-School				
VGLA	Teacher Goals							
Management	Field Trips							
Parents								

A word count analysis was conducted to compare the numbers of words spoken by the principal, the IC-AP, and the instructional coach to the words spoken by the teachers (see Table 6). Included were the nine meetings and the two coaching conversations. Sidebar conversations were listed for each meeting where they existed.

Table 6

Word Count of Discourse in Grade Level Meetings and Coaching Sessions

Word Count of Discourse in Grade Level Meetings and Coaching Sessions					
Date	Principal	Coaches	Teachers	Sidebars	Other
September 6	1594	805	841		
September 13	1398	1477	1373		
September 20	0	3013	1087		
September 27	754	1255	2920	2	
October 4	1330	796	1623		
October 11	1257	882	592	2	1294
October 18	791	1316	1120		
October 25	719	922	628	3	
November 1	639	511	1345	2	
Coach Session #1		2679	1534		
Coach Session #2		2854	1233		

In all meetings and coaching conversations except for September 27 and November 1, the total word count for the principal, IC-AP, and the instructional coach exceeded the word count for the teachers. There were nine sidebars conversations that were identified. In seven of the meetings, the coach word count exceeded the teachers' word count. In both coaching sessions, the coaching word count was greater than the teachers' word count.

***Curriculum and pedagogical issues*.** The most frequently mentioned content in the grade-level meetings focused on curriculum and pedagogy. This subcategory included topics that connected to mandates delivered by Mike (the principal) and in many cases brokered by Diane (the instructional coach-assistant principal), and Michelle (the instructional coach). Allie and Liz who were in their third year of teaching, and Tina and Joyce who were veterans, worked together to implement the curriculum.

During the summer, teachers had read the book *Teaching with Intention* by Debbie Miller (2008) which includes many instructional issues and suggestions. Diane, the IC-AP, began the

first meeting by asking what the teachers' ideal scene would be of an effective classroom and this set the tone for the interactions that followed. Mike and the Diane led the conversation as teachers offered their perspectives on rooms that included student engagement, word walls, and organization of the classroom. The discourse was interspersed by questions asked by Mike and Diane about the content of the book these questions served to keep the conversation going. Joyce, who was the fifth grade department chair, and Liz were most involved in the teacher discourse; however, Mike and Diane provided the majority of the statements which included advice and references to classroom observations concerning teacher routines, organizational structure, and instructional objectives. Mike stated that this influences "the way you're going to start out and the way that you're going to hold out throughout the year, [so] start off strong." He talked about professional development that took place in the previous year and how that he should see information from those workshops being implemented in classrooms. In doing so, Mike set expectations for teachers with the intention of enhancing their instructional programs.

The discourse of this first of the nine grade-level meetings that were observed had an emphasis on classroom structure and routine and connected with activities from the previous year. Diane and Mike led the discussion on lesson plan "mandates" and administrative expectations for writing objectives. Professional development had been presented in the previous year that focused on writing "student-friendly" objectives. In this meeting, Mike underscored the importance of seeing these in place as he conducted visits in the classrooms. The principal challenged the teachers to use *Bloom's Taxonomy* to take the lessons to a higher level of learning.

During this meeting, Liz asked whether or not the objective in the lesson plan should be the same as the "student friendly" objective. Joyce followed by adding that she guessed that" the confusion is [the question which is] why are we writing it twice?" Additionally, she reminded Mike and Diane that September is a testing month and that assessments interfere with lesson plans and grades. Joyce advocated for the other teachers at the grade-level by relating realistic concerns about routines and structure.

Based on the data, it was clear that the first meeting set the tone for the year and reinforced objectives and mandates for lesson plans and expectations about objectives. The meeting ended with a discussion about the requirements for the up-coming after-school instructional program and a few building concerns such as wall cork strips that needed to be placed in the classrooms on which to hang student work.

The second grade-level meeting involved continuation of the organizational discussion that was stimulated by the book. On the previous Wednesday during a faculty meeting, the teachers had visited different classrooms in the school to observe what their colleagues valued, as represented by the décor of their classroom environment. This action stimulated and focused the conversation on a particular reading learning station that was observed in one teacher's classroom. The station included a classroom library organized according to the instructional levels of the students. The fifth-grade teachers provided interchanges describing how they could employ this idea in their own classrooms to enrich their own reading programs.

During the second of the grade-level meetings, the focus was on *Team Time*. This is a scheduled daily intervention time for reading and mathematics that follows the *Eight Step Instructional Program* (Davenport & Anderson, 2002). Mike and Diane were not present at this meeting, thus Michelle, the instructional coach, led the conversation. She asked the teachers about how students were grouped for this differentiated instructional time. The teachers responded by saying that it was going "very slowly." In the transcription, group laughter was recorded, after this comment. Group laughter seemed to commonly occur when the teachers were feeling confused or overwhelmed about mandates. On this occasion, the instructional coach used it as an opening to offer assistance, "I can start working on that with you guys and help you with it." One teacher responded, "Great." This exchange demonstrated that the coach looked for entry points to offer services to teachers during the discourse that occurred during these meetings.

Michelle began the Team Time discussion by asking, "Are you guys grouping them in the red and the purple and that kind of thing like we have done in the past?" Teachers responded by explaining their methods of grouping and asking for individuals to assist them with the effort. Michelle responded and stated that she was waiting for data from the entire school to allocate resources. She ended the meeting by telling the teachers that they would need to have the groups formed and teachers assigned to each group by the end of the month.

Michelle's mandate was to group students according to skill deficits for the Team Time intervention. Occasionally, the nature of the discussion shifted when a new mandate was introduced into the discussion. *Sidebar conversations* sometimes emerged in the place of the open discussion during these occurrences. These utterances were audible only to individuals and not to the whole group. These sidebars seemed to serve as processing mechanisms for teachers as

they discussed the mandate or strategy on a more personal level with a partner. It appeared that sidebar conversations appeared to check understanding and reduce stress. The instructional coach attempted to assist with the situation as she referred to books in the room that provided strategies written specifically for Team Time and the individual purple, red, yellow, orange, and green groups based on instructional levels of decoding, fluency, comprehension, and vocabulary.

The fourth meeting was led by Diane and was a continuation of the discussion focusing on Team Time (which had been on the agenda for the last three meetings). Responding to a question concerning the mandate introduced in the previous grade-level meeting (i.e. to group students for reading differentiation) teachers indicated that they had completed this task. In what seemed like a progression of the Team Time discussions, instructional activities were discussed regarding intervention for each individual skill group. Allie (who taught science) presented an idea about teaching science concepts during this Team Time to the comprehension group (the most instructionally advanced group). Diane underscored the importance of non-fiction and asserted her role as a resource provider by suggesting that they look for non-fiction books that had been included in a previously purchased science series. She recommended that they use the *Question-Activity-Response* (QAR) strategy to teach comprehension, *Readers Theatre*® to teach fluency, and the *I Pods*® to teach fluency. The exchanges become more active as Tina (who had remained quiet in most of the meetings) suggested that she could put "folders together with some reading passages like text and [the students] could work in groups to practice and they could present to the class."

At this point, the conversation broke into sidebar conversations among pairs of teachers as they discussed ways that they could implement the suggestions from this meeting. The "folder" suggestion did not seem to be taken up by the group and was not mentioned again. However, many other ideas for instructional activities were offered by the teachers for decoding, fluency, and comprehension. Diane attempted to provide a theoretical connection for the strategies as she mentioned the *Stairway to Proficiency*, a model constructed to explain levels of reading differentiation designed by Walpole and McKenna (2007). This text had been previously introduced and served as the philosophical basis for literacy instruction in the school.

The teachers had been assigned specific groups during Team Time and some had larger groups than others and needed assistance. Liz had sixteen students in a decoding group and asked if other individuals could help her. As a strategy for her decoding group, she asked if they should

use word study, which was being used in their classrooms during the regular ninety-minute instructional reading time. Liz offered a rationale for doing this. However, the idea was soon dropped from the discussion. This is the second instance where a suggestion was not expanded upon in the discourse. The reason for this was not obvious; however, this particular suggestion surfaced in a later meeting.

Logistics became the focus of the next segment of the Team Time discussion as teachers talked about rooms that they could use for small groups. The instructional coach and the IC-AP offered ideas. The word study question surfaced again but was again left without expansion.

Next in this meeting, Diane inquired about how teachers grouped students for the regular ninety-minute literacy instructional time. Teachers began to explain how they grouped and the specific assessments they used. The conversation seemed guarded as one teacher asked, "so are you are saying that our grouping should be different?" Seeking clarification, the teachers tried to clarify this complex task, and in response, they broke out into nervous laughter. Each teacher explained their literacy grouping methods and provided justifications as the conversation turned toward writing instruction. The principal entered this meeting about fifteen minutes after it began. He did not play a role in the conversation about the teachers' methods of grouping. However, he ended this meeting with a small discussion on the logistics of homework and the after-school program.

The first October meeting, meeting five, included further discussion of this category of curriculum with an exchange focusing on how Team Time was progressing since the previous day was the beginning of this intervention time. Joyce commented that it "went so smoothly that I had to go around and make sure everybody was in the right place so everybody had something to do." Diane asked why it went so smoothly, and teachers offered their ideas about their perceptions of this success. Strategies for each group were articulated, and teachers offered reasons for the success of the first day that had to do with setting expectations for the students and the level of organization of the activities.

In the fourth grade-level meeting, the word study suggestion had surfaced without being taken up in the conversation. However, in this fifth meeting, Joyce commented that "both (Team Time and the literacy ninety-minute instructional time) use word study….we intentionally kept the kids that we teach reading so that we [can] use the same word study words that we're working on during that week so we are not piling on them." It was obvious that somehow

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between the two meetings that the decision to use word study for both instructional times had been made.

During this meeting, the data from the first benchmark assessments were analyzed. Teachers entered the meeting with the data on their students. Diane provided fluency data that she had retrieved from the *AIMSweb* Internet site. The fluency data measured students' correct words per minute. Teachers used *Post-it*® notes to record each student's name and to place the note on a data wall according to their score. This was accomplished by ranking the children from 0 to 100. Students who scored between 0 and 59 were given a pink note and considered Tier II; students whose score was 60 to 79 were given an orange note and considered Tier II; and finally, students who scored 80 to 100 were given a green note and considered Tier I students. The school utilized the *Response to Intervention (RtI)* system for grouping students into the ability levels of Tier I, Tier II, *and* Tier III (an action is mandated by the district). As they placed the students in the RtI tiers, a visual was created that demonstrated how all of the students ranked in reading. Fluency was identified as a reading weakness according to the *AIMSweb* data that was integrated with the benchmark data, and Diane suggested using *Readers' Theatre* and *Quick Reads*® as appropriate strategies for building fluency skills. In what seemed to be a pattern, teachers emerged again into sidebar conversations to discuss specifics of implementing these activities.

The discourse continued as Mike asked "what are some Tier I strategies that you are using for each group?" Teachers responded that they listened to the children read regularly and they used repeated readings to increase fluency. This statement led to a new idea that surfaced for teaching fluency as Liz suggested that they have "*Fluency Friday* during their small groups when we will listen to them read and do a timed repeated read with them and track it on a chart so to see their progress as they go." The principal asked when this was going to start and the teacher responded that "we are going to start it this week." The conversation continued as the group discussed Tier III strategies and the teachers discussed how they were using *I Station* for this online reading program. This meeting ended with a brief discussion on after-school and homework programs that were led by the principal.

Mike led conversations when particular mandates were being presented, and his questions were direct. When the teachers presented their *Fluency Friday* idea, he asked, "You haven't started that though?" It is obvious that he was holding the teachers accountable for the actual

implementation of the idea. They responded that they had not yet started the program but that they "[were] going to start it [that] week." In comparison, Diane and Michelle took the lead in discussions that involved methods of implementing mandates such as the Team Time mandate for intervention and the RtI mandate for grouping students. Diane and Michelle utilized questioning strategies that were not as direct as those used by Mike. One example occurred during this meeting when Diane asked (as the teachers were posting the benchmark data) "what [they were] noticing as [they were] writing them out this way even though [they had] looked at it several times?" This question led to Tina responding that a particular student was "very low in math and very high in reading."

For four consecutive grade-level meetings, Team Time was the focus of instruction as teachers began thinking about the intervention time, grouping students, and pairing effective strategies with students. The discourse revealed a progression from the logistics involving implementation of the Team Time program to matching strategies to particular student skill deficits in the formed groups. Teachers worked together to determine how to provide differentiated instruction based upon the reading philosophy of the district by using strategies for decoding, fluency, and comprehension.

During the sixth grade-level meeting, discussion of the curriculum category was continued by the Michelle as she led the meeting. Mike and Diane were not present for this meeting, and Michelle had invited the Gifted Coordinator from the district's central office to explain a new program that was being implemented. The school was implementing a computer-based program called *Young Scholars*. This program was designed to assist teachers as they worked with students who were identified as gifted. In previous years, the district had pulled identified gifted students and placed them at other designated schools for services. *Young Scholars* was designed to provide teachers with the skills they needed to differentiate instruction in a general classroom setting for these specific students. The program had been introduced to the teachers before the beginning of the school year. However, it seemed that there were problems with understanding the online mechanics of the program, and the teachers had questions about the weekly assignments of the program.

Exchanges that occurred in this meeting provided insight into the roles of the instructional coach. The Gifted Resource Coordinator (GRC) for the district attended this meeting because she instituted the *Young Scholars* program during the previous summer and

provided the initial training. According to Michelle and the teachers, they were having problems with the logistics and needed further clarification. Michelle provided an agenda for this meeting, and after a short exchange concerning the progress of Team Time, the remainder of the meeting was spent on explaining the logistics of the *Young Scholars* program. It was apparent that teachers were having difficulty with the online component of this program, and Michelle and the GRC offered assistance. The GRC provided direct instruction by explaining the logistics of entering the online program. She used a projector and a computer to focus the website on the wall of the room and demonstrated how to proceed through the program in order to locate weekly lessons and assignments. However, teachers still had questions about the program. At this point, Michelle intervened in the conversations by providing more clarification. The following interchange demonstrates how she clarified the situation with the GRC by focusing in on the needs of the teachers, which were to know deadlines and the mechanics of the program.

> **TINA**: I have a question.
>
> **GLC**: OK
>
> **TINA**: If it's OK to ask now?
>
> **GLC**: Sure
>
> **TINA**: To get to the first job that we were supposed to do, I guess I don't know quite where to put the journal….do I just open the journal….
>
> **GLC**: The journal to me is like the culminating thing that you're communicating directly to the professor this is what I have gleaned.
>
> **MICHELLE**: Can you click on where it says journal up there? (She points to the particular spot of the webpage)
>
> **MICHELLE**: Click that…..
>
> **GLC**: ….and then here (pointing to the same spot) and then….
>
> **MICHELLE**: What you're seeing right now is the administrator one showing everybody's journal. If you…there should be a thing that says like start new thread new journal entry something like that and you click on that and you do the new entry.
>
> **TINA**: The email says that you should have already completed the introductory assignments. I did the discussions but I didn't know how to do the journal.
>
> (*Everyone has sidebar conversations about the program logistics*)

MICHELLE: ….. [click] on one of those so they don't see your administrator stuff (directing the GLC to hide her administrative webpage so that the teachers will not be confused and use the teacher website that is running behind the administrator website)

GLC: Yes

LIZ: Then you just go…..to the introduction?

ALL: (numerous questions at the same time)

GLC: Can you give me yours? (pointing to Michelle's notes)

MICHELLE: Yes

LIZ: Are we doing all these assignments?

(sidebar conversations emerge)

MICHELLE: Officially yes, unofficially what I think Mike said was that on those Wednesdays that we will work on some of this stuff.

LIZ: How often are assignments due?

MICHELLE: By the end of the month.

ALLIE: So it's by the end of the month….so if we haven't done…..

TINA: There are no due dates, …that's what I'm confused about…..

MICHELLE: The way it's set up you have the month of October for session one. Session two is in November.

GLC: Yes, you do have October (looking at the webpage and considering Michelle's interpretation)

This exchange demonstrated how the coach clarified the situation for Tina when she was unsure of how to proceed with the program. Michelle recognized that the teachers were feeling stressed because they did not know whether or not they had missed assignments or were behind in their work. After the sidebar discussions ceased, Michelle continued to assist the teachers as she clarified the logistics of the program by demonstrating how to manipulate the website and giving explicit directions that may have become commonplace to the coordinator. The coach modeled the program; and therefore, the teachers became more comfortable and willing to use the technology to help them administer a program designed to differentiated instruction for gifted populations.

The seventh meeting began with teachers taking three and one-half minutes to answer questions about Team Time. This was a different way of beginning the meeting from the usual

discussions. The agenda included time for the teachers to think about the questions that were provided to them on sheets of paper. They were asked: "What are your beliefs about best practices about Team Time? Why do you think that this would increase student achievement?" The responses were recorded on chart paper and posted on the wall by Diane. This list of activities on the chart paper provided the focus for discourse describing what the teachers needed to strengthen this intervention time for the students. The activities that had been mentioned in previous grade-level meetings such as tying science and mathematics to reading were mentioned again in this discussion. Diane followed up and recorded some action steps for implementation of these activities that included dates and persons responsible to assure that these activities were implemented. This discussion underscored the purpose of Team Time as a method designed to provide assistance to students with reading difficulties. This purpose was also reinforced in interviews with all four of the teachers; these grade-level meetings served to hold teachers accountable for implementation of a repertoire of strategies that had been introduced by either the principal or instructional coach.

The eighth meeting began as Diane discussed the *Young Scholars* program and the assignments that needed to be completed by the teachers. She discussed how the teachers could work together to complete and submit each of the tasks in order to build their repertoires and to make the task more manageable. She tied the concepts of the program to the school's own instructional offerings by discussing a student case study that each teacher was expected to perform. The task included completing a behavior chart for the student, teaching a lesson, and then assessing the effectiveness of the lesson with regard to how it met the needs of the student. The results were to be recorded on the Young Scholar's website and discussed in the grade-level meeting. This required engagement on the teachers' part and support by the coaches as they individually assisted teachers and provided feedback.

At this point of the conversation, Mike stated that he wanted to "talk about the global picture of what [he] wants to see with this." He explained that he would like to see students identified for talents that may have been overlooked in the past. According to him, the school needed to be an advocate for students and parents that would not normally be considered for gifted programs because they have little "voice" in the community. He stated that one goal of the *Young Scholar's* program should be to support these children and parents by actively seeking out and recognizing their abilities.

The ninth and final observed grade-level meeting centered on a discussion of the results of the fall benchmarks. Teachers updated the data wall by placing the fall benchmark scores on a *Post-it*® note over the mini-benchmark scores and leaving part of the first note visible to show differences in scores. This led to a discussion about individual students and related changes in scores. Mike and Diane utilized questioning strategies to elicit comments from the teachers as to why they felt that certain changes had occurred. Little attention was given to actual teaching strategies, and most of the explanations were based on teacher perceptions of students' motivation and test-taking strategies.

Curriculum and pedagogical issues were the most common theme of the grade-level meetings. Most of the interactions related to two programs: Team Time and *Young Scholars*. The purpose of implementing these programs was to fulfill mandates from the district and the school administration that were mandated for the purpose of promoting school capacity and student achievement. The flow of the discourse in each meeting followed, by and large, a predictable pattern. The agenda for the meeting was provided by the principal and the IC-AP or the instructional coach if both the principal and the IC-AP were absent. If the principal was present, he began the conversation and followed the agenda, providing comments about expectations for teacher learning and student performance. The IC-AP provided questions that led to interpretations of data or the discussion of instructional activities to support student learning. The instructional coach provided detailed explanations of programs such as *Young Scholars* and alternative assessments. The teachers worked to process this information through questions and sidebar conversations that allowed them to interpret, plan for instruction, and list next steps, or to plan for deadlines concerning implementation. The meetings usually ended with practical matters such as homework, after-school, field trips, or other matters that were important to the functioning of the grade-level.

In summary, this category included grade-level discussions that centered on curriculum and pedagogical issues. Team Time was used to provide differentiated intervention for students according to reading needs and was discussed in many of the grade-level meetings. The discussion began with the implementation of the program and continued throughout the nine weeks of meetings as the teachers discussed grouping and appropriate strategies for students. Discussion focusing on the *Young Scholars* program was another continual focus during the nine weeks period, and the instructional coach worked to clarify the program for teachers. According

to the data, this category contained more discourse segments when compared to the others. The principal, IC-AP, instructional coach, and teachers engaged in these discussions.

      Data-driven conversations. A major focus of discourse segments related was on data from benchmarks and other assessments. Data provided information for discussion about strategies and program implementation. The first discussion of data in the fifth grade meetings occurred during the second meeting and concerned the *I Station* online reading instructional program. This program provided norm-referenced instructional tiers for students. The program alerted teachers when students were having difficulty with decoding, fluency, or comprehension. Teachers were required to respond by providing interventions recommended by *I Station* and designed to remediate the skill. Diane used the projector to demonstrate how to interpret data that included usage time and measurable rates for students. Teachers learned that they needed to respond to alerts provided by the program for students who needed more assistance in specific areas of reading instruction such as decoding, text fluency, vocabulary, and comprehension. Diane explained that extra intervention must be provided and entered into the *I Station* website within a certain period of time if a student was not meeting the benchmark set for that particular reading component as measured by monthly assessments within the program. *I Station* interventions were demonstrated, and Diane clarified by demonstrating the logistics of entering student information. Then she asked for questions from the teachers. Teachers asked questions about various types of interventions that could be submitted and the specifics of using the interventions within *I Station.* Because the program had just begun, no teachers had yet entered interventions. A "knowing laughter" (Wenger, 1998, p. 125) emerged as Diane showed the webpage that indicated that nothing had been submitted, and it became obvious to the teachers that many alerts needed responses.

      Next, and in this meeting, the logistics of the *mini-benchmark* assessments were discussed. This is an assessment given after the first twenty days of school. The school delivers the assessment online; therefore, schedules are created for the allocation of limited numbers of computers and classroom space for groups of students. A problem surfaced during the discussion as teachers wondered how they would be able to give the *Stanford 10* and the mini-benchmarks within the same week. Mike assured teachers that this situation would be discussed with the division. As a member of the district administrative community, he must work to make

connections between central office and the community at the school in order to build relationships that promote continuity.

The third meeting involved discussion of alternative assessments for special education students (who qualify) in place of the multiple-choice state assessments that are mandated for the general population of students. Michelle seemed to be the expert on these assessments and led the meeting which detailed the procedures for qualifying a student for these assessments. For the *Virginia Grade-Level Alternative* (VGLA), teachers must demonstrate through a series of assessments that students know content but have problems with the multiple-choice form of assessment. By comparing the results of a multiple-choice assessment and a non-multiple-choice assessment, teachers may demonstrate that students can show that they know content if it is delivered in the form of an alternative assessment. The *Virginia Modified Achievement Test* (VMAST) is an assessment that has only three answers in place of four in the multiple-choice format and provides scaffolding for the student taking the test. To qualify for this alternative assessment, teachers must demonstrate that students are more successful using this approach. During this meeting, Michelle stated that the "focus for today is [the] VGLA and the VMAST. The first thing we want to talk about is the eligibility for the VMAST and the VGLA." Michelle made it clear that she had spent much time researching these alternative forms of state assessments in order to answer procedural questions from the teachers and to provide clarification on issues. She explained in detail the qualifications for each of these assessments and the procedures that teachers needed to follow if they believed a certain student could be eligible to take this assessment. Then, she answered questions about the assessments and their delivery. This was the first year for the VMAST in the state, so she clarified the differences between the reading VGLA and the mathematics VMAST and the differing qualifications by comparing and contrasting the requirements for each. Additionally, she worked to provide a schedule to assure that the work would be completed so that it could be submitted on time. According to Allie, there had been a problem the previous year with putting together a binder documenting that a student has been provided an alternative assessment for each standard on the state assessments. She reminded Michelle that there "was a big struggle last year school-wide with knowing what was in the binders and what we still needed." If a student has more than one teacher, those individuals may be responsible for different parts of the documentation binder. Allie then asked how the teachers would know who was doing what, and who would be

responsible and how this would be communicated. Michelle responded by including the teachers involved in the decision about when to check the binders. The following exchange demonstrated how Michelle guided this process:

LIZ: Is there a check sheet to check off what is already gotten into there? (binder of information gathered to cover the assessed student standards that will be submitted as the assessment)

TINA: There is that print off from the DOE (Department of Education)….

MICHELLE: So how often do we think that would be beneficial? Is that something if we are meeting once a month that we do the check sheet one a month? But we would see the binders go two weeks and get a check list and get a check list and go two weeks and see the binders again or does it need to be more often than that…..

JOYCE: I think once a month is enough….

MICHELLE: OK, off set against when we are seeing the binders…..OK….anything else?

(Silence occurs for about 5 seconds)

ALLIE: Like for science we are doing 5.7 for however long so would then would we be expected to be done with 5.7 in the binder and when we are done with it in the class…..

MICHELLE: We should be….

ALLIE: That's the idea…

MICHELLE: Yes, that's the ideal way for it to happen…..because then we are not playing catch up.

[laughter]

TINA: And with having to have fourth and fifth grade SOL's on there, that's where it gets a little sticky.

MICHELLE: It does and that is one of those things as you guys are in science if you see anything that could be related, then try and plan it in. Or if there is a time when you might have the children work on the remediation versus enrichment, those children working on VGLA, [this] might be a good time to pull them to fourth grade. This is also a good thing for you guys to be communicating with your special education teachers. Say OK, you got to get this done also. It would be a good time for you to communicate with fourth grade teachers and look at their calendar through the year. See if they will give you

copies of their assignments and assessments and things like that that you might be able to use with your children as well.

LIZ: Can any of this be done after school?

MICHELLE: If it is supervised by a teacher and those after school teachers, I would say that it needs to be done with one of our classroom teachers. So it may be that we need to look at who they are assigned to.

This discourse segment revealed a pattern that was common in these meetings. First, the principal, IC/AP, or the instructional coach explained a new program. Then, the teachers asked questions about the procedures of the program and the instructional leaders would draw the teachers into the process by encouraging them to make comments or suggestions. This exchange demonstrated how the coach involved the teachers in creating expectations concerning the alternative assessments and made suggestions. According to Wenger (1998), members of a CoP work together to determine what is important in order to make goals easier and obtainable as part of the joint enterprise. In this discourse segment, the coach led the teachers in implementing the requirements for eligibility for the alternative assessments and "negotiating a joint enterprise [giving] rise to relations of mutual accountability among those involved" (p. 81).

The fifth meeting began as the teachers constructed the data wall on the flannel board that was located in the meeting room for displaying individual student scores from the fall mini-benchmark. Diane explained the procedures for posting the individual student's name on the wall with their reading score. The teachers had *Post-it®* notes that were red, orange, and green; students whose scores from the reading benchmark fell between 0 and 59 received a red *Post-it®* with their name, score, teacher, and fluency score placed on it. Students who scored between a 60 and 79 received an orange note, and students between 80 and 100 received a green note. This indicated a reading score tier. While engaged in this task, the teachers had sidebar conversations as they constructed the notes for each child and placed them on the data board. Possibly, the sidebars were about the task at hand; however, they could only be heard among the teachers. Mike arrived at this point in the meeting that Diane had been leading; however, she continued to lead the discussion on the results of the mini-benchmarks. As the teachers were finishing, Diane began asking some leading questions to open up a discussion about the data that had been displayed visually. She commented that in the fourth grade meeting there were "ah-has." This observation served as an opener for the conversation on the mini-benchmark data and was meant

to elicit comments about student achievement and possible precursors. The conversation exchange began:

> **DIANE**: When fourth grade was writing those out, I noticed several ah-has…..OK as I am writing those out I noticed that…..what are you noticing as you are writing them out this way even though you have looked at it several times?
>
> **TINA**: Student here is very low in math and very high in reading…..
>
> **MIKE**: Wait a minute I missed that…
>
> **TINA**: One of my students who does very well in math struggles in reading….
>
> **JOYCE**: …..and the other way around…..I have one that does horribly in reading and really well in math….
>
> **MIKE**: and [student] is not special ed?
>
> **ALLIE**: oh no….
>
> **DIANE**: …..and [student] has come a long way and she started out in our [special education class].
>
> **JOYCE**: I love [student] she's sweet.
>
> **LIZ**: Fluency is definitely a lot lower than they did on their mini benchmarks….mini-benchmarks are higher….which is a good thing obviously.
>
> **DIANE**: What do you think is going to happen when you work on their fluency? I know that's one of those things that you are working toward.
>
> **LIZ**: Well my goal is to increase their rate by 20 [Correct Words in a Minute] by the end of the year….with stronger reading instruction that will be a success.
>
> **DIANE**: How do you think that's going to relate to your benchmarks?
>
> **LIZ**: Well obviously if they're not struggling with what they are reading they're going to do well with the comprehension part…..hopefully it's directly related the way that is should be so as their fluency increases they should be able to comprehend more of what they're reading too…

The exchange demonstrated how Diane facilitated analysis by asking about ah-ha moments. At first, the conversation focused on individual students and observations about the score that they obtained. Then, connections were made with components of reading as they discussed the role of fluency in comprehension. Allie's evaluative goal was to increase fluency by twenty correct words per minute, and this experience may have connected this endeavor to

students' reading abilities and their future success on state assessments. Diane facilitated the mandate of the school which was to achieve state accreditation and federal AYP goals by assisting this teacher as she attached value to her repertoire of strategies designed to enhance reading abilities.

In this meeting, the discourse continued as Diane asked leading questions that appeared to facilitate thinking. The conversation moved to specific Tier I strategies that were designed to enhance fluency and comprehension. One teacher suggested a strategy that made use of assessment passages as practice for fluency. Another teacher explained that she differentiated reading instruction for leveled groups by providing enrichment and targeted instruction. At this conversational point, the teachers conveyed an idea concerning the teaching of fluency during the regular instructional time to coordinate with the Team Time instruction. Then, this interchange of ideas evolved into a strategy that they named "Fluency Friday" which in turn became an affordance on which to build reading capacity. What began with a question about data-based ah-ha moments evolved into a strategy designed to enhance reading instruction during the ninety-minute literacy block. This example of situational social learning in the grade-level meetings provided the opportunity for the teachers, coaches, and the principal to build their individual capacities for problem solving and to create potential strategies for student success.

Tier III strategies were discussed, and the teachers related that they were using the *I Station* intervention lessons to assist students. Strategies for special groups were discussed and connected to the information on the data wall. The conversation continued as individual students were discussed and how their specific needs were addressed through the *I Station* intervention system. At this point, Allie asked, "Is there any way that we could at some point like have professional development on *I Station*?" Mike responded to Allie's question by saying that he was working on this and that *I Station* had a consultant who could provide this training. He explained that the representative from *I Station* was knowledgeable about curriculum and would be able to assist with learning that was directed to the needs of the students. This action demonstrated job-embedded professional learning and how it connected to specific needs of the teachers. The teacher recognized that she needed more professional learning because of the needs of students in Tier III that were identified in the data, and the principal responded by providing the resource. Therefore, in one instance, the learning of the grade-level group focused on areas in which the teachers needed more assistance and was tied to student weaknesses.

Also in this meeting, Diane provided a presentation on *I Station*. She projected the website to demonstrate how an individual could identify and download the intervention lessons needed by the Tier III students and to document the response online. Teachers were very involved and asked targeted questions about the specifics of the program and deadlines. Mike interjected that the state had access to these reports and checked them on a regular basis. Liz asked, "What are the expectations on how [the interventions] are to be used?" Mike responded with specifics on how they could be used during Team Time and how that they could use interventions beyond those provided by *I Station.* He commented that he did not "want to make [them] use anything that [they] didn't feel comfortable using."

The discourse continued as test-taking strategies were discussed. The teachers related that they had noticed that the fourth grade teachers did a great job in teaching these strategies because the students used them on the assessments. They were pleased that the students had transferred this knowledge to the activities in fifth grade.

In the seventh meeting, the teachers were preparing for the fall benchmark test (the second district-wide assessment given to the students). The fall benchmark schedule was posted on the wall for teachers to see when they entered the room. Diane had prepared the testing schedule and had placed groups of students who needed accommodations in specific rooms. Michelle, who is the resource person on alternative assessments, facilitated a discussion on the process of the VGLA's and the VMAST by answering procedural questions about qualifications for each. This followed a similar pattern in these meetings of introducing a program such Team Time or the alternative assessments and then conducting process checks during the following meetings to determine progress. In the following discourse exchange, Michelle followed up on the information provided in the previous meeting and took the conversation to a deeper level which involved alternative assessments for specific students.

> **MICHELLE:** Based upon what we talked about with VMAST in that last meeting, what are your feelings in terms of [student]?
>
> **TINA:** He's struggling…..
>
> **JOYCE**: VMAST would be good for him I would think…..
>
> **TINA:** He's the only one for math then besides [student]. I think the rest of them will be fine.
>
> **MICHELLE:** So you think that [student] could be successful having…..

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ALLIE: Oh I definitely think so. He's not doing well on the multiple-choice test.

MICHELLE: Have you with [student] and the other kids, have you started looking at for the math trying those alternate strategies documenting how they are working and are not working?

ALLIE: No, I have not.

MICHELLE: So that's something that we need to start, like just having three instead of four multiple choices, having shorter tests, doing true false, having things like a word problem highlighting the important information for them, in a graph maybe highlighting the important parts of the group, that kind of stuff. Things like if they are figuring out area of something giving them the formula for it right there next to it.

MIKE: So does this prove that they can be able to answer these types of questions?

MICHELLE: With supports.

JOYCE: Alright, [gives lists of students]

The discourse in this segment led the teachers beyond the point of just knowing about the requirements for alternative assessments to applying the knowledge of the assessments to specific student situations. In the previous discourse exchange listed in this work, Michelle explained the assessments and the qualifications for each. This conversation exchange demonstrated how that the previous situational learning was applied to actual students. In doing this, information concerning alternative assessments was applied directly to the situation of the teachers, and in the process, students who might not be successful on the state assessment could be offered another form of assessment. This exchange demonstrated how the teachers were thinking through the process of applying the previous learning to individual students. This action could afford the teachers another tool to use as they built differentiated and effective learning environments for all of their students. Therefore, the learning could have been of value to them because of their needs, and furthermore, it afforded them the opportunity to achieve their main enterprise which was setting the environment that was needed to be conducive to success for all of their students.

During the eighth meeting held during the last week of October, teachers discussed the logistics of administering the fall benchmark assessments with Mike and Diane. These benchmarks occurred at the end of the first nine weeks of school, and additionally, they marked the ending of the period of time that this case study covered. Previously, the fifth-grade teachers

had learned from the experience of giving the mini-benchmark assessment about which conditions would be more beneficial for certain students taking the test. This was demonstrated by a comment from Allie who stated that another teacher (a resource teacher from the school) "was working with a group of three and they [were] having a really hard time focusing and then she worked with them one-on-one and she [said that the students] did so much better focusing." After providing this rationale, Allie made a request for a one-on-one testing environment for a student. However, Mike was not ready to commit to this arrangement and delayed his decision because of all of the other logistics that had to be considered when planning the testing environment. He commented that they should "see how things go." Allie seemed to be satisfied that Mike has left the suggestion open and would consider it as he continued to plan. The exchange that occurred in this meeting demonstrated how the teachers learned from a situation such as the first mini-benchmarks and then applied this learning to future occurrences such as the fall benchmarks. Allie learned about the conditions that would be beneficial for the student that she discussed from the first benchmarks and wanted to apply this learning. However, as evident in many organizational structures, there are other variables that may affect application of learning such as this case where Mike had to consider the number of resources that he had to consider to create the testing environment for the entire school.

During the ninth and final grade-level meeting observed, teachers brought the data from the fall benchmarks and the meeting focused on posting this information on the data wall. After the mini-benchmarks, the teachers had completed the same task. This time, Diane assisted them with the logistics of changing the data wall to reflect the new information provided. Because the teachers had done this for the mini-benchmark, very few directions were needed. However, Diane reviewed the instructions, which were to place a new *Post-it*® note with the student's reading score over the old mini-benchmark *Post-it*® in order to contrast the two assessments. The teachers worked busily as they were constructing the notes and posting them over the mini-benchmark notes that were already on the data wall.

As the process unfolded, Diane asked "what you are noticing" to focus the conversation. Teachers responded by discussing the tier movement of their students as to the increase or decrease in percentage points and possible reasons for changes in reading scores. This questioning pattern of discourse was one that Diane had used for both data discussions that had occurred after the two benchmarks given during the nine weeks of research. Mike was present

for this meeting and had a guest from another school in the district, and he was explaining to this person what was going on in the data discussion. Additionally, Michelle was working individually with the teachers as they recorded information, posted the scores on the wall, and responded to questions at the same time.

Allie added to the conversation as she discussed a student who had a fluency issue and she explained that this was demonstrated by the length of time it took the student to read a passage. She stated that the student "takes so long. I know that part of this is the fluency comprehension thing, but even with science or any test, he is just slow. I think he forgets what he was even thinking about." Liz and Tina added to the conversation by stating that the student had the same type of problem with fluency in mathematics and other subject areas. Diane asked about strategies that might be beneficial for this student. The conversation continued as teachers discussed motivational issues that the student might have been experiencing. The discussion continued as teachers suggested strategies that might help this student. Then, the conversation moved to some personal problems that the student was having at home that had the potential to affect progress. The group suggested that the counselor should speak with the student to offer assistance.

This interchange represented how the data wall assisted the teachers as they negotiated meaning and worked toward creating an atmosphere where all students can succeed. Not only were academic concerns discussed, but motivational and personal issues that may have affected the success of the students were analyzed. The data wall was a visual that the members of the grade-level used that afforded them a visual basis for discussing individual students and factors that might be enhancing or prohibiting success.

Toward the end of the meeting, the principal commented to the teachers that he did not want benchmark testing to "monopolize everything that [they're] doing that [the teachers] are not providing quizzes and tests and assignments and projects in [their] classes." Joyce responded by stating that she did not "think it monopolizes our thinking but I think that it's just always there." This seemed to sum up the role that benchmarks played in the theater of learning at this school. The benchmarks were a mandate, but the teachers were directed in using them to focus on individual student success. The grade-level meeting ended as the principal completed a compiled list of students with whom he intended to provide "test talks." These were discussions with individual students where he discussed their progress and offered suggestions. This action

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by Mike allowed him to provide the data to the individual students so that they become aware of their own progress.

The discourse in this last observed meeting focused on individual student data. A pattern of discourse emerged which demonstrated how these teachers moved from a discussion of the data to learning about individual students. From this action, the need arose for identification of strategies that could benefit students and suggestions were made. In this particular meeting, teachers focused on academic, motivational, and personal needs of students that emerged from discussing the results of the reading assessment. The teachers learned about students from each other as they described areas of need that students were having in particular classrooms. This action made them aware of implications that emerged from student data, which created the opportunity for more discussion or thinking about strategies that could assist students as the teachers learned to negotiate this situation. As a result, there was evidence that learning occurred for teachers that was embedded in the results of previous teaching endeavors and represented by the benchmark data that provided information on the impact of instruction during the previous period of instructional time. From this point, teachers could make decisions on what needs to be changed and how to go about doing this.

To sum, this data-driven category of discourse contains assessment information that the fifth-grade level used to discuss individual student needs. The mini-benchmark and fall assessments provided data that was arranged in a data-wall and utilized as a visual to stimulate discussion points facilitated by the principal, IC-AP, and the instructional coach. This process continued throughout the nine grade-level meetings that were observed.

Administrative concerns and mandates. The next category identified based upon the grade-level meeting discourse related to the administration and mandates for the teachers. Directives originating from federal, state, and district requirements involved curriculum and assessment mandates. This school was a pilot school in the state for a *pay for performance* program. A major area of concern during the grade-level meetings was the goals the individual teachers had set for themselves that were directly tied to state assessment requirements and results from the state mandated *I Station* online reading program.

The first meeting began with a review of a safety survey that students had taken during the previous year. Mike led the meeting and showed the results to fifth grade teachers using a projector. He voiced concerns about certain aspects of the survey that he read aloud from the

website that indicated that students did not want to "snitch" on one another because of cultural beliefs. However, he was pleased with the fact that students seemed to believe that the school was a safe place and felt that they were treated with respect. The teachers watched and listened during this presentation and seemed occupied by the vast amount of information gathered from the survey. Mike told the teachers that he was going to send the survey to them by e-mail so that they could look over it more closely. He commented that he was going to provide the results to the guidance counselors so that they could "dissect it even more as we are having our lessons through our guidance counselors." Obviously, the information from the survey was too vast to absorb during this thirty minutes of grade-level time. To implement the survey findings, Mike took another route that involved resources outside of the grade-level meeting.

During the second meeting of the year, Diane began the meeting with a discussion on the evaluative teacher goal setting process and talked about specific data sources that could be used to demonstrate teacher impact on student growth. Mike was not present for the first part of this meeting. She explained that the evaluative goal had two parts with the first being based on state assessment results and the second part chosen by the teacher and possibly originating from many of the data sources used at the school. For example, the first part could be a measurable goal that would be based on a percentage of students that would pass the state assessment in a particular tested subject. With the second part, the teacher could select an assessment programs utilized by the school such as *I Station, AIMSweb* or other assessments to measure a comparison of a baseline score taken in October contrasted to a measurement taken in March. However, Diane added that *I Station* data would be strongly encouraged as a data source to demonstrate growth in reading instruction. The teachers asked clarifying questions on the specifics of that goal. Liz asked, "So two parts to that one goal?" Diane continued the discussion and provided a small presentation on *I Station* data as she projected the website on the wall. She demonstrated how they might use selected components of this data on which to base their evaluative goals. Joyce and Liz asked about how the testing results of special education students would figure into the results. Diane explained that they could utilize an *I Station* report on the amount of time these children used the program, and that this action would show that they were providing an intervention. She continued to demonstrate how to use the *I Station* program to locate data and intervention strategies for the students.

About fifteen minutes into the meeting, Mike entered the room and began talking about the teacher evaluation goals. He focused in on the second part of the objective which tied to the end of the year state testing and bonuses that teachers could receive if they demonstrated growth. This was a conversational shift from the data set that Diane discussed that was tied to the *I Station* data, but not tied to bonuses. Mike explained that for this part of the objective that mathematics data could be used to show growth. He explained how fifth-grade teachers could select a particular skill and focus on growth in that area. The following exchange demonstrated how the teachers were attempting to understand this new mandate for the current year. Mike explained how it functioned:

MIKE: Now there is one thing that I have to also say, yours will need to be two parts. Part of it you want to base on the simulation (assessment) but you need to add and say my students will show whatever growth on the [state assessment]. Same thing with reading people, whatever we are doing locally as far as a goal but then, you will need to say "the reading assessment in the area of comprehension will increase by whatever."

JOYCE: That is we have a two-part goal, right? First part is based on [state assessment] results, period. The second part is whatever we choose. We are looking toward *I Station* but with that *I Station* goal [state assessment] results.

MIKE: Now *I Station*

JOYCE: Are you referring back to the first part of the goal?

MIKE: Alright, so part of it can be based on *I Station.* OK. Great and that's what I can evaluate you on the end of the year. The second part is based on the [state assessment] itself and how much progress or whatever you're hoping to reach and that is what the state is looking for. That is also based on the money later on.

JOYCE: I'm thinking that I may have several VGLA's. How is that reflected in the result? The VGLA will have a score.

MIKE: I don't think VGLA's will be included in your student results at the end.

JOYCE: So it's going to be the ones that flat out take the test.

MIKE: And it will be and I think they might factor some kids out like your kids who the previous year might have made a [score] or above. Eventually when they have this student growth model within it, they're basing it on growth and that's why they want to factor those kids out. But then they might want to factor out those kids who are on the

bottom end that may have some kind of special need or something like that. I don't think that they can factor in VGLA students within your growth model because I don't know if they have them scaled like the regular [state assessment], students who have [state assessment] testing.

JOYCE: OK. OK.

MIKE: OK. I hope that makes sense to you.

TINA: If they are taking the [state assessment] plan on counting them but not if it's the [alternative assessment].

DIANE: [laughter] I'm sorry. [overwhelmed gesture]

[laughter from the entire group]

The discourse exchanges discussed in this section about the evaluative goal revealed how Diane functioned as a coach who assisted teachers as she provided a demonstration of selecting *I Station* data. Additionally, it showed how Mike as principal functioned in an instructional administrative role by providing information about the data that was directly connected to the funding. Joyce demonstrated leadership as she asked both Diane and Mike about the alternative testing and how it would figure into the evaluation. The roles of the individuals were evident in these exchanges and the authority attached to each as they explained the parts of the goal. Mike was more focused on the part that was attached to funding, and Diane concentrated on the part that was more instructionally focused. As grade-level leader, Joyce clarified for the rest of the group and provided voice as she questioned specifics of the plan.

In the next three consecutive meetings, little discourse was spent directly on mandated issues such as goal setting. Most mandates were set into place at the beginning of the year and were implicit within programs such as *I Station* interventions and Team Time that were maintained by process checks during the grade-level meetings. Systems for submitting report card grades, after-school procedures, posting learning objectives and homework policies were discussed by the principal, but very little time was spent discussing these administrative areas; however, the expectation was for maintenance and constant implementation of these instructional systems.

During the sixth grade-level meeting, another assistant principal who did not regularly attend the fifth grade-level meetings made a presentation on student attendance. He rarely attended these grade-level meetings unless he needed to present on areas of responsibility. There

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were two assistant principals at the school who were in charge of specific aspects of schooling. Diane worked with curriculum and this assistant principal was in charge of attendance and discipline issues. At this meeting, Mike and Diane were absent. Michelle, the four fifth-grade teachers and the gifted resource coordinator (mentioned earlier) were in attendance. His presentation covered some NCLB requirements for attendance and offered a plan of incentives for students who met attendance benchmarks. The attendance program was mandated for teachers because they were required to provide data to support the incentive program. The teachers made very few comments during this time. After his presentation, he left the meeting and the *Young Scholars* discussion with the gifted resource coordinator began.

During the last October meeting, the principal advocated for parents and students during a discussion focusing on the *Young Scholars* program. He talked about parents who do not have a voice in decisions; and as a result, their child was not identified for programs that may have been beneficial. He provided an example as he described a student who needed someone to "keep him on track." He gave the example of students who may be musicians, but are not recognized because they do not have someone to plead their case. Mike commented that he did not want it said that his school only taught them reading and mathematics; rather, Mike wanted people to know that they worked for the whole child.

This category provided insight into how administrative and mandated requirements were dealt with at this school in the grade-level meetings. They were presented by the principal; but most of the emphasis was placed on their continuation through implicit adherence and implementation of mandated strategies designed for student achievement. Discourse between the teachers and the coaches in the grade-level meetings provided evidence of the construction of a the school instructional repertoire.

Individual students. Connections were made to individual students whenever the meetings' discussions addressed curriculum, data-driven results, and mandates. The joint enterprise of the members of the fifth-grade team was for learning to occur for their students. The meetings provided the structure for this enterprise by providing the structure for discussions concerning student learning environment. The principals and coaches moved the conversations in the meetings from organization of the learning environment and mandates to data-driven discussions based on the effectiveness of the implementation of these strategies.

In the first meeting of the year, the principal talked about new students to the school who may have needed to attend the after-school program and explained the identification process for teachers who wished to recommend students. Also, he made reference to student behavioral issues which may be occurring and possible specific actions. He noted situations where students received special services such as Title I reading, special education, and ELL and were removed from the general education classroom to receive these services. His goal with these occurrences was to provide these services with minimal interference to the regular classroom instruction.

As documented in earlier sections of this analysis, differentiation and testing discourse referred to students who were going to receive individual attention with differentiation strategies or as a result of what was demonstrated on an assessment. Michelle provided procedural direction on alternative assessments that were designed to differentiate the assessment environment for individual students.

As part of the *Young Scholars* program, the teachers were asked by Diane to select one student for a case study to analyze in the grade-level meeting. The teachers were to construct a profile sheet on the student that detailed academic, behavioral, and other characteristics of the student. Next, they were asked to deliver a lesson and complete a rating scale on the child to demonstrate how the instruction applies to the student. Results were to be presented in upcoming grade-level meetings. Additionally, future field trips were presented to the grade-level members by the principal that had potential for providing experiences for the students such as seeing the ocean for the first time or experience traveling.

The discourse that centered on the fall benchmarks provided entry points for individual student analysis by connecting the reading scores to the individual and possible reasons for the performance. The following exchange led by Diane revealed how the data discussion led to student differentiation:

DIANE: How about [student]? He went from a 33 to a 65.

JOYCE: Wow

DIANE: What do you think was the difference?

JOYCE: Getting back into the swing of things.

LIZ: He's very up and down.

ALLIE: Probably your teaching…..[laughter]….

LIZ: He's very….he's another one that depends on whether he comes in off the wall or whether he comes in and he's mellow. He's another one that you can kind of tell when he walks through the door. You know so. He has all of the potential in the world but he has a hard time focusing and honing it in.

ALLIE: Yeah he sucked on the science today.

JOYCE: Yeah I saw his score.

DIANE: How about [student]

LIZ: How about the 46 to 60?

ALLIE: She's capable of a lot more I think…..

TINA: She's an interesting character…..

DIANE: [Student] …53 to 65.

ALLIE: She's only gone up.

DIANE: [Student] had a 10-point gain.

DIANE: [Student] went from a 33 to a 75.

JOYCE: He technically should have been yellow (Tier II).

DIANE: [Student!] How about [student]!

JOYCE: How about [student]!

TINA: How about 83 today for [student]!

LIZ: Yeah

DIANE: High for [student].

JOYCE: [Student] is on it!

JOYCE: She's here to move on. (Slang for wanting to move up in academics)

ALLIE: Yeah.

JOYCE: She's not playing.

This exchange from the last meeting observed demonstrated the individual attention that the students were receiving from the teachers as a result of looking at data. Interestingly, the reference to the effect of teaching was brushed aside and laughter occurred. Also, much of the attention in this exchange focused on the characteristics of the student and not the effects of instruction. However, the teachers seemed to be very proud of the success of their students, and later in the conversation, they give credit to the fourth grade teachers for teaching good test-taking skills. The conversation continued as the teachers looked at the difference in the mini-

benchmark score and the fall benchmark score. Allie, Joyce, Tina, and Liz discussed a student whose nineteen year-old brother had been in a car accident and their perceptions of the effect that this has had on his classroom focus. They asked Mike if he could talk to the student.

The conversation that occurred during the fall benchmark data analysis was more focused on individual students and their motivational issues than academic issues. Mike, Diane, and Michelle did not lead the conversation to specific strategies. However, they did suggest areas of personal need such as the young man with the injured brother.

In the exchanges provided in this section, individual students were mentioned and their performances on the reading assessments were discussed. This pattern of discourse connected the data and students and served as a focal point for more discussion about the student. Teachers provided observational information about student focus, motivation, and personal issues that might affect the growth of the student. When the two benchmark discussions were held, students were connected to the assessment data. In the mini-benchmark data discussion, more connections to actual strategies occurred. However, during the fall benchmark, discussions of individual students seemed to be about motivational issues. Diane led the two data discussions, and Mike and Michelle made comments about specific students.

Organization and routines. This last category contains the grade-level classroom organizational and procedural discussions that occurred. This discourse transpired at the beginning of the year and was connected to the book *Teaching with Intentions* (Miller, 2008).

The first conversation focused on the organization of the classroom and was led by the Diane who posed the question, "Why do you care if something is organized?" Mike was present along with Michelle and the four classroom teachers. Allie suggested that it affected the teaching environment and resulted in teachers and students knowing where everything was located. Diane led the discussion by asking questions about the first chapter of the book that had centered on how to organize an ideal classroom. Joyce, Liz, Allie, and Tina responded by describing their ideal classrooms. All of the teachers commented that the students were engaged. Classroom décor was discussed with special attention to color and word walls. Diane commented that the classroom reflects teacher intentions and important values held in reference to the act of teaching. Mike announced to the teachers that they were going to visit other classrooms during the next faculty meeting to look for organizational ideas and to determine what they could tell was important to the teachers as reflected by their classrooms.

In this first meeting, the principal talked about routines. He mentioned his expectations that included teaching objectives would be posted in the classroom and in student friendly words. Diane talked about objectives that described the behavior, conditions, and the criteria. Next, Allie asked about the lesson plan format and expectations for this document. The principal challenged the members of the group to use routinely the higher levels of *Bloom's Taxonomy* to construct the goals of the plans. He identified Diane as the person who would critique the plans and offer constructive suggestions. These actions by the principal put lesson plan routines into place. Additionally, he named Diane as the person to be in charge of critiquing the lesson plans, which fits the pattern seen in this research that identifies the principal as the individual who sets the mandates and the coaches as the individuals who assure that the teachers have assistance in implementation and assure that implementation is achieved.

The second meeting of the year began with a discussion led by the Diane about the walk-through that occurred during the faculty meeting when the teachers toured classrooms. She began by stating, "Tell me some things that stuck out to you. Remember our goal was to look at classrooms set up with intention and organization of ideas. What things did you notice?" Teachers discussed organization of reading centers and other things that they had seen that they wanted to try in their own rooms. Diane interjected at different points to encourage participation in the conversation. The following exchange provided a portion of the conversation:

ALLIE: In [another teacher's] classroom, she had this thing that said what are you reading. I think it was by number. The kids were going to write down what they're reading on an index card. She said later they're going to say if they liked it or not. I don't teach reading but I think it's so cool that she makes it important that she wants to know and instead of going and picking a book from the library each time. It's intentional. I'm going to get this book every time and keep reading it.

DIANE: Not random. Like, I'm going to pick two words from this to read.

ALLIE: So, in my class, this is what happens most of the time just because it's not reading. The kids will just go get a picture book.

DIANE: Do you think it's because there's some level of accountability to it. Somebody is actually going to look at something?

ALLIE: I think so.

TINA: Was it on a chart?

ALLIE: Yes. And laminated I believe.

LIZ: And her class reads ridiculous (meaning well). I'm really jealous actually [laughter] because I don't have any books.

ALLIE: I don't know where to start but she had them leveled (grouped) by theme so she had a tub and they were just leveled. I talked to her before we ever went in there. She said she was going to give them a credit card with their color on it. As it changed, this would determine the color bin that they would choose from.

The exchange revealed how the conversation opened up a new strategy for Allie and Liz to use in their classrooms that could provide books for students at their reading instructional levels. Additionally, it became obvious that Liz needed more resources in her classroom to make this happen.

Other organizational strategies had to do with the structure of the ninety-minute literacy block, Team Time, and benchmark scheduling. This category did not have as many frequencies of discourse segments as the other themes identified; however, it was foundational for the success of the curricular activities and therefore held much importance. According to the data collected, it was apparent that organization and routines were dealt with early in the year so that they would allow for efficient implementation of the other instructional areas.

Summary

This section examined the categories of content and social interactions among teachers, the IC-AP, and the instructional coach in the grade-level meetings. The largest subcategories of content dealt with pedagogical issues and assessment data which served to drive the conversations. The most salient subcategory was the individual student, and although the transcriptions did not reveal as much data as the other two mentioned subcategories, all of the subcategories of content occurred with the intention of leading to the success of the student. Organization and routines and administrative concerns and mandates were subcategories that were mentioned early and integrated into pedagogical issues and assessment data. Awareness to these areas was provided early on in the grade-level meetings so that most of the discourse centered on issues that more directly affected the teaching and learning of the students such as the curriculum and data-driven categories.

A major role of the coach was that of facilitating the meetings. She commonly used questioning strategies that were designed to draw the teachers into the conversation. Additionally, the coaches worked to clarify and answer procedural questions. They served as knowledge resources for particular programs as they provided direct instruction. Patterns of discourse were evident. The principal delivered mandates and stated expectations for particular programs through direct statements and questions. The coaches asked more leading questions that appeared to be designed to engage the teachers and to include teachers in decisions about implementation of particular programs. The teachers worked together to interpret and implement the strategies with the assistance of the coaches. The discourse revealed that in meetings the teachers entered sidebar conversations to make sense or to relieve stress. Group laughter appeared to be another method of stress release.

When programs such as Team Time, *Young Scholars,* and the evaluative goal were introduced, direct instruction was provided, and then in subsequent meetings process checks were used to determine whether or not more teacher instruction was needed. These social interactions provided situational learning experiences that were designed to assure common instructional practices among the teachers.

What is the content of the discourse among teachers and the instructional coach during individual coaching sessions?

The discourse that took place between the teacher and the IC-AP and the instructional coach at this school was affected by the level and type of the relationship that was built between these individuals. The coaches worked with the teachers to help them implement mandates into their classrooms. Feedback conversations by the coaches with individual teachers occurred to assist teachers as they began implementing the repertoire of instructional tools discussed in the grade-level meetings. In the interview with Michelle, she was asked about the impact of coaching and the effects that it has had on the growth of the teachers at this school. She stated that the goal of the coaching program in the district was to "make teachers better faster." She continued to say that she thought that they had achieved that goal but had gone further, and coaching had made them "better than they would ever become" through reflection and collaboration. According to Michelle, one added benefit was that they felt good about the jobs that they were doing and reported high satisfaction.

Diane and Michelle had scheduled formal feedback sessions, but primarily engaged in informal interactions with teachers. Michelle reported that many of these interactions occurred when she went to the teacher and stated that "this where we are, and this is where we need to be." Then she asked them, "What support do you need from me to get from here to there?" This opened the door of the classroom for her to be able to provide suggestions as they monitored their own progress. She stated that the level of assistance varied from teacher to teacher, but that she used this same questioning procedure with each of them. Teachers' levels of prior knowledge varied on a continuum with the fifth-grade teachers, but the process of providing assistance was similar for all. This was the third year for both Liz and Allie, and Tina has been teaching for five years. According to Michelle, the level of assistance was more complex for Liz and Allie because of their inexperience and their need to have more guidance on instructional strategies.

Most informal coaching conversations were "on the fly" and did not necessarily follow a prescribed formal format such as the models discussed by Helman (2006). The formal and the informal coaching conversations were task-oriented and mandate-driven and were designed to build teachers' autonomy and confidence. The IC-AP and the instructional coach provided vicarious experiences through modeling lessons and social persuasion through the formal and informal conversations. Additionally, many of the concepts from cognitive coaching (Garmston & Wellman, 1995) were used by the coaches. Both of the coaches were in the third year of training by *New Teacher Center* from Santa Cruz, CA. This is a non-profit organization whose goal is to enhance the effectiveness of new teachers and teacher leaders by working with districts to implement induction programs. It provides two- and three-day academies for districts that offer training in many of the mentor concepts discussed by Athanases et al. (2008), Garmston and Wellman (1995), and Helman (2006).

Michelle stated that formal discussions were difficult to schedule when information was needed quickly in order to implement certain programs. She continued with, "quick exchanges of information; you need time to process either as a coach or a teacher to look at how it applies and to look at what your next steps are… So, to sit down and have a formal meeting would not necessarily be the most productive, whereas having that quick exchange of information and moving on is definitely very productive." Michelle suggested that the formal meetings may be necessary at the beginning of the year to set routines and to explain processes.

During the interview with Liz, it was suggested that the conversations were more structured during the first year as the coach-teacher relationship was being built. Discourse became more informal as the relationship progressed and the teacher needed less structural assistance. Allie stated that there were many conversations that were formal and informal with both Michelle and Diane. Joyce felt that the conversations with her were more informal because she was a veteran teacher and did not need as much guidance as the newer teachers. Michelle's comments correlated with the remarks from the teachers by saying that the number and type of meetings depended on "the teacher and their need."

In the interviews, questions were asked about the helpfulness of the instructional coaches. Joyce stated that they were always coming in to see what they could do to help out if she feels like they were given a lot of things to do or a lot of data that needed to be analyzed. She felt that her classroom instructional program was better because of feedback received from the coaches and that resources had been provided that she had requested. She stated that the coach "has come in and asked 'what do you need to reach this goal', and I'll say I will need this to reach this and this and she gets it and brings it back." Tina said that the instructional coach was very helpful with the *Young Scholars* program. The coach simplified things and explained what was needed and what was not needed and asked what she could do to help. Diane had come in and modeled science lessons for this teacher, which was very helpful to her. The instructional coach was good at providing resources, especially for the VGLA alternative assessment.

Allie and Liz discussed the helpfulness of the instructional coaches. Allie explained that she and Diane had built a relationship in the first year because they came to the school at the same time. When Diane became the assistant principal, Allie was afraid that she would not continue providing the feedback and assistance. However, Diane explained to her that she was not going to leave her "out to dry" and had continued being her instructional coach especially in the areas of mathematics and science. Michelle had provided additional support in the current year and continued to provide targeted assistance. Liz stated that Michelle "is an extra pair of hands," and had helped her to become organized, and had answered many questions. Diane continued to be very helpful with information and resources. Liz stated that the help from the coaches was so important because there are many things that they don't have time for because of their teaching loads such as analyzing data, testing specific children. The coaches did these things and helped to keep them from feeling so overwhelmed. Michelle stated in her interview

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that she believed that as a result of the coaching, teachers had built their capacity faster than they could have without some assistance. She believed that the processes of reflection and collaboration had helped teachers to become more satisfied with their careers and that they felt better about the jobs that they are doing. She stated that she loves her job "because I love that my teachers want me to come to their classroom. They will ask me, "when are you coming to help me, and when are you going to do such and such?" She believed that the fact that the teachers were willing to open their classrooms and examine their practice showed that they believed that this job-embedded professional learning was worth the effort.

Diane discussed the nature of the discourse between herself and a teacher concerning progress monitoring. The conversation centered on problem solving as it related to applying progress monitoring to her instruction. She believed that "the mentor and instructional coach training just feeds right into doing the assistant principal as instructional coach piece."

Michelle recorded two coaching conversations that occurred between Allie and her. These conversations connected the information that was discussed in the grade-level meeting on goal setting for teachers to actual practice in the classroom.

There was evidence that Michelle used many of the strategies that she learned in the *New Teacher Center* training. During this training, coaches were trained to use several discourse techniques to respond to teachers during conversations: paraphrasing, clarifying, mediation, and non-judgmental questions and suggestions. They were encouraged to paraphrase statements to communicate that they had heard and understood about what the teachers had said. Clarifying relates that they have heard from what the teacher has said but may not fully understand. Meditational questions help the teacher to analyze, imagine possibilities, and to compare and contrast what was planned to happen with what actually happened. Additionally, they were trained to provide non-judgmental responses and how to make effective suggestions.

In one session, Michelle began the conversation by asking Allie about the teacher evaluative goal. Allie had made science her focus, and more specifically, the basic knowledge of science curriculum, understanding the concepts and relationships, and the instruments of science. Additionally, the teacher wanted to unit plan instead of making weekly plans that incorporated more vocabulary and experiments than she had been previously using. The coach commented to the teacher that she had done a great job in assessing her needs (which was a component of the

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goal setting process and an example of a district mandate). The following excerpt from the conversation revealed how Michelle was using questioning as a focal point:

MICHELLE: So, my question is, why are you not incorporating experiments? Is it because you don't have ones that meet the standards that you feel like are doable with the students, or is it time management, or behavior management?

ALLIE: Definitely not behavior. I feel confident that is under control. I feel confident that anything that I could do with them I could handle. It's correlating. I feel like it needs to correlate with the material that I am teaching at that time.

MICHELLE: Absolutely.

ALLIE: After testing, I don't know how true that is because any lab is going to correlate with 5.1 (standard number for all science experiments). So even if I do a lab that seems just off the wall, it would still correlate with the standard. I don't know.

MICHELLE: So what I'm hearing you say is that your concern is finding experiments that go along with the standards. So, you're hitting the instructional issue.

ALLIE: Correct.

MICHELLE: OK. I have all of the experiments that we designed for the VGLA. I've spent a lot of time over the last two years creating the experiments and getting it down to what particularly hits the standards. Do you want those?

ALLIE: Yes. Yes.

MICHELLE: OK. I will get you that stuff. Let me know what standards you feel like are still missing and we can either create ones together or I can help you find some. Just let me know what I can do to support you with that.

ALLIE: I need to jump in. It is so different from math because with math I have everything here set up. With experiments, I have to go somewhere and get the materials plus they (experiment creation) don't come to me naturally. Like why you tell me that I'm going to do states of matter next week I don't automatically think of nine experiments to do.

MICHELLE: So, would it be beneficial to pick another time to meet next week to look the stuff over after you have had a change to look at it?

ALLIE: Yes, that would be fantastic.

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The coach asked directly why the teacher was not incorporating experiments into her lessons and whether this had to do with classroom management. The teacher responded that she believed that it is because she did not have access to experiments that correlate with the curriculum that she was teaching. The coach clarified what she had heard by stating "so what I'm hearing you say is that your concern is finding experiments that go along with the standards, so that you're hitting the instructional issue." Michelle was still unclear as to why Allie was hesitant to incorporate experiments. This was an example of the coaching techniques identified by Helman (2006) and those provided by the *New Teacher Center* training. Allie verified this clarification and said that "it's like towing the water and that kind of thing, but I just need to jump in." She went on to explain that when teaching a science concept such as states of matter, she did not automatically think of experiments. At this point, the coach suggested that the teacher select a time to meet to work together to plan a unit of instruction. The coach explained that she had experiments that she would provide for her and bring on a flash drive. Then the coach asked the teacher if she wanted to talk next about vocabulary or unit planning (which were two concepts that the teacher had placed on her goal-setting list as areas where she would like to build capacity).

The teacher responded that she needed help with vocabulary instruction and told the coach about her current vocabulary strategy that involved a booklet of graphic organizers for the words. The coach responded that she liked the idea because it focused on what is important in understanding vocabulary. Then, she mediated the situation by stating that "there needs to be some way you pull it back into the classroom." The coach's meditational language was noted in the information provided in the literature review by Helman (2006) and was acquired by Michelle in the *New Teacher Center* training.

Allie referred to her word wall for math and science and asked if there was a way to connect the booklet to the word wall. Additionally, the coach spotted some "hula-hoops" hanging on the wall that were arranged for student work and asked if the booklet could be connected to the "hula-hoops." Then, she made a suggestion that the teacher make the "hula-hoops" a student work word wall by allowing the students to place some of the pages from the vocabulary booklet in the "hula-hoops." She explained that this would enhance the work in the vocabulary booklet as the children would know that it could receive special honor by placing it on the wall. The teacher added to the strategy by saying that she had seen headbands with word strips that the

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students could wear with the vocabulary word placed in it. She shared that she loved the "hula-hoop" idea.

Next, Michelle explained that students needed to have a reason to learn vocabulary and that any lesson about vocabulary that is unconnected to other concepts "may not be her best choice." She explained that a vocabulary review may be helpful, but in order for students to connect the words and to remember them, vocabulary should be a constant theme and intertwined within the basic concepts that were being learned. Michelle continued by supplying several strategies for teaching vocabulary throughout the other lessons and connecting the words throughout the instructional day.

Next, Allie switched the subject of the conversation from vocabulary instruction back to science instruction and stated that she believed her science instruction was boring. She talked about her room not looking like a "science room" and explained that she was "horrible at science growing up" and that it was "the only thing that I got C's in." She believed that she had a science phobia that was similar to a math phobia. Michelle responded by saying that, "I hope at the end of the year that you decide that you love it," which was an example of the nurturing nature of these conversations. She reminded her that she was going to provide help by giving her some science experiments and assisting her. Then, Michelle related stories of how she had made mistakes with science experiments but had learned from the process. Allie responded that "the lack of confidence in the subject area keeps me from a lot of it." The coach stated that they would "need to walk through a lot of it together" and that "it's OK for it to be a learning experience."

Then, the conversation turned to the science unit she needed to plan which was on matter, and she related that she did not know how much time to spend on each concept within the unit. Michelle responded that they would work on that together and connect activities to each concept to make it interesting.

Most of this conversation was spent on the instructional category -- the theme that was most prevalent in the grade-level meetings. However, Michelle tied the discourse to the testing theme and suggested that she may need to take a few minutes during the day to instruct students with test-taking strategies related to science instruction. She commented that students had to "take the experiments and the hands-on things and the things they see and apply them to that test." By saying this, Michelle made Allie aware of the accountability of teaching science.

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Michelle realized that Allie would have to be accountable for the science scores of the students and that this information would be visual and be discussed in the grade-level meetings. The session ended with Allie thanking Michelle for the help and Michelle reminding Allie of the next scheduled conversation.

This conversation demonstrated how the coach used the individual sessions to integrate the key concepts from across mandates, instructional strategies, and programs. New ideas were introduced in the grade-level meetings. Then, the coaching sessions provided the opportunity for the coaches and teachers to integrate ideas into the actual day-to-day practices.

The second individual coaching conversation that took place between Allie and Michelle began with a content focus, where the first ended with the science unit plans. The session began with questions about the timing of the unit and by specifying the science standard would be taught. Michelle summarized the standard and asked Allie how she thought that she would approach teaching the unit. Allie responded that she would compare it to her mathematics instruction, a subject where she felt more efficacious. Then, Michelle connected the conversation to testing and how the teacher planned to assess each of the underlying concepts. The following excerpt from the discourse revealed the interaction between Michelle and Allie and how it transpired.

> **MICHELLE:** OK. So looking at that (state essential knowledge) do you see three separate tests for each of the bullets?
>
> **ALLIE:** I would think so.
>
> **MICHELLE:** Now do you imagine a unit test at the end that tests everything?
>
> **ALLIE:** I would think so.
>
> **MICHELLE:** Now do you imagine a unit test at the end that test everything?
>
> **ALLIE:** Yeah, do you think that's too much?
>
> **MICHELLE:** No, I don't think that is too much, especially since you've got 17 days.
>
> **ALLIE:** That's just a long time to go without knowing where they are.
>
> **MICHELLE:** It is a very long time to go without knowing where they are and their snapshots when you start thinking about that. How long is a snapshot (assessment)for you?
>
> **ALLIE:** A day.
>
> **MICHELLE:** So it takes up the whole day.

ALLIE: Forty-five minutes...yeah. Especially because I have so many read alouds.

This segment of conversation demonstrated how Michelle worked to focus the conversation by asking leading questions, in this case about the assessment of the unit. She did not attempt to tell Allie what to do; however, she did ask questions that were designed to lead the teacher to her own conclusions about the most effective method of assessing this unit (which was a feature of cognitive coaching) (Costa & Garmston, 1994).

Next, the conversation turned to the ordering of the unit and Michelle guided Allie through some suggested activities by going to an online curriculum essential knowledge booklet that was designed by the state to go with the science standards. They began by looking at explanations for the three states of matter. Michelle explained to Allie that she needed to get the curriculum from the state and the activities in front of her and to decide how they go together by looking at the objectives and determining whether or not the activity would help the student understand. The coach provided the teacher with several examples of matching the objective and essential knowledge with the activity. For now, Michelle used direct teaching with Allie to make sure that she knew the content. From Allie's comments, she was aware that Allie did not have the prior knowledge needed to teach atoms, elements, and compounds. However, Michelle continued to explain the concepts and Allie listened intently.

Next, Michelle provided the first step by explaining how the teacher should deliver the concepts to the class and stated that she should "pick stuff that you know how to talk them through." By doing this, she provided Allie with a very concrete example of teaching science concepts that comes from everyday life. Allie seemed to understand and subsequently relaxed and laughed at the example. Then, Michelle connected the science lesson planning to math lesson planning which is where Allie stated that she felt confident. Allie began to think through a schedule for teaching the concepts of the unit which was similar to the method she used for teaching mathematics. Michelle and Allie had several exchanges about the relationships among atoms, elements, and molecules and effective strategies for teaching them. Michelle suggested that she start with atoms and have the students model the atom and then connect with a partner to construct a molecule.

The conversation began to build at this point because Allie was beginning to connect this new knowledge to prior knowledge.

ALLIE: That would be a fun game. So they would kind of walk around….alright be an atom….alright be a molecule…now get a partner.

MICHELLE: Alright what you may want to do is even go further than that with the game and this may be a good review thing closer to the end or at least part way through where you introduce the vocabulary.

Allie began to visualize how she could construct the unit with correlating activities; however, she still seemed to have little mastery of the essential knowledge of the unit. She began to ask specific questions about the concepts and started to take notes. She responded:

ALLIE: I'm trying to think visually, I think that game would be cool, that kind of puts it into perspective for me (writing things down), you know the atoms are the smallest and the molecule and the element and compounds are just more of those….

MICHELLE: Element would be still the same kind of thing. The compound would be different.

ALLIE: (Thinking) You need a visual to see that.

The conversation ended with the coach summarizing the work that had been completed together. Realizing that they had just started the unit and had run out of time, the coach suggested that she come back to continue the planning.

Summary

The data from this question provided information that described the exchange between a teacher and an instructional coach. However, both the IC/AP and the instructional coach had informal conversations with the teachers. These were not recorded and transcribed for this work. However, the interviews with the teachers and the coaches revealed that the quick and frequent discourses were economical and served to assist teachers as they attempted to implement the vast number of programs and strategies to which they were exposed in the grade-level meetings.

The two formal conversations that were recorded demonstrate how the teacher goal-setting process served as a point of entry for discourse that could serve to assist this teacher as she attempts to work within her ZPD and to teach a unit on matter to fifth grade students. The coach worked with the teacher as she attempted to make sense of the essential knowledge and to prepare an effective unit of instruction. The transcription revealed a couple of instances where

the teacher and the coach constructed strategies for the unit. Accountability through testing was discussed as the coach made the teacher aware of this component.

The formal and informal conversations that were reported by the teachers and the coaches provided conversational structures as coaches gave feedback which may have resulted in modeling lessons, and providing an extra "set of hands" in the classroom. By providing assistive learning with affordances from the grade-level meetings, coaches worked to reify the processes that were mandated and teachers to make meaning of their practice (Wenger, 1998).

What did the instructional coach and teachers say they learned from the grade-level meetings and coaching sessions?

Interviews with the coaches and the teachers at this school provided details as to understandings that they believed they had formed from the grade-level meetings and the coaching sessions. This information provided insight about the extent to which these teachers were afforded learning opportunities to grow from grade-level meetings and coaching sessions.

Michelle stated that her goal was to differentiate professional learning for teachers "just like it is done for students." In the grade-level meetings, the coaches were more direct and focused on the group of teachers with information being presented hand-in-hand with expectations; comparatively, the coaching sessions allowed coaches to formally and informally assist the teachers as teachers implemented understandings. The teachers reported that they learned to sort out data, group students, and to assign appropriate strategies to groups of students. When the coaches modeled strategies and provided feedback, the teachers learned how to implement the information on differentiation at a deeper level.

Joyce responded that the grade-level discussions helped her to sort out the data from assessments and to place students in RtI groups in order to find appropriate instructional strategies for these students. These activities would be designed to help students gain more knowledge and to work within their ZPD. The conversations with the coaches were beneficial because they provided her resources to assist instruction and included modeling lessons and feedback. Tina felt that the grade-level meetings provided information on various strategies that would be a different approach "to reach every learner in whatever way that [she could]." In the grade-level meetings, the book studies had provided ideas that Tina said she used in the classroom. The current study of *Teaching with Intention* (Miller, 2008) has provided her with

information on organizing the classroom. The coaches assisted her as she worked with the concepts in the *Young Scholars* program that was discussed in the grade-level meetings. They helped to simplify things and decide what was needed for success in this program. This was very important because there was a wide gap between experience and competency as it related to the *Young Scholars* program, and the coaches helped to close this gap by providing detailed information about the specifics of the program.

Allie and Liz stated that they both felt that they could voice their opinions and participate in the grade-level meetings freely. They believed that the administrators and coaches were very open to what they had to say, and they felt that their voices as new teachers were valued. Allie believed that this was founded in the relationship that she had built with all of the members of the group. She indicated that she felt a sense of belonging. Allie thought that the group was beneficial within the time frame that it was allotted, but more time would allow them to address students' needs more directly. She thought that sometimes the grade-level meeting only provided time to group students. "I want this group to go here and this group to go here" and more time would help them "pinpoint individuals a little bit more." Every year that she had taught, she saw an "eclectic" group of students who brought a wide range of personality types and intelligences. More time would allow the group to "bring more out of each student even within the standards and within the testing that we have. But it takes more time and it takes more direct thinking about each student." She was asked if the understandings from the grade-level meetings provided information that she used directly in her classroom. Her response was that it did, but there were so many administrative things that had to be covered and "sometimes I feel like we are doing too much beyond the classroom....sometimes I feel like I'm taken further away than I need to at the time." She was asked what she would like to do that would be more helpful than rather than having so many administrative issues covered. She responded that she would like to learn more about concepts such as multiple intelligences and about the autistic children in her classroom in order to serve them better. She did not feel that she had the time to research strategies that would make her classroom more responsive to all students. She wanted work plans for each student and something different that would match their individual needs. According to this teacher, it would be helpful if teachers could suggest concepts that they would discuss in the upcoming grade-level meetings that they view as priorities for their classrooms. This would be helpful to her as a new teacher because she was still learning where to prioritize and how to

balance her professional and personal lives. She believed that she had learned to start with the "minimal and then work outward." Now she likes "to make things cute and fancy and the bells and whistles before [she] gets to the nitty gritty of what [she] really needs" and this is the area in which she believed that she struggled.

Liz believed that the grade-level meetings were a good place to bring up questions or to pose problems. For example, she voiced a concern about the *I Station* program and the requirements for documentation of student interventions for students in Tier II and Tier III. The teachers believed that they needed to receive more professional learning about this program for logging the interventions. Liz said that the administrators and coaches brought in a consultant to work with them and to provide more training. She believed that the voiced concerns were responded to in a timely manner. In the previous year, a professor from a local college provided professional learning on word walls and followed up by visiting classrooms to assist with implementation. She believed that the grade-level meetings and the coaching kept her accountable for how she and her students grew. As a result of the meetings, she kept up with the data and believed that this would not be the case if she did not have the collaboration. Hearing the experience of other teachers, seeing their data, and hearing how they are going to use it to assist their students became a vicarious experience for her to connect to her own classroom. Additionally, it unified the group as a team and let her know that although they were "working separately, in the big scheme of things [they] are working together."

Michelle believed that the grade-level meetings helped the teachers to better understand curriculum, data analysis, and behavior management. She believed that they shared ideas from different perspectives that allowed them to increase understandings. She saw this as part of a shared workload perspective that allowed the group to see that the task was too big for one person, but was manageable with a group. This group had worked specifically with reading strategies and with special populations of students. She believed that it had changed their outlook toward teaching this subject as they shared specific strategies designed for differentiation.

Michelle believed that she assisted the teachers as they made sense of the information that was covered in the grade-level meeting to assist with Team Time. She had modeled lessons and co-taught strategies during this differentiation time. Additionally, she provided feedback conversations to assist teachers as they worked with students in these groups and with alternative assessments such as the VGLA. She believed that the "single most important thing about grade-

level meetings was the communication of, this is where we are, this is where we need to go, and this is how was are going to get there."

Diane used the information gathered from the grade-level meetings to formulate action steps that could result in planning identified professional learning that could be embedded in the needs of the teachers. She attempted to individualize teacher learning and provided learning in areas such as formative assessment, lesson planning, and pacing to fulfill her goal of individualizing professional development.

Summary

The veteran teachers and the beginning teachers affirmed that the grade-level meetings and the coaching sessions provided information needed for classroom instruction. One difference among the teachers that surfaced was that the newer teachers wanted to have more voice in the selection of topics covered and needed more professional learning on specific types of students as contrasted to the more experienced teachers. This could have been because they had so much to learn, so they saw a full range of what they need. Perhaps the experienced teachers had so much already in their repertoires: and as a result, they were able to focus and align with what the principal said was the key issue. The coaches acknowledged the continuum of experience that represented the teachers and wanted to provide professional learning for all.

Learning was facilitated by the affordance offered by the data analysis that resulted from the meetings. This was the first step in the *Eight-Step Instructional Process* (Davenport & Anderson, 2002) that guided educators in this district toward learning. In the coaching sessions, the teachers were given feedback concerning the specifics of implementation of strategies during Team Time and other instructional parts of the day. These tools, artifacts, stories, and concepts reified the mandates of the administration as teachers understood through the development of their practice and their abilities to make meaning.

What did the teachers say that they would do differently in their classrooms based on their grade-level meetings and coaching discussions?

Teachers reported during interviews that as a result of the coaching sessions and the grade-level meetings, they went back to the classroom and did things differently than they would have if this structure had not existed. Many of their answers had to do with accountability and

mandates; however, several of the teachers reported specific incidents of implementing new strategies. Liz stated that this process allowed her to build her repertoire of strategies and understandings faster in order to join in this enterprise of student achievement. Allie felt that it opened her eyes to what good teaching looked like. Most of the differences that they reported had to do with the data analysis that was central to the functioning of the instructional program at this school. They believed that the emphasis on this affordance provided them with a better understanding of the student than they would have if it had not have existed. With this data, they were able to differentiate more effectively. The coaching sessions and the grade-level meetings provided them with information that assisted them as they grouped students and assigned strategies to each group whether it was decoding, fluency, or comprehension. The modeled lessons had helped them to implement these strategies more effectively as a result of these discourse sessions.

Joyce stated that she came back from the meetings with new strategies and different ways of analyzing data. For example, she learned from the professional development on *I Station* methods of providing specific interventions for students that correlated with the weakness that they had with a particular skill. She believed that she had grown as a professional because being an "experienced seasoned teacher, sometimes you need to have somebody kind of shake you up a little bit and say let's look at it this way."

Tina discussed certain mandates that were discussed in the grade-level meetings. One was that vocabulary words needed to be visible in the classroom as well as the objective that should have been posted with the state standard that was being taught. As a result of the grade-level meeting, she was aware of these mandates and made sure that she had them in place. She said that Michelle had assisted her with programs like *Young Scholars* and simplified things for her and provided direct instructions for what she needed to do to be successful with the program. She stated that she had grown professionally as a teacher because she had watched the coaches as they modeled lessons and had assisted her with the alternative assessments. Additionally, they had helped her grow in the area of technology as she had learned to incorporate the *Smartboard*® and other electronics into the classroom. Diane modeled several science lessons for her and this provided her with ideas and procedural knowledge. As a result of these actions by the coaches, she believed more in her ability to implement these strategies

Liz believed that the grade-level meetings helped to sharpen what she was already doing in the classroom, helped her to remember the data, and where the students are located in the reading tiers. Also, it provided her with strategies that she felt would help her students to succeed. She came out of the grade-level meetings thinking about what she could do next to help her students as she sharpened her own professional skills. As a result, she believed that this action was the biggest contribution of the meetings.

Discourse in the grade-level meetings and the coaching conversations had focused on the teacher evaluative goals this year, and this was measured by student progress as indicated by programs such as *I Station* and *Interactive Achievement*. The meetings provided an opportunity for the principal, IC-AP, instructional coach, and teachers to discuss this process. As a result, Liz had a binder with *I Station* and *Interactive Achievement* data to track her students' progress. She allowed the student to see the data so that he or she was aware of his or her own achievement. If a student was not making progress, she realized that instruction needed to change for that individual. In the grade-level meetings and with the coaches, Liz had learned how to download the intervention strategies and use them individually or during small group instruction. As a result of the learning facilitated by the coach and the meetings, she believed that she had the ability to implement these strategies better herself. This had come from not only the modeled lessons from the coach but from discussing strategies with other teachers. For example, when she was struggling with a lesson, the coach set up an observation where she observed another teacher teach the lesson. Then, Liz and the coach discussed what she had viewed. They analyzed what the teacher had done and talked about how she could do the same thing in her classroom. She believed that this action provided her with an authentic example, which in turn, gave her the confidence to implement the strategy in her own classroom. This would not have been possible without this procedure.

Allie believed that the grade-level meetings provided her with expectations that must be met in the classroom, and the book study had "opened her eyes again" to what good teaching looked like. She stated that she was three years out of the classroom, and when she had to write about what her classroom looked like, she remembered what she had wanted it to look like in college. This was her dream, but over the last three years, the reality of the situation was that the ideal had not been met. She believed that the meetings and the coaches supported her in her goal of achieving that classroom, and even if she had setbacks, the coaches would support her and

guide her in the right direction. The coaches had encouraged her to use the technology and as a result, she had used most of the pieces of technology that were located in the school. Without the assistance of the coaches, she believed that "it would have probably taken [her] ten to fifteen years to become the teacher that [she had] become in these three years just because of the coaches."

Summary

Diane talked about the action steps that she completed after they discussed a strategy or a concept that needed to be implemented in the grade-level meeting. She felt that this step made them more productive so that their learning efforts really became "job-embedded professional development." She believed that as a teacher leader her main goal was to find talents within the school and that the "best capacity building thing that I have seen is when we find the rich resources within and build on those in order to apply elsewhere. I think that has helped more than anything else I would have been able to do." The teachers related that they believed that they had grown professionally and that their efficacy levels had increased because of this method of professional learning.

According to the teacher reports, the process of analyzing data, grouping students, and applying instructional strategies changed for them as a result of the grade-level meetings and coaching sessions because they received more social learning opportunities that afforded understandings. As a result, the teachers and coaches believed that their practices grew and were fine tuned, and in turn, they believed that the instructional capacity of the school was enhanced through more effective differentiation of instruction and the usage of appropriate strategies from their repertoires.

What did the teachers and the instructional coach say that they learned from the grade-level meetings and the coaching sessions and did differently in their classrooms that supported the goals of the _School Improvement Plan_ and the _Twenty-Day Plan?_

The _School Improvement Plan_ was a document that the school constructed that included objectives and tasks that were designed to build school capacity. There were two instructional strategies that correlated with the events that occurred in the grade-level meetings and the coaching conversations. The _Twenty-Day Plan_ was a list of objectives in seven areas that were

designed to focus the beginning of the school year, and all seven connected in some manner to the discourse in the meetings. During the meetings, the plans were never referred to or discussed by the members of the group or the administration; however, the data from the grade-level meetings connected with specifics objectives and activities from the plans.

The plans were analyzed to find connections to the events of the meetings and coaching sessions and several were identified. The *School Improvement Plan* included two objectives that were covered during the grade-level meeting and the coaching sessions. These objectives were:

ID10: Teachers will meet with administrative team on a regular schedule to use data to plan and make decisions about instruction. Teachers will participate in individualized professional development that is directly related to data and observations.

IE06: The principal will engage in regular data talks with faculty and staff. The principal will facilitate discussions that focus on using data to improve instruction and student learning outcomes.

In the grade level meetings and coaching sessions, the teachers received professional development about the strategies that were being implemented at the school. Also, the teachers met with Mike and Diane who were the administrators of the school to plan and to make decisions about instruction. They used the data to achieve their joint enterprise which was to provide learning for students and teachers.

There were seven sections listed in the *Twenty-Day Plan.* They were as follows:

1. Physical Plant/Decorum
2. Discipline and Safety
3. Eight-Step Process
4. Instructional Planning
5. Parent and Community Involvement
6. Transformation/Evaluation System
7. Other

Under the physical plant/decorum section, the purpose was to create inviting learning environments. The grade-level meetings began with the book study which was focused on classroom environment. The discipline and safety section included the safety survey that was taken in the previous year and its implications for the culture of the school. This was discussed in

the grade level meeting. The Eight-Step Process section listed a schedule for assessments. Data-driven discussions were evident in the discourse data. Within the instructional planning section, Team Time was listed and the goal was to place all students in the proper groups to provide targeted intervention and enrichment. Additionally, the *AIMSweb* diagnostic reading online system was discussed and assistance was provided for teachers who were having problems accessing data. Under the transformation/evaluation section, one activity was to use the district's *Professional Teaching Standards* to introduce the evaluation system that was being utilized which was tied to goals and pay for performance. This was accomplished in detail and expanded to the coaching feedback discussions. The parent and community involvement section was addressed throughout the discussions about individual students.

This plan was designed to provide a map for the beginning of the year. There was some evidence of its implementation.

Summary

The two plans were developed to enhance the capacity-building process in order to affect student achievement. Both plans emphasized instructional strategies that were connected to data. Although there was no discussion or reference to the plans in the grade-level meetings, it was evident that the parts mentioned were being implemented.

The teachers and the instructional coach reported that the process of analyzing data and implementing differentiation strategies and the affordances that resulted were done differently as a result of the understandings of the grade-level meetings. Additionally, they learned about mandates and expectations from the principal, the IC-AP and the instructional coach. These instructional directives were reified through their participation in the grade-level meetings and coaching sessions. These actions connected to the instructional objectives in the *School Improvement Plan* and the instructional planning and the Eight-Step Process sections of the *Twenty-Day Plan.*

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Assertions

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The goal of this research project was to determine the content of the discourse occurring in grade-level meetings and coaching sessions, and participants' perceptions of how the

conversations in these two venues impacted learning and practice for individual teachers. Based on the findings presented in the first part of this chapter, the following assertions are generated:

- The overall goals of the grade-level meetings and coaching were to ensure communication about school district policies and set expectations for teacher performance and student learning. By way of this teamed approach to the goals, it was recognized that to achieve these goals, the key participants must be part of an enterprise among the principal, IC/AP, IC, and the teachers. Moreover, the content of the discourse supported the fact that the principal was considered the administrative and instructional leader in the school, the coaches were to facilitate implementation of policy and mandates, and the teachers worked together toward the goal of student achievement. Corresponding, in the context of the grade-level meeting, learning was considered a social enterprise that was school-specific, and the coach was tasked with developing the teachers' practices through conversation and modeling in the grade-level meetings as well as on a one-to-one basis with each teacher. The expectations for the learners (i.e. teachers) were for engagement and support for colleagues. In order to make meaning of this enterprise, grade-level teachers engaged in conversation with the principal, IC/AP, and instructional coach as a way to reify the concepts and practices that were important for school divisions. Strategies were discussed in the conversations that enabled teachers to negotiate meaning through using a shared repertoire (Wenger, 1998).

- Coaches functioned in a number of roles in order to insure that the primary assertion occurred (Knight, 2009). They had to be able to interpret district policy and expectations into the teachers' everyday world, and be sensitive to the *ZPD* of the teacher (Tharp & Gallimore, 1988). That is they had to move from direct instruction to non-directive teaching and coaching to match the need to the person in the classroom context. The degree to which an instructional coach could "read" a teacher and find that teacher's *ZPD* was the degree to which teachers were open to learning and ultimately embraced new or necessary policy and practice.

- The structure for the social learning that occurred at this school cannot be described as fulfilling the dimensions of a community of practice as described by Wenger (1998). Teachers made meaning of their practices by collaborating with each other,

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the principal, the IC-AP, and the instructional coach. There were degrees of engagement through reification and participation; however, most of the interactions were directed by the principal, the IC-AP, and the instructional coach. The joint enterprise was learning; however, this was a "top-down" enterprise from mandates and not formed by the group. There was a shared repertoire; however, in most cases, the strategies were mandated and not constructed by the teachers.

The nature of the discourse in the grade-level meetings was described in the first section of this chapter in regard to the three main categories: content and the five subcategories of content, roles of the instructional coach, and the patterns of discourse. Two formal coaching conversations were described, and interviews provided the nature of the discourse in the informal conversations and interactions between the coaches and the teachers. Grade-level meetings and coaching provided a structure for communicating school district policies and expectations for teacher performance and student learning. This action formed the basis for the social enterprise of the school which was learning.

Building Instructional Capacity through Professional Learning

The review of the literature of this work provided research on building instructional capacity through professional learning. Darling-Hammond's (2000) regression analysis of teacher quality indicators and other variables and their relationship to student achievement provided support for the conception that the quality of the teacher had a more powerful effect on students than any other indicator. Specifics included subject matter knowledge, awareness of teaching pedagogy, and teaching experience. Nye, Konstantopoulos, and Hedge (2004) added to this and found significance for teacher quality having greater affects in low socio-economic schools. Corcoran and Goretz (1995) suggested that the capacity of a school was determined by the quality of the instruction occurring. Darling-Hammond (1994) suggested that effective professional development could serve to maintain instructional capacity through continuous improvement. McDiarmid and Clevenger-Bright (2008) asserted that teachers needed continuous learning opportunities to reevaluate practice. The vehicle for this method of continuous professional learning was the discourse that occurred among teachers and instructional leaders individually and in collaborative groups.

The mechanism for professional learning at this school included collaboration and the use of instructional coaches who were available in an on-going and responsive manner. The grade-level meetings occurred on a weekly basis and provided the arrangement for continuous learning and focused on building teacher practice. The processes that occurred during this first part of the school year were focused on strategies and programs that were being implemented to promote student achievement.

In order to achieve the goals and to become part of the joint enterprise, the principal, IC-AP, instructional coach, and the teachers participated and according to specific supportive roles in this effort. Patterns of discourse identified support for the fact that the principal functioned as an administrator and instructional leader of the school. The coaches facilitated the implementation of the policies and mandates directed by the principal. Teachers were expected to work together toward the goal of student achievement in the school. To capture the findings holistically, Figure 1 is offered.
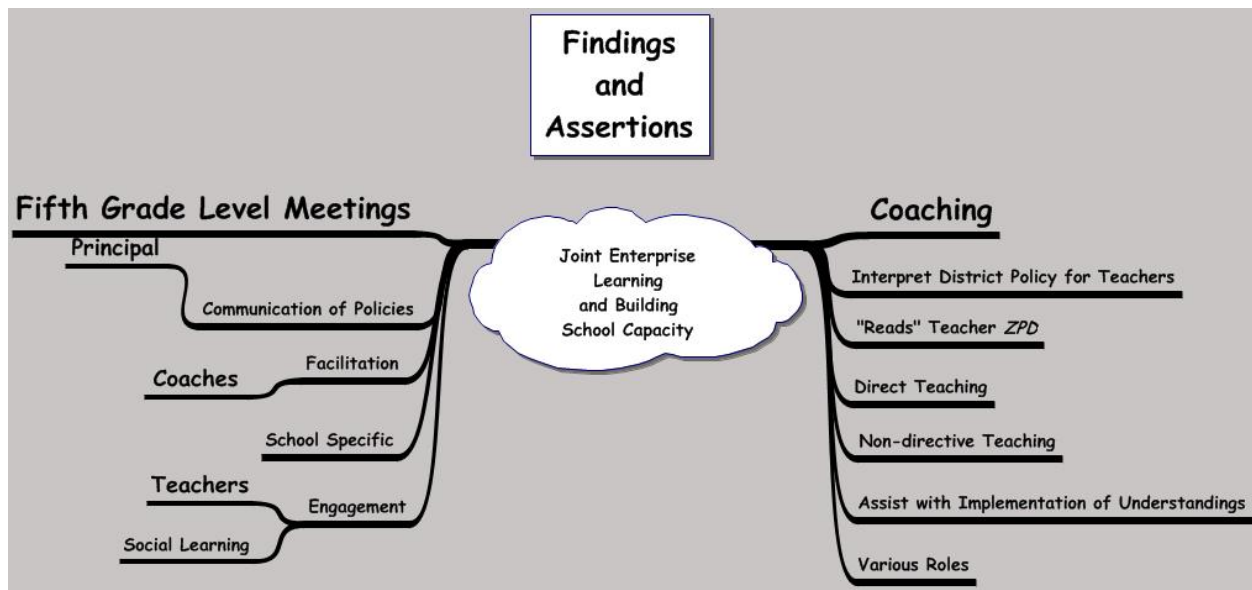
Figure 1. Findings and assertions of the fifth grade-level meetings and coaching structure that flowed into the joint enterprise which was learning and building school capacity.

Figure 1 presented the findings and assertions of the fifth grade-level meetings and coaching structure that flowed into the joint enterprise which was learning and building school

capacity. The joint enterprise was placed in a cloud and provided a metaphor of the understandings from the grade-level meetings and the coaching. Understandings could provide nourishment to the process of professional growth of the teachers in the community of practice much like rain from clouds provides nourishment for ecological communities. As the understandings gathered, they could begin to fall in the form of the implementation of strategies to provide growth and capacity-building.

The first two research questions of this investigation inquired into the content of the discourse in the grade-level meetings and coaching that occurred at this school. The interactions in both formats were centered on continuous learning and the building of practice in order to implement the school division mandates and promote student learning. The affordances in all of the mechanisms that were discussed or created were the reification of mandates designed for capacity-building. For example, the book study made the teachers aware of how their instructional intentions and values were demonstrated by the organization of their classrooms and resulted in a visit to other teachers' classrooms in order to observe what they valued. Stronge, Ward, Tucker, and Hindman (2008) found that effective teachers had organized learning environments, used more instructional strategies, and had higher expectations for students. The year began for these teachers as they examined the organization of classrooms, and their resulting actions reflected their values. Other discussions about specific instructional strategies came from the book study illustrating the potential to stimulate discourse around capacity-building.

According to Corcoran and Goretz (1995), key components of capacity are teacher knowledge, teacher efficacy, and the pedagogical skills of the teachers. Based on teacher interviews and analysis of discourse, there was evidence of continuous learning over the nine weeks period as the teachers discussed Team Time which was one of the instructional steps of the *Eight Step Process* (Davenport & Anderson, 2002) and mandated by the district in which this school resides. This intervention time became the focus of differentiated instruction for this grade-level. In the beginning of the meetings, the teachers discussed the logics of placing students into small groups according to their levels of learning. This process was a continuation of two previous years of implementing differentiated reading instruction during this time. They had received assistance from a nearby university as to specific strategies that would be appropriate for the groups and appropriate diagnostic tools for determining the appropriate

groups for students. At one meeting, books were given that were constructed by the university on differentiating instruction. However, it seemed as if the current year had brought new challenges that needed to be navigated and that fresh understandings were needed in order to make Team Time successful. A content analysis revealed that each week the teachers made incremental process in the implementation of the Team Time intervention program. September meetings provided suggestions about the logistics of the groups and checks to determine whether or not the teachers needed resources or understood the mechanics of differentiation which included using the *AIMSweb* program to diagnose student need. October was the time that the program moved into operation, and teachers discussed the appropriate strategies for each group. Additionally, this opened the door for the discussion of how the grade-level was teaching reading during the regular ninety minutes instructional period. At one point during this team meeting, teachers seemed to be defending their daily reading instruction as they explained the strategies that they used for each group. The conversation continued as the teachers explained in detail how they grouped and which activities are used to match the arrangement. The silence and laughter indicated that some dissonance was present in the discourse as Liz finally asked Diane if she was "saying that [their] grouping should be different?" Diane remarked that she was asking them if Team Time provided enough time to address skill deficits or if this intervention needed to be extended into the regular reading time. This opened the door for more discussion about the main reading program and whether or not there were adjustments that were needed in order to make students more successful which was their main enterprise. As the teachers discussed their practice, the reification of differentiated instruction became more evident as to the extent that it permeated the entire reading program offered at the school. This "live experience" interweaved the participation of the members of the group with the reification of the differentiation process which was designed to assist them with their enterprise of providing learning for all students (Wenger, 1998).

The negotiation of meaning (Wenger, 1998) that took place in this discourse interchange had the potential to produce continuous teacher learning with the goal of building instructional capacity. This type of learning was social and situational and sometimes resulted in the building of shared repertoires. As this meeting continued, the conversation turned to other academic concerns such as writing instruction and mathematics.

The data from the first mini-benchmark provided information to determine the areas of strengths and weaknesses and what needs were present. In the next meeting, the teachers constructed a data wall with the individual results of the mini-benchmark, and this construction became the affordance needed to determine visually the different needs of students. As they looked at decoding, fluency, and comprehension indicators, they determined that fluency was their largest area of weakness. The discourse that followed created connections to activities such as *Quick Reads* and using state released tests to build fluency. Accountability was noted when the principal who had entered the meeting asked for specific strategies that were designed for Tier I students. The conversation continued to the importance of vocabulary instruction and a new affordance was offered as this process was reified and called *Fluency Friday*.

Wenglinsky (2000) found that job-embedded teacher learning with an emphasis on using data to guide instruction led to enhanced academic performance. Sergiovanni and Staratt (2006) suggested that teacher learning should occur to promote social and emotional engagement with ideas, resources, and student experience. The grade-level meetings at this school promoted student learning through data-focused discussions that were progressive and connected to strategies. Little (2006) found that when problems are identified in collaboration groups, areas of needed professional learning were identified in the areas of content knowledge, student thinking and learning, and assessment. As this group identified the deficits of the students, they uncovered areas where professional learning was needed.

In one case, the teachers discussed a mandate to record interventions into the *I Station* online reading program. It was evident that the teachers did not know how to do this. As a result, Diane provided direct instruction as she projected the program on the wall and demonstrated how to log in the interventions. The teachers were aware of the program, but they needed more detail. Sensing the level of understanding of the teachers, she provided assisted learning as she operated within the teachers' ZPD. Another example of needed professional learning came with the implementation of the *Young Scholars* program. The teachers were very uncomfortable with the logistics of the program which involved finding, implementing, and recording assignments. Michelle worked to simplify the process as a broker between the district community and the school community as she created detailed handouts and worked individually with the teachers.

The processes that flowed within the structure of professional learning at this school began at the level of knowledge that teachers brought to the community. Capacity was built as

teachers worked within their individual ZPD and connected experience to learning (Tharp &
Gallimore, 1988). Wenger (1998) studied insurance claims agents and found that they learned
continually. However, when they were asked about learning, they believed that only new agents
were trained. Nonetheless, the learning that took place was their practice just as the learning that
was taking place with the teachers at this school as they negotiated meaning at their individual
levels of knowledge. Wenger (1998) suggested that learners in community participate and
redefine the enterprise at some points and that this may lead to new affordances in their shared
repertoire. As this occurs, experience and competence are balanced and sets the stage for
learning interactions.

At this school, teachers had different levels of experience and knowledge. Tharp and
Gallimore (1998) provided a theory of teacher development progresses in stages. In Stage I,
teachers learned basics from peers or instructors, but the learning progresses as teachers become
more autonomous. In the teacher interviews, it was noted by the lead teacher that she did not
need has much direct instruction from the coaches as some of the teachers with less experience.
However, she commented that she needed to be continually aware of new pedagogies and to "be
on her toes." Tharp and Gallimore (1998) describe this as Stage IV where learning can
experience disruptions such as stress or change. Reflection by these individuals is important as it
provides time to think about problems and strategies. Additionally, veteran teachers may need to
revert to Stage I and training is needed as new programs are introduced.

Seemingly, this was the case at this school. Joyce with her experience needed assistance
learning new programs or components of programs such as *I Station* and *Young Scholars.* In
order to build her capacity, the continuous professional learning provided solutions to the
problems that she had concerning interventions and the navigation of a new program designed to
assist gifted learners.

The interactions that occurred in this continuous professional learning structure designed
to build instructional capacity afforded numerous learning opportunities for teachers. The
teachers stated that they learned to sort data, group students, and assign appropriate strategies.
Additionally, they learned how to organize their learning environments and to carry out
mandates from the district. All of these skills assisted them as they worked to obtain their joint
enterprise which was student achievement.

Community of Practice

Wenger (1998) viewed learning as a social experience providing structure for the practice of individuals in organizations and as the process that they use to experience their world. A shared goal sustains a collective learning experience where a community is formed where members negotiate meaning. Participation and reification go together in these communities and creates meaningful resources to provide significance for the task at hand. Members of the CoP engage in learning to make meaning through three dimensions that connect community and practice and this includes mutual engagement, joint enterprise, and a shared repertoire. A requirement for being mutually engaged is to be "included in what matters" (p. 74) in the interactions that are important to achieving the goals of the community. Wenger defined a join enterprise as "a collective process of negotiation that reflects the full complexity of mutual engagement" (p. 77). Additionally, a joint enterprise includes the participants' "negotiated response to their situation and thus belongs to them in a profound sense" (p.77). The third dimension of a CoP, which is a shared repertoire, should include "actions or concepts that the community has produced or adopted in the course of its existence" (p. 83).

At this school learning was social and situational in the grade-level meetings as the teachers developed their individual practices. Members engaged in interactions to reify concepts that were important for federal, state, and local mandates. Strategies emerged which provided affordances designed to assist teachers as they attempt to negotiate a meaningful experience and a shared repertoire.

Vescio et al. (2008) found in a review of eleven studies on communities of practice that this type of collaborative learning brings a change in school culture and is focused on student growth. The CoP at this case study school was focused on student growth which was the goal of their *Eight Step Process* (Davenport & Anderson, 2002). Shulman and Shulman (2004) asserted that teachers that are members of these communities are "ready, willing, and able to teach and to learn from his or her teaching experience" (p. 2). The teachers were involved in the enterprise of effective teaching and learning from practice. Costa and Garmston (1994) defined teachers who attend to the goals and needs of themselves and of their school simultaneously as holonomous individuals. These teachers demonstrated this quality as they worked together in joint enterprise and individually to build their own practices.

Grossman, Wineburg, and Woolworth (2001) suggested that communities that suppress conflict and behave as if they have consensus are pseudocommunities. These communities have a facilitator that controls that conversation and challenging information is avoided. At this school, there were times when the lead teacher for the grade-level brought up areas of conflict. One example was the use of word study in both Team Time and in the ninety minutes instructional reading block. The subject was dropped after some discussion, but later data showed that this strategy had been adopted in both reading times. Also, when the group discussed the method of grouping used in the ninety-minute instructional reading block, the conversation was short and did not provide suggestions other than Diane stating that she was wondering whether or not the students had enough intervention for the skill deficit addressed.

Laughter and sidebar discussions were noted when the discourse was stressful or teachers seemed overwhelmed with a new mandate. Hipp, Pankake, and Oliver (2008) believed that authentic communities existed at schools where teachers shared leadership roles, expressed ideas, and were respected. These teachers were asked in the interviews if they believed that they could share their ideas freely in the grade-level meetings, and all of them responded that they could. However, the data revealed exchanges that indicated stress in the form of sidebar conversations and that the majority of the discourse was conducted by the principal, the IC-AP, and the instructional coach.

Wood (2007) found that teachers at a school that showed professional growth and enhanced instructional capacity learned in community. Strahan (2003) investigated three elementary schools where students had achieved positive gains. These communities designed lessons, assessed student progress, and provided job-embedded staff development. This school did all of these actions except for the actual designing of lessons. The analysis of the categories of content revealed that most of the conversations centered on particular strategies and data. The only lesson design or unit planning that was observed was in the coaching sessions.

Little's (2003a) research investigated just how discourse interactions became a resource for teacher learning and practice. She found that the interactions did not fully describe what happened in the classroom; however, she suggested that the value in the interactions was that they provide advice from others that is conducive to teacher growth. Observations were not done in the classroom in this study; therefore, it is not possible to determine the degree of accuracy as to the events described in the grade-level meeting. However, according to teacher reports, the

interactions provided understandings that were reflected in the way that they did things in the classroom.

Instructional Coaching

One of the research questions inquired into the nature of the discourse that occurred between the teacher and the coach during coaching sessions. According to the interviews, most of the conversations between the coaches and the teachers occurred informally. However, there were two formal conversations that took place and were entered into the data. These feedback sessions involved a teacher whose evaluative goal was to improve science instruction. She had asked the coach to help her design a unit of instruction on matter. This conversation demonstrated how the coach used meditational strategies to guide the conversation and to assist the teacher as she learned.

According to the interview with the instructional coach, short conversations are necessary because:

> you need time to process either as a coach or a teacher to look at how it applies and to look at what your next steps are and so to set down and have a formal meeting would not necessarily be the most productive where as having that quick exchange of information and moving on is definitely very productive.

Teachers suggested in interviews that informal conversations that they had with the coaches were effective and that the more formal ones occurred with teachers who needed more directive assistance. The two teachers with less experience suggested that they had more formal conversations in their first years before a relationship had been built among themselves and the instructional coaches.

The teachers reported that the coaches helped them to reach their goals, and this was evident with the data from the interviews and the coaching sessions. Additionally, the coaches provided vicarious learning experiences through modeling which according to Bandura (1997) assisted in building teacher efficacy. In answer to an interview question, teachers felt that they did have a heighten sense of efficacy due to the interactions between them and the instructional coaches. They felt that they could implement the strategies and mandates from the grade-level meetings more effectively and faster than they would have been able to do without the help of the coaches. According to Tschannen-Moran, Hoy, and Hoy (1998) teacher efficacy has to do

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with the teacher's belief in their ability to implement actions. The primary role of the coach in building efficacy was to provide persuasive conversations that allowed the teacher to determine just how the individual could implement strategies, mandates, and programs. At this school, the data provided evidence that they teachers believed that they could implement understandings from the grade-level meetings more effectively because of coaching. Studies revealed a connection between coaching and teacher efficacy and implementation of strategies (Bruce & Ross, 2008; Cantrell & Hughes, 2008; Joyce & Showers, 2006; Knight, 2007).

At this school, the coaches operated in many roles, and their two main areas of focus where facilitating the grade-level meetings and feedback conversations with the teachers. Garmston and Wellman (1999) provide guidelines for this role. As mediator, Costa and Garmston (1994) provided guidelines for this action between coaches and teachers. The interactions that occurred in the grade-level meetings between the coaches and the teachers and in coaching conversations provided learning opportunities for teachers. The coaches provided resources that assisted teachers and as the instructional coach stated:

> You know when we started coaching one of the things that we said that we wanted to do was to make teachers better faster. I think we have definitely helped teachers become better faster, but I think we have helped them become better than they would ever become through the process of reflection, the process of the collaboration, and I think that most of our teachers are more satisfied with their jobs. They feel better about the jobs that they are doing because of the collaboration that we have. I know that I love my job because I love that my teachers want me to come to their classroom.

Summary of the Analysis

This chapter presented the information that was collected in this qualitative case study to provide data in order to work toward the goal of this investigation. The goal of this research project was to determine the content of the discourse occurring in grade-level meetings and coaching sessions, and participants' perceptions of how these conversations in these two venues impacted learning and practice for individual teachers. The first section of this chapter provided data for each of the research questions that were gathered from the methods that were listed in chapter three. The second section provided a thematic analysis of the findings.

Data analysis resulted in the identification of three major categories of events in the grade-level meetings: roles of the instructional coach, content, and the patterns of discourse evident in the interactions. There were many roles of the coach identified in the data. Additionally, the patterns of discourse were evident throughout the information. With regard to content, the largest subcategories dealt with pedagogical issues and assessment data, and they served to drive the conversations. The most salient subcategory was the individual student, and although the transcriptions did not reveal as much data as the other two mentioned subcategories, all of the subcategories of content occurred with the intention of leading to the success of the student. Organization and routines and administrative concerns and mandates were more implicit subcategories that were mentioned early and integrated into pedagogical issues and assessment data.

The formal and informal conversations between the teachers and the coaches provided conversational structures where coaches gave feedback which may have resulted in assistance in the form of problem-solving, modeling lessons, and providing an extra "set of hands" in the classroom. By providing assistive learning, coaches can reify the processes that are mandated and work with teachers to make meaning of their practice (Wenger, 1998).

According to the teacher reports, the process of analyzing data, grouping students, and applying instructional strategies changed for them as a result of the grade-level meetings and coaching sessions because they received more social learning opportunities that afforded understandings. As a result, the teachers and coaches believed that their practices grew and were fine tuned and in turn, they believed that the instructional capacity of the school was enhanced through more effective differentiation of instruction and the usage of appropriate strategies from their repertoires. The veteran teachers and the beginning teachers affirmed that the grade-level meetings and the coaching sessions provided information needed for classroom instruction. The coaches acknowledged the continuum of experience that represented the teachers and wanted to provide professional learning for all.

The second section of chapter four provided assertions from the data and interweaved it with the literature reviewed on professional learning. Patterns of the discourse supported assertions concerning the enterprise of the school which was learning for both students and teachers. Additionally, a graphic was offered to provide a visual of the processes that flowed into

this enterprise. In the next chapter, conclusions will be made concerning the data and future implications.

CHAPTER FIVE

CONCLUSIONS, IMPLICATIONS, AND FUTURE RESEARCH

The goal of this research project was to determine the content of the discourse occurring in grade-level meetings and coaching sessions and participants' perceptions of how the conversations in these two venues impacted learning and practice for individual teachers. In this chapter, conclusions from the assertions are presented along with suggestions for future research.

Conclusions

The following six conclusions from the assertions are provided:

1. The grade-level meetings provided a venue for communicating expectations from the federal, state, and local governing bodies, with the principal providing the mandates.
2. The principal, IC-AP, and instructional coach worked as a team, and the teachers cooperated with the team to understand the mandates.
3. Professional learning was situational and job-embedded and focused primarily on providing differentiated reading instruction for students through mandated strategies.
4. Teachers changed methods of instruction as a result of professional learning, and the coaches assisted teachers as they implemented the mandates and other directives.
5. The grade-level meetings and coaching venues both enhanced and limited growth opportunities for teachers.
6. The grade level meetings did not meet the dimensions of a community of practice as identified by Wenger (1998). The grade level meetings were a top down, power-based enterprise with the principal, IC-AP, and the instructional coach holding the power. The principal, IC-AP, and the instructional coach provided the majority of the discourse occurring; therefore, the meetings could not be defined as mutually engaging. The shared repertoire was based on the reification of mandated programs.

The grade-level meetings provided a venue for communicating expectations. The grade-level meetings provided a venue for communicating expectations from the federal, state, and local governing bodies with the principal providing the mandates. The first conclusion that was made from the analysis of the data in chapter four was that the overall goals of the grade-level meetings and coaching were to ensure communication about school district policies and to set expectations for teacher performance and student learning. The principal of this school started

out the year in a grade-level meeting by reminding the teachers of a mandate concerning writing student objectives that they had received in the previous year. Mandates were one of the subcategories of content and played important roles in the meetings and were derived from district policies. Patterns of discourse and content analysis revealed that the topics discussed in the meetings began as district or state-mandated issues. One could argue that this was because of the overarching goal of the school, which was to achieve federal and state standards for accreditation and Annual Yearly Progress (AYP). The Elementary and Secondary Education Act (a.k.a., No Child Left Behind Act - NCLB; Public Law No. 10-110, 115 Stat. 1425, 2002) and state regulations provided directives for school reform and served as the guiding mechanisms for school change and accountability, and these directives for school reform were evidenced in these meetings, which centered on discussion of the mandates presented.

   The principal, IC-AP, and instructional coach worked as an instructional team, and the teachers cooperated with the team to understand the mandates. The principal, IC-AP, and instructional coach worked as a team to build a repertoire of strategies to enable the staff to work toward the mandated enterprise. A team approach to instructional leadership was evident in the school in order to achieve the mandated enterprise, which was learning for both students and teachers. The data presented in chapter four reveals the different roles of the principal, IC-AP, and the instructional coach in these efforts. As administrative and instructional leader of the school, the principal introduced and discussed mandates such as the evaluative goals for the teachers, *I Station* interventions, lesson plans, and objectives.

   The IC-AP and the instructional coach facilitated the policies and mandates of the district with the teachers. The IC-AP served in dual roles as coach and administrator, and she assisted the principal as facilitator of the grade-level meetings and assisted in assessing implementation of the policies of the district. In the absence of other members of the administrative team, the instructional coach led the meetings. These instructional leaders provided presentations, answered questions, and clarified mandated programs such as *Young Scholars, I Station,* alternative assessment programs, and teacher evaluative goals. In formal and informal conversations, the coaches used direct and indirect teaching methods to assist teachers as they implemented strategies from the mandated repertoire that was presented in the grade-level meetings and existed in the school.

The teachers worked with the principal, IC-AP, and the instructional coach in the analysis of student progress. The teachers attended the grade-level meetings which according to Michelle served as a place to "understand curriculum, data analysis, and behavior management better." She viewed this "as part of a shared workload perspective" where all members of the staff managed tasks that were too big for one person, but were manageable for the group.

Darling-Hammond (2000) found that the relationship between teacher quality and student achievement was significant. This finding underscores the importance of the professional learning. At this school, both student and teacher learning was the mandated enterprise. The structure for teacher learning at this school included the grade-level meetings and coaching sessions that were designed to enhance student achievement through building teacher practice. Teachers reported that they learned to interpret data, group students, and to assign appropriate strategies because of the interactions that occurred in the coaching sessions and the grade-level meetings. Benchmark assessment data from the students provided the entry point for discussion and the data wall served as the major affordance used to determine the needs of the teachers and the students. Data analysis, grouping techniques, and knowledge of appropriate strategies were skills that were vital to tailoring the curriculum to the specific needs of the students. *Team Time, I Station,* and *Young Scholars* served as additional affordances to assist teachers in the enterprise of impacting teacher practice to enhance student achievement and learning about these programs became the shared repertoire. The principal, IC/AP, and the instructional coach assisted teachers at this school as they implemented the mandated affordances designed to assist in achieving state and federal goals.

Professional learning was situational and job-embedded and focused on providing differentiated reading instruction for students through mandated strategies. Learning at this school was school-specific, and the topics that were covered were selected because of the mandates; however, they were matched to the ultimate needs of the students identified based on collection of required assessment data. The school used the *Eight-Step Process* (Davenport & Anderson, 2002) as a structure to identify student weaknesses through analysis of the assessment data and to provide the instructional focus. Instruction needed to be differentiated because of the various levels of need revealed from this data. The RtI process allowed the school to group students according to their needs and to assign the curriculum focus based on these deficiencies.

The data revealed that the largest subcategory of content was pedagogical and curriculum issues. Within this category, reading strategies were discussed in eight discourse segments. Additionally, Team Time was discussed in eight discourse segments. The data revealed that the majority of the time in the grade-level meetings was spent discussing reading strategies. When the participants in the grade-level meeting analyzed the benchmark data, they used reading scores. Consequently, reading was the largest area of social and situational learning for this school as identified from the data about the professional learning needs. Wenger (1998) stated that learning involves the relationship of individuals with their environment and is "concerned with everyday activity and real-life settings." Lave (1991) argued that learning occurred in situated and social practices as individuals become knowledgeable through actions with each other. The social learning that transpired at this school was directed by the mandated curriculum; however, within these parameters, situational and continuing reading needs of the students as indicated by mandated benchmark testing provided data on which to base decisions about how to differentiate the instruction. Although the *Eight-Step Process*, *I Station*, and *Young Scholars* were mandated programs, teachers used them to group students and to assign strategies according to needs.

Each of the individuals in the fifth-grade group brought with them different levels of experience on which to build learning relationships with each other. Joyce had the most experience; however, reading instruction had gone through many changes since she began her teaching career. This school had partnered with a local university that had provided professional reading instruction, and the staff of this school had received job-embedded staff development on this topic during the last two previous years. The structure of Team Time was based on this knowledge of grouping students according to skill. Although the members of the group had different years of experience, this professional learning served to equalize experiences with this particular method of reading instruction. Consequently, the ZPDs for the teachers seemed to be similar with regard to methods of teaching reading in the Team Time groups. Team Time was discussed in five of the meetings. These discussions went from informational to process checks for this intervention program. The patterns of discourse revealed that the teachers moved from grouping the students for fluency by using the *AIMSweb* data to finding appropriate strategies for each group. In the process of accomplishing this goal, their professional learning became based on the needs of the students in the intervention groups (related to test scores). In sum, this job-

embedded teacher learning was directed by mandates and learning about student learning as demonstrated by benchmark scores and diagnostic assessments used to plan for strategies.

In grade-level meetings, members of the group worked toward the mandated enterprise by finding strategies that helped them to meet the differentiated needs of their students. The data included discourse exchanges that demonstrated this process. The information from the benchmark assessments indicated student weaknesses that needed intervention, and the principal, IC-AP, and the instructional coach collaborated to construct learning situations that were designed to support students. As these actions occurred, teachers utilized the mandated repertoire together.

Teachers changed methods of instruction as a result of professional learning, and the coaches assisted teachers as they implemented the mandated curriculum, expectations, and other directives. The data in chapter four documented that teachers learned certain concepts in the meetings and altered their methods of instruction because of this learning. All four of the teachers believed that the grade-level meetings provided expectations, assisted with data analysis, and "kept them on top of things." According to their reports, they learned to analyze data, group students, and apply instructional strategies in their classrooms as a result of the grade-level meetings.

The coaching assisted teachers as they implemented the curriculum and expectations. According to Knight (2009), teachers have reported that they needed assistance with the many initiatives that they are expected to put into place in their classrooms. Liz felt that the instructional coaches provided an "extra set of hands" in the classroom with assessing students and analyzing data. At this school, patterns of discourse in the grade-level meetings and in the two coaching conversations revealed that a variety of types of recommendations were provided to assist teachers. Joyce and Showers (1996) found evidence to support the conjecture that the implementation of instructional strategies increased with coaching. The investigation at this school revealed that teachers discussed many programs and strategies within the context of the grade-level meetings and coaching conversations. The discourse in the grade-level meetings and the interviews supported the conjecture that the teachers implemented strategies discussed in the meetings such as Team Time and differentiation for reading during the Team Time block.

Allie reported that she felt that the actions of the instructional coach enhanced her instructional program. She said the IC-AP had pushed her to utilize new technology such as the

Smartboard®. She reported that Michelle helped her with science projects. The data revealed that the coaches spent much time during the meetings on discussion of student assessment data, including the mini-benchmark, fall benchmark and *AIMSweb* fluency data. Students were grouped for Team Time using the data from *AIMSweb,* and the coaches assisted the teachers with analyzing and grouping students based upon use of this diagnostic tool. Liz stated that "having someone come and help you with those things that you don't necessarily have time for because you are trying to do your best in teaching but you still have to do them is really helpful." The discourse emphasis on Team Time in the grade-level groups was supported by the coaches in the classrooms as they assisted teachers with data analysis and grouping.

Tina felt that Michelle provided assistance with *Young Scholars* by clarifying the program for her. She stated that Michelle and Diane had modeled lessons that were helpful and provided resources. She mentioned that Michelle had been so helpful with alternative assessments. Joyce stated that the coaches helped with assessing children and data analysis. Both of these veteran teachers believed that the coaches had provided direct assistance. All four of the teachers who were interviewed made positive comments about the coaches. Again, the most common area of assistance discussed was that of the assessment data. This focus could have been the result of state and federal directives concerning school improvement that the school was required to achieve.

The discourse exchanges in the data provided examples of the coaches providing assistance leading to new knowledge and skills for teachers. According to Darling-Hammond and Bransford (2005), the purpose of teacher learning is to provide educators with tools to help them find answers to questions concerning the transfer of content knowledge. The data from this investigation revealed methods of content knowledge assistance that these coaches provided for teachers (Helman, 2006; Knight, 2007). Killion and Harrison (2006) identified the roles of instructional coaches in the literature, and these were: resource provider, data coach, curriculum specialist, instructional specialist, classroom supporter, mentor, learning facilitator, school leader, catalyst for change and learner. Michelle and Diane demonstrated these roles at this school as evidenced by the data provided in chapter four.

According to the findings from this investigation, one could argue that coaching enhanced growth opportunities for teachers as the coaches filled many of the roles that Killion and Harrison (2006) identified. Although the work of the coach was often more informal at this

school, Michelle believed that there were so many issues that teachers needed to address that the "on the fly" conversations were more suited to effective coaching. The two formal conversations demonstrated how Michelle "read" Allie's ZPD and provided assistive recommendations. Athanases, Abrams, Jack, Johnson, Kwock, McCurdy, Riley, and Totaro (2008) investigated a curriculum designed for mentors of new teachers. They found that a variety of tools, scripts, and routines could be used to support mentors as they assist new teachers. These strategies should be tied to the learning needs of the new teachers' students. The mentoring of Allie and Liz, who were the third-year teachers, was connected to the learning needs of their students; however, most of this work was informal and not scripted.

The grade-level meetings and coaching venues both enhanced and limited growth opportunities for teachers at this school. The assertions identified based on data analysis provided evidence that the meetings and coaching communicated district policy and set expectations. Discourse analysis revealed how teachers engaged in working toward the enterprise of student learning which in turn involved their own learning in community. Patterns of discourse revealed that coaches provided assistance through direct instruction and facilitation of teacher use of instructional strategies and was supported by coaching conversations. Teachers reported in their interviews that they had implemented activities differently as a result.

Nonetheless, patterns of discourse demonstrate areas in which teachers could have been limited in their opportunities to learn by an over-emphasis on administrative concerns in the meetings and lack of input to meeting agendas. Because of the district emphasis on meeting state and federal mandates, one could argue that the administrative directives are necessary. Also, Dufour (2004) suggested that learning communities should be directed by data from student learning. In order to provide rich learning opportunities for teachers, their input in the agenda and the discussion is vital. This could be accomplished by the coaches asking the teachers what areas of learning that they feel are essential to achieving the enterprise of meaningful and essential student learning that will lead to the goal of creating lifelong learning and citizenship in a democracy. Meaningful coaching shared fully include and encourage the voices of teachers. Also, the conversation should include more time for teacher input during the discussion in order for them to pose problems and to react to mandates. The data revealed sidebar discussions that were inaudible and that consistently occurred when mandates were given or new strategies were

presented (see Table 6). This private discourse should become public in the meeting to allow for more specific teacher input on those concerns to promote learning.

The grade level meetings did not meet the dimensions of a community of practice as identified by Wenger (1998). The grade level meetings were a top down power-based enterprise with the principal, IC-AP, and the instructional coach holding the power. The principal, IC-AP, and the instructional coach provided the majority of the discourse occurring; therefore, the meetings could not be defined as mutually engaging. The enterprise was mandated federal, state, and local policies, and the shared repertoire was based on the reification of mandated programs.

The review of the literature in this investigation supported the benefits of a CoP as a structure for job-embedded professional learning. However, the data from this school does not support the three dimensions identified by Wenger (1998) of a CoP. The categories that were identified from the discourse segment codes were analyzed to determine the extent to which this school's grade-level meetings could be considered a CoP. According to Wenger, a CoP is "not a synonym for group, team, or network" (p. 74) but it "requires interactions" (p. 74) just as McDiarmid and Clevenger-Bright (2008) suggested must exist in schools that require continuous learning. Interactions occurred in the meetings and coaching session; however, they were based on a mandated enterprise. A requirement for being mutually engaged is to be "included in what matters" (p. 74) in the interactions that are important to achieving the goals of the community. Teachers were not mutually engaged according to the word count data (see Table 6) in the interactions. Wenger defined a join enterprise as "a collective process of negotiation that reflects the full complexity of mutual engagement" (p. 77). Additionally, a joint enterprise includes the participants' "negotiated response to their situation and thus belongs to them in a profound sense" (p. 77). The enterprise at this school was set by policies and was not negotiated by the participants. The third dimension of a CoP, which is a shared repertoire, should include "actions or concepts that the community has produced or adopted in the course of its existence" (p. 83). With the exception of *Fluency Friday,* all strategies that were discussed in the meetings were mandated from the state and district. The data did not support implementation of the identified dimensions of CoPs.

The *Twenty-Day Plan* and the *School Improvement Plan* were designed to provide a course of action for schools in order to provide instructional direction. These plans were not constructed in the grade level meetings and were never mentioned in the grade level meetings.

The evidence from the grade level meetings did not support the mutual engagement of the members of the group in reference to the selection of the goals in this plan.

According to the word count within the grade-level meetings (see Table 6), the administrators and coaches conducted the majority of the discourse. Only in two meetings (September 27 and November 1) did the teachers speak more the principal and the coaches. During the September 27 meeting, the content focused on Team Time, and teachers were planning the logistics of how to implement this mandated daily intervention time. On November 1, the teachers were discussing the results of the fall benchmark tests and were placing the students' scores on the data wall. The IC-AP was asking direct questions to the teachers concerning the scores. One could argue that this could have been the reason for the increase in teacher participation. According to Wenger (1998), mutual engagement must involve participation and reification. The word count and data from the transcripts do not support mutual engagement. It does indicate that the principal and the instructional coaches conducted most of the discourse. Morrissey (2000) stated that administrators must not dominate discussions, but instead, they should play a collaborative role in solving problems and supporting a culture of growth in a CoP. Vescio et al. (2008) reviewed 11 studies of effective CoPs and found the school structures supported teacher authority and empowerment. Practice and reflection occurred with other teachers through collaborative discussion about educational literature. As a result, the teachers reported that they developed a sense of ownership in the curriculum. The data from this study revealed that a book study started in the first and second meetings, but was not continued in the following meetings.

The enterprise of the school was based on federal, state, and local goals that were mandated for the school concerning learning. Connected to these mandates was the professional learning needed by these teachers to implement their goals. Consequently, the enterprise of learning was not a joint enterprise but rather an enterprise that was mandated.

A shared repertoire of strategies existed; however, the strategies such as *Team Time*, *Young Scholars*, and *I Station* were mandated from the state and district. Only in one case (Fluency Friday) did a unique strategy emerge that was constructed from the interactions that occurred in the grade level meetings. Grossman et al. (2001) analyzed transcripts of teacher conversations in order to determine whether or not the grade level meetings that they observed grew into learning communities. Grossman et al. suggested that if the claim to be made was that

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meetings grew into a community of learners, that it should be evident in the interactions of these individuals. Wenger (1998) stated that learning is an interaction between experience and competence as the members engage in an enterprise with a repertoire of resources. The data from this investigation did not support the utilization of the experiences of the teachers within the interactions of the meetings.

Grossman et al. (2001) stated that conflict was present in CoPs and that facilitators worked to minimize hard feelings and shut-down. The groups that Grossman et al. studied used conflict to work through differences and to connect to potential learning. *Pseudo-communities* were described as those that ignored conflict and in which members acted as if they all agreed. The data from these grade-level meetings did not reveal any differences of opinions. Grossman et al. stated that conflict is the signal that community is beginning to emerge.

Nonetheless, the grade-level meeting did have engagement, an enterprise, and a repertoire of strategies that were mandated from federal, state, and local sources. Because of the need to meet federal and state mandates, the grade-level meetings served a purpose which was to communicate expectations in order to meet these requirements. This is consistent with what the teachers reported in the interviews. Because of the federal and state requirements for accreditation, it would be difficult for the school to become a CoP with a joint enterprise. The mandated enterprise was necessary to fulfill requirements and policy. These directives needed to be communicated in meetings to the teachers. Additionally, the mandated repertoire was mandated by the state, and the teachers and administrators were required to implement these strategies. A CoP may have been possible had the teachers been presented the mandates and were empowered to select methods and strategies designed to achieve the mandates.

Perhaps, the meetings and the coaching sessions may emerge into a CoP in the future. Also, it is possible that there could be other venues in the building with greater representation of the dimensions of a CoP such as informal coaching sessions or informal meetings among the teachers. However, the observed meetings did not have full engagement of the teachers or a joint enterprise as defined by Wenger (1998). However, a CoP could become more evident in the grade level meetings and coaching sessions with fuller inclusion of all participants.

Implications for Practice in Schools, Districts, and Teacher Education

Grossman et al. (2001) stated that teachers in a school community "recognize the interrelationship of teacher and student learning and are able to use their own learning as a resource to delve more deeply into issues of student learning, curriculum, and teaching" (p. 989). Schools, districts, and institutions for teacher education should realize the importance of individual teacher experiences and the role that they play in social learning. Authentic CoPs provide the structure for bringing together sources of teacher knowledge and experience to provide conditions for mutual engagement, a joint enterprise, and a shared repertoire of strategies that are constructed by teachers designed to create a meaningful situation designed for learning for teachers and students.

Darling-Hammond and Bransford (2005) stated that "one purpose of teacher education is to provide teachers with tools that would help them find answers to questions about content knowledge" (p. 6). Universities could extend their realm of influence by partnering with schools in order to build authentic CoPs that bring together research and experience in order to provide tools for all teachers along the continuum of experience.

Collaboration and coaching are two venues that provide structure for teacher learning. Effective utilization of these structures may enhance learning for students and teachers. As schools, districts, and teacher education institutions learn more from research about these venues, effective utilization may increase teacher and student learning.

Implications for Future Coaching

The data, assertions, and conclusions from this project informed the work of this researcher and have implications for future work. As an instructional coach, this researcher served in many of the same coaching roles that were identified in the data from the case study school. This researcher served as the facilitator of weekly grade level meetings and as a mentor for new teachers.

The teachers in the research site reported that they did things differently in their classrooms as a result of the coaching. They valued the relationships that they had built with the coaches, and this was evident from the interview data. Teacher reports indicated that activities such as modeling, providing resources, and feedback conversations were helpful. The instructional coach and the teachers reported that many of the interactions that occurred among

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the teachers and the coaches were informal. According to Michelle, this was a result of the high number of strategies that were mandated to be implemented by the teachers.

As a result of this information, this researcher believes that importance should be placed on the relationships built between coaches and teachers to allow for a continuous exchange of information and assistance. Teachers reported that they valued the assistance with assessment data and the "second set of hands" that the coach provided in the classroom. This "on the fly" method of coaching would be enhanced by systematic daily communications with teachers, and electronic mail could provide a structure for this endeavor (although electronic mail has inherent problems as a means of communication). Additionally, a daily journal could provide information that would enable the coach to observe patterns of needs in order to strengthen the relationship. A dialogue journal between teachers and coaches could be a meaningful and supportive tool. Because of the need to informally provide continuous assistance, this researcher believes that time should be focused more in the classroom directly with the teacher. Currently, a majority of assigned coaching duties are structural in nature (such as designing testing environments and preparations for testing). Coaching impact could be strengthened by more informal and direct contact with teachers in their classrooms.

Summary

The school studied in this investigation implemented job-embedded staff development as indicated by the data. Grade-level meetings and coaching provided the structure for the process of teacher learning and capacity building. According to Little's (2003a) statement, research was lacking concerning the "specific interactions and dynamics by which professional community constitutes a resource for teacher learning" (p. 914). The content of discourse analysis in this investigation provided more insight into the actions and dynamics of these venues as a resource for teacher learning.

This fifth-grade community demonstrated dynamics associated with school improvement by responding to the directives of state and federal mandates and student data. As the community builds, perhaps more emphasis will be placed on the value of individual teacher experiences and input by providing more inclusive measures. The goal of this research project was to determine the content of the discourse occurring in grade-level meetings and coaching sessions and participants' perceptions of how these conversations in these two venues impacted learning and

practice for individual teachers. Data analysis revealed content based on a mandated enterprise; however, teachers' perceptions were that the content from the meetings and coaching sessions assisted them in achieving the mandated enterprise comprised of federal and state goals.

Implications for Future Research

This work leads to many areas that could provide entry points for future research. First, a longitudinal study that would cover a longer period of time (such as two to five years) would provide data as to the continued success of the school as indicated by state and federal standards. The study school had been successful in meeting these goals for the past two years; however, one could argue that this may not be enough time to determine whether or not the growth is sustainable.

Specific areas need more analysis, such as the patterns of discourse in which teachers have sidebar conversations at different points. The content of these conversations could reveal how they authentically interpret understandings and integrate them into prior knowledge. More research would be insightful as to the nature of the informal conversations that the coaches had with the teachers and the informal meetings that teachers had with one another. Seemingly, coaching involves much more than formal conversations and feedback sessions. The "on the fly" discussions are of interest and could possibly be linked to the sidebar conversations.

Future research needs to continue the investigation into the effectiveness of job-embedded instruction and how this is linked to the *ZPD* of teachers. One of the assertions from this work is that the coach must be able to "read" a teacher and find the teacher's *ZPD*. How does a coach become skilled in doing this? Is this something that can be researched and documented? New investigations can shed light into this area.

More research could be done as to how grade-level meetings could become CoPs. Is it possible for schools such as this one to merge a mandated enterprise with a joint enterprise to form a CoP? More research could provide insight into this area.

This work covered professional learning at one school. Several schools that use different approaches to teacher learning could be analyzed, and the effectiveness of those various approaches could be compared. Schools that use instructional coaches with collaborative groups could be compared and contrasted to institutions that do not have coaches but utilize a different collaborative approach.

Overall, this investigation has provided assertions that have implications for professional learning and capacity-building in schools. Of key interest is the power of grade-level meetings and coaching for teacher learning that directly impacts student success. Future research can add to the body of research in this area of school improvement.

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APPENDIX A

IRB APPROVAL MEMO
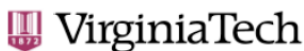
VirginiaTech

MEMORANDUM

DATE: August 23, 2011

TO: Susan G. Magliaro, Joseph Salmon

FROM: Virginia Tech Institutional Review Board (FWA00000572, expires May 31, 2014)

PROTOCOL TITLE: A Case Study of Discourse Among School Staff Members in Grade Level Meetings and Coaching Conversations

IRB NUMBER: 11-654

Effective August 22, 2011, the Virginia Tech IRB Chair, Dr. David M. Moore, approved the new protocol for the above-mentioned research protocol.

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

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

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

PROTOCOL INFORMATION:
Approved as: **Expedited, under 45 CFR 46.110 category(ies) 5, 6, 7**
Protocol Approval Date: **8/22/2011**
Protocol Expiration Date: **8/21/2012**
Continuing Review Due Date*: **8/7/2012**
*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

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

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

Invent the Future

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
An equal opportunity, affirmative action institution

Date*	OSP Number	Sponsor	Grant Comparison Conducted?

*Date this proposal number was compared, assessed as not requiring comparison, or comparison information was revised.

If this IRB protocol is to cover any other grant proposals, please contact the IRB office (irbadmin@vt.edu) immediately.

APPENDIX B

LETTER 1: FIRST CONTACT

Joseph L. Salmon
2912 Tree Swallow Rd. S.W.
Roanoke, Virginia 24018

Dear_____,

As a colleague of yours in the district, I have heard many wonderful reports of how your grade-level meetings serve you well as a community of practice where you discuss the learning goals of your school and students and work together to learn and to implement new strategies. I have been working for the last four years at Hurt Park Elementary School as an instructional coach. Two of my roles are to work with the grade-level learning communities and to assist teachers as an instructional coach. It has been my desire to learn from other schools that are using this professional learning structure for collaboration and instructional coaches. As a result of your successes, I would like to observe some of your meetings and conduct interviews with some of you as part of a research project that I am conducting.

I am a doctoral candidate in the Curriculum and Instruction Program in the School of Education at Virginia Tech. The purpose of this letter is to ask you to participate in a study that I am conducting that examines the processes of these meetings and the role that the instructional coaches play in assisting teachers as they implement the knowledge formed from these groups. The purpose of this study is to review the efforts of your school in developing and sustaining instructional capacity which has obviously been very successful according to verbal reports and AYP and accreditation results. I will audio tape four sessions of your grade-level meetings, audio tape a feedback conversation with selected teachers and the instructional coach, and conduct interviews with individuals who have been selected as a result of some of the conversations. You will not be asked to perform any procedures for the study except for those who will agree to participate in the interviews. You will have access to any data that I collect to read and to review. Additionally, this is voluntary and you may withdraw from the study at any time. Numbers will be used for participants to insure confidentiality.

If you are willing to participate, please read and sign the informed consent form and return to me.

If you have any questions feel free to contact me at (540) 797-9684 or email me at salmonj@vt.edu. Thank you so much for your consideration.

Sincerely,

Joe Salmon

APPENDIX C

INFORMED CONSENT

Project Title: A Case Study of Teacher Interactions Promoting Instructional Capacity
Principal Investigator: Joseph L. Salmon, doctoral candidate, Curriculum and Instruction

1. I hereby agree to participate in interviews and observations in connection with the project known as *A Case Study of Teacher Interactions Promoting Instructional Capacity.* I understand that my participation is voluntary.
2. I understand that I may be asked to participate in at least one interview, which should take no longer than 45 minutes.
3. I understand that I can withdraw from the project and the interview at any time without penalty of any kind.
4. I understand that I will receive no compensations for my participation in this project, though I will be given a CoPy of the transcript for my own record.
5. I understand that there are no known risks to participating in this project.
6. I understand that the interview will be audio taped. I will be identified by a number as that I will remain anonymous in any transcript, tape, and reference to any information contained in the interview.
7. This project has been approved, as is required, by the Institutional Review Board for Research Involving Human Subjects at Virginia Polytechnic Institute & State University and by the school district.
8. I voluntarily agree to participate in this study and agree to be interviewed and observed according to the terms outlined above. I have read and understand the Informed Consent and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent for participation in this project

_____

Signature

Should I have any questions about the research project or procedures, I may contact:

Joseph Salmon
Principal Investigator
540-797-9684
salmonj@vt.edu

Dr. Sue Magliaro
Director, School of Education
Virginia Tech
540-231-1802

APPENDIX D

INTERVIEW PROTOCOLS

Teacher Interview Protocol

Years of experience in education:

Teaching Assignment:

Years of experience at this school:

Interview developed from research documented in the review of the literature (Chapter 2).

Interview Questions

Grade-level Meetings
1. Where you able to voice your opinion freely without penalty:
2. Do you believe that the group operated with *equity of voice* for all involved?
3. How well do you think that the group did to search for viable solutions to your academic concerns?
4. Do you believe that the understandings from the grade-level meetings provided information that you used in your classroom?
5. What do you do differently in your classroom as a result of the grade-level meeting?

Helpfulness of the Instructional Coach
1. How do you think the instructional coach helped you to use the understandings from the grade-level meetings?
2. Do you think that your classroom instructional program is better because of any actions of the instructional coach?

Professional Growth
1. Do you believe that you have grown as a professional teacher because of the grade-level meetings?
2. Do you believe that you have grown as a professional as a result of the actions of the instructional coach?

Efficacy
1. Do you believe that you can put the suggestions into place in your classroom that come from the grade-level meetings?
2. Do you believe that the coach assisted you in being able to implement the suggestions yourself?

Instructional Coach Interview Protocol

Years of experience in education:

Years of experience at this school:

Interview developed from research documented in the review of the literature (Chapter 2).

<u>Interview Questions</u>

1. Do you believe that the group helped teachers understand instructional issues better?
2. Were there particular issues that surfaced by specific teachers that helped to form understandings?
3. If there were issues surfaced, did you have a coaching conversation with the teacher that surfaced the issues?
4. Where you able to work with the teacher to implement the understandings from the grade-level meeting?
5. What specific actions do you believe were accomplished as a result of understandings from the grade-level meeting?
6. Do you see professional growth in the teacher as a result of the actions in the grade-level meetings and your actions as a coach?

APPENDIX E

GLOSSARY OF TERMS

Affordances – Affordances refer to the "multiple possibilities made available in and through talk, gestures, and material artifacts" (Little, 2003a, p.920)

AIMSweb – AIMSweb is a benchmark and progress monitoring system based on direct, frequent and continuous student assessment. The results are reported to students, parents, teachers and administrators via a web-based data management and reporting system to determine response to intervention. (AIMSweb, 2010)

Assisted Performance – Assisted performance is what a person "can do with help, with the support of the environment, of others, and of the self" (Tharp & Gallimore, 1988, p. 30).

Bloom's Taxonomy – This is a system of classifying learning objectives that are based on progressively higher levels of learning. (Bloom's Taxonomy of Learning Domains, 2010)

Community of practice – A community of practice is a framework for learning that includes members of the organization (Wenger & Snyder, 2000).

Discourse – Discourse in the Vygotsky tradition refers to social use of words in a joint activity. Through interactions, words and concepts take on new meanings (Tharp & Gallimore, 1988).

Discourse Segments – This refers to parts of conversation that refer to a particular concept. This changes when the subject shifts to another topic in the discourse. (Creswell, 2005)

Eight Step Instructional Process – This is a cyclical continuous improvement instructional program to build school improvement. The eight steps are: test score disaggregation, time line development, instruction focus, assessment, tutorials, enrichment, maintenance, and monitoring (Davenport & Anderson, 2002)

Fall Benchmark – The school district where the case study school is located delivers this online assessment at the end of the first nine weeks in the subjects of reading, mathematics, science, and social studies.

I Station – This is an online program that delivers internet-based individualized reading lessons for students that are automatically analyzed and results are provided in reports. (I Station, 2012)

Instructional Capacity – Instructional capacity is the ability to use instructional resources to their maximum usage (Herbert and Hatch, (2001).

Instructional Coach – The instructional coach works with schools and teachers in many roles to assist performance (Killion & Harrison, 2006; Knight, 2007).

Mediation – Mediation describes the interactions that occur between individuals as one individual relates how the action is accomplished and the other acquires the knowledge. At some point the activity is internalized by the individual who is attempting to learn (Costa & Garmston, 1994).

Mini-benchmark – The school district where the case study school is located delivers this online assessment at the end of the first twenty days of school in the subject areas of reading and mathematics.

Question-Answer Relationships – This system categorizes questions into the following four categories: Right There Questions, Think, Search, and Find, Author and Me, and On My Own. The purpose of this system is to train the reader to use specific strategies for each type of question. (Ezell & Kohler, 1992)

Response to Intervention – This is a multi-tier approach to identifying students who are in need of intervention in academics and behavior. There are three tiers: Tier I, Tier II, and Tier III. Tier I students are at target level, Tier II students are in between the target and intervention levels, Tier III students are in need of intervention. (Samuels, 2008)

Sidebar Conversations – These are defined in this specific study as conversations among or between individuals that are private and separate from the main conversation. (Wood, 2007)

Team Time – an intervention time based on assessments and is built into the regular instructional day. (Davenport & Anderson, 2002)

Test-Taking Strategies – These strategies are utilized by this school to assist students as they are taking assessments.

Word Study – This is a spelling program that is based on learning word patterns. (Bear, 2000)

Young Scholars – This is an online program for educators designed to prepare individuals with activities and skills to reach gifted students. (The Young Scholars Model, 2012)

Zone of Proximal Development – The zone of proximal development is the "distance between [a person's] individual capacity and the capacity to perform with assistance" (Tharp & Gallimore, 1988, p. 30).